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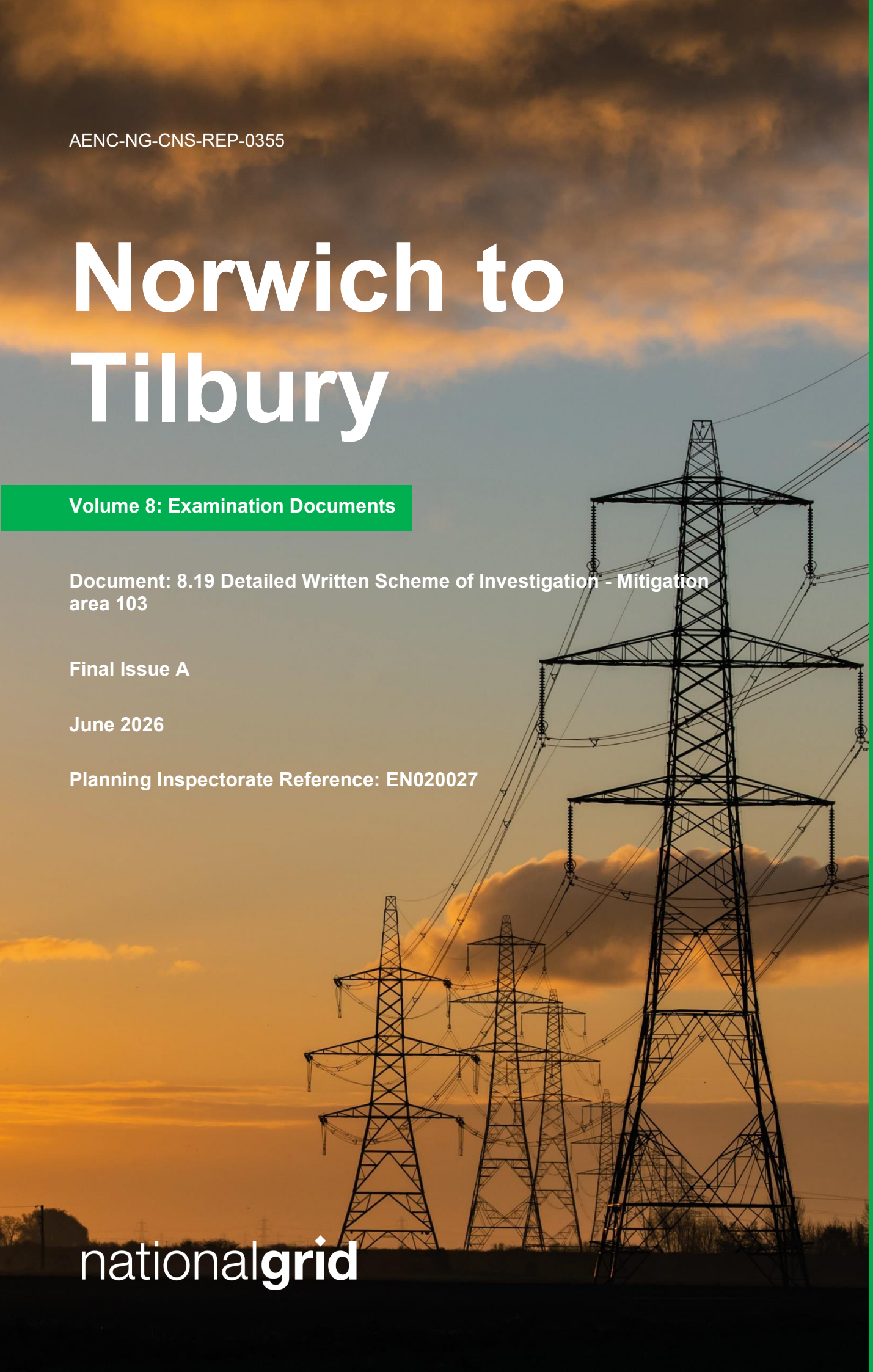

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Contents

Executive summary

This Detailed Written Scheme of Investigation (DWSI) sets out the archaeological mitigation requirements for mitigation area 103, Bramford Substation to East Anglia Connection Node (EACN) Substation underground cable section), located east of Sandpits Lane, 1km west of Holton St. Mary, Suffolk (**Figure 1**), as part of the Norwich to Tilbury Project. The scope of the archaeological mitigation works comprises one area of detailed archaeological excavation.

The Project involves reinforcement of the electricity transmission network to support the connection of new low-carbon energy generation. As construction has the potential to impact buried archaeological remains, which are a finite and non-renewable resource, a programme of archaeological mitigation is required in line with the Outline Archaeological Mitigation Strategy and Outline Written Scheme of Investigation (AMS-OWSI) (document reference 7.5).

The approach set out in this document has been informed by previous geophysical survey and trial trenching, which identified evidence for multi-period activity across the mitigation area. This included extensive prehistoric settlement remains, Roman remains primarily comprising agricultural boundary ditches, and small-scale medieval features indicative of agricultural land use.

The key objectives are to establish the character, extent and chronology of archaeological activity within the mitigation area, and to place the results within their wider local and regional context, including contributing to the East of England Research Framework.

All works will be undertaken in accordance with the AMS-OWSI and relevant professional standards, including those set out by the Chartered Institute for Archaeologists, Historic England and Suffolk County Council Archaeological Service. Post-excavation assessment, reporting and archiving will ensure that the results are appropriately analysed and disseminated.

Health, safety and environmental considerations will be embedded throughout all stages of the archaeological works.

1. Introduction

1.1 Statement of Works Required

1.1.1 This document sets out the requirement for archaeological mitigation at Sandpits Lane, 1km west of Holton St. Mary, Suffolk, hereafter referred to as the site. Within the site, a single mitigation area is required; mitigation area 103, Bramford to East Anglia Connection Node underground cable (EACN UGC). The mitigation technique to be utilised in this area will be detailed archaeological excavation.

1.1.2 This document should be read in conjunction with the Outline Archaeological Mitigation Strategy and Outline Written Scheme of Investigation (AMS-OWSI) (document reference 7.5) (Ref 6) for Norwich to Tilbury (the 'Project'), where generic standards for archaeological work are set out in **Section 5** (document reference 7.5) (Ref 6). This document details the types of and scope of archaeological mitigation proposed to reduce the effect of the Project on archaeological remains.

1.1.3 Appropriate and proportionate geophysical (magnetometer) survey and archaeological trial trenching has been undertaken to date by Headland Archaeology (Ref 15, Ref 16 and Ref 17), and these works have informed the scope and extent of the archaeological mitigation detailed here. These works are summarised in **Section 1.8** of the AMS-OWSI and detailed in the geophysics report (document reference 6.11.A4) (Ref 15) and interim trial trenching reports (document reference 6.11.A5) (Ref 16).

1.2 Site Description

1.2.1 National Grid Electricity Transmission plc ('National Grid') owns and maintains the national high voltage electricity transmission network throughout England and Wales.

1.2.2 The transmission network connects the power from where it is generated to the regional Distribution Network Operators who then supply businesses and homes.

1.2.3 National Grid holds the Transmission Licence for England and Wales, and its statutory duty is to develop and maintain an efficient, coordinated and economical system of electricity transmission and to facilitate competition in the generation and supply of electricity, as set out in the Electricity Act 1989.

1.2.4 National Grid has developed plans for the Project. The Project would support the UK's net zero target through the connection of new low carbon energy generation in East Anglia and by reinforcing the transmission network.

1.2.5 The Project comprises reinforcement of the transmission network between the existing Norwich Main Substation in Norfolk and Tilbury Substation in Essex, via Bramford Substation, the new East Anglia Connection Node (EACN) Substation and the new Tilbury North Substation.

1.2.6 The reinforcement is needed because the existing transmission network, even with current upgrading, will not have sufficient capacity for the new renewable energy (a substantial proportion of which would be generated by offshore wind) that is expected to connect to the network over the next 10 years and beyond. Completion of the

Project, together with other new reinforcements across the country, will meet this future energy transmission demand both in East Anglia and across the UK.

1.2.7 The Project comprises:

- A new 400 kilovolt (kV) electricity transmission connection of approximately 180 km overall length from Norwich Main Substation to Tilbury Substation via Bramford Substation, a new EACN Substation and a new Tilbury North Substation, including:
  - Approximately 159 km of new overhead line supported on approximately 509 pylons, either standard steel lattice pylons (approximately 50 m in height) or low height steel lattice pylons (approximately 40 m in height) and some of which would be gantries (typically up to 15 m in height) within proposed Cable Sealing End (CSE) compounds or existing or proposed substations.
  - Approximately 21 km of 400 kV underground cabling, some of which would be located through the Dedham Vale National Landscape (an Area of Outstanding Natural Beauty (AONB[1]).
- Up to seven new CSE compounds (with permanent access) to connect the overhead lines to the underground cables.
- Modification works to connect into the existing Norwich Main Substation and a substation extension at the existing Bramford Substation.
- A new 400 kV substation on the Tendring Peninsula, referred to as the EACN Substation (with a new permanent access). This is proposed to be an Air Insulated Switchgear (AIS) substation.
- A new 400 kV substation to the south of Orsett Golf Course in Essex, referred to as the Tilbury North Substation (with a new permanent access). This is proposed to be a Gas Insulated Switchgear (GIS) substation.
- Modifications to the existing National Grid Electricity Transmission overhead lines to facilitate the connection of the existing network into the new Tilbury North Substation to provide connection to the Tilbury Substation.
- Ancillary and/or temporary works associated with the construction of the Project.

1.2.8 In addition, third party utilities diversions and/or modifications would be required to facilitate the construction of the Project. There would also be land required for environmental mitigation and Biodiversity Net Gain (BNG).

1.2.9 As well as the permanent infrastructure, land would also be required temporarily for construction activities including, for example, working areas for construction equipment and machinery, site offices, welfare, storage and temporary construction access.

1.2.10 Archaeological investigations have identified evidence for multi-period activity across Mitigation Area 103, including prehistoric settlement remains, Roman boundary ditches and later medieval to post-medieval agricultural activity. These remains indicate a long sequence of predominantly rural land use, with more intensive prehistoric occupation followed by agricultural reorganisation of the landscape in later periods.

[1] National Landscape is the rebranded name of an AONB from 22 November 2023

1.2.11 Mitigation Area 103 lies within a rural agricultural landscape and is characterised by gently undulating topography. The underlying geology and any overlying superficial deposits contribute to the site's geomorphological character and may influence the preservation and visibility of archaeological remains. The land within the mitigation area is currently, or has recently been, in arable agricultural use, and its present appearance reflects this established pattern of cultivation and land management.

1.3 Site Location

1.3.1 The site is located on land to the east of Sandpits Lane, c. 1km west of Holton St. Mary, within the Babergh district of Suffolk. The site is shown in **Figure 1**.

1.3.2 The site comprises a single mitigation area of c. 10.75 hectares (ha) of arable land, encompassing parts of four separate fields north of the B1068.

1.4 Standards and Guidance

1.4.1 In line with **Section 5.1** of the AMS-OWSI (Ref 6) for the Norwich to Tilbury Project, this DWSI has been prepared in accordance with relevant professional standards and guidance, including SCCAS (2026) Requirements for Archaeological Excavation (Ref 22) in advance of works commencing at the site.

1.4.2 This DWSI will set out how the archaeological contractor will apply the principles and objectives for archaeological mitigation (**Section 2),** construction activities requiring mitigation (**Section 4**) and the standards for archaeological work (**Section 5**) as presented in the AMS-OWSI, and how the requirements of this DWSI will be followed. The document will also include details of staff, specialists, and project programmes.

1.4.3 The professional standards and guidance relevant in addressing the research agenda for the site, set out at **Section 4.1** below, include:

- *Chartered Institute for Archaeologists. 2020. Standard and Guidelines for the Collection, Documentation, Conservation and Research of Archaeological Materials. (Ref 9)*
- *Chartered Institute for Archaeologists. 2025. Code of Conduct. (Ref 8)*
- *Chartered Institute for Archaeologists. 2023. Standard for Archaeological Excavation (Ref 9)*
- *Chartered Institute for Archaeologists. 2023. Universal Guidance for Archaeological Excavation. (Ref 10)*
- *Association of Local Government Archaeological Officers East of England and Historic England. 2021. East of England Regional Research Framework (EERRF) (online). (Ref 2)*
- *Gurney, D. 2003. Standards for Field Archaeology in the East of England. (Ref 14)*
- *Historic England. 2015. Geoarchaeology: Using Earth Sciences to Understand the Archaeological Record (Ref 18)*
- *Historic England. 2018. The Role of the Human Osteologist in an Archaeological Fieldwork Project (Ref 19)*

- *Historic England. 2022. Radiocarbon Dating and Chronological Modelling: Guidelines and Best Practice (Ref 20)*
- *Historic England. 2025. Environmental Archaeology: A Guide to the Theory and Practice of Methods, from Sampling and Recovery to Post-excavation (third edition) (Ref 21)*
- *SCCAS. 2024. Archives: Guidelines for Archive Preparation and Deposition. (Ref 22)*
- *SCCAS. 2026. Requirements for Archaeological Excavation. (Ref 23)*

1.5 Project Roles

1.5.1 National Grid will be responsible for instructing the works and providing necessary information on scope.

1.5.2 The 'Main Works Contractor' will be responsible for control of the Site and all contractors on it during the construction phase. The Main Work Contractor, when appointed, will oversee all stages of work with responsibility for health and safety, welfare and site security, and will ensure that appropriate temporary works required to facilitate the archaeological work are in place.

1.5.3 The Archaeological Clerk of Works (ACoW) team will be appointed by National Grid and will act on its behalf to monitor the implementation of archaeological mitigation measures. An ACoW team will be on site for the duration of the works to oversee the archaeological works and monitor them to ensure that all archaeological works are undertaken in compliance with the AMS-OWSI and relevant DWSIs. An ACoW team will be responsible for liaising with the LPA Archaeological Advisor on behalf of National Grid in accordance with the roles and responsibilities set out in the AMS-OWSI (**Section 1.7**).

1.5.4 The 'Archaeological Contractor' is responsible for carrying out the excavation, reporting, deposition of the archive and dissemination. All reporting by the archaeological contractor will be via the ACoW team.

1.5.5 Suffolk County Council Archaeological Service (SCCAS) is the LPA Archaeological Advisor, responsible for confirming that the requirements of the DCO are met and for sign-off of the archaeological works, in accordance with the AMS-OWSI.

1.5.6 The 'project archive repository' is the organisation, a suitable museum in Suffolk, responsible for the long-term curation of the project archive, including the field notes, plans, photographs and archived finds. The archaeological contractor will establish the project archive repository prior to starting the work and will be assigned a unique project reference number ('parish code').

2. Archaeological and Historical Background

2.1 Geology and Topography

2.1.1 The British Geological Survey (Ref 1) records the underlying bedrock geology of the site as Thames Group-Clay, silt and sand. The overlying superficial geology is recorded as Lowestoft Formation-Diamicton.

2.1.2 The soils in the north of the site are recorded as freely draining slightly acid but base-rich soils, and the soils in the south of the site are recorded as freely draining, slightly acid, but base-rich soils (Ref 3).

2.1.3 The topography is slightly undulating, showing a pattern of a gentle descent from 48m Above Ordnance Datum (AOD) at the north to around 51m AOD to the southwest (Ref 4).

2.2 Previous Investigations and Archaeological Background

2.2.1 Geophysical (magnetometer) survey (**Figure 3**) (document reference 6.11.A4) (Ref 15) and archaeological trial trenching (**Figure 2**) (document reference 6.11.A5) (Ref 16 and 17) has been undertaken by Headland Archaeology across parts of the Project, including that which contains the mitigation area referred to in this document. Historic England Aerial Investigation and Mapping data (formerly the National Mapping Programme) has also been reviewed; however, no mapped data is recorded within the mitigation area and therefore are not presented within the figures.

2.2.2 The following section summarises results of the geophysical survey and trial trenching, where relevant to the mitigation area. A detailed archaeological baseline for the wider project is presented within the Historic Environment Baseline Report (document reference 6.11.A1) (Ref 5).

Prehistoric Period (800,000 BC–AD 43)

2.2.3 Trial trenching identified evidence for prehistoric activity across mitigation area 103. This is principally represented by Bronze Age to Iron Age features, including curvilinear ditches and several possible ring-ditches, which may represent roundhouses or small enclosures. Remains also included numerous pits, ditches and associated artefactual material, including pottery and burnt flint. Whilst the quantities of finds were relatively small, as might be expected for prehistoric remains, the number and character of the features (in particularly the presence of roundhouses and numerous pits) indicate settlement activity within the mitigation area. Limited Neolithic activity was also recorded in the form of an isolated post-hole.

Roman Period (Roman (AD 43–410)

2.2.4 Roman activity within mitigation area 103 was limited and primarily represented by boundary ditches. In the northern part of the mitigation area, boundary and drainage ditches contained residual Roman pottery, suggesting background activity. Within the southern part of the mitigation area, a single boundary ditch containing Roman pottery was identified. This may be associated with a wider enclosure located beyond the eastern limit of this mitigation area.

Early medieval Period (AD 410–1066)

2.2.5 There were no early medieval archaeological remains identified during trial trenching.

Medieval Period (AD 1066–1540)

2.2.6 Medieval activity within mitigation area 103 is primarily represented by a small number of boundary ditches recorded across the area. These features contained medieval pottery and are indicative of continued agricultural land use, with no clear evidence for settlement within the mitigation area.

Post-medieval Period (AD 1540–1900)

2.2.7 Post-medieval activity is more clearly defined within mitigation area 103 and is characterised by the establishment of field boundaries and drainage systems across the mitigation area. In addition, extraction pits, particularly associated with sand quarrying in the vicinity of Sandpits Lane, were identified and correspond with features shown on 1904 historic Ordnance Survey mapping. These elements collectively reflect organised agricultural land division and resource extraction during the post-medieval period.

Modern Period (1901–present)

2.2.8 Various features recorded during trial trenching likely relate to recent agricultural activity.

3. Scope of Works

3.1 Introduction

3.1.1 This section defines the scope of archaeological mitigation works to be undertaken within the mitigation area identified in **Section 1**.

3.1.2 In accordance with the AMS-OWSI, any additional archaeological works or alternative mitigation measures within the site in variance to this DWSI will be subject to further discussion and agreement with the ACoW team, The Client, SCCAS, and if appropriate Historic England. Additional archaeological work could include the extension of mitigation areas, changes to sampling strategy, or a methodology for preservation in situ.

3.2 Archaeological Detailed Excavation Areas

3.2.1 The archaeological mitigation will comprise one detailed excavation area (mitigation area 103), illustrated in **Figure 1**.

- Mitigation Area 103 comprises approximately c. 10.75 ha and will examine multi-period archaeological remains, including prehistoric settlement remains, field systems, Roman boundary ditches, and medieval to post-medieval agricultural boundaries and extraction features.

3.2.2 An overview of the aims and objectives for the site can be found in **Section 4**. The details of the nature, scope of works and specific aims of the detailed excavation area is set out in **Section 5**.

4. Aims and Objectives Overview

4.1 Research Agenda

4.1.1 The archaeological mitigation strategy for the site has been developed in accordance with the principles and objectives set out in the AMS-OWSI for the Norwich to Tilbury Project (document reference 7.5) (Ref 6). The research questions, aims and objectives will be subject to ongoing review during the mitigation works and may be refined as appropriate in response to emerging results, subject to agreement with SCCAS and The Client.

4.1.2 The AMS-OWSI establishes a research-led and proportionate approach to archaeological mitigation, ensuring that archaeological remains affected by the Project are appropriately investigated, recorded and analysed to advance understanding of the historic environment.

4.1.3 The approach adopted for the site therefore seeks to:

- Mitigate the impact of construction through appropriate investigation and recording
- Ensure that the results of archaeological works are placed within a wider local, regional and national context
- Contribute to established research frameworks, including the East of England Research Framework (ERF) (Ref 2).
- Ensure that mitigation is proportionate to the significance, extent and character of the archaeological resource

Aims

4.1.4 The principal research aims are to:

- Investigate the character and extent of prehistoric settlement remains
- Investigate the extent and organisation of Roman agricultural remains and agricultural land use.

Objectives

4.1.5 The principal research objectives are to:

- Investigate and record archaeological remains to determine character and extent.
- Develop a site chronology; and
- Set the results of investigation into the context of the existing and emerging Regional Research Agendas. The current revision of the East of England Research Framework (ERF) (Ref 2) augments both the original version of the framework, published in two parts in 1997 and 2000, and a revised and updated version, published in 2011.

4.2 Mapping to East of England Regional Research Framework (EERRF)

4.2.1 The table below provides an overview of how the results of work may fit into the context of the existing East of England Regional Research Framework (EERRF), available online and updated in 2021 (Ref 2):

Table 4.1 Alignment with Regional Research Agendas

Anticipated Remains	Key Issues	Mapping to previous ERF (2021)	Mapping to current ERF (2026)
Later Prehistoric archaeological features	What is the nature and extent of the prehistoric remains identified within the site? To what extent did the remains relate to settlement, agricultural or other practice? What can we learn about the inhabitants of the settlement? Can we more precisely date the various phases of the site? How does this evidence contribute to understanding prehistoric remains in the wider landscape?	Settlement types and distribution The agrarian economy Regional variation in later prehistoric landscapes	Neo 10: To what extent was there continuity from the Late Neolithic to the Early Bronze Age? LBA-MIA 04: How can we increase our understanding of the Early to Middle Iron Age transition? LBA-MIA 10: How can we better understand the relationships between contemporary sites? LBA-MIA 16: What crops were grown and which animals reared during this period?
Roman agricultural features and possible low-level activity associated with agricultural land us	What is the character and organisation of Roman activity within the site? Is there evidence for settlement associated with agricultural field systems?	Rural settlement and farmsteads The agrarian economy and landscape organisation Regional variation in Roman rural landscapes	LIA-Rom 05: How can we better understand the Late Iron Age to Roman transition?
Medieval agricultural and extraction activity	What do the features indicate about agricultural practices and land use? What evidence exists for change, development or abandonment? How does this evidence relate to medieval activity	Agricultural practices and land management Settlement development, change and abandonment.	Med (Rural) 03: How can we improve our understanding of medieval agricultural practices?

Anticipated Remains	Key Issues	Mapping to previous ERF (2021)	Mapping to current ERF (2026)
	recorded elsewhere along the Project corridor?		

5. Standards for Archaeological Work

5.1 Standards for archaeological work

5.1.1 All archaeological works will be undertaken in accordance with the Outline AMS-OWSI for the Norwich to Tilbury Project (document reference 7.5) (Ref 6), which establishes the overarching principles, methodologies and standards for archaeological mitigation, and the detailed methodology set out within this DWSI.

5.1.2 All archaeological works will also be undertaken in adherence to the SCCAS *Requirements for Archaeological Excavation (updated April 2026)* (Ref 23).

5.1.3 Prior to the commencement of works, the appointed archaeological contractor will prepare a site-specific method statement for the archaeological mitigation area set out within this DWSI. This will present a response to the standards set out within this DWSI, and will comply with the standards set out in the AMS-OWSI. The method statement will include a full programme for the archaeological work that would be referenced against key milestones and events in the overall design and construction programme. All work will comply with relevant standards and technical guidance (Chartered Institute for Archaeologists, 2023 (Ref 9 and Ref 10); SCCAS, 2026 (Ref 23).

5.1.4 The archaeological method statement must include:

- A detailed programme of work that sets out the proposed sequence of tasks, anticipated timescales, staffing arrangements, and any other factors that may affect delivery.
- A Data Management Plan which will describe the type of data that will be acquired and/or generated during the project, the way the data will be managed and stored, and the mechanisms to be employed to preserve and share the data.
- The site-specific Health and Safety arrangements that outline the main risks associated with the works and control measures to mitigate these. Information on inductions, PPE, welfare, access, and emergencies will be included.
- Confirmation of insurances that cover the planned works.
- The number of staff and the relevant staff CVs.
- The museum accession numbers and relevant archive repository.
- The specific parish codes that will be used during the project.

5.1.5 Areas defined for archaeological mitigation will be clearly demarcated on site. No plant or vehicles not directly involved in the archaeological works will be permitted within these areas until archaeological excavation has been completed and the area has been formally signed off and released by SCCAS. All plant access within archaeological mitigation areas will be supervised and directed by a suitably qualified and experienced archaeologist.

5.1.6 To facilitate the construction phase of the Project, specific areas of the site may require completion and sign-off in advance of full excavation of the site, for example temporary haul roads. Any such process would be agreed with SCCAS and would include:

- full excavation of the specified area to the standards set out in this DWSI.
- sign-off by SCCAS before any construction works take place.
- demarcation and protection of the remainder of the site through appropriate fencing and signage.

5.2 Detailed Excavation

5.2.1 Detailed excavation will be undertaken in adherence to the methodologies for archaeological excavation and recording set out within **section 5** of the AMS-OWSI (Ref 6), including:

- Controlled machine stripping or hand excavation, where required, in accordance with the methodology set out in **section 5.3** of the AMS-OWSI.
- Systematic recording of archaeological deposits, features and structures, in accordance with the methodology set out in **section 5.3** of the AMS-OWSI.
  - Data-capture for site plans will be by electronic distance measurement, PPGPS survey, measured survey or a combination of these measures; data-capture for site plans will as standard be capable of reproduction at a scale of 1:100; more complex features or areas of complex archaeological remains will be recorded at greater resolution.
- Implementation of appropriate and iterative sampling strategies, proportionate to the nature and significance of remains (**section 5.3.67-5.3.82**). These may be varied to suit the research value of the remains, subject to agreement with the ACoW team, SCCAS and, if appropriate, Historic England. In terms of the hand excavation of archaeological features, these will include the following:
  - A minimum of 10% of the fills of linear features (ditches, etc) are to be excavated (**section 5.3.71**). The interventions must be representative of the available length of the feature and must consider any variations of size, depth, fills and any concentration of artefacts. For linear features 1.00m wide slots should be excavated across their width. Depending on the significance of the feature and whether research aims/objectives (see **section 4**) can be answered, a higher percentage sample may be agreed, increasing in 10% (up to a maximum of 50%) increments through agreement with the ACoW team, and SCCAS and The Client.
  - For discrete features, such as pits, 50% of their fills will be excavated. In some instances, where significant archaeological remains have been identified or to address specific research questions, 100% will be excavated (**section 5.3.72**).
  - Features which are, or could be interpreted as, structural (such as drip gullies, post holes, internal or external surfaces, hearths, etc.) must be fully excavated (**section 5.3.78-5.3.80**). Post-holes and pits must be examined in section and then fully excavated. Fabricated surfaces within the excavation area (e.g. yards and floors) must be fully exposed and cleaned. Any variation from this process can only be made by through agreement with SCCAS and The Client and must be confirmed in writing.
  - Large or deep features may be excavated in opposing quadrants in the first instance, in agreement with SCCAS and The Client, or in other such gridded or systematic excavation as may be appropriate to the feature type.

- Provision should be made for hand excavation of any stratified layers (e.g. dark earth) in 2.50m or 1.00m systematic and gridded squares, to be agreed with the ACoW team, SCCAS and The Client on the basis of the complexity/extent of such layers. This should be accompanied by an appropriate finds recovery strategy which must include metal detector survey and on-site sieving to recover smaller artefacts/ecofacts.
- 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 SCCAS and The Client.
- Machine/mechanical assistance may only be used for very large/deep features, following agreement with SCCAS and The Client.

- Measures to ensure the preservation of archaeological evidence, where preservation in situ is feasible
- Controlled metal detecting will be undertaken on all areas designated for archaeological mitigation prior to the excavation areas being opened. Detecting will also be completed after any surface clearance and prior to any hand excavation of archaeological features (**section 5.3.27-5.3.32**). The location of any metalwork will be surveyed.

5.2.2 Fieldwork will be undertaken following best practice to ensure that archaeological remains are investigated to a level appropriate to their character, extent and significance, and that results can contribute to the agreed research objectives.

5.3 Environmental Sampling and Scientific Dating

5.3.1 The Archaeological Contractor will present a sampling strategy (based on the sampling requirements outlined in this DWSI, all available guidance and the specialist advice of their in-house or subcontracted palaeoenvironmental specialist) to SCCAS and (if warranted) the Historic England Regional Advisor for Archaeological Science (RSA). Their in-house or subcontracted palaeoenvironmental specialist will take the role of co-ordinator for environmental archaeology for the Site, in accordance with the AMS-OWSI (Ref 6).

5.3.2 As set out in this section, site-specific environmental sampling strategy will be include:

- Targeted sampling for charred plant remains, charcoal, and palaeoenvironmental material
- Recovery of material suitable for palaeoenvironmental reconstruction and economic interpretation
- Provision for specialist analysis where appropriate

5.3.3 Specific SCCAS sampling guidance should be followed, including:

- Bulk samples must be a minimum of 40 litres. If a feature is too small to produce this size of sample (e.g. a post hole) then 100% of the feature should be retained for processing.
- All samples should be retained until their potential has been assessed and a retention strategy has been agreed with SCCAS. Where necessary, advice on the appropriateness of the proposed strategy should be sought from the Historic England Regional Advisor the Archaeological Science (East of England).
- Samples of burnt flint retained for lipid analysis should not be washed.

5.3.4 Appropriate scientific dating techniques will be applied, where justified, to support the development of a robust chronological framework. These may include:

- Radiocarbon (C-14) dating which can be used to date any carbon-based organic materials, such as wood, bone, or plant remains. If remnant peat is found, reliable and high-resolution dating will be essential, and multiple methods will be employed unless otherwise justified
- Archaeomagnetism dating for highly fired structures such as kilns or ovens and in situ burning
- Luminescence dating (e.g. OSL or TL), where relevant.
- If preserved wood is present, for example, in waterlogged deposits then dendrochronology may be able to provide precise and accurate dates (suitable on-site provision to retain the wood in stable condition will be required).

5.4 Finds Processing, Conservation and Human Remains

5.4.1 Procedures for the recovery, treatment and storage of artefactual and ecofactual material will be set out within the archaeological contractor's method statement and will accord with:

- CIfA standards and guidance (Ref 7)
- Historic England best practice (Ref 21)
- SCCAS archive requirements (Ref 22)

5.4.2 The recovery strategy for artefacts will be as follows:

- General principle: All artefacts from stratified contexts will be retained unless otherwise stated. Material from unstratified contexts will only be retained where of significance.
- Ceramic materials: All pottery, CBM and ceramic objects (e.g. loomweights, spindlewhorls) will be collected from stratified contexts. Unstratified material will only be retained where significant. In situ structural material will be recorded and sampled where appropriate.
- Stone materials: Building stone and portable objects will be retained from stratified contexts; unstratified material will only be collected where significant. Unworked stone will only be retained where it is clearly anthropogenic or functionally relevant.

- Metalwork and industrial residues: All metalwork and metalworking residues will be retained from stratified contexts. Obviously modern material from topsoil or unstratified contexts will not normally be retained.
- Flint and lithics: All worked flint will be retained. Burnt or unworked flint will be retained from stratified contexts.
- Ecofactual material: Animal bone, marine shell, and other ecofacts will be retained from stratified contexts. Where large assemblages occur, an appropriate sampling strategy will be adopted to characterise the assemblage.
- Glass and small finds: All glass, coins, worked bone, antler, leather, textile, and other small finds will be retained from stratified contexts. Unstratified material will only be retained where significant.
- Structural and in situ material: Structural elements (e.g. timbers, masonry, plaster, daub) will be recorded in situ, with sampling undertaken where appropriate for analysis, dating or identification.
- Bulk or modern material: Large assemblages of modern or post-medieval material (e.g. bottle dumps) will be recorded in situ and sampled where appropriate, rather than fully retained.
- Specialist analysis and retention: Retention, discard and sampling will be subject to specialist assessment and agreement with the ACoW team SCCAS.

5.4.3 In accordance with **sections 5.3.108-5.3.119**. of the AMS-OWSI, in the event that human remains are encountered:

- Works will stop in the affected area
- The ACoW and The Client will be notified immediately. The ACoW will notify SCCAS and relevant authorities in order to agree an excavation strategy. Human remains will need to be fully excavated and recorded in accordance with Historic England (Ref 21) and CIfA (Ref 7) guidance. The treatment, excavation and removal of human remains will be undertaken in accordance with Article 23 of the draft Development Consent Order, which sets out the relevant provisions for the removal of human remains.
- Procedures will follow the requirements set out in Article 23 of the draft Development Consent Order, together with relevant Historic England guidance.
- Conservator and specialists should be on-site when excavation of burials begins to advise on conditions, potential and approaches. It may be possible to feedback results from the laboratory investigation of soil blocks to inform approaches on site.
- 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 in situ and subsequently lifted, packed and marked to the standards compatible with those described in current guidance from CIfA, Historic England, Advisory Panel on the Archaeology of Burials in England (APABE) and the British Association of Biological Anthropology and Osteoarchaeology (BABAO). Where inhumations are encountered, the archaeological contractor should make provision for the following:
  - Where human burials (inhumations and/or cremation), funerary monuments or other important funerary archaeological features are identified, detailed excavation is necessary to understand the context, dating and osteological features, in an effort to understand their significance. In accordance with

section 5.3.110 of the AMS-OWSI, excavation of human remains will not extend beyond the limits of the mitigation area; however, it may be followed under the baulk so that it may be lifted in its entirety, provided this will not result in disturbance of further burials, or extend beyond the Order Limits. Decisions on extensions to any mitigation areas will need to be made in consultation with SCCAS and The Client.

- Sites where furnished burials are known, anticipated, or identified, should comply with SCCAS (2026) Guidance on Excavating Inhumations for Mineral Preserved Organics (2026). SCCAS should be consulted with regards to the most appropriate mitigation approach and amendments to the existing WSI may be necessary.
- The following sampling strategy should be followed:
  - Full excavation is necessary to understand the context, dating and osteological features, in an effort to understand their significance. Leaving human remains in situ should only be considered when excavation is not feasible, for example if the burial is only partially within the excavation area or the proposed development boundary, the decision to not excavate is with the osteologist, otherwise excavation is the standard procedure.
  - provision for retrieval of small bones in the head area (e.g. inner ear bones), torso/pelvic area (foetal remains, gall/bladder stones, hand bones depending on position), and the feet.
  - If grave goods are identified and are not subject to block lifting, additional specialist samples should be taken from the areas around the grave goods.
  - Cremation deposits should be subject to sampling and assessment for charcoal, charred plant remains, finds and the recovery of human bone.
  - Where un-urned cremations are suspected or identified, these will be subject to 100% sampling. Where large deposits of pyre debris are identified the human remains specialist will be contacted to devise an appropriate strategy for excavation and sampling. The strategy will be developed at site consultation meeting(s) between the Archaeological Contractor(s), The Client, the relevant Historic England Regional Science Advisor and SCCAS.
  - It may be beneficial to consider half sectioning the excavation of un-urned cremations to aid an understanding of the vertical distribution of the deposit; the deposit may then be excavated in spits.
  - Block lift cremation urns to allow for X-radiography and excavation under laboratory conditions. The conservator or field staff experienced in lifting cremation urns will be present when lifting takes place. In the first instance, the conservator will be contacted for advice.

5.5 Communication, Monitoring and Sign-Off

5.5.1 All archaeological works will be subject to monitoring and sign-off by SCCAS, in accordance with the AMS-OWSI (Ref 6):

- Archaeological areas will remain under archaeological control until formally agreed as completed.

- Clear communication will be maintained between the archaeological contractor and construction teams via the ACoW team.
- Areas will only be released once archaeological works have been signed off by SCCAS.

5.5.2 A unique site code will be obtained from Suffolk Historic Environment Record (HER) and used for all recording, archiving and reporting.

5.5.3 The archaeological contractor will provide The Client, ACoW team and, if appropriate, SCCAS, with a weekly summary progress memo (1–2 pages). This will:

- Summarise the work undertaken during the week and the key findings.
- Report on site attendance, where appropriate.
- Confirm that the work will be completed to programme and identify any potential issues to programme.
- Identify any health and safety issues (including near miss).
- Post Excavation Programming, following fieldwork.

5.5.4 The archaeological contractor will provide all information reasonably practicable to the ACoW team to enable them to monitor compliance with this DWSI – e.g. site surveys, intervention plans, records and finds data etc.

5.5.5 As outlined in the AMS-OWSI **sections 5.2.16-5.2.21**, the formal sign off procedure will be as follows:

- Once the Archaeological Contractor(s) believes the fieldwork to be completed, a sign-off meeting would be held on site (unless alternative communication is agreed) between the ACoW, Client, SCCAS (and Historic England, if appropriate), the archaeological contractor and the Main Works contractor.
- Sites that have been completed would be subject to a formal signing off procedure, in order to allow the mitigation areas (or parts thereof) to be released to the construction team. The archaeological contractor would submit a completion statement to the ACoW. This statement will include a final site plan, showing locations of archaeological features and interventions (in both PDF and Shapefile format). The ACoW would submit the accepted completion statement to the Client and SCCAS for confirmation (in consultation with Historic England, where required) that the relevant works have been completed in compliance with the relevant DWSIs.

5.6 Post-Excavation, Reporting and Archiving

5.6.1 Post-excavation works will be undertaken in accordance with the AMS-OWSI **Section 6.3** (Ref 6) and SCCAS requirements (2026 (Ref 23)) and will include:

- An interim statement, to be submitted by the archaeological contractor within six weeks of completing the fieldwork.
- Post-excavation assessment (PXA), to be submitted within six months of completion of the archaeological mitigation for relevant development stage, unless otherwise agreed in writing with the Client and SCCAS.

- An updated project design (UPD), to be completed within one year of completion of the archaeological mitigation for the relevant development stage.
- Specialist analysis of artefacts and environmental material.
- Production of reports appropriate to the scale and significance of the remains.

5.6.2 All results will be:

- Integrated into the wider project framework.
- Assessed against the East of England Research Framework (ERF) (Ref 2)
- Made available through appropriate dissemination and reporting.

5.6.3 A complete archive (including digital data) will be prepared and deposited in accordance with SCCAS requirements.

5.7 Public Outreach and Dissemination

5.7.1 A programme of dissemination and public engagement will be implemented in accordance with the AMS-OWSI (Ref 6) **Section 6.8**, proportionate to the significance of the findings. These will fit within a wider Public Archaeology and Community Engagement Strategy (PACE), which will set out a Project-wide strategy for public engagement. This may include:

- Public summaries and outreach materials.
- Engagement with local stakeholders, schools and interest groups.
- Wider dissemination of significant results through appropriate channels.

6. Programme, staffing and attendance

6.1 Initial timetable and staffing

6.1.1 The archaeological mitigation work is anticipated to start in March 2027.

6.1.2 The archaeological fieldwork subcontractor will provide a detailed programme for the archaeological works within their method statement, which will also include estimated staff resources and CVs for key project team members.

6.1.3 A programme of archaeological works will be prepared and implemented in advance of construction, setting out the timing and sequence of investigative works. The programme will identify how archaeological activities interface with construction works and will be aligned with key project milestones, in accordance with the requirements of the AMS-OWSI (Section 5.1.4).

6.1.4 The programme will be agreed with the Archaeological Contractor, ACoW, and Main Works Contractor, and will allow for flexibility to accommodate site conditions, weather, and the nature and extent of archaeological remains encountered during the works.

7. Health, Safety, Security and Environment (HSSE)

7.1.1 Health and Safety will take priority over all other requirements. A conditional aspect of all archaeological work is both safe access to the area of work and a safe working environment. The project will be carried out in accordance with safe working practices.

7.1.2 The archaeological contractor's method statement shall include details of site-specific Health and Safety arrangements. Should services be detected and work be required in proximity, the contractor will provide supplementary documentation detailing how work will be managed in a Mitigation Statement for Excavation.

7.1.3 The appointed archaeological contractor will also arrange appropriate security provisions with Main Works Contractor at the site.

7.1.4 Currently known site-specific HSSE issues will need to be considered within the site-specific risk assessment prior to commencement of the fieldwork and copies sent to the representatives of The Client and their Main Works Contractor for approval.

Risk assessment and methodology statement (RAMS)

7.1.5 The archaeological contractor will produce a site-specific Risk Assessment and Methodology Statement (RAMS) to cover the onsite fieldwork and will supply a copy of the company's Health and Safety Policy. These will be reviewed by The Client to ensure that the policy and measures are appropriate.

7.1.6 The RAMS will have been read, understood, and signed by all staff attending the site before any fieldwork commences. Cross-disciplinary industry standards should be followed, considerations include:

- Clear, concise, and site-specific. Bespoke to the site, and without generic text for hazards that do not apply or mitigation that is not applicable;
- Tabulation of site-specific hazards, risk grading and mitigation measures.
- Site manager contact details provided, along with a deputy.
- Emergency action plan, with an address and route map to the closest Accident and Emergency.
- Archaeological Contractor RAMS will be reviewed by an appropriately qualified and experienced member of staff (e.g. Project Manager), ideally with final approval by the H&S Manager/Senior Manager prior to review by The Client.

Personal protective equipment (PPE)

7.1.7 Staff present on site will be required to wear the appropriate Personal Protective Equipment (PPE), as identified in the RAMS. As a minimum this will be protective shoes, high-visibility vest, gloves, protective glasses and safety helmet. The requirement for any additional PPE will be identified in the RAMS.

Welfare

7.1.8 The Main Works Contractor will be responsible for providing and positioning suitable welfare facilities on site, including toilet and water for washing.

Abbreviations

Abbreviation	Full Reference
AIS	Air Insulated Switchgear
AONB	Area of Outstanding Natural Beauty
BNG	Biodiversity Net Gain
CPRSS	Corridor and Preliminary Routeing and Siting Study Report
CSE	Cable Sealing End
DCO	Development Consent Order
DNO	Distribution Network Operators
EACN	East Anglia Connection Node
EIA	Environmental Impact Assessment
ES	Environmental Statement
ESO	Electricity System Operator
GIS	Gas Insulated Switchgear
GW	Gigawatts
kV	Kilovolt
NSIP	Nationally Significant Infrastructure Project
NETS	National Electricity Transmission System
NETS SQSS	National Electricity Transmission System Security and Quality of Supply Standard
NGET	National Grid Electricity Transmission
Ofgem	Office of Gas and Electricity Markets
PEIR	Preliminary Environmental Information Report
SOBR	Strategic Options Backcheck and Review
SPA	Special Protection Area
SSSI	Site of Special Scientific Interest

Glossary

Term	Description
Alignment	The proposed overhead line and underground cable route.
Ancient woodland	Land that has been continually wooded since at least 1600 in England. Regarded as 'irreplaceable habitat' in national planning policy and guidance. Ancient woodland greater than 2 ha is recorded on the Natural England Ancient Woodland Inventory.
Archaeological Clerk of Works (ACoW)	A suitably qualified archaeologist or team appointed by National Grid to oversee and monitor archaeological works in accordance with the AMS-OWSI and relevant DWSIs.
Biodiversity	The variability among living organisms from all sources including terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part: this includes diversity within species, between species and of ecosystems.
Biodiversity Net Gain	An approach for developments to ensure habitats for wildlife are left in a measurably better state than they were before the development.
Cable	An insulated conductor designed for underground installation.
Cable Sealing End compound	Electrical infrastructure used as the transition point between overhead lines and underground cables. A compound on the ground acts as the principal transition point.
Conservation Area	An area of special architectural or historic interest, the character or appearance of which it is desirable to preserve or enhance as defined in s69(1)(a) in the Planning (Listed Building and Conservation Areas) Act 1990.
Development Consent Order	A statutory instrument which grants consents and other rights to build a Nationally Significant Infrastructure Project, as defined by the Planning Act 2008.
Distribution Network Operator	Companies that own and operate the power lines and infrastructure that connect the National Grid network to individual properties.
Substation	Substations are used to control the flow of power through the electricity system. They are also used to change (or transform) the voltage from a higher to lower voltage to allow it to be transmitted to local homes and businesses.
Suffolk County Council Archaeological Service (SCCAS)	The Local Planning Authority Archaeological Advisor responsible for confirming that Development Consent Order requirements are met and for sign-off of archaeological works.

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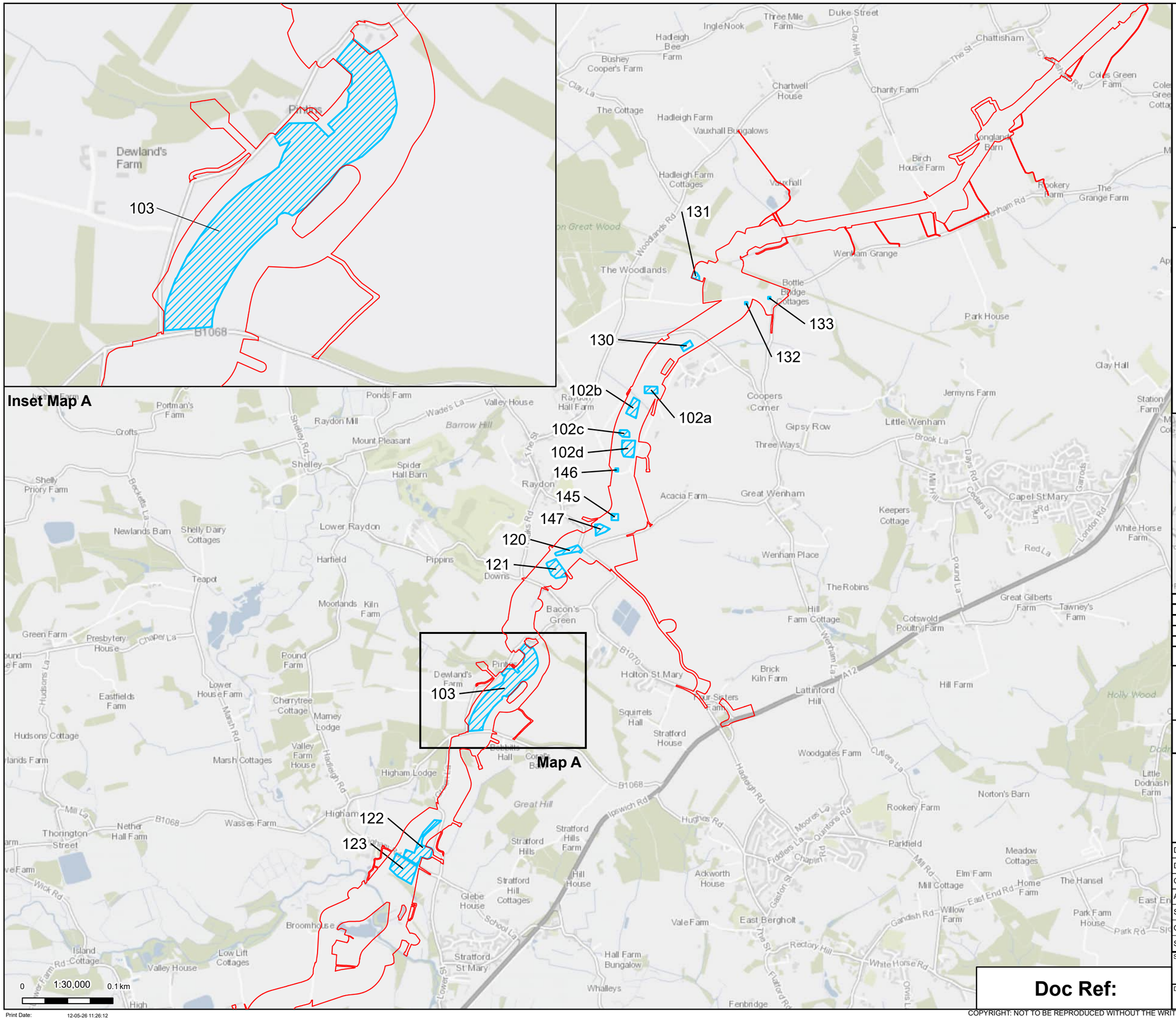
Appendix A. Figures

nationalgrid

Figure 1: Location of Mitigation Area



Rev	Date	Description	Drawn	Check	Approv
A	May 2026	DETAILED WSIs FOR DETAILED EXCAVATION	MH	DA	OP

nationalgrid

PROJECT: Norwich to Tilbury

Planning Inspectorate App Number: EN020027
Regulation 5(2)(a)

Title:

Figure 1 - Location of Mitigation Area 103

Designed		Date	12 May 2026
Drawn	M. Harshavardhan	Date	12 May 2026
Checked	D. Astbury	Date	12 May 2026
Approved	O. Prestidge	Date	12 May 2026
Scale:	1:30,000	Datum:	AOD
Original Size:	A3	Grid:	OS
Suitability Code:	A2	Project Number:	UK0035003.1497

Suitability Description:
Accepted as Concept Stage

Drawing Number: 10059280-ARC-EGN-ZZ-DR-ZZ-00291
Revision: A

Doc Ref:

Print Date: 12-05-26 11:26:12

Figure 2: Mitigation Area over Trial Trench Locations

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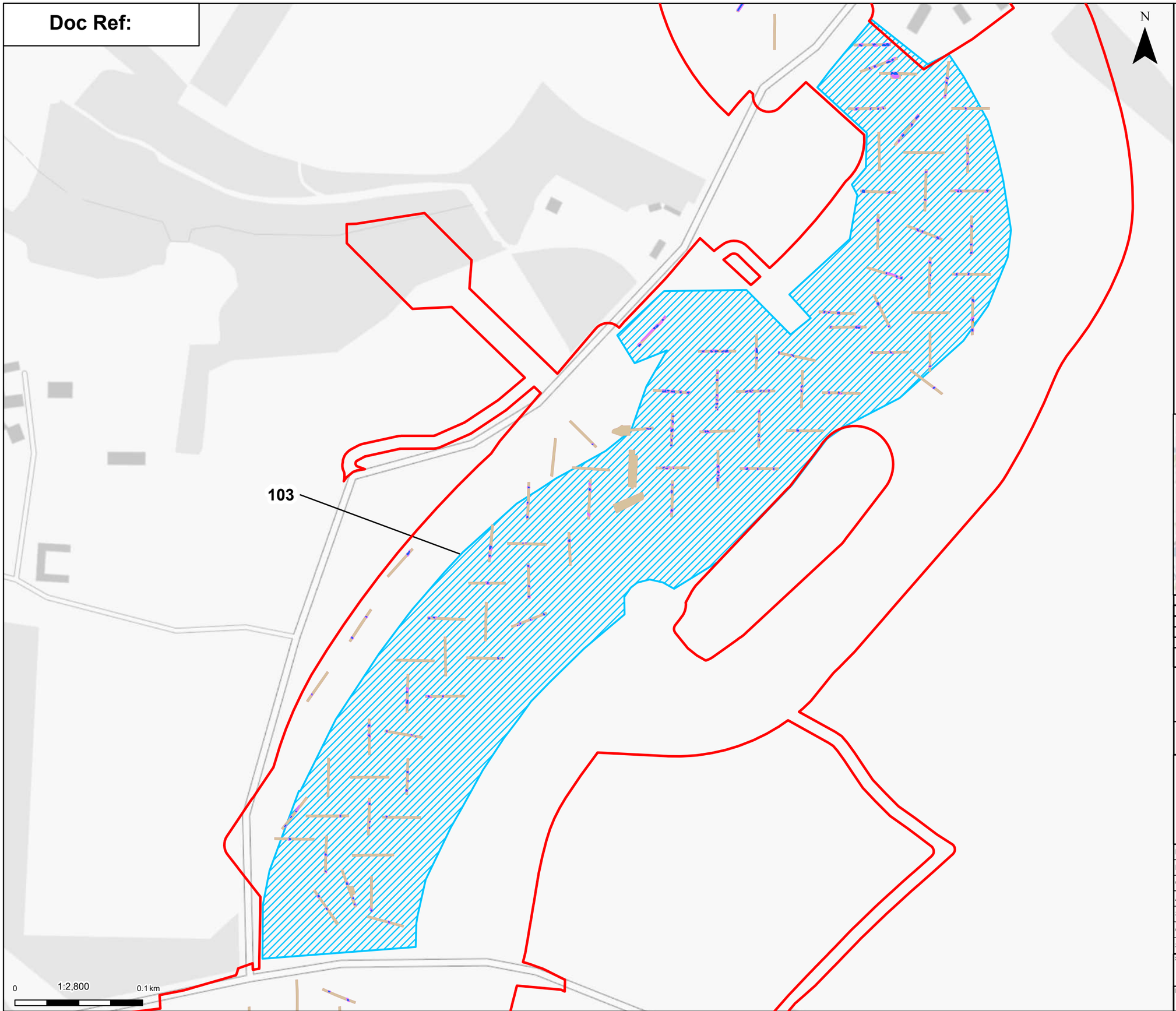

Legend

- Order Limits
- Mitigation Areas
- Trench
- Archaeology
- Excavated
- Spread or Layer

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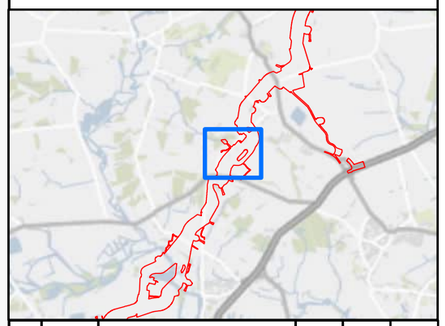

Rev	Date	Description	Drawn	Check	Approv
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nationalgrid

PROJECT: Norwich to Tilbury

Planning Inspectorate App Number: EN020027
Regulation 5(2)(a)

Title:

Figure 2 - Mitigation Area 103 over Trial Trench Locations

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Checked	D. Astbury	Date	12 May 2026
Approved	O. Prestidge	Date	12 May 2026
Scale:	1:2,800	Datum:	AOD
Original Size:	A3	Grid:	OS
Suitability Code:	A2	Project Number:	UK0035003.1497

Suitability Description:

Accepted as Concept Stage

Drawing Number: 10059280-ARC-EGN-ZZ-DR-ZZ-00291

Revision: A

Print Date: 12-05-26 11:16:19

Figure 3: Mitigation Area over Trial Trench Locations

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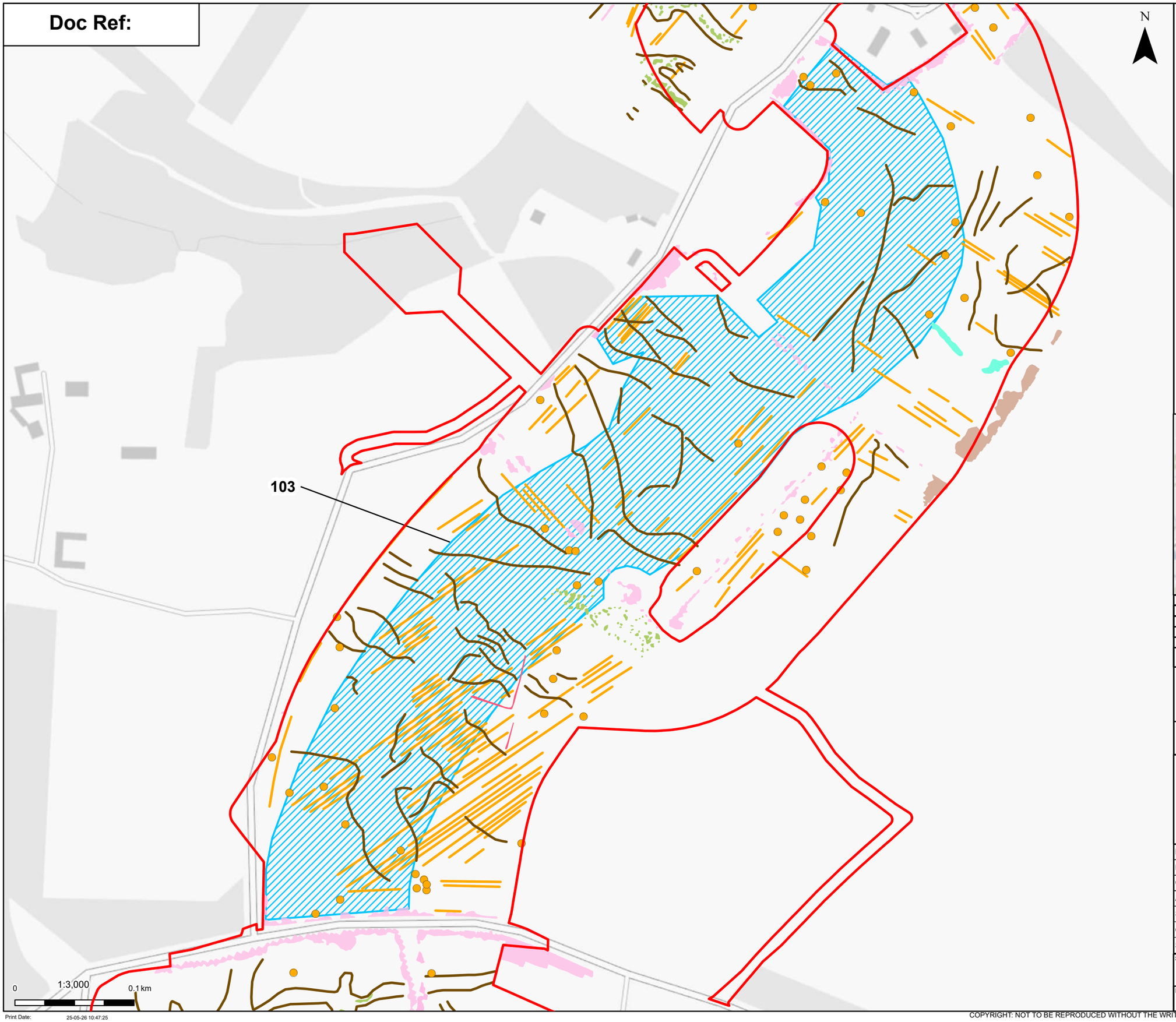


Legend

- Order Limits
- Mitigation Areas

Geophysical Interpretation (Points)

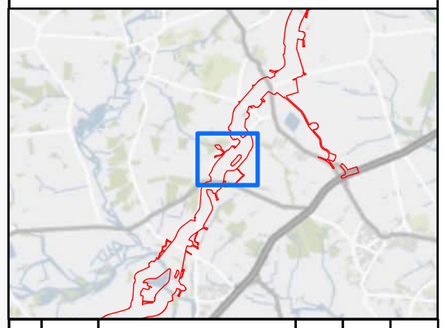
- Spike

Geophysical Interpretation (Line)

- Agriculture
- Natural

Geophysical Interpretation (Polygon)

- Magnetic Disturbance (Above Ground)
- Magnetic Disturbance (Below Ground)
- Natural
- Possible Archaeology
- Thermoremnant



Rev	Date	Description	Drawn	Check	Approv
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Planning Inspectorate App Number: EN020027
Regulation 5(2)(a)

Title:

Figure 3 - Mitigation Area 103 over the Geophysical Interpretation

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National Grid plc
National Grid House,
Warwick Technology Park,
Gallows Hill, Warwick.
CV34 6DA United Kingdom

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