



Spalding Solar, Spalding, Lincolnshire

Written Scheme of Investigation
for an Archaeological Geophysical Survey

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Figure 1 Site location and survey boundary



Spalding Solar, Spalding, Lincolnshire

Written Scheme of Investigation for an Archaeological Geophysical Survey

1 INTRODUCTION

1.1 Project background

1.1.1 Wessex Archaeology has been commissioned by Envams Ltd. ('the client'), to produce a written scheme of investigation (WSI) for a proposed archaeological geophysical survey over 4 ha of land located off the A16, Spalding Lincolnshire. The evaluation area is centred on NGR 26273 23164 (**Figure 1**).

1.1.2 The gradiometer survey will comprise 4 ha of land. The survey is part of a staged approach in determining the archaeological potential of the site to inform the development of a photovoltaic (PV) solar array.

1.2 Scope of document

1.2.1 This WSI sets out the aims of the geophysical survey, and the methods and standards that will be employed. In format and content, it conforms to current best practice, as well as to the guidance outlined in *Management of Research Projects in the Historic Environment* (MoRPHE, Historic England 2015), the Chartered Institute for Archaeologists' (CIfA) *Standards and guidance for archaeological geophysical survey* (CIfA 2014; revised 2020), *Europae Archaeologiae Consilium* recommendations (Schmidt *et al.* 2015), Historic England *Thesauri* (English Heritage 2014) and the Lincolnshire County Council Archaeology Handbook (2024).

1.2.2 This document will be submitted to the planning archaeologist for local planning authority, prior to the start of the geophysical survey.

1.3 Location, topography, and geology

1.3.1 The proposed geophysical survey area is located immediately east of the town of Spalding, 20 km north-east of the city of Peterborough in the county of Lincolnshire.

1.3.2 The survey comprises 4 ha of agricultural land, currently utilised for pasture. The site is bounded to the north by Pilgrim's UK and industrial developments, to the east by the A16, to the south by the junction between Low Road and the A16, and to the west by the Coronation Channel. The site is currently split into three separate fields, with the hardstanding from the industrial site to the north.

1.3.3 The site is mainly flat varying from 2 m above Ordnance Datum (aOD) to 4 m aOD.

1.3.4 The solid geology comprises Mudstone of the Oxford Clay Formation, with overlying superficial geological deposits of clay and silt tidal flat deposits (BGS 2024).

1.3.5 The soils underlying the northern site are likely to consist of loamy and clayey soils of coastal flats with naturally high groundwater (Cranfield University 2024). Soils derived from

such geological parent material have been shown to produce magnetic contrasts acceptable for the detection of archaeological remains through magnetometer survey.

2 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

2.1 Introduction

- 2.1.1 The archaeological and historical background was assessed in a prior desk-based assessment (DBA) (Wessex Archaeology 2024), which considered the recorded historic environment resource within a 1 km study area of the proposed development. The following archaeological background is not exhaustive but is summarised from aspects of the DBA that are considered relevant to the interpretation of the geophysical survey data. The DBA used sources such as the National Heritage List for England (NHLE), the Lincolnshire Historic Environment Record (LHER) and other relevant sources.

2.2 Archaeological and historical context

Designated Assets

- 2.2.1 Within the study area are various listed buildings including a Grade I church (NHLE 1306702) 390 m north of the site, with the Grade II* buildings of East Elloe (NHLE 1359525), Vicarage (NHLE 1392209), and Willesby (NHLE 1063991) 975 m west, 430 m north, and 980 m west respectively. Two Grade II properties, Fulney Hall (NHLE 1063984) and 69 and 71 Albion Street (NHLE 1063990) are located 410 m north and 980 m west of the site.

Non-designated Assets

Romano-British

- 2.2.2 Typically, the Roman road systems avoided the Fen region, except for minor roads designed for exporting the products of the region, especially salt, beef, and leather. There has been a variety of Romano-British features uncovered, primarily in the northern half of the study area, indicating at least a low-level of activity within the area.
- 2.2.3 As salt was one of the region's largest exports during the period, evidence that salt making possibly occurred nearby was identified 450 m north-east of the site. A north-east to south-west ditch was uncovered, where the fill contained sherds of 3rd to 4th century Roman pottery and fragments of burnt clay, thought to be briquetage (a very coarse pottery) typically associated with the process of salt making. Only 225 m north of this site, further Romano-British features were identified below post Roman silts. Consisting of cut features, a possible ditch or creek was recorded which contained one early 2nd century shelly ware sherd, another cut feature also held pottery of the 1st to 2nd century.
- 2.2.4 To the north-east of the site (790 m) a single grave aligned north – south was identified from the presence of coffin nails and the alignment of the grave. It has been suggested that the burial was Romano-British in date.
- 2.2.5 As well as the above features there have been six further instances of Roman pottery identified throughout the study area.

Saxon – medieval

- 2.2.6 During the Saxon period Lincolnshire likely comprised a number of small tribal units, with documentary evidence from the period, the Tribal Hidage, suggesting the presence of the Spalda peoples in Spalding in the early Saxon period. These tribes were later amalgamized

to create the region of Middle Anglia, before coming under Mercian control in the 7th century (Albone 2006).

- 2.2.7 The name Spalding derives from Old English and means a narrow opening or slit, in reference to a topographical feature. The settlement is recorded in the Domesday records as a large prosperous settlement; in 1089 approximately 116 families lived there. Domesday also records a market, saltpans, a wood of alders and 10 fisheries, one of which yielded 1500 eels (Cameron 1998). The historic Anglo-Saxon settlement can be seen within the west of the study area, 960 m from the site.
- 2.2.8 By the early 14th century Spalding had grown to become one of the wealthiest towns in the Lincolnshire Fens, serving as a port and commercial centre for such inland towns such as Stamford, Peterborough, and Bourne (Symonds 1988).
- 2.2.9 The LHER data indicates that the majority of assets identified from the medieval period within the study area appear to be concentrated within the north-eastern and eastern bounds of Spalding, with further sparse levels of other known medieval activity outside of this.
- 2.2.10 The medieval activity that has been identified within the study area is broadly comprised of medieval pottery fragments and several medieval field boundaries. Several instances of local industry have been uncovered during excavations along Holbeach Road 550 m north of the site, revealing large-scale crop processing from the 12th century and ironworking from the 13th century to the early post-medieval period. Both of these would have played an important part in the local economy.
- 2.2.11 During excavations 490 m north of the site, evidence was uncovered of a small medieval settlement, thought to be in use from the 11th – 14th century. Evidence for this settlement included ditches flanking a trackway and rubbish pits containing a number of finds.
- 2.2.12 It is likely that during the early medieval to medieval periods the site sat within the agricultural hinterland of Spalding and its associated smaller settlements.

Post-medieval – 19th century

- 2.2.13 The importance of Spalding as a port declined as the nearby port of Bicker Haven gradually silted up during the 15th and 16th centuries. However, Spalding was still an important commerce centre during the 17th and 18th centuries, due to its location at the lowest bridging point of the Welland. The river was still navigable to Stamford, and Spalding became a centre for river traffic between the fens of south Lincolnshire, and the uplands in the west.
- 2.2.14 The river Westlode was also an important feature used to import corn from surrounding villages. The importance of the river systems at Spalding meant that its main rivers, such as the Welland had to be maintained, and in 1743 the River Welland was canalised and deepened. The use of the rivers allowed the town to grow, and this growth in prosperity is apparent in some of the residential properties built during this period, especially between 1750 and 1850. The Grade II listed East Etloe and 69 - 71 Albion Street (NHLE 1359525 & NHLE 1063990) date from this period which saw more and more properties being constructed on the banks of the rivers.
- 2.2.15 As the settlement continued to thrive, a large number of archaeological features relating to the post-medieval phase of settlement in Spalding have been identified including ditches,

drains, cellars, cess pits, walls, and flooring. The historic core of the settlement lies just west of the study area and is broadly represented by the bounds of the Conservation Area.

- 2.2.16 Evidence of a brick making site as well as general settlement and agricultural activity have also been identified 100 m west of the site off Low Road indicating that the settlement had started expanding towards the site during this period.
- 2.2.17 The post-medieval period saw nationwide enclosure of the medieval open field system through parliamentary act or private agreement; however, archival evidence suggests that within the parish of Spalding, the act of enclosure was post-production of the tithe map and awards. As such, the tithe records could not be located for reference and the earliest available mapping of the site is the First Edition 1888 Ordnance Survey (OS) Map.
- 2.2.18 The First Edition mapping indicates that at least at the time of the later 19th century, the site was situated within the wider agricultural landscape to the east of the town. The site itself was largely part of one parcel of land despite several roads crossing throughout, separating it into five sections. Within the south of the site a small parcel of land can be seen as a mix of coppice and marshland.
- 2.2.19 By the 1930's the northern section of the site has been amalgamated into one larger field with the road traversing the site from north-west to south-east following the same route as the present-day field boundary. In the south, the area of marshland is still present separated by a road crossing east to west. By the 1960s the only change within the site is the removal of the marshland and a further smaller subdivision of field within the most northern extent of the site. The map also shows that the Coronation Channel to the west had been built by then.
- 2.2.20 Most of the 19th century records held by the LHER relate to features of historic buildings, farmsteads, and gardens within Esher. The record 400 m south-east of the site relates to Fulney House Park.
- Undated*
- 2.2.21 LiDAR imagery was consulted during the preparation of the DBA (Wessex Archaeology 2024). The LiDAR confirmed the features indicated could be identified on historical mapping, for example, the former lands/roads and field divisions crossing the site and the area of marshland in the south.

3 AIMS AND OBJECTIVES

3.1 Project aims

- 3.1.1 The aims (or purpose) of the geophysical survey, in compliance with the ClfA' *Standards and guidance for archaeological geophysical survey* (ClfA 2014; revised 2020), are:
- To determine, as far as is reasonably possible, the nature of the detectable archaeological resource within a specified area using appropriate methods and practices; and
 - To inform either the scope and nature of any further archaeological work that may be required; or the formation of a mitigation strategy (to offset the impact of the development on the archaeological resource); or a management strategy.



3.2 Project objectives

3.2.1 In order to achieve the above aims, the objectives of the geophysical survey are:

- To conduct a geophysical survey covering as much of the specified area as possible, allowing for on-site obstructions;
- To clarify the presence/absence of anomalies of archaeological potential; and
- Where possible, to determine the general nature of any anomalies of archaeological potential.

4 SURVEY METHODS

4.1 Introduction

4.1.1 All works will be undertaken in accordance with the detailed methods set out within this WSI. Any significant variations to these methods will be agreed in writing with the planning archaeologist for local planning authority and the client, prior to being implemented.

4.2 Access

4.2.1 The client will make all access arrangements for the geophysical survey works; Wessex Archaeology will not deal directly with any landowners etc. unless instructed to do so by the client.

4.2.2 Any areas which are not accessible during the survey, or which are deemed by Wessex Archaeology staff to be unsafe to access, will not form a part of this survey work. Any such areas will be documented for future reference.

4.3 Service location and other constraints

4.3.1 The client will provide information regarding the presence of any below/above-ground services, and any ecological, environmental, or other constraints.

4.4 Survey specification

4.4.1 The navigation display on cart-based system provides real time positioning enabling full site coverage without the need to set up individual grid nodes across the site. However, in order to ensure survey accuracy, the boundaries of the survey extent will be established using a Carlson BRX7 GNSS receiver or similar.

4.4.2 All survey data will be recorded in OS National Grid coordinates and heights above OD (Newlyn), as defined by OSGM15 and OSTN15, with a horizontal precision of at least 50 mm.

4.4.3 Digital mapping and archaeological information gathered during any previous work by Wessex Archaeology on the site will be used to support the interpretation of the geophysical data.

4.4.4 An interpretation of the geophysical anomalies will be presented identifying likely and possible archaeological features, along with linear trends and areas of increased magnetic response.

4.4.5 Further details of the geophysical and survey equipment, methods, processing, and interpretation are described in **Appendix 1** and **2**.

4.5 Instrument specification

- 4.5.1 The detailed gradiometer survey will be conducted using SenSys FGM650/3 gradiometers mounted at 1 m intervals on a non-magnetic cart pushed on a hand-held frame with an effective sensitivity of 0.03 nT.
- 4.5.2 Data will be collected at a rate of 100 Hz and interpolated to 0.1 m intervals along transects spaced 1 m apart, in accordance with Europae Archaeologiae Consilium recommendations (Schmidt *et al.* 2015). Data will be collected in the zigzag method.
- 4.5.3 Where necessary, data from the survey will be subject to minimal correction processes. The precise steps required will be determined after data collection but would typically comprise a zero-mean traverse function (± 5 nT thresholds) to correct for variations in the calibration between the SenSys sensors used and a de-step function to account for variations in traverse position due to varying ground cover and topography. The data will be processed using in-house software which allows greyscale and trace plots to be produced. Interpretation will be conducted within the latest version of ESRI ArcGIS Pro. All efforts will be made during data collection to limit required processing and no further filtering will be applied.

5 REPORTING

5.1 General

- 5.1.1 Following completion of the fieldwork and the processing and assessment of the data, a draft report will be submitted for approval to the client, for comment. Once approved, a digital (.pdf) final version will be submitted.
- 5.1.2 The report will include the following elements:
- A non-technical summary;
 - Introductory statements including location and NGR of surveyed area, background to the project (and any references/event numbers as supplied by the client), site description with geology, and summarised archaeological background;
 - Aims and objectives;
 - Methods;
 - Results including raw and unclipped data in both greyscale and x y trace plots
 - Conclusions in relation to the project aims and objectives;
 - Archive preparation and deposition arrangements;
 - Appendices;
 - Plans and plots (including location plan); and
 - References
- 5.1.3 The report will be prepared within three weeks of completion of all fieldwork and submitted to the client for approval. If required interim reporting can be completed following fieldwork, subject to variation.
- 5.1.4 Digital copies of the raw data, report text, figures and electronic drawings will be made available upon request (subject to copyright).

5.2 OASIS

- 5.2.1 An OASIS online record (<http://oasis.ac.uk/pages/wiki/Main>) will be created, with key fields completed, and a .pdf version of the final report submitted. Subject to any contractual requirements on confidentiality, copies of the OASIS record will be integrated into the relevant local and national records and published through the Archaeology Data Service (ADS) ArchSearch catalogue.

6 ARCHIVE STORAGE AND CURATION

6.1 Preparation of archive

- 6.1.1 If provision is made in the contract, the complete project archive will be prepared in accordance with *A Guide to Good Practice: Geophysical Data in Archaeology* (Schmidt *et al.* 2001) and ADS guidelines (ADS 2015), and any requirements of the relevant Historic Environment Record (HER).
- 6.1.2 A high quality geo-rectified TIFF will be produced from the processed data, with the raw data stored as ASCII files. The archive will usually be deposited within 6–12 months of the project's completion.

7 COPYRIGHT

7.1 Archive and report copyright

- 7.1.1 The full copyright of the written/illustrative/digital archive relating to the project will be retained by Wessex Archaeology under the *Copyright, Designs and Patents Act 1988* with all rights reserved. The client will be licenced to use each report for the purposes that it was produced in relation to the project as described in the specification. The museum, however, will be granted an exclusive licence for the use of the archive for educational purposes, including academic research, providing that such use conforms to the *Copyright and Related Rights Regulations 2003*. In some instances, certain regional museums may require absolute transfer of copyright, rather than a licence; this should be dealt with on a case-by-case basis.
- 7.1.2 Information relating to the project will be deposited with the Historic Environment Record (HER) where it can be freely copied without reference to Wessex Archaeology for the purposes of archaeological research, or development control within the planning process.

7.2 Third party data copyright

- 7.2.1 This document, the evaluation report and the project archive may contain material that is non-Wessex Archaeology copyright (e.g., Ordnance Survey, British Geological Survey, Crown Copyright), or the intellectual property of third parties, which Wessex Archaeology are able to provide for limited reproduction under the terms of our own copyright licences, but for which copyright itself is non-transferable by Wessex Archaeology. Users remain bound by the conditions of the *Copyright, Designs and Patents Act 1988* with regard to multiple copying and electronic dissemination of such material.

8 WESSEX ARCHAEOLOGY PROCEDURES

8.1 External quality standards

- 8.1.1 Wessex Archaeology is registered as an archaeological organisation with the Chartered Institute for Archaeologists (CIfA) and fully endorses its *Code of conduct* (CIfA 2014a) and *Regulations for professional conduct* (CIfA 2014b). All staff directly employed or

subcontracted by Wessex Archaeology will be of a standard approved by Wessex Archaeology, and archaeological staff will be employed in line with the CIfA codes of practice and will normally be members of the CIfA.

8.2 Personnel

Project specific

8.2.1 The fieldwork will be directed and supervised by an experienced member of Wessex Archaeology's geophysics team. This will likely comprise geophysicists from our Sheffield Office, who will be on site at all times for the length of archaeological fieldwork as required. The overall responsibility for the conduct and management of the project will be held by one of Wessex Archaeology's project managers, who will visit the fieldwork as appropriate to monitor progress and to ensure that the scope of works is adhered to. Where required, monitoring visits may also be undertaken by Wessex Archaeology's Health and Safety manager. The appointed project manager and fieldwork director will be involved in all phases of the investigation through to its completion.

8.2.2 The following key staff are proposed:

- Project Manager Tom Richardson
- Fieldwork Director Bethan Healey

8.2.3 Wessex Archaeology reserves the right, due to unforeseen circumstances (e.g., annual leave, sick leave, maternity, retirement etc) to replace nominated personnel with alternative members of staff of comparable expertise and experience.

Wessex Archaeology's geophysical capabilities

8.2.4 Wessex Archaeology has a unique track record in undertaking archaeological geophysics investigations in land, coastal and marine environments. Both in the UK and abroad, Wessex Archaeology delivers professional archaeological geophysical services. A practical and pragmatic approach to carrying out investigations is matched by a proven ability to place the results within their proper archaeological context.

8.2.5 Wessex Archaeology's expertise in geophysical surveys is fully integrated with its archaeological services, ensuring a seamless, professional approach with direct access to in-house computing, illustration, finds and environmental analysis, and scholarly and popular publication.

8.2.6 Wessex Archaeology's geophysics team comprises specialist staff at all grades from Geophysicist to Technical Manager and is overseen by the Director of Geoservices. This team is supplemented by archaeologists with geomatics and geoarchaeological experience from Wessex Archaeology's wider staff and further experienced staff can be brought in on contract to meet project requirements.

8.2.7 In addition to its in-house expertise, Wessex Archaeology routinely employs the services of a range of eminent geoarchaeological, palaeoenvironmental, and finds specialists. The contribution of these specialists to specific projects is managed through a relevant technical manager. Further details of external specialists employed by Wessex Archaeology can be provided on request.

8.3 Internal quality standards

8.3.1 Wessex Archaeology is an ISO 9001 accredited organisation (certificate number FS 606559), confirming the operation of a Quality Management System which complies with



the requirements of ISO 9001:2015 – covering professional archaeological and heritage advice and services. The award of the ISO 9001 certificate, independently audited by the British Standards Institution (BSI), demonstrates Wessex Archaeology's commitment to providing quality heritage services to our clients. ISO (the International Organisation for Standardisation) is the most recognised standards body in the world, helping to drive excellence and continuous improvement within businesses.

- 8.3.2 Wessex Archaeology operates a computer-assisted project management system. Projects are assigned to individual project managers who are responsible for the successful completion of all aspects of the project. This includes monitoring project progress and quality; controlling the project budget from inception to completion; and all aspects of Health and Safety for the project. At all stages, the project manager will carefully assess and monitor performance of staff and adherence to objectives, timetables, and budgets, while the manager's performance is monitored in turn by the team leader or regional director.
- 8.3.3 All work is monitored and checked whilst in progress on a regular basis by the project manager, and all reports and other documents are checked (where applicable) by the team leader/technical manager, or regional director, before being issued. A series of guideline documents or manuals form the basis for all work. The technical managers in the Graphics, Finds & Analysis, GeoServices and IT sections provide additional assistance and advice.
- 8.3.4 All staff are responsible for following Wessex Archaeology's quality standards but the overall adherence to and setting of these standards is the responsibility of the senior management team in consultation with the team leaders/regional directors who also ensure projects are adequately programmed and resourced within Wessex Archaeology's portfolio of project commitments.

8.4 Health and Safety

- 8.4.1 Health and Safety considerations will be of paramount importance in conducting all fieldwork. Safe working practices will override archaeological considerations at all times. Wessex Archaeology will supply trained, competent, and suitably qualified staff to perform the tasks and operate the equipment used on site. All work will be carried out in accordance with the *Health and Safety at Work Act 1974* and the *Management of Health and Safety at Work Regulations 1999*, and all other applicable Health and Safety legislation, regulations, and codes of practice in force at the time.
- 8.4.2 Wessex Archaeology will supply a copy of the company's Health and Safety Policy and a Risk Assessment to the client before the commencement of the evaluation. The Risk Assessment will have been read, understood, and signed by all staff attending the site before any fieldwork commences. Wessex Archaeology staff will comply with the Personal Protective Equipment (PPE) requirements for working on the site, and any other specific additional requirements of the principal contractor.

8.5 Insurance

- 8.5.1 Wessex Archaeology has both Public Liability (£15,000,000) and Professional Indemnity Insurance (£10,000,000).

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- Wessex 2024 *Spalding Solar, Spalding, Lincolnshire: Historic Environment Desk-Based Assessment* Ref. 278520.3

APPENDICES

Appendix 1: Survey equipment and data processing

The magnetic data for this project will be acquired using a non-magnetic hand-pushed cart fitted with four SenSys FGM650/3 magnetic gradiometers.

The instrument has four sensor assemblies fixed horizontally 1 m apart allowing four traverses to be recorded simultaneously. Each sensor contains two fluxgate magnetometers arranged vertically with a 0.6 m separation and measures the difference between the vertical components of the total magnetic field within each sensor array. This arrangement of magnetometers suppresses any diurnal or low frequency effects.

The gradiometers have an effective resolution of $\pm 8 \mu\text{T}$ over $\pm 1000 \text{ nT}$ range. All of the data will be then relayed to a CS35 tablet, running the MONMX program, which is used to record the survey data from the array of FGM650/3 probes at a rate of 100 Hz. The program also receives measurements from a GPS system, which is fixed to the cart at a measured distance from the sensors, providing real time locational data for each data point.

The cart-based system relies upon accurate GPS location data which is collected using a Carlson BRX-7 RTK system. This receives corrections from a network of reference stations operated by the Ordnance Survey, allowing positions to be determined with a precision of 0.02 m in real-time and therefore exceed the level of accuracy recommended by European Archaeologiae Consilium (Schmidt *et al.* 2015).

Post-processing

The magnetic data collected during the detail survey will be downloaded from the Sensys system for processing and analysis using both commercial and in-house software. This software allows for both the data and the images to be processed in order to enhance the results for analysis; however, it should be noted that minimal data processing is conducted so as not to distort the anomalies.

The cart-based system generally requires a lesser amount of post-processing than the handheld instrument. This is largely because mounting the gradiometers on the cart reduces the occurrence of operator error, caused by inconsistent walking speeds and deviation in traverse position due to varying ground cover and topography.

Typical data and image processing steps may include:

- Destripe – Applying a zero-mean traverse in order to remove differences caused by directional effects inherent in the magnetometer;
- Destagger – Shifting each traverse longitudinally by a number of readings. This corrects for operator errors and is used to enhance linear features;
- Despiking – Filtering isolated data points that exceed the mean by a specified amount to reduce the appearance of dominant anomalous readings (generally only used for earth resistance data)

Typical displays of the data used during processing and analysis:

- Greyscale – Presents the data in plan view using a greyscale to indicate the relative strength of the signal at each measurement point. These plots can be produced in colour to highlight certain features but generally greyscale plots are used during analysis of the data.



- XY Plot – Presents the data as a trace or graph line for each traverse. Each traverse is displaced down the image to produce a stacked profile effect. This type of image is useful as it shows the full range of individual anomalies.

Appendix 2: Geophysical interpretation

GRADIOMETER

The interpretation methodology used by Wessex Archaeology separates the anomalies into four main categories: archaeological, modern, agricultural, and uncertain or geological origin.

The archaeological category is used for features when the form, nature, and pattern of the anomaly are indicative of archaeological remains. Further sources of information such as aerial photographs may also have been incorporated in providing the final interpretation. This category is further sub-divided into two groups, implying a decreasing level of confidence:

- Archaeology – used when there is a clear geophysical response and anthropogenic pattern.
- Possible archaeology – used for features which give a response but which form no discernible pattern or trend.

The modern category is used for anomalies that are presumed to be relatively modern in date:

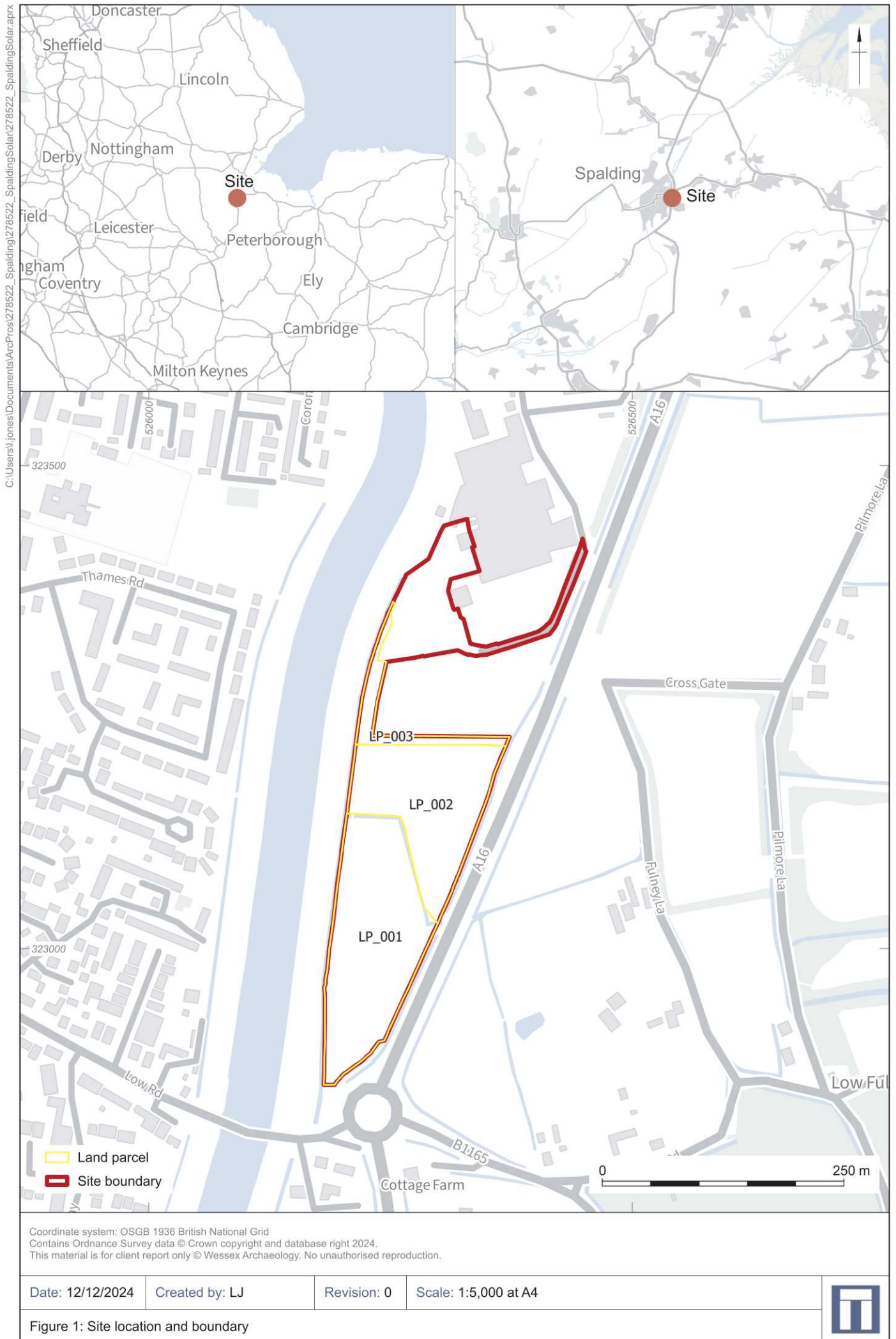
- Ferrous – used for responses caused by ferrous material. These anomalies are likely to be of modern origin.
- Modern service – used for responses considered relating to cables and pipes; most are composed of ferrous/ceramic material although services made from non-magnetic material can sometimes be observed.

The agricultural category is used for the following:

- Former field boundaries – used for ditch sections that correspond to the position of boundaries marked on earlier mapping.
- Agricultural ditches – used for ditch sections that are aligned parallel to existing boundaries and former field boundaries that are not considered to be of archaeological significance.
- Ridge and furrow – used for broad and diffuse linear anomalies that are considered to indicate areas of former ridge and furrow.
- Ploughing – used for well-defined narrow linear responses, usually aligned parallel to existing field boundaries.
- Drainage – used to define the course of ceramic field drains that are visible in the data as a series of repeating bipolar (black and white) responses.

The uncertain origin/geological category is used for features when the form, nature and pattern of the anomaly are not sufficient to warrant a classification as an archaeological feature. This category is further sub-divided into:

- Increased magnetic response – used for areas dominated by indistinct anomalies which may have some archaeological potential.
- Trend – used for low amplitude or indistinct linear anomalies.
- Superficial geology – used for diffuse edged spreads considered to relate to shallow geological deposits. They can be distinguished as areas of positive, negative, or broad bipolar (positive and negative) anomalies.





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