

Allen Archaeology Ltd

**SPECIFICATION FOR A GEOPHYSICAL SURVEY:
ON LAND OFF LEYS LANE, YAXLEY. SUFFOLK**

Planning Reference:	Pre-application
Client:	Lichfields on behalf of Conrad Energy
National Grid Reference:	TM 1186 7494
Date:	15th March 2023
AAL Site Code:	YELL 22
HER Code:	YAX 069

1.0 Summary

This document is the specification for an archaeological evaluation by geophysical survey on land off Leys Lane, Yaxley, Suffolk, which will be undertaken prior to the submission of a planning application for a Synchronous Condenser. The site works and reporting will conform to current national guidelines as set out in 'EAC Guidelines for the Use of Geophysics in Archaeology' (EAC 2016), 'The Use of Geophysical Techniques in Archaeological Evaluations' (Gaffney et al. 2002), and the Chartered Institute for Archaeologists 'Standard and guidance for archaeological geophysical survey' (ClfA 2020).

2.0 Site Location

The proposed development site is located c.600m north from the centre of the village of Yaxley, in the administrative district of Mid Suffolk. The site is approximately 4.0 hectares in area and is presently farmland. The site is centred at National Grid Reference (NGR) TM 1186 7494 and is c.45m above Ordnance Datum.

The bedrock geology comprises Crag Group – Sand, with superficial deposits of Lowestoft Formation – Diamicton (<https://www.bgs.ac.uk/map-viewers/geoindex-onshore/>).

3.0 Planning Background

The geophysical survey follows on from a heritage impact assessment which had been prepared to inform a planning application that will be submitted in due course for a Synchronous Condenser. This is the second stage of archaeological investigation, intended to provide detailed information that will allow the planning authority to make an informed decision as to whether further archaeological investigations will be required prior to or following the determination of a planning application for the proposed development.

The approach adopted is consistent with the recommendations of the National Planning Policy Framework (NPPF), with the particular chapter of relevance being 'Section 16. Conserving and enhancing the historic environment' (Department for Levelling Up, Housing and Communities 2021).

4.0 Archaeological and Historical Background

A prior desk-based assessment has been compiled for this site (AAL 2022), and the results of which are summarised below.

The proposed development site is situated within a rural location on the outskirts of the village of Eye. Extensive archaeological works have taken place in the vicinity of the site as part of the Progress Power Project. The majority of the archaeology found as part of these works is situated outside of the study area to the east, including a Bronze Age burnt mound. A few scatters of prehistoric finds have been found nearer to the site and one worked flint was uncovered within a trench excavated along the access track, suggesting a low archaeological potential for the proposed development area.

Roman activity is well represented in the area, with a Roman road (now A140) in the east part of the study area forming a focus for activity. Pottery scatters have been found near to the site and a significant quantity of PAS finds are recorded in the study area, including on the site itself. Archaeological work in the southwest corner of the site exposed a ditch containing a single fragment of possible Roman tile, and a pit was excavated within the access track that contained a single fragment of Roman pottery, suggesting a moderate potential for Roman activity.

The site lies on the periphery of the early medieval to medieval settlement of Eye, but there has been a large number of PAS finds in the study area, suggestive of Anglo-Saxon cemeteries to the north and south of the site, suggesting a moderate potential for early medieval activity.

Archaeological works in the southwest corner and southern extent of the site as well as to the immediate west have revealed ditches of a probable late medieval to post-medieval date, suggesting a high potential for further similar features to be present within the proposed development area.

5.0 Methodology

The geophysical survey will consist of a detailed gradiometer survey of the entire development area, extending to approximately 4ha.

The fieldwork will be carried out by a team of two experienced geophysicists from AAL over a period of two working days, commencing potentially end of March/beginning of April. The survey areas will be accurately located using a Leica GS08 RTK NetRover GPS. This will accurately 3D plot the areas of investigation and tie it into the National Grid.

The survey will be carried out using a Bartington Grad601-2 Dual Fluxgate Gradiometer with an on-board automatic DL601 data logger. This instrument is a highly stable magnetometer which utilises two vertically aligned fluxgates, one positioned 1m above the other. This arrangement is then duplicated and separated by a 1m cross bar. The 1m vertical spacing of the fluxgates provides for deeper anomaly detection capabilities than 0.5m spaced fluxgates. The dual arrangement allows for rapid assessment of the archaeological potential of the site. Data storage from the two fluxgate pairs is automatically combined into one file and stored using the onboard data logger.

Data collection will be undertaken in a zig-zag traverse pattern, using a sample interval of 0.25m and a traverse interval of 1m.

The fieldwork and reporting will be carried out in accordance with the procedures in '*Geophysical Survey in Archaeological Field Evaluation*' (English Heritage 2008) and '*The Use of Geophysical Techniques in Archaeological Evaluations: IfA Paper 6*' (Gaffney et. al. 2002).

6.0 Post-Fieldwork Methodology

On completion of site operations each day, the survey results will be processed and reviewed.

On completion of the entire survey, a fully illustrated text will then be prepared that will contain the following information: -

- Aims and objectives
- Site location and description
- Geology, soils and land use
- Planning background
- Archaeological and historical background
- Overall plan of the site showing surveyed areas, accurately located to the national grid
- Detailed survey results and interpretation
- Survey location information
- Plans showing detailed and summary interpretation of results, including both processed and unprocessed data and xy trace plots
- A consideration of the significance of the remains found, in local, regional, national and international terms, using recognised evaluation criteria
- A text describing the results of the topographic survey;
- General site location plans at appropriate scales (1:25,000 and 1:2,500);
- Interpretation of the earthworks exposed and their context within the surrounding landscape;
- Appropriate photographs of the site
- A review of the effectiveness of the methodology

The timescale for completion of the post-excavation works is 3 days, with the reporting to be completed in 4 weeks of the completion of the fieldwork.

7.0 Archive

The documentation and records generated by the excavation will be assembled in accordance with the national guidelines in *'Archaeological Archives: A guide to best practice in creation, compilation, transfer and curation'* (Brown 2011), and the local guidelines set out in *Suffolk County Council Archaeological Service Archives Guidelines for Archive Preparation and Deposition* (SCCAS, 2022).

All parts of the OASIS online form <http://ads.ahds.ac.uk/project/oasis/> will be completed and a copy will be included in the final report and also with the site archive.

The digital archive will be deposited with the Archaeological Data Service (ADS).

8.0 Report Dissemination

Digital copies of the report will be sent to the client and the Local Planning Authority. An OASIS form detailing a summary account on the results of the project will be submitted to the ADS and the final report uploaded to OASIS and submitted to the SCCAS within two weeks of approval.

A draft report will be provided to SCCAS for review and comment before a final copy is issued. Following approval of the report by SCCAS, a digital copy of the approved final report will be submitted to the Suffolk HER. Provision should also be made for a hard copy report to be submitted, however, the need for this should be discussed and agreed with SCCAS who will advise on a case-by-case basis.

A digital copy of the report should be uploaded to the OASIS website. The HER will also be provided with a georeferenced copy of the digital survey data.

[https://allenarchaeology.sharepoint.com/sites/Management/Shared Documents/Counties/Suffolk/Yaxley Leys Lane \(YELL 22\)/Geophysical Survey/Documentation/YELL 22 WSI.doc](https://allenarchaeology.sharepoint.com/sites/Management/Shared Documents/Counties/Suffolk/Yaxley Leys Lane (YELL 22)/Geophysical Survey/Documentation/YELL 22 WSI.doc)

Where positive results are drawn from a project, a summary report will be prepared for the Proceedings of the Suffolk Institute of Archaeology and History.

9.0 Curatorial Monitoring

Curatorial responsibility rests with the SCCAS.

Internal monitoring will be by the author of this specification.

10.0 Variations to the Proposed Scheme of Works

Variations to the proposed scheme will only be made following written approval from the SCCAS.

Should any further investigation be required beyond the scope of this specification, then the cost and duration of those supplementary examinations will be negotiated between the client and the contractor.

11.0 Health and Safety

All work will be carried out in a way that complies with the Health and Safety at Work Act 1974 and its related regulations and codes of practice. Employees of Allen Archaeology Limited will perform their duties in accordance with company safety policy, with senior staff responsible for monitoring compliance with health and safety requirements and legislation.

The archaeological site supervisor will be responsible for ensuring that all on-site archaeological work is carried out in a safety-conscious, sensible and responsible manner with due regard for the relevant health and safety requirements and legislation. All staff involved in the scheme will be provided with a Risk Assessment document prior to commencement of site operations.

12.0 Insurances

Allen Archaeology maintains Employers Liability Insurance to £10,000,000.00, Public Liability Insurance to £5,000,000.00 and Professional Indemnity Insurance to £2,000,000.00. Copies of insurance documentation can be supplied upon request.

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The author of any specialist contribution to a report shall retain intellectual copyright of their work and may make use of their work for educational or research purposes for further publication.

14.0 References

AAF, 2011, *Archaeological Archives: A guide to best practice in creation, compilation, transfer and curation*, Archaeological Archives Forum

AAL, 2022, *Archaeological Desk-Based Assessment: Land off Leys Lane, Yaxley, Suffolk*. Allen Archaeology Limited Report Number 2022084

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Europae Archaeologiae Consilium (EAC), 2016, *EAC Guidelines for the use of geophysics in Archaeology, Questions to Ask and Points to Consider. EAC Guidelines 2*. European Archaeological Council

Gaffney C., Gater J., and Ovenden S., 2002, *The Use of Geophysical Techniques in Archaeological Evaluations. IFA Paper No. 6*. The Institute for Archaeologists

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Suffolk County Council Archaeology Service

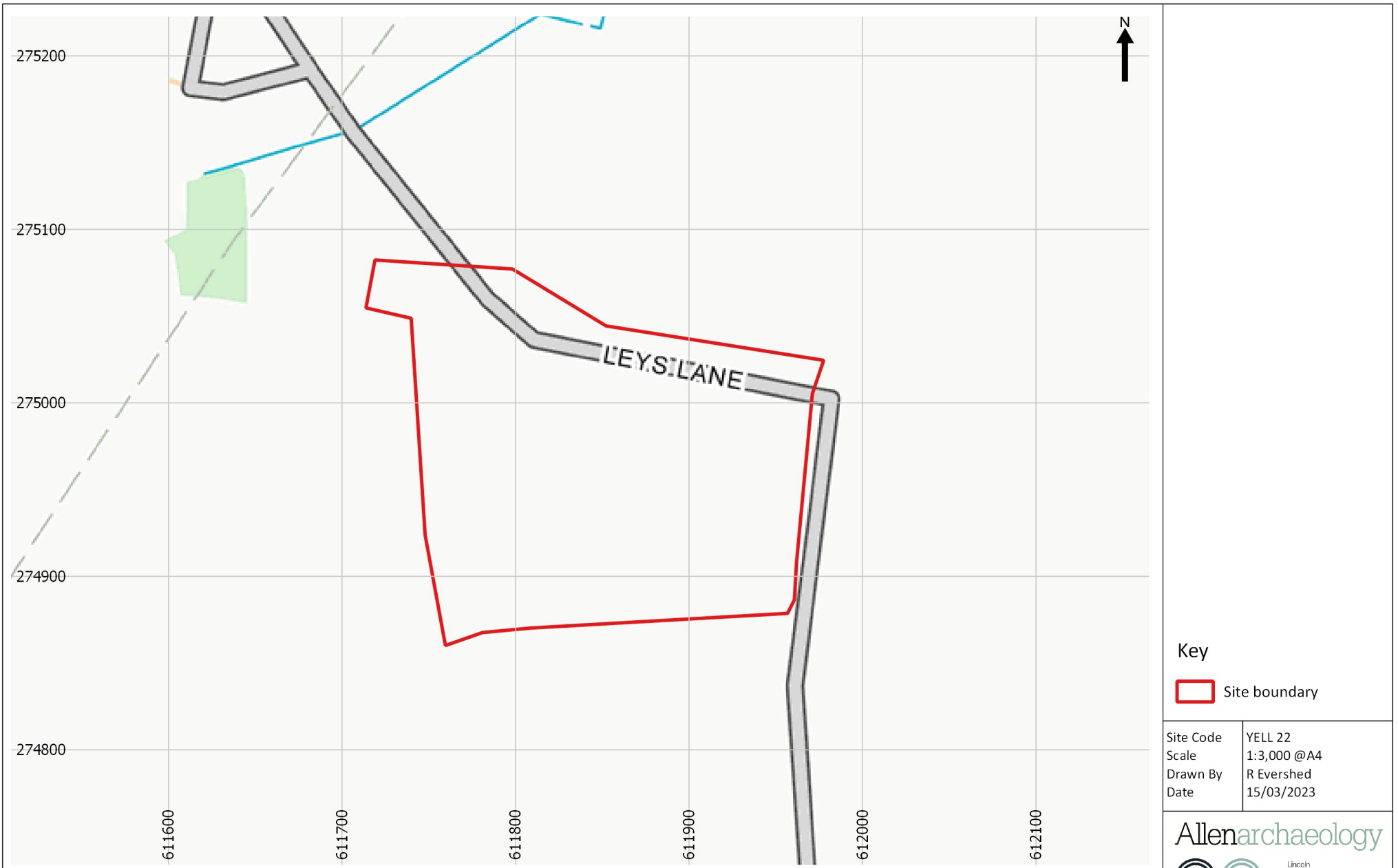


Figure 1: Site boundary outlined in red

Key
 Site boundary

Site Code	YELL 22
Scale	1:3,000 @A4
Drawn By	R Evershed
Date	15/03/2023

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