



Suffolk County Council (20041323)

Comments on the Outline Written Scheme of Investigation

Bramford to Twinstead (EN020002)

Deadline 7

17 January 2024

Table of Contents

Glossary of Acronyms	2
Purpose of this Submission	2
1 Comments on the Outline Written Scheme of Investigation	3
7.10 (B) Outline Written Scheme of Investigation (Clean) [REP5-016]	3

Glossary of Acronyms

<i>BMSDC</i>	<i>Babergh Mid Suffolk District Council</i>
<i>DCO</i>	<i>Development Consent Orders</i>
<i>DVNLSP</i>	<i>Dedham Vale National Landscape and Stour Valley Partnership</i>
<i>DWSI</i>	<i>Detailed Written Scheme of Investigation</i>
<i>EIA</i>	<i>Environmental Impact Assessment</i>
<i>EPS</i>	<i>Essex Place Services</i>
<i>ExA</i>	<i>Examining Authority</i>
<i>ExQ</i>	<i>Examining Authority’s Written Questions</i>
<i>ISH</i>	<i>Issue Specific Hearing</i>
<i>LAAA</i>	<i>Local Authority Archaeological Advisor</i>
<i>LHA</i>	<i>Local Highway Authority</i>
<i>OWSI</i>	<i>Outline Written Scheme of Investigation</i>
<i>PROW</i>	<i>Public Rights of Way</i>
<i>SCCAS</i>	<i>Suffolk County Council Archaeological Service</i>
<i>SuDS</i>	<i>Sustainable Drainage Systems</i>

“The Council” / “SCC” refers to Suffolk County Council; “The Host Authorities” refers to Suffolk County Council, Babergh and Mid Suffolk District Councils, Essex County Council, and Braintree District Council.

Purpose of this Submission

The purpose of this submission is to provide a response to the Applicant’s Outline Written Scheme of Investigation **[REP5-016]**, as stated that SCC would submit at Deadline 7 **[REP6-058]**. The information included in this document are joint comments between SCC (Archaeological Service) and Essex Place Services. Examination Library references are used throughout to assist readers.

1 Comments on the Outline Written Scheme of Investigation

7.10 (B) Outline Written Scheme of Investigation (Clean) [REP5-016]


Table 1: SCC Table of Comments on the OWSI (Clean) [REP5-016]				
Ref	Topic	Ref No.	Summary of Comments	SCC's Comments
1a	Purpose of this Report	1.2.2	The OWSI has been produced to fulfil this policy statement and is secured through Requirement 6 of the draft Development Consent Order (DCO) (application document 3.1). The scope of mitigation set out within this document is based on the outputs of the desk and field surveys including the trial trench investigations.	<p>The results of the trenched archaeological evaluation have only been provided in summary reports for staged 1 – 4, SCCAS are still awaiting the results of the Stage 5 trenched archaeological evaluation.</p> <p>Trenching that has been completed so far was done at a 2% sample of the redline area. As this is a low sample a second phase of trenched archaeological evaluation would be required within the trenched areas to aid in the definition of areas for archaeological mitigation where trenching has already been undertaken.</p> <p>This paragraph should also clarify that trenched archaeological evaluation has only been undertaken within the undergrounding sections of the proposal and cable sealing end. No trenched archaeological evaluation has been undertaken outside of these areas of the proposal, within the areas of overhead lines or haul roads and a second phase of trenched archaeological evaluation, undertaken post-determination would be required to determine appropriate levels of archaeological mitigation in these areas.</p>
1b		1.2.6	The field surveys were completed in November 2023 and this OWSI has been updated with results of this work. The detailed methodologies of the future mitigation are not set out in this	This needs to state that the trenched archaeological evaluation was largely completed within the undergrounding sections of the proposal, with some areas un-able to trench due to ecological constraints. For Suffolk there was G6 –

			document but will be set out within the DWSI based on the assumptions provided in the AFS. The DWSI will be provided to the local authority advisors for approval in advance of each phase of field work.	trenches G6.24 – G6.28.
1c	Aims and Objectives	1.3.2	The archaeological research objectives set out within the East Anglian Archaeology Research Framework (Medlycott, 2011) will also be referenced where relevant as this report is updated.	Medlycott (2011) is now an online archaeological resource assessment/ research agenda: [REDACTED] [REDACTED] The document needs to reference up-to-date research framework/agendas.
1d		1.3.3	Archaeological mitigation is not proposed in the following areas (as shown on Figure 1: Proposed Archaeological Mitigation): <ul style="list-style-type: none"> Locations where the 132kV or 400kV overhead lines are to be removed. The works in these areas will be limited to the pylon bases, which would have disturbed the soil during construction; 	In locations where overhead lines are to be removed there needs to be archaeological assessment to establish whether there will be impacts on any archaeology during the decommissioning and construction works. This would be for compounds, pylon construction areas and access routes constructed to facilitate the removal and modification works. If so, in areas of ground disturbance appropriate levels of archaeological evaluation will be required to determine the impact of the proposal on archaeology.
1e			<ul style="list-style-type: none"> Modification works to the existing 132kV or 400kV overhead line. There will be works to the pylons and 	Trenchless Crossing: <ul style="list-style-type: none"> The area of the trenchless crossing should be subject to geoarchaeological and palaeoenvironmental archaeological assessment, providing deposit models

			<p>conductors of the existing overhead lines and in some areas adding arcing horns to the existing pylons. It is not anticipated that these works would require ground disturbance;</p> <ul style="list-style-type: none"> Area subject to a trenchless crossing. Although the drill pits are anticipated to be subject to archaeological mitigation, the line of the trenchless crossing would not be. This is because the trenchless crossings have been proposed in locations where the environment above the crossing is sensitive and the design has sought to avoid impacts to this area; and 	<p>and palaeoenvironmental information, to determine the level of mitigation (if required) on sensitive deposits of archaeological importance that would be damaged or destroyed by the proposed trenchless crossing.</p> <ul style="list-style-type: none"> This should include C-14 dating for the top and bottom of peat sequences. This should also include groundwater testing to determine damage to any potential waterlogged deposits, such as peats which are known to exist within the Stour River Valley from the 2013 borehole survey. The scheme needs to consult with Historic England Science Advisor for the Eastern Region regarding impacts on hydrology, palaeoenvironment and geoarchaeology.
1f			<ul style="list-style-type: none"> Environmental planting areas. Planting is proposed in a number of areas across the Order Limits including embedded planting around the CSE compounds and the GSP substation and additional mitigation planting to compensate for vegetation lost. 	<p>Planting:</p> <ul style="list-style-type: none"> Planting areas should be considered for archaeological assessment, evaluation and mitigation depending on the planting proposals. Any areas of tree planting need to be assessed for archaeological potential and an appropriate level of archaeological evaluation (geophysics and trenched archaeological evaluation) would need to be undertaken as root growth will have significant below-ground impacts which would damage and/or destroy any below-ground heritage assets that could exist within these areas. Any areas of habitat creation would need subject to the same level of archaeological assessment (geophysics

				and trenched archaeological evaluation) as described above.
1g	Definitions Used within this Report	1.4.1	<p>The following definitions and terms are used within this report:</p> <ul style="list-style-type: none"> • National Grid: This refers to the organisation responsible for delivering the mitigation set out within the OWSI. National Grid will appoint a main works contractor and suitably qualified Archaeological Contractor to advise (on its behalf) on the delivery of the OWSI; • UK Power Networks (UKPN): This refers to the existing Distribution Network Operator who is responsible for maintaining the lower voltage network within the region. UKPN or their appointed contractor may undertake the works to the 132kV overhead line removal or other works relating to its network pursuant to the DCO; • Main Works Contractor: This refers to the contractor(s) appointed by National Grid and/or UKPN to deliver the 	In LAAA bullet point the reference to SCCAS should read as Suffolk County Council Archaeological Service.

			<p>construction works as defined within the DCO, including associated works;</p> <ul style="list-style-type: none"> • Archaeological Contractor: This refers to the contractor(s) appointed by National Grid to coordinate and implement the archaeological mitigation. The organisation will preferably be Registered Archaeological Organisation under the Chartered Institute for Archaeologists (CIfA); and • Local authority advisors: This refers to the archaeological advisory services at Suffolk County Council (Suffolk County Council Archaeology Service) and Essex County Council (Essex Place Services), who advise the local planning authorities and the project on archaeological matters. The former cover archaeological advice for Babergh and Mid Suffolk District Councils in Suffolk and the latter covers Braintree District Council in Essex. 	
--	--	--	---	--

1h	Structure of this Report	1.5.1	<p>General considerations in relation to archaeological mitigation are set out in Chapter 2 of this report. The report is then structured into four types of mitigation, all of which have been identified within the AFS. The approaches set out in this report would be used to mitigate adverse effects on archaeological remains during the construction and operational phases, namely:</p> <ul style="list-style-type: none"> Retention in situ (Chapter 3) – This is where known archaeological remains are preserved in place wherever possible; Targeted Archaeological Open Area Excavation (OAE) (Chapter 4) – This is a targeted programme of controlled, intrusive fieldwork with defined objectives which examines, records and interprets archaeological deposits, features and structures and, as appropriate, retrieves artefacts, ecofacts and other remains within a specified area or site. The records made and objects gathered during fieldwork are studied and the results of that study published in detail 	<p>The OWSI should summarise the archaeological work that has been undertaken, in terms of Desk-based Assessment (DBA), Geophysical survey and trenched archaeological evaluation.</p> <p>CIfA have updated their standards and guidance for archaeological excavation, field evaluation and monitoring and recording, please ensure this document reflects these changes in guidance. Link to the new guidance below:</p> <p></p> <p>The description of archaeological Strip Map and Sample (SMS) is of an archaeological monitoring and recording. SMS is not a rapid form of investigation undertaken immediately ahead of construction works. Please see comments on sections 5.1.1/5.1.2 below.</p> <p>There has only been low level of trenched archaeological evaluation within the undergrounding sections of the proposal, at a 2% sample, there is insufficient information to accurately define areas for archaeological mitigation where trenched archaeological evaluation has been undertaken.</p> <p>As a result, there is a need for further trenched archaeological evaluation to be undertaken post-determination for the areas that have not been trenched and in the areas that have been subject to pre-application trenched archaeological evaluation so the archaeological resource can be accurately quantified.</p> <p>With the update to the CIfA guidance, the term Watching Brief should be updated to Archaeological Monitoring and Recording. Proactive Watching Brief should be changed to Continuous Archaeological Monitoring and Recording.</p>
----	--------------------------	-------	--	--

			<p>appropriate to the project design;</p> <ul style="list-style-type: none"> • Archaeological Strip, Map and Sample (SMS) (Chapter 5) – This is where a suitably qualified archaeologist watches the removal of overburden material immediately ahead of the construction works (the ‘strip’). Any exposed features are ‘mapped’ and a ‘sample’ of the feature is excavated; and • Archaeological Watching Brief (Chapter 6) – This is where a programme of observation and investigation is carried out during intrusive ground works as part of the construction programme. It allows for the preservation through record of archaeological deposits which may be damaged or destroyed during the normal course of construction works. Watching briefs can be proactive (archaeological-led or supervised machine strip) or reactive (periodic inspection of groundworks underway). 	<p>The OWSI does not have provision for post determination archaeological evaluation, which should comprise geophysical survey (prospection) and trenched archaeological evaluation, which will determine the presence/absence, extent, character, condition and significance in order to inform on archaeological mitigation strategies. Please see details below:</p> <p>Post-determination Geophysical Survey</p> <p>Geophysical survey will be required in locations where it has not been previously possible. This would need to be undertaken a in advance of intrusive archaeological investigation, the results of the survey will need to be ‘ground truthed’ and be combined with the results of trenched archaeological evaluation to aid in the formulation of archaeological mitigation strategies.</p> <p>Post-determination Trenched Archaeological Evaluation</p> <p>The OWSI needs to detail further trenched archaeological evaluation, as a low sample of trenched archaeological evaluation (2%) has only been undertaken within the undergrounding areas to allow the LAAA and Examining Authority to determine the application.</p> <p>However, there is a requirement for further trenched archaeological evaluation, which could be undertaken post-determination. This will be required within the areas that have been subject to pre-application trenched archaeological evaluation to increase the area sampled to a 4% sample by area, which will aid in the definition/refinement of mitigation areas.</p> <p>Further trenched archaeological evaluation will also be required in areas that have not been subject to intrusive</p>
--	--	--	---	--

				<p>archaeological assessment, including haul roads, compound areas and pylon locations. An appropriate sample to allow the archaeological resource to be accurately quantified would be 4% by area trenched archaeological evaluation following geophysical survey, to sample geophysical anomalies and any blank areas. Where geophysics is not undertaken the sample will need to be 5% by area.</p> <p>Further evaluation will determine the presence/absence, character, extent, quality, depth and significance of any archaeology present and, will inform on the appropriate level of archaeological mitigation.</p> <p>Post-determination trenched archaeological evaluation will require submission of a scheme wide DWSI. Any archaeological mitigation based on the results of the post-determination trenched archaeological evaluation would need to be under a separate DWSI for archaeological mitigation, which will need to be submitted to the relevant LAAA for review and approval.</p>
1i	General Considerations - Roles and Responsibilities	2.2.1	<p>National Grid will be responsible for:</p> <ul style="list-style-type: none"> • Appointing a suitably qualified Archaeological Contractor; • For implementing the measures set out in the AFS and the OWSI; • Producing DWSI for the archaeological mitigation work; • Leading any necessary consultation with the local 	<p>Due to the size of the project will National Grid have an Archaeological Clerk of Works appointed to the project?</p> <p>The first bullet point should be the following:</p> <ul style="list-style-type: none"> • Appointing a suitably qualified and experienced* Archaeological Contractor <p>Additional bullet points here that National Grid will be responsible for:</p> <ul style="list-style-type: none"> • Daily communication with the archaeological contractor during archaeological site works.

			<p>authority advisors and any other relevant bodies.</p>	<ul style="list-style-type: none"> • Preparing weekly updates on archaeological fieldwork for the relevant LAAA. • Arranging site monitoring visits with the relevant LAAA. • Providing regular updates on the post-excavation works to the relevant LAAA. <p>This should also state that National Grid will have un-restricted access to the archaeological works.</p> <p>*experience should include undertaking and delivering archaeological works large infrastructure projects, working in East Anglia and experience of the varied geologies that will be within the proposed scheme of works.</p>
1j		2.2.2	<p>The local authority advisors will be responsible for:</p> <ul style="list-style-type: none"> • Reviewing and approving the DWSI prepared by the Archaeological Contractor. The DWSI will contain adequate notice periods by which the local authority advisors will be informed of the commencement of archaeological work in any one area; • Where necessary, set briefs or specifications to guide the DWSI, where warranted; • Monitoring the archaeological 	<p>The LAAA’s advise the Local Planning Authorities (LPAs) across the project. This is SCCAS for the LPAs in Suffolk and EPS for the LPAs in Essex.</p> <p>The LAAA will provide archaeological briefs/specifications for the production of the DWSIs.</p> <p>The LAAA will have unrestricted access to archaeological sites and will be responsible for monitoring fieldwork and when necessary review site records during fieldwork.</p> <p>The LAAA will review and approve post-excavation documents, publications and archiving.</p>

			<p>fieldwork to confirm that the DWSI is being adhered to. In this capacity they will 'sign-off' areas that have been completed and the aims of the DWSI fulfilled in terms of the fieldwork carried out; and</p> <ul style="list-style-type: none"> • Reviewing and approving post-excavation documents. 	
1k	General Considerations - Archaeological Contractor Requirements	2.3	<p>The Archaeological Contractor will be an experienced professional body competent to carry out multiple archaeological interventions of different types across a large-scale development. As some of these interventions will be simultaneous, the organisation will need access to sufficient qualified staff to fulfil all the obligations in this OWSI.</p> <p>The Archaeological Contractor will design the archaeological fieldwork in a DWSI, which will be in accordance with the OWSI and will carry out the mitigation works to the relevant ClfA standards and guidance (ClfA 2012, 2020a and 2020b).</p> <p>The Archaeological Contractor's site staff will have passed all the relevant construction industry certifications and staff will wear appropriate personal protective equipment for the task in</p>	<p>The programme of archaeological work will be delivered by the archaeological contractor, under the leadership of an experienced Archaeological Project Manager.</p> <p>Once an archaeological contractor has been instructed, National Grid will provide the details of the archaeological contractor to the relevant LAAA's. The archaeological contractor's details will be provided within each of the DWSIs, and will include named key specialists who will be site-based or have regular access to site, or who will be able to attend site at short notice. This will include (but not limited to) the following roles:</p> <ul style="list-style-type: none"> • Project manager • Environmental specialists, i.e Archaeobotany, charcoal, macrofossil and microfossil. • Mineral preserved organics specialist • Lithics specialists with relevant period expertise* • Ceramics specialists with relevant period expertise*

		<p>hand and in accordance with National Grid policy.</p>	<ul style="list-style-type: none"> • Metalwork specialists with relevant period expertise* • Geoarchaeologist • Geophysicist • Archaeological surveyor • Human remains specialist – experience of working with cremated human remains • Animal bone specialist • Scientific dating specialist • Metal detectorist • Public archaeology and community engagement team • Conservation specialist • Conservation lab details • Finds co-ordinator/processing specialist • Digital data manager • Publication manager <p>*The archaeological contractors archaeological specialists will need to have experience of working in East Anglia and of local typologies.</p> <p>National Grid will be provided with the details of the individuals fulfilling these roles immediately after appointment of the archaeological contractor to the project. National Grid will</p>
--	--	--	--

				<p>provide this information to the LAAAs. The LAAAs will need to be notified of any changes to the named individuals and will need to be notified of the new appointment.</p> <p>For environmental sampling and scientific dating the DWSIs will state that there is provision for consultation with Historic England’s regional science advisor (East of England) for advice on sampling and scientific dating strategies.</p>
11		2.3.2	<p>The Archaeological Contractor will design the archaeological fieldwork in a DWSI, which will be in accordance with the OWSI and will carry out the mitigation works to the relevant ClfA standards and guidance (ClfA 2012, 2020a and 2020b).</p>	<p>The archaeological contractor will need to design the archaeological fieldwork in a DWSI, which will be in accordance with the OWSI and archaeological brief/specification provided by the relevant LAAA.</p> <p>The archaeological contractor will carry out the mitigation works to the relevant ClfA, Historic England, Suffolk County Council standards and guidance:</p> <ul style="list-style-type: none"> • Geophysical Survey (2023)¹ • Palaeoenvironmental Assessment (2018)² • Trenched Archaeological Evaluation (2023)³ • Archaeological Excavation (2023)⁴ • Excavating inhumations for Mineral Preserved Organics (MPOs) (2023)⁵

¹ <https://www.suffolk.gov.uk/asset-library/imported/sccas-geophysical-survey-requirements.pdf>

² <https://www.suffolk.gov.uk/asset-library/imported/sccas-palaeoenvironmental-assessment-requirements.pdf>

³ <https://www.suffolk.gov.uk/asset-library/imported/sccas-trenched-archaeological-evaluation.pdf>

⁴ <https://www.suffolk.gov.uk/asset-library/imported/sccas-requirements-for-archaeological-excavation.pdf>

⁵ <https://www.suffolk.gov.uk/asset-library/imported/SCCAS-Excavating-Inhumations-for-Mineral-Preserved-Organics-Guidance-2023.pdf>

				<ul style="list-style-type: none"> Archive Preparation and Deposition (2022)⁶ <p>Historic England (2015) <i>Management of Research Projects in the Historic Environment (MoRPHE)</i></p> <p>CIfA universal guidance for evaluation, excavation and monitoring and recording (2023)</p> <p>This section should also include guidance for Essex Place Services when working in Essex.</p>
1m	General Considerations – Detailed Written Scheme of Investigation	2.4	Requirement 6: Archaeology of the draft DCO (application document 3.1) states: '6.(1) The authorised development must be undertaken in accordance with the AFS and the OWSI. 6.(2) No stage of the authorised development must commence until a Detailed Written Scheme of Investigation of areas of archaeological interest relevant to that stage (if any) as identified within the OWSI or identified through evaluation work as set out in the OWSI has been submitted to and approved by the County Archaeologist. 6.(3) Any detailed archaeological works must be carried out in accordance with the approved DWSI for that stage. 6.(4) The DWSI must be in accordance with the OWSI and must identify areas where archaeological works are required and the measures to be taken to protect,	This section should also reference the REAC archaeological requirements.

⁶ <https://www.suffolk.gov.uk/asset-library/imported/sccas-deposition-guidelines-2022.pdf>

		<p>record or preserve any significant archaeological remains that may be found and must include an implementation timetable.’</p> <p>The DWSI will include the following, along with further specific requirements set out in Chapters 4 to 7:</p> <ul style="list-style-type: none"> • An assessment of significance and research questions; • The programme of methodology of site investigation and recording; • The programme for post-investigation assessment; • Provision to be made for analysis of the site investigation and recording; • Provision to be made for archive deposition of the analysis and records of the site investigation; • Nomination of a competent person or persons/organisation to undertake the works set out within the DWSI; • An implementation timetable 	
--	--	--	--

			<p>for fieldwork; and</p> <ul style="list-style-type: none"> • Delivery timelines for the post-excavation reporting, in line with the wording in Section 8 of this OWSI. <p>The DWSI will include reference to the archaeological research objectives set out within the East Anglian Archaeology Research Framework (Medlycott, 2011) where relevant.</p>	
1n	General Considerations - Communications and Weekly Reporting	2.6	<p>The chain for communicating information regarding the work set out within the OWSI will be as set out in Illustration 2.1. This will be adhered to during all phases of the project, from site set up, to onsite work and post-excavation phases.</p> <p>The Archaeological Contractor will provide weekly reports to National Grid and / or the Main Works Contractor on progress with project design, fieldwork preparation, implementation, post-excavation analysis and processing and reporting</p>	<p>During site work there should be allowance for daily communication with the relevant LAAA, National Grid and/or Mainworks contractor and the Archaeological Contractor, particularly during fieldwork to allow for sign off of completed areas when needed.</p> <p>Regular site monitoring visits should be scheduled in as soon as DWSIs have been approved. The frequency of which will depend on the complexity of the works and significance of any archaeology or deposits of archaeological significance.</p>
1o	Retention <i>in situ</i>	3.1.1/3.2.1	<p>The retention of archaeological remains, otherwise known as ‘preservation in situ’ is the term used to refer to the conservation of an archaeological asset in its original location. It can describe</p>	<p>The title of this section should be Preservation <i>in situ</i></p> <p>Though there are currently no proposed locations for preservation <i>in situ</i> which have been identified within the areas subject to trenched archaeological evaluation. Should</p>

			<p>situations when a site is preserved as part of a project, for example by the following measures:</p> <ul style="list-style-type: none"> • Avoidance through routing studies so that the project components are located away from known archaeological features and remains; • Avoidance of the archaeological remains through a minor variation (within either the Order Limits or the Limits of Deviation) in the proposed working area; • Use of trenchless (non-opencut) techniques, where practicable; and • Protection of subsoil within the working area (e.g. trackway panels, topsoil retention, or other suitable technique). <p>Given the results of the trial trenching (completed in November 2023) there are no locations where preservation in situ is proposed within the Order Limits.</p>	<p>any locations requiring preservation <i>in situ</i> be identified during the future investigations, this section should specify that:</p> <p><i>Where preservation in situ can be achieved and agreed with the relevant LAAA, a detailed management plan document would be required to detail and set preservation in situ of the buried heritage asset during the construction phase and the buried heritage assets long term preservation of the buried heritage asset.</i></p> <p><i>Where preservation in situ cannot be achieved by avoidance* discussions with SCC Archaeological Service would be required and appropriate mitigation strategy implemented.</i></p> <p>*Avoidance mainly achieved through design and embedded mitigation be recommended when significant archaeological remains are discovered during archaeological works. The aim is to avoid damage to heritage assets by removing the impact. Areas of avoidance would need to be mapped and fenced off from the main construction works and impacts. Any areas of preservation <i>in situ</i> that may be identified must be treated as 'no touch areas'.</p> <p>Once archaeology has been exposed it must be excavated and recorded.</p>
1p		3.1.3	Further avoidance (preservation in situ) has been achieved through	It is currently unknown whether there would be any further areas of preservation in situ in the areas of the proposal

			<p>amendments to the alignment and through the development and refinement of the Order Limits to avoid known features identified during the archaeological surveys. No areas of preservation in situ are proposed based on the results of the completed trial trench investigations.</p>	<p>outside of the area that has been subject pre-determination trenched archaeological evaluation. i.e. if post-determination archaeological evaluation identified an area of sensitive archaeology and avoidance could achieve preservation <i>in situ</i>.</p>
1q	Retention <i>in situ</i> - Locations	3.2.1	<p>Given the results of the trial trenching (completed in November 2023) there are no locations where preservation in situ is proposed within the Order Limits.</p>	<p>There may be areas identified for preservation in situ during future archaeological works.</p>
1r	Targeted Archaeological Open Area Excavation	4.1.2	<p>Archaeological OAE is a targeted programme of controlled, intrusive fieldwork with defined objectives which examines, records and interprets archaeological deposits, features and structures and, as appropriate, retrieves artefacts, ecofacts and other remains within a specified area or site. The records made and objects gathered during fieldwork are studied and the results of that study published in detail appropriate to the project design. The principal difference between this approach to mitigation and archaeological SMS (described in Chapter 5) is generally in the timing of implementation and the fixed, pre-defined limits within which the excavation is carried out.</p>	<p>This section needs more detail on how the results of the fieldwork will lead into the production of the post excavation assessment report and updated project design (PXA/UPD) in chapter 8.</p> <p>This paragraph does not need the comparison to SMS. The comparison needs to be removed as the implementation time is not the difference between OAE and SMS.</p> <p>For further detail see comments for 5.1.1 – 5.1.5.</p>

<p>1s</p>	<p>Targeted Archaeological Open Area Excavation – Locations</p>	<p>4.2.1</p>	<p>Currently, targeted Archaeological OAE is proposed in two locations within the Order Limits as shown on Figure 1: Proposed Archaeological Mitigation:</p> <ul style="list-style-type: none"> • Section G: South of Workhouse Green, where evidence from the trenched evaluation indicates an area of Roman activity; and • Section G: Either side of Moat Lane west of Lamarsh, where intensive cropmark activity located in the HER has been tested by trench evaluation and proven to contain Iron Age and Roman archaeology. 	<p>SCCAS have only seen results of the trenched archaeological evaluation for stages 1-4 and have not seen the full results of the fieldwork.</p> <p>See comment for 1.5.1.</p> <p>As there has only been low level of trenched archaeological evaluation within the undergrounding sections of the proposal, at a 2% sample, there is insufficient information to accurately define areas for archaeological mitigation where trenched archaeological evaluation has been undertaken.</p> <p>As a result, there is a need for further trenched archaeological evaluation to be undertaken post-determination for the areas that have not been trenched and in the areas that have been subject to pre-application trenched archaeological evaluation so the archaeological resource can be accurately quantified.</p> <p>The OWSI should therefore be a process document and should not contain details of defined areas for archaeological mitigation. Instead, the OWSI should state that there will be archaeological mitigation required to be undertaken prior to the construction phase, which would be defined in Detailed Written Schemes of Investigation (DWSI). Areas for archaeological mitigation by OAE should include:</p> <ul style="list-style-type: none"> • Area G1 – an initial 40mx40m excavation area around two probable Late Bronze Age – Early Iron Age cremation burial which could be part of a cremation cemetery in and around Trench G1.49. there may be a requirement to extend the excavation area further depending on the archaeology present. It is not uncommon for cremations of this period to be focused around or in the vicinity of earlier burials/funerary
-----------	---	--------------	--	---

				<p>monuments. Therefore, should further human remains or funerary features, be identified then there will need to be a suitable buffer strip, comprising of a 20m archaeology free area from the last archaeological feature is reached, this would ensure that all human remains are excavated and recorded in an appropriate manner.</p> <ul style="list-style-type: none"> • Area G1 – Area around Brick Kiln (not excavated) in Trench G1.42 • Area G1 – Area around Roman period occupation, including structural remains G1.29 which should include Roman features identified in trenches G1.30 and G1.32 • Area G6 – trenches G6.24 – G6.28 located in an area that has not been subject to trenched archaeological evaluation, this area is situated over the HER record for a Roman period artefact scatter () combine with excavation area inclusive of trenches G1.29, G1.30 and G1.32. given the structural remains close by this would be best done as part of the excavation. <p>This section should also state that DWSI's will need to be submitted to the LAAA for approval prior to fieldwork commencing and that no archaeological fieldwork can be undertaken without a DWSI that has been approved in writing by the relevant LAAA.</p>
1t	Targeted Archaeological Open Area Excavation - Detailed Written Scheme	4.3.1	The Archaeological Contractor will produce a DWSI for areas of archaeology requiring targeted archaeological OAE. These will be	This should state that each DWSI will need to be produced in line with a brief/s issued by the relevant LAAA.

	of Investigation		issued to the local authority advisors for comment prior to the commencement of fieldwork. The DWSI will use methodological parameters regarding the methods of overburden removal, hand excavation, environmental sampling etc set out below.	<p>This paragraph needs to also state that each DWSI will need to be approved by the relevant LAAA prior to the commencement of archaeological fieldwork.</p> <p>For sites in Suffolk, the DWSI will need to adhere SCCAS guidance for archaeological Excavation (2023). And should detail the requirements of fieldwork and set out a clear strategy for excavation, environmental sampling and recording of archaeology.</p> <p>This should also include post-excavation analysis, archiving and reporting.</p>
1u		4.3.2	<p>The excavation and recording policies set out below are in line with good practice and adhere to the ClfA standards and guidance for archaeological excavation (ClfA, 2020a).</p> <ul style="list-style-type: none"> • Overburden Removal – the method of overburden removal will be detailed in the Archaeological Contractor’s DWSI, which will include the provision for separation of topsoil and subsoil during excavation; • Hand Excavation Policy – the Archaeological Contractor’s DWSI will stipulate a strategy for identifying archaeological remains and how they will 	<p>ClfA universal guidance for archaeological excavation has been updated (2023).</p> <p>More detail is needed in this section, the OWSI should inform the DWSIs of the baseline requirements of the archaeological methodology, which should include (but not limited to):</p> <p>Overburden removal – the method of overburden removal will be detailed in the archaeological contractors DWSI, which will include:</p> <ul style="list-style-type: none"> • Topsoil may be mechanically removed (unless otherwise agreed) using a machine of an appropriate size, with a backacting arm and fitted with a toothless ditching bucket, operated by a driver with suitable qualifications and experience. The machine strip will be to the interface layer between the topsoil and subsoil or archaeological horizon. All machine excavation is to be under the direct control and supervision of an experienced archaeologist. • Topsoil, subsoil should be kept separate during

			<p>carry out archaeological hand-excavation of the same in accordance with an agreed sampling strategy;</p> <ul style="list-style-type: none"> Archaeological Recording – the Archaeological Contractor’s DWSI will contain detailed methodologies for the production of hand-written and drawn records and photography in accordance with current professional guidance and good practice; Environmental Sampling Policy – the Archaeological Contractor’s DWSI will contain detailed methodologies for the collection of soil samples, the treatment of waterlogged remains and the most appropriate methods of scientific dating. The Archaeological Contractor’s DWSI will also detail the proposed treatment of human remains; and Artefact Policies – the retrieval, conservation and analysis of archaeological artefacts will be detailed in the Archaeological 	<p>removal to allow sequential backfilling of the excavation area, unless otherwise agreed with the developer.</p> <ul style="list-style-type: none"> The DWSI will contain a detailed spoil management strategy including locations of topsoil and subsoil storage areas. All machinery is to be kept off of stripped areas until the archaeological excavations have been completed and area have been signed off in writing by the relevant LAAA. <p>Hand Excavation Policy – The archaeological contractors DWSI will set out a detailed methodology for the identification of archaeology and excavation of archaeological features, deposits and stratified sequences, which will include:</p> <ul style="list-style-type: none"> All features, including presumed natural and geological features are to be investigated and recorded unless otherwise agreed with the LAAA. All archaeological features excavated by hand to establish date, function and depth, for guidance: A minimum of 50% of the fills of general features is to be excavated. In some instances 100% may be requested depending on the significance of the feature/deposit. A minimum of 10% of the fills of linear features (ditches, etc) are to be excavated. The interventions must be representative of the available length of the feature and must take into account any variations of size, depth, fills and any concentration of artefacts. For linear features 1.00m wide slots should be excavated across their
--	--	--	--	---

			<p>Contractor's DWSI.</p>	<p>width. Depending on the significance of the feature a higher percentage sample may be requested, increasing in 10% increments until the LAAA are satisfied that research aims can be answered.</p> <ul style="list-style-type: none"> • Archaeological interventions should be placed to best allow the understanding of the relationships between features and deposits (including relationship sections). • For discrete features, such as pits, 50% of their fills should be excavated and sampled for environmental evidence. In some instances, 100% may be requested depending on the significance of the feature. • Large or deep features may be excavated in quadrants in the first instance, or in other such gridded or systematic excavation as may be appropriate to the feature type. • Provision should be made to fully investigate the depth of sequences and the depth of archaeological features. This may involve the use of stepping or shoring. • Appropriate provision should be made for extracting water from sites and features. • Hand auger or a power auger (where appropriate) is recommended to gain information from very deep features so a safe excavation strategy can be designed and implemented in discussion with the LAAA. <p>Human remains - The archaeological contractors DWSI will contain a detailed methodology for the excavation, recording and sampling of any human remains, this should include:</p>
--	--	--	---------------------------	--

				<ul style="list-style-type: none"> • In the event human remains are discovered the archaeological contractor will notify National Grid immediately. The National Grid will immediately notify the relevant LAAA. Remains are to be left <i>in situ</i>, covered and protected in the first instance and the LAAA and archaeological contractors human remains specialist will need to assess the condition of the human remains and agree an excavation methodology. • Human remains are to be treated at all stages with care and respect and are to be dealt with in accordance with the law. They must be recorded <i>in situ</i> and subsequently lifted, packed and marked to the standards compatible with those described in current guidance from ClfA, Historic England, Advisory Panel on the Archaeology of Burials in England and the British Association of Biological Anthropology and Osteoarchaeology (BABAO). Proposals for the final deposition of remains following the study and analysis will be required in the OWSI and DWSIs. <p>Inhumations – should include the following but not limited to:</p> <ul style="list-style-type: none"> • Sites where furnished burials are known, anticipated or identified, should comply with SCCAS (2023) Guidance on “excavating inhumations for mineral preserved organics”. • Environmental samples to be taken from the lens of soil remaining at the base of the grave, divided into head torso and feet.
--	--	--	--	---

				<p>Cremations – should include the following but not limited to:</p> <ul style="list-style-type: none"> • Cremation deposits should be subject to sampling and assessment for charcoal, charred plant remains, artefacts and the recovery of human bone. • Where un-urned cremations are suspected or discovered, these will be 100% excavated, and 100% sampled with taken from every 5cm interval until the entire cremation has been excavated. • Urned cremations will be block lifted to allow for X-radiography and excavation under laboratory conditions. <p>Environmental Sampling policy - techniques should follow guidance outlined in “Environmental Archaeology: A guide to the Theory and Practice of Methods, from Sampling and Recovery to Post-excavation (2011 Historic England) and other relevant guidance.</p> <ul style="list-style-type: none"> • The DWSI must provide details of a comprehensive sampling strategy for flotation, assessment and analysis of biological remains by a named environmental specialist (for palaeoenvironmental and paleoeconomic investigations and also for absolute dating), and samples of sediments and/or soils (for micromorphological and other pedological/sedimentological analysis). • All samples should be retained until their potential has been assessed and until a retention strategy has been agreed. Where necessary, advice on the appropriateness of the proposed strategy should be sought from the Historic England Regional Advisor the
--	--	--	--	--

				<p>Archaeological Science (East of England).</p> <ul style="list-style-type: none"> • Samples of burnt flint retained for lipid analysis should not be washed. <p>Scientific Dating policy – Scientific dating will be utilised to provide spot dates to inform the excavation strategy, contribute to the understanding of stratigraphic sequences, or provide precision/resolution for statistical modelling. The archaeological contractors scientific dating specialist will provide advice and guidance throughout the project and should consult the Historic England Regional Science advisor. Scientific dating techniques.</p> <p>As a baseline each DWSI will include provision for the following:</p> <ul style="list-style-type: none"> • Radiocarbon (C-14) dating and Bayesian chronological modelling - Radiocarbon Dating and Chronological Modelling: Guidelines and Best Practice (Historic England, 2022) • Luminescence dating (optically stimulated luminescence or OSL): • Archaeomagnetic dating for in situ fired material such as kilns or ovens and waterlogged deposits. • Dendrochronology - Dendrochronology: Guidelines on producing and interpreting dendrochronological dates (Historic England 1998) <p>Archaeological recording – the archaeological contractors DWSI will contain detailed methodologies for the production of</p>
--	--	--	--	--

				<p>hand-written and drawn records and photography in accordance with professional guidance and good practice.</p> <ul style="list-style-type: none"> • Excavation recording is to be consistent with the requirements of the Suffolk and Essex Historic Environment Record (HER) and compatible with the archive for deposition. Methods must be specified in the DWSI and agreed with the LAAA. • All archaeological features, layers or deposits will be allocated unique context numbers. Each context will be recorded by written and measured description. On-site matrices will be compiled during the excavation such that the results of the written stratigraphical records may be fully analysed and phased. • Plans of archaeological features on the site are to be drawn at 1:20 or 1:50, depending on the complexity of the feature/s being recorded. • Sections of features are to be drawn at 1:10 or 1:20, depending on the complexity of the feature/s being recorded. • If digital recording is used, then DWSI must state the digital recording methodology and details on storage of the site records and backups. • A sufficient number of levels will be taken across the excavation are to gain an understanding of subsurface topography, all levels should relate to Ordinance datum. • All features should be recorded using RTK GPS survey equipment or Total Station (as appropriate) and site
--	--	--	--	--

				<p>plans should be provided to the LAAA on a regular basis.</p> <ul style="list-style-type: none"> • A photographic record of the work is to be made, consisting of high-resolution digital images. All cameras must have sensors of APS-C (or larger) and all images must be at least 10 megapixels in size. All digital images for archiving purposes must be high quality non-altered RAW files (.DNG) or TIFF images. JPG images must not be used for archiving. <p>Artefact Policies – The retrieval, conservation and analysis of archaeological artefacts will be detailed in the archaeological contractors DWSI,</p> <ul style="list-style-type: none"> • All artefacts will be collected and bagged by context. • All small finds will be GPS plotted so the find can be 3-Dimensionally located within its context and the site. • Treasure will be reported to the LAAA immediately and the relevant county Finds Liaison Officer (FLO). The Archaeological Contractor will comply with the provisions of the Treasure Act. Findings will be reported to the Coroner within 14days. • Finds that are suspected to contain preserved organic residues will not be cleaned in accordance with Historic England Guidance. • Every effort must be made to get the agreement of the landowner to the deposition of the site archive, and transfer of title, with SCCAS County Store for sites in Suffolk. The intended depository should be clearly
--	--	--	--	--

				<p>stated within the archaeological contractors DWSI.</p> <p>It may be worth adding the above into section 2.4 as being baseline guidance this will be relevant to the production of all DWSI's for all archaeological mitigation methods.</p> <p>As there are cremated human remains identified in the archaeological work undertaken so far. The OWSI should detail that there is a need for a scheme wide burial licence to be obtained prior to the commencement of archaeological works.</p> <p>Research objectives will need to be detailed in the DWSIs, and the excavation strategy will be kept under review.</p>
1v	Archaeological Strip, Map and Sample	5.1.1/5.1.2	<p>The aim of the Strip Map and Sample (SMS) is to preserve the archaeological remains by record in areas of known archaeology and archaeological potential identified from ATT within the construction footprint. This will assist in defining the true extent of archaeological remains that will then be subject to focussed hand-excavation strategies.</p> <p>SMS is a rapid form of excavation usually tied in with the Main Works Contractor's overburden removal at the outset of the construction phase yet is done under controlled archaeological conditions in the relevant areas. This method of mitigation is often applied during the first phase of construction,</p>	<p>This section should be called Strip, Map and Sample Excavation (SMS)</p> <p>SMS is not a rapid form of excavation. This statement needs to be removed. However, there is potential for a lower level of archaeological intervention to meet research aims and objectives, but this can only be decided once areas are stripped and the archaeology present understood.</p> <p>SMS fieldwork can be faster than full open area excavation if a lower intervention sample is agreed with the LAAA. However, Implementation timescales should be assumed to be the same as for full open area excavation until areas are stripped and the resource defined in discussion with the LAAA.</p> <p>Guidance and methodology would the same as for excavation but with the caveat that the LAAA will assess the level of sampling once stripped and the archaeology characterised.</p>

			<p>such as soil stripping associated with the setting up of compound areas, temporary access routes or in preparation of installing foundations and cables.</p>	<p>There is no official guidance for SMS methodology as it falls within full excavation guidance.</p> <p>SMS is both an evaluation and a mitigation technique, used to explore the spatial characteristics of archaeological features (such as field systems), where the sample of features to be excavated will be determined by the LAAA following the submission of pre-excavation plans of stripped areas and initial site monitoring visits and results from initial excavation. Where areas of significant or complex archaeological remains are identified, the SMS methodology should be superseded with a targeted OAE methodology for more detailed excavation and recording.</p> <p>The methodology will be the same as OAE, and the comments in 4.3.2 above are applicable here.</p> <p>Any DWSI submitted for archaeological mitigation by SMS will need to have contingency to be upgraded to OAE.</p> <p>As part of the SMS methodology this section should clearly state that pre-excavation plans will be sent to the LAAA for review and decisions on the sample excavation of archaeology will be determined by the LAAA.</p> <p>The proportion of features excavated would be determined by the importance of the features and the requirements of the research objectives. The excavation strategy would need to be kept under constant review.</p> <p>Timescales for SMS implementation is the same as OAE. If SMS is undertaken immediately prior to the commencement of groundworks, then there can be delays to project delivery.</p> <p>SMS would need to reference SCCAS guidance for archaeological excavation (2023).</p>
--	--	--	---	--

1w		5.1.5	<p>SMS is proposed where impacts from the project would likely affect either a known area of more dispersed archaeological remains where no defined concentrations of features have been identified, or an area where a moderate risk of archaeological remains has been assessed but where ATT has not been able to confirm their full extent. In this regard, SMS differs from OAE in that the latter is focussed on well-defined areas of important archaeology identified from archaeological trial trenching. It is also more usual for archaeological OAE to be implemented prior to the construction phase, or at least prior to the removal of overburden by the Main Works Contractor.</p>	<p>There may be site specific variations to the methodology which should be detailed in the site specific DWSI.</p> <p>The sample excavation strategy will be reviewed continuously by LAA archaeologists throughout the course of the fieldwork and, if necessary, amended in order to take account of changing circumstances and understanding. Any changes or amendments to the agreed strategy will be agreed in advance of the implementation with the LAA archaeologists and confirmed in writing.</p> <p>Where areas of significant or complex archaeological remains are identified, the SMS methodology should be superseded with a targeted OAE methodology for more detailed excavation and recording. Alternatively, where the presence and significance of archaeological features is demonstrably low there could be a view to scale back the SMS methodology. This would only be undertaken in agreement with SCCAS.</p> <p>Following the completion of the archaeological fieldwork, to the satisfaction of the LAA archaeologists, the relevant area, or agreed parts of area, will be released to the main contractor so that construction works may proceed.</p>
1x	Archaeological Strip, Map and Sample - Locations	5.2.1	<p>SMS will be applied in areas of the project where the presence of archaeological remains warrant preservation by record and the project is anticipated to require topsoil removal. Areas identified for SMS are shown on Figure 1: Proposed Archaeological Mitigation and include: National Grid December 2023 Bramford to Twinstead</p>	<p>Same as comments as for 4.2.1.</p>

			<p>Reinforcement 12</p> <ul style="list-style-type: none"> • Section E: area of SMS just to the east of the River Box adjacent (north-east of) to the approximate HDD pits • Section F: Leavenheath/Assington, immediately to the north of Leavenheath village in the location of the proposed construction compound where potentially prehistoric remains were identified during ATT, including a cremation burial; and • Section G: Stour Valley, to the east of St Edmund’s Hill, where kiln remains were found during ATT. 	
1y	Archaeological Strip, Map and Sample - Detailed Written Scheme of Investigation	5.3.1	The Archaeological Contractor will produce a DWSI for areas of archaeology requiring SMS mitigation. These will be submitted to the local authority advisors for comment prior to the commencement of earthworks. The DWSI will use the methodological parameters set out above (Section 4.3) and supplement these where necessary, with location or asset-specific	Same as comment 4.3.1

			approaches.	
1z	Archaeological Watching Brief	6.1	<p>A watching brief is defined here as the monitoring of groundworks undertaken by the Main Works Contractor during overburden stripping.</p> <p>Watching brief areas include underground cable trenches, pylon bases, temporary access routes, permanent access routes, laydown areas and construction compounds</p> <p>The aims of the archaeological watching brief are to mitigate the impact of construction on archaeological remains by investigation and recording. More detailed objectives are:</p> <ul style="list-style-type: none"> • To provide an appropriate procedure for the identification and treatment of any archaeological remains discovered during construction; • To investigate any archaeological remains present and define their extent and character in relation to the working area; • To determine (so far as possible) the stratigraphic sequence and dating of the deposits or features identified; 	<p>CifA have updated their terminology (2023) instead of “Watching Brief” this should be titled Archaeological Monitoring and Recording (AMR).</p> <p>This section will be referred to as AMR in SCCAS’s comments.</p>

			<p>and</p> <ul style="list-style-type: none"> To identify any areas requiring additional mitigation (e.g. SMS as described in Chapter 5). <p>The watching brief may therefore also feedback into other forms of mitigation in the event of as yet undiscovered archaeology warranting mitigation being found during construction.</p>	
1aa		6.1.1 / 6.1.2	<p>A watching brief is defined here as the monitoring of groundworks undertaken by the Main Works Contractor during overburden stripping.</p> <p>Watching brief areas include underground cable trenches, pylon bases, temporary access routes, permanent access routes, laydown areas and construction compounds.</p>	<p>AMR should only be used to provide opportunities for archaeological investigation and recording in circumstances where OAE and SMS would otherwise be impracticable.</p> <p>There has not been a sufficient level of archaeological assessment to determine the level of archaeological mitigation within the underground cable trenches, pylon bases, temporary access routes, permanent access routes, laydown areas and construction compounds. There is a requirement further archaeological evaluation, which can be undertaken post-determination to determine appropriate levels of archaeological mitigation, and where AMR would be suitable. SCCAS will not agree to large areas of Archaeological Monitoring and Recording.</p> <p>This approach will cause delays to project delivery through the discovery of un-expected archaeological remains.</p> <p>An appropriate methodology to use on a scheme of this size should be archaeological evaluation (geophysics and trenched</p>

				archaeological evaluation to a 4% sample) followed by appropriate levels of mitigation.
1bb		6.1.3	<p>The aims of the archaeological watching brief are to mitigate the impact of construction on archaeological remains by investigation and recording. More detailed objectives are:</p> <ul style="list-style-type: none"> • To provide an appropriate procedure for the identification and treatment of any archaeological remains discovered during construction; • To investigate any archaeological remains present and define their extent and character in relation to the working area; • To determine (so far as possible) the stratigraphic sequence and dating of the deposits or features identified; and • To identify any areas requiring additional mitigation (e.g. SMS as described in Chapter 5). 	<p>the bullet point:</p> <ul style="list-style-type: none"> • To identify any areas requiring additional mitigation (e.g. SMS as described in Chapter 5). <p>This should read:</p> <ul style="list-style-type: none"> • Where Archaeological Monitoring and Recording is implemented, and un-expected significant archaeological remains are identified, groundworks are to stop and the LAAA will be notified immediately, and amendments to the DWSI and mitigation methodology will be required (e.g. implementation of an OAE and/or SMS mitigation methodology as described in Chapters 4 and 5).
1cc		6.1.4	The watching brief may therefore also feedback into other forms of mitigation in the event of as yet undiscovered	<i>“The watching brief may therefore also feedback into other forms of mitigation in the event of as yet undiscovered</i>

			<p>archaeology warranting mitigation being found during construction.</p>	<p><i>archaeology warranting mitigation being found during construction.”</i></p> <p>Should read:</p> <p>Where implemented, Archaeological Monitoring and Recording has the potential to identify archaeology that may require amendments to the DWSI and mitigation methodology. Where this is the case, construction works will need to stop until a mitigation strategy has been agreed and following completion of the archaeological fieldwork to the satisfaction of the LAAA in accordance with the DWSI and OWSI the area has been signed off in writing by the relevant LAAA.</p>
1dd	Archaeological Watching Brief - Locations	6.2.2	<p>An area of proposed watching brief mitigation is also proposed at the grid supply point (GSP) substation (Figure 1: Proposed Archaeological Mitigation), where some undated archaeological features were located during ATT. A watching brief would also in general, be undertaken along the sections of new overhead line where there is a requirement to remove topsoil unless the level of archaeological potential warranted otherwise.</p>	<p>Same as comments for 4.2.1.</p> <p>SCCAS have only seen summary results of the trenched archaeological evaluation and have not seen the full results of the fieldwork.</p> <p>Mitigation can only be fully determined once the evaluation reports have been submitted and approved by SCCAS. As a result, SCCAS cannot fully determine the proposed mitigation areas/location and would recommend that all mitigation areas are removed from this document, or highlighted as areas of archaeological significance for archaeological mitigation, the level of which to be defined in the subsequent site specific DWSI.</p> <p>DWSI’s will need to be submitted to the LAA for approval prior to fieldwork commencing. No archaeological fieldwork can be undertaken without an approved DWSI.</p> <p>There should be a detailed strategy in the OWSI for the overhead sections of the route. This should be trenched</p>

				<p>archaeological evaluation of the pylon LOD, which will determine the presence, absence, character, significance and depth of any archaeology present. Decisions on the need for archaeological mitigation (e.g. OAE, SMs or CAMR) will be made by SCCAS and based on the results of the archaeological evaluation. Any further archaeological work would need to be subject of a DWSI, which will need to be submitted to SCCAS for review and approval.</p>
1ee	Archaeological Watching Brief - Detailed Written Scheme of Investigation	6.3.1	<p>The Archaeological Contractor will produce a DWSI for areas of archaeology requiring a watching brief. These will be submitted to the local authority advisors for comment prior to the commencement of earthworks. The DWSI will use the methodological parameters set out above (Section 4.3) and supplement these where necessary, with location or asset-specific approaches.</p>	Same as comment 4.3.1.
1ff	Geoarchaeological and Palaeoenvironmental Mitigation	7		<p>This section needs to be called Geoarchaeological and Palaeoenvironmental Assessment and Mitigation</p> <p>This section should also reference SCCAS guidance for Palaeoenvironmental Assessment (2018).</p>
1gg	Geoarchaeological and Palaeoenvironmental Mitigation - Locations	7.2.2	<p>The trenchless crossings beneath the River Box and the River Stour have the potential to affect deposits of potentially high geoarchaeological significance and therefore the geoarchaeological and palaeoenvironmental mitigation will be undertaken at the following locations</p>	<p>The Geoarch and Palaeoenvironmental assessment. This information will need to be sent to Historic England regional Science advisor as well, and decisions on appropriate mitigation will need to be determined by both LAA's and Historic England Science Advisor for the Eastern Region.</p>

		<p>shown on Figure 1: Proposed Archaeological Mitigation:</p> <ul style="list-style-type: none"> Section E: River Box (within the drill pits for the trenchless crossing): The archaeological watching brief (Oxford Archaeology, 2013) identified peat deposits at depths of 1.5m - 3.0m below ground level (bgl) at the River Box; and Section G: River Stour (within the drill pits for the trenchless crossing): The existing borehole record within the Stour Valley indicates the presence of complex deposits of potentially high geoarchaeological significance. Peat deposits have been found at 1.7m - 1.9m bgl during archaeological monitoring (Oxford Archaeology, 2013). 	<p>It is the view of SCCAS that the area of the trenchless crossing should be subject to robust geoarchaeological and palaeoenvironmental archaeological assessment, providing deposit models and palaeoenvironmental information, to determine if sensitive deposits of archaeological importance would be damaged or destroyed by the proposed trenchless crossing and to allow the formulation of an appropriate mitigation strategy.</p> <p>There should be provision for C-1 Geoarchaeological techniques will include; sediment description and interpretation to inform a programme of scientific dating (e.g C-14 and OSL)</p> <p>Palaeoenvironmental Sampling for macrofossils and microfossils where appropriate</p> <p>Where peat deposits are identified a programme of investigation and sampling will be carried out to recover archaeological and palaeoenvironmental remains, which could be undertaken by test pitting in conjunction with coring and boreholes.</p> <p>There will need to be provision for C-14 dating of peat sequences.</p> <p>Any de-watering of the crossing would need to have suitable groundwater testing to determine damage to any potential waterlogged deposits, such a peats which are known to exist within the Stour River Valley from the 2013 borehole survey.</p> <p>Need to have consultation with Historic England Regional Science Advisor (East of England) Region.</p>
--	--	--	--

1hh		7.2.4	The Stour valley has been modelled accurately with the results of project-wide geotechnical ground investigation. The mitigation at the River Stour will be limited to retrieving soil samples for environmental analysis during excavation of the trenchless crossing pits during construction.	<p>SCCAS queries whether the Historic England Regional Science Advisor seen the results.</p> <p>Historic England's Science Advisors (SAs) provide support and specialist advice (such as with environmental analysis in the case) to the LAAA in determining planning applications affecting archaeological sites and the archaeological units carrying out these excavations.</p>
1ii	Geoarchaeological and Palaeoenvironmental Mitigation - Detailed Written Scheme of Investigation	7.3.1	The Archaeological Contractor will produce a DWSI for the Stour Valley and River Box for the geoarchaeological mitigation. This will be submitted to the local authority advisors for comment prior to the commencement of construction.	Same as comment 4.3.1
1jj	Dissemination	8		<p>This section needs to establish a clear timeframe for the delivery of the PXA/UPD following the completion of the archaeological fieldwork.</p> <p>The LAAA's will be provided with digital vector plans of excavation areas, recorded archaeological features and excavated sections, which should be provided as geo-referenced (EPSG:27700) ESRI shape or QGIS GPK files. These files should have the relevant attributes attached to them, including: HER Parish Code, Primary Reference Number (e.g. Section Number, Context Number, Sample Number, Small Find/Registered Artefact Number, etc), Group or Feature Number, Archaeological Period and Phases. These GIS files should be provided to the Suffolk HER following approval of the PXA/UPD.</p>

1kk		8.1	<p>A single Post-Excavation Assessment (PEA) Report and an Updated Project Design (UPD), as defined in the Management of Research Projects in the Historic Environment (MoRPHE) (Historic England, 2015b) will be produced by the Archaeological Contractor on completion of the mitigation fieldwork. The results of the assessment will be shared with the local authority advisors.</p> <p>Together with the PEA Report and UPD, the Archaeological Contractor will submit a statement of resources required to complete the works recommended in the UPD. To</p> <p>A Post-Fieldwork Analysis (PFA) Report will be produced based on the scope and schedules in the PEA Report and UPD, as detailed above.</p>	<p>Standard abbreviation for the Post-Excavation Assessment Report should be PXA which is used by ClfA, planning and ALGAEO.</p> <p>For Suffolk, approval of the PXA/UPD report will require an archive deposition form to be submitted to the SCCAS Archives Team.⁷</p>
1ll	Dissemination – Updated Project Design	8.3.3	<p>The programme, task list and table of resources required to complete the works in the UPD will be accompanied by a costed task/resource table attached as an Appendix. This will include costs for publication</p>	<p>The UPD will also need to include details on the publication, whether this will be published in a journal or a monograph as detailed in 8.5.</p>

⁷ <https://www.suffolk.gov.uk/culture-heritage-and-leisure/suffolk-archaeological-service/archaeological-archives-service/archive-deposition-request-form>

1mm		8.3.4	<p>Note that, if only minor remains have been identified, there may be no value in further analysis, and in such circumstances the UPD should clearly state that this is the case.</p>	<p>This paragraph is not required, as this would be covered in the UPD once the results of the fieldwork have been assessed in the PXA.</p>
1nn	Dissemination - Post-Fieldwork Analysis Report	8.4	<p>Where the conclusion of the post-fieldwork assessment is that detailed analysis is required, it will proceed in line with the principles set out in Section 3.7 of MoRPHE (Historic England, 2015b). The post-fieldwork analysis will only begin following approval of the UPD in consultation with the local authority advisors and the output will be the PFA Report(s) and a research archive, which will be produced in accordance with Section 3.7 and Appendix 1 of MoRPHE respectively, along with relevant reports for publication.</p> <p>The PFA Report will be produced in line with the PEA Report and UPD and the scope set out therein. It will be produced within the timescales specified in the programme provided in the approved UPD.</p> <p>The Archaeological Contractor will allow for updating the local authority advisors during the post-fieldwork analysis phase. Where necessary, National Grid and the Archaeological Contractor can</p>	<p>Following on from the PXA/UPD the “Post-fieldwork analysis report” should be titled Archive Report, which is used by ClfA, planning and ALGAEO.</p>

		<p>arrange meetings with the local authority advisors to discuss the results in matters arising for the production of the PFA Report.</p> <p>The post-fieldwork analysis will consist of detailed work on the stratigraphy, artefacts and environmental data and will lead to the production of fully synthetic and integrated report texts.</p> <p>The draft PFA Report will be submitted to the local authority advisors. In finalising the report, the Archaeological Contractor will consider any comments made by the local authority advisors. The final report will be delivered to the local authority advisors in electronic .pdf format, all inclusive of figures and other appendices.</p>	
100	8.4.2	<p>The PFA Report will be produced in line with the PEA Report and UPD and the scope set out therein. It will be produced within the timescales specified in the programme provided in the approved UPD.</p>	<p>The timescales provide in the UPD will need a point of discharge in the DCO wording.</p>
1pp	8.4.5	<p>The draft PFA Report will be submitted to the local authority advisors. In finalising the report, the Archaeological Contractor will consider any comments made by the local authority advisors. The final report will be delivered to the</p>	<p>This section will need to state that a copy of the PXA/UPD, clearly marked draft, will be sent to the LAAA for review. The LAAA may require amendments to the document for approval and submission to the HER. Following approval of the document in writing by both of the LAAA.</p>

			local authority advisors in electronic .pdf format, all inclusive of figures and other appendices.	
1qq	Dissemination - Publication Report	8.5.2	Where publication of a report in an academic journal or as a monograph has been recommended in the PFA Report and agreed with the local authority advisors, this should be accepted for publication within a timescale specified on the programme within the final UPD and agreed in advance with the local authority advisors.	The LAAA will need to review and approve the Publication report prior to submission to the publisher.
1rr	Dissemination - Outreach	8.6	<p>Avenues for community outreach will be explored during the project development and may comprise activities such as:</p> <ul style="list-style-type: none"> • Presentations for local community groups; • Temporary exhibitions; • Work with schools; and • Web-based initiatives. 8.6.2 The need for, and scope of, such outreach activity will depend upon the ultimate scope of mitigation carried out and will be discussed with the local authority advisors. 	<p>The OWSI outreach provision needs more consideration.</p> <p>This should provide for a social media/media presence reporting the important discoveries, to reach a national audience.</p> <p>Series of publicly accessible talks, to local interest groups, such as schools, parish groups/councils discussing the excavations as they progress.</p> <p>Depending on results in the field, there may be scope to hold site tours to promote the archaeological work being undertaken for the project.</p> <p>Following the completion of the fieldwork there should be provision for a blog post on the Suffolk Heritage Explorer.</p>

1ss	Archiving	9	<p>The Archaeological Contractor will integrate the archives from all project archaeological mitigation into a single archive.</p> <p>Archive consolidation will be undertaken following the conclusion of fieldwork. The site record will be checked, cross-referenced, and indexed as necessary.</p> <p>The archive (finds and records) will be retained by the Archaeological Contractor before being deposited with the appropriate repository. A security copy of the archive will be made in an appropriate medium. All archive preparation will be undertaken in accordance with guidelines published by the ClfA on behalf of the Archaeological Archives Forum (ClfA, 2012).</p>	<p>The PXA/UPD cannot be approved until project archiving has been secured. Details on this can be found in the SCCAS guidance.⁸</p> <p>There is no provision for Digital Archive deposition. The OWSI should include a project digital management plan for the full site archive, and each DWSI will need to have individual data management plans.</p> <p>The OWSI and resulting DWSIs should also state proposals for the deposition of the digital archive relating to this scheme with the Archaeology Data Service (ADS), or similar digital archive repository, and allowance should be made for costs incurred to ensure proper deposition</p> <p style="background-color: black; color: black;">[REDACTED]</p> <p>Due to the size of the project costs for digital archiving will need to be agreed early on in the project work with ADS.</p>
1tt		9.1.1	<p>The Archaeological Contractor will integrate the archives from all project archaeological mitigation into a single archive.</p>	<p>SCCAS Archive currently only accepts archives from Suffolk. Discussions would need to be had between the applicant and the SCCAS Archives Team whether an integrated archive could be accepted by the county store. The Suffolk archive will need to be deposited in the SCCAS County Store.</p>

⁸ <https://www.suffolk.gov.uk/asset-library/imported/sccas-deposition-guidelines-2022.pdf>