LING HALL SOLAR PROJECT, RUGBY, WARWICKSHIRE

Specification for Archaeological Watching Brief

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Table of Contents

1.0 INTRODUCTION .................................................................................................................................................. 1

2.0 SITE LOCATION AND PROJECT SUMMARY .................................................................................................. 1

3.0 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND .................................................................................. 1

4.0 ARCHAEOLOGICAL MONITORING ..................................................................................................................... 2

4.1 Aim of the Watching Brief ................................................................................................................................... 2

5.0 TIMING OF THE PROJECT .................................................................................................................................. 2

6.0 ARCHAEOLOGICAL WATCHING BRIEF PROGRAMME .................................................................................... 3

6.1 Health and Safety .............................................................................................................................................. 3

6.2 General Approach ............................................................................................................................................. 3

7.0 METHODOLOGY ................................................................................................................................................. 3

7.1 Archaeological Recording and Recovery ........................................................................................................... 4

7.2 Unexpectedly Significant or Complex Discoveries ............................................................................................... 4

7.2.1 Human Remains ........................................................................................................................................... 4

7.2.2 The Treasure Act 1996 .................................................................................................................................. 5

8.0 POST EXCAVATION STRATEGY .......................................................................................................................... 5

8.1 Finds Processing, Conservation and Storage ....................................................................................................... 5

9.0 REPORTING AND DELIVERY ............................................................................................................................ 5

9.1 Archive Preparation and Deposition ..................................................................................................................... 6

10.0 MONITORING ................................................................................................................................................... 7

11.0 GENERAL CONSIDERATIONS ........................................................................................................................ 7

12.0 REFERENCES ....................................................................................................................................................... 7

APPENDICES

APPENDIX A
Drawing 1 – Site Plan

Drawing 2 – HV Cable Route
1.0 INTRODUCTION

This report has been prepared to assist in discharging Planning Condition 16 of planning permission ref RBC/14CM029 which states:

“The development hereby permitted shall not take place until an archaeological scheme of investigation has been submitted to and approved in writing by the County Planning Authority. The scheme shall outline the investigation works and mitigation measures to be implemented should items of significant archaeological interest be found. Once approved the scheme shall be implemented in full.”

Warwickshire County Council, 17 October 2014

The Planning Application relates to the redevelopment of a landfill site at Ling Hall, Rugby CV23 9HH (the Site) for a photovoltaics (PV) energy facility. The overall archaeological concern of the site is considered to be low, due to both historic gravel extraction and more recent landfill activities.

Archaeological mitigation will comprise a watching brief targeted in the area of ground works associated with HV cabling, specifically the trench north of the Scheduled Monument (which is wholly outside of the development boundary). The programme of archaeological monitoring set out in this WSI will ascertain the nature of the ground conditions and archaeological survival in this locality.

Archaeological investigations to the north and east of the Scheduled Monument, a Prehistoric pit alignment, undertaken prior to quarrying in the 1990s, revealed evidence of Prehistoric and Romano-British period activity (National Heritage List, https://historicengland.org.uk/listing/the-list/list-entry/1020937).

2.0 SITE LOCATION AND PROJECT SUMMARY

The Ling Hill facility is situated approximately 5.5 km west of Rugby, bounded to the north by Ling Lane and to the south by the junction of Lawford Heath Lane and Coalpit Lane. Agricultural land and Lawford Heath Industrial Estate form the eastern boundary while agricultural and Coalpit Lane lie to the west. The spatial scope of the original heritage assessment comprised all the land which may be required for the development (i.e. land situated within the ‘red line boundary’), known as ‘the site’, together with land located within 1 km of the ownership boundary within which the site is located, known as the ‘Study Area’ (Drawing 1). This equates to an area of 35.4 ha forming the Project footprint.

The Site is dominated by large expanses of disturbed ground with some sheep grazed grassland, scrub and standing water on the periphery. The solar arrays are to be positioned (on a non-invasive racking system) within four separate parcels of land, connected by an existing track way. These parcels of land are situated in the north, south-east and south-west of the Project Site (see Drawing 1). A temporary construction compound and two substations (providing grid connection) will be built on existing hardstanding and/or involve no ground invasive works. The laying of the HV cable will involve the excavation of a semi-buried concrete trough at a depth of 600 – 800 mm bgl. The southern extent of the cable route will be the focus of archaeological mitigation – as highlighted on Drawing 2.

3.0 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

A review of the available historic environment records, held by Warwickshire County Council and the National Heritage List maintained by Historic England, indicated eleven features of archaeological interest within the site red line boundary. The majority of these assets relate to Prehistoric-dated activity (identified through aerial photography) extending across the 1 km Study Area. An enclosure of potential Romano-British date and the site of former RAF Church Lawford are noted with the site’s extent however, these sites have been subject to intensive disturbance caused by recent mineral extraction, landfill and subsequent (and on-going) reclamation.
No designated heritage sites are located within the site ownership boundary; however, as previously detailed, the site of a Scheduled Monument is adjacent to the southern edge, and in relative proximity to the HV cable route.

The Scheduled Monument site is presently ploughed, arable farmland (under crop), adjacent to areas of industrial activity (historic quarrying and active landfill) and bounded by minor roads to the north, south and west, frequented by plant and farm traffic.

Archaeological investigations to the north and east of the monument, undertaken during the 1990s prior to quarrying, revealed evidence of an extensive complex of buried remains, including a series of pit alignments, postholes and enclosures, dating from the Early Iron Age through to the Romano-British period (National Heritage List, https://historicengland.org.uk/listing/the-list/list-entry/1020937).

4.0 ARCHAEOLOGICAL MONITORING

4.1 Aim of the Watching Brief

The general objectives of the archaeological watching brief can be defined as follows:

- To enhance the available information about the archaeology represented within the consented development area;
- To determine the presence/absence, nature, depth, extent, date and stratigraphic complexity of all archaeological deposits or features (of any date) that might be affected by the consented development;
- To achieve “preservation by record” through the identification, excavation, recording, assessment, analysis, publication and archiving of the archaeological resource in those areas which will be impacted upon by the consented development; and
- To contribute positively to the national and regional heritage through the dissemination of the results of the archaeological investigations.

The site-specific objectives of the archaeological investigations can be defined as follows:

- To identify and record the presence/absence, extent, condition, character and date (as far as practicable) of any archaeological features which are disturbed or exposed as a result of groundworks in the area of interest (as highlighted in Drawing 2).

A detailed Programme of Archaeological Works (PoAW), which must adhere to the specification set out in this WSI, is yet to be agreed with Anna Stocks (Planning Archaeologist at Warwickshire County Council). The PoAW should be prepared by the supervising on-site archaeologist (hereafter, the archaeologist) contracted by the Client. It will comprise plans for a controlled watching brief during groundworks associated with the laying of the HV cable in the selected location.

5.0 TIMING OF THE PROJECT

The construction programme is not finalised, and so the exact timing of the PoAW is not yet confirmed. Once the PoAW is commenced brief updates will be produced by the archaeologist on a weekly basis (minimum) during groundworks to ensure interested parties are apprised of progress. Updates of any significant discoveries will also be provided as soon as they are made.

A copy of the final report on the results of all of the archaeological works (including any commissioned specialist reports) must be submitted expeditiously, and no later than four weeks after the conclusion of watching brief. It is possible that the timescale may vary according to the workload and commitments of, for instance, finds specialists and conservators; any such variation will need to be discussed and agreed with the Client in advance and as soon as such issues are identified.
The preparation of the project archive and its deposition in the recipient museum should be completed no later than four weeks after the submission of the final report.

6.0 ARCHAEOLOGICAL WATCHING BRIEF PROGRAMME

6.1 Health and Safety
The archaeologist will operate with due regard for Health and Safety regulations and those of the contractor appointed by the Client, including if necessary, attendance at a pre-start site induction and wearing Personal Protective Equipment. In this case, where archaeological work is carried out at the same time as the work of other contractors, regard should also be taken of any reasonable additional constraints that these contractors may impose (e.g. site access routes, signing in/out procedures, PPE requirements). This work will require the preparation by the archaeologist of a site specific risk assessment, in accordance with the Health and Safety at Work Regulations. Appropriate tools and PPE for the job must be utilised at all times.

6.2 General Approach
The archaeologist undertaking the archaeological watching brief must have appropriate experience of archaeological methods, theory and safe working practices. All work must be undertaken using standard archaeological recording procedures and numbering systems; a single context planning methodology will be used and a matrix of the sequence will be created on site. All archaeological works should be carried out in accordance with all current and relevant best practice and standards and guidelines.

The recipient of the site archive will be as advised by Anna Stocks, Planning Archaeologist, WCC. Regard should be taken for any specific requirements made by them as part of the archiving and deposition process and costs allowed for such work incorporated into the archaeologists’ quotation.

All artefacts recovered during these works shall be treated as the property of the landowner. Subject to the agreement of the landowner and after discussion with specialists and museum staff regarding finds retention and sampling, all suitable finds shall be packaged and delivered with the site archives to the recipient museum for long-term storage (as advised by Anna Stocks, Planning Archaeologist, WCC).

All operations should limit archaeological destruction to that which is necessary to implement this WSI.

Construction plans showing the location of the proposed groundworks will be provided to the archaeologist by the Client in a digital format in advance of the commencement of the project for reporting purposes. Any survey tie-in work that is required as a result of archaeological discoveries being made will be undertaken by the archaeologist by means of either differential GPS or Total Station theodolite.

7.0 METHODOLOGY
A Method Statement for works associated with the HV cable alignment will be prepared in advance of archaeological monitoring commencing and provided to the archaeologist. It is anticipated that excavation will be undertaken mechanically to a minimum depth of 1 m, with an average width of 0.5 m throughout the proposed trench alignment. The mechanical excavator will be under direct archaeological supervision by the archaeologist at all times during excavation.

The archaeologist will stand sufficiently close to the groundworks that a visual inspection can be safely made as material is removed. The archaeologist will not observe works from any closer than 1 m beyond the furthest reach of the mechanical excavator, and should not approach the works whilst the excavator is active. A signalling system will be agreed between the archaeologist and the excavator operator to ensure excavation works are halted should archaeological remains be revealed or disturbed. Under no circumstances should the archaeologist enter the trench unless it is safe to do so and not until the operator of the mechanical excavator has acknowledged the archaeologist and stopped working. Resumption of mechanical excavation should only resume once the archaeologist has moved a safe distance from the trench and signalled to the operator.
If the archaeologist identifies archaeological remains during excavation then groundworks will be temporarily ceased to allow the archaeologist to safely gain access and record the remains. This recording may involve a photograph and description, but could require further archaeological inspection (for example, excavation by hand to recover remains or create a section through a deposit).

7.1 Archaeological Recording and Recovery

When recovering archaeological remains the archaeologist will excavate by hand in an archaeologically controlled and stratigraphic manner. A description will be made and representative photographs taken of any bulk finds (defined as brick and tile, prehistoric, Roman and post-Roman pottery, building materials, animal bone and shell, and worked stone), but only notable examples will be collected and retained (e.g. well preserved diagnostic pottery sherds, worked flint). These must be washed and marked. Any marking and labelling must be indelible and irremovable by abrasion. All other finds will be treated as small finds.

The recovered remains must be appropriately bagged and boxed, and statistically recorded. Recovered archaeological remains will be removed from site for study, analysis and subsequent reporting. All artefacts recovered and retained from the excavations must be packed and stored in the appropriate materials and conditions to ensure that minimal deterioration takes place.

A representative sample of all archaeological features and deposits revealed should also be investigated. The archaeologist will record these with a written and photographic record. Where appropriate a drawn record will also be made. For deposits that exhibit archaeological strata and/or features, representative samples from key deposits or primary fills will be taken for off-site examination to provide data on plant, mollusc and other environmental factors. These samples must be stored in the appropriate conditions to ensure their integrity maintain their value in scientific analysis.

Photographic records will be created using high resolution digital photography. General photographs of the site should be taken before, during and after the archaeological investigations.

Areas of monitored groundworks should be clearly noted on a construction plan even if no archaeological remains are discovered, and the stratigraphic sequence and the depth/nature of the excavations will be recorded. As a minimum this will include descriptive notes, photographs and stratigraphic summary information. This may also include sketch or measured sections.

A project archive will be prepared in accordance with current best practice guidelines and those of the recipient museum and submitted to the recipient museum.

7.2 Unexpectedly Significant or Complex Discoveries

Unexpected archaeological discoveries which, in the professional judgement of the archaeologist, are significant or complex (for example, human remains or a settlement site) may warrant more detailed recording or extensive investigation/excavation than is possible within the scope of this WSI. If such discoveries are made then the archaeologist will immediately contact the Client to discuss a resolution.

7.2.1 Human Remains

If human remains are discovered then groundworks should cease immediately. The human remains should be appropriately recorded before being covered, protected and left in situ. If groundworks can continue without further disturbing the remains then they can resume under supervision.

If removal is necessary, a Ministry of Justice burial licence may need to be acquired. Excavation of human remains should be done archaeologically in accordance with the Guidance for best practice for treatment of human remains excavated from Christian burial grounds in England (2005) published by English Heritage (now Historic England) and local environmental health regulations.
7.2.2  The Treasure Act 1996

Any finds which fall under the purview of the Treasure Act 1996 (for example, gold and silver) will be secured in a safe place and duly reported to the Coroner by the archaeologist, after discussions with the Client. Where removal cannot be effected on the same working day as the discovery, suitable security measures must be taken to protect the finds from theft.

8.0  POST EXCAVATION STRATEGY

8.1  Finds Processing, Conservation and Storage

All finds processing, conservation works and storage of finds from the site must be carried out in accordance with standards agreed with an appropriate local museum (as advised by Anna Stocks, Planning Archaeologist, WCC). The implementation of these standards will ensure compatibility with other sites in the museum’s collecting area.

The archaeologist will be responsible for all aspects of the curation and security of all finds up to the point at which they are handed over to an appropriate local museum (as advised) as part of the process of archive deposition.

The site may produce some organic or metallic objects and materials. These may require immediate treatment to ensure they do not deteriorate once removed from the ground. All organic and inorganic materials must, therefore, be appropriately treated including prior specialist recording for materials where there is a possibility of information loss in the process of conservation.

Following Historic England guidance, all iron objects, a selection of non-ferrous artefacts (including all coins), and a sample of any industrial debris relating to metallurgy should be X-radiographed before assessment, and the process of selection for conservation must involve the appropriate specialists. All non-conserved material must be stored in stable controlled conditions. All other classes of material must be treated as and where appropriate.

All objects must be stored in the appropriate materials and storage conditions. Vulnerable objects must be specially packaged, and textiles, painted glass and coins stored in appropriate specialist systems.

All storage must have the appropriate security provision. Small finds must be kept in accommodation which has been approved by the Client. The finds archive must be kept in this secure accommodation until it is handed over at the end of the project.

9.0  REPORTING AND DELIVERY

The main product of the archaeological watching brief will be an illustrated final report, preceded by a draft summary account of the findings on-site (required within two weeks of fieldwork completion). The final report should incorporate the post-excavation assessment and should be submitted within four weeks of the completion of the on-site work. This report should each include:

- A non-technical summary of the entire report;
- An introduction outlining the circumstances of the project, the archaeological background, the site descriptions, and the objectives of the excavations;
- Appropriate acknowledgements;
- A description of the methodology and techniques used;
- A detailed narrative description of the excavations, with reference to context numbers;
An interpretation of the overall structural and stratigraphical sequence established by the excavations, including phasing of the site sequence and spot-dating of the ceramics;

Catalogues and summary records, accounts and descriptions of each artefactual and ecofactual assemblage recovered from the excavations, supported by illustration and specialist reports where appropriate;

Plans showing an overall site plan, the locations of the fieldwork areas at appropriate scales, the location of the excavations within the sites at 1:500 scale, plans and sections at appropriate scales, and such other plans and sections as may be required to illustrate the report, including any necessary plans or sections of individual features;

Appropriate photographs as required to illustrate the report;

An interpretation of the archaeological and research potential of each fieldwork area and/or combination of fieldwork areas, including a deposit model indicating the likely nature and state of preservation of any archaeological strata, within the limits imposed by the scale of the excavations;

A summary of the material held in the site archive and details of archive location and destination; and

A post-excavation assessment of each category of data or material held in the site archive. This should examine the potential for any further analytical work and make recommendations for selection of material to be deposited for long-term storage with the site archive. If further work is recommended, an outline research design should be prepared.

Digital copies of the report will be made available to the Client and for inclusion in the Warwickshire Sites and Monuments Record.

9.1 Archive Preparation and Deposition

A site archive should be prepared in accordance with accepted national and regional guidelines (e.g. United Kingdom Institute for Conservation 1990; English Heritage 1991; Society of Museum Archaeologists 1995; IFA 2009). The archaeologist should liaise with an appropriate local museum (as advised by Anna Stocks, Planning Archaeologist) concerning their detailed requirements in advance of the start of fieldwork and accommodate these requirements in their proposal.

It is expected that the final archive will include the following:

- A project summary;
- Copies of the final report;
- An archive guide (an introduction to the archive stating its principle and layout);
- An index to the contents of the archive; and
- The complete site archive including all records, data, reports, produced during excavation, post-excavation, finds processing, conservation, and analysis, the complete material archive.

The archaeologist will be responsible for the deposition of the site archive, although the Client will deal with the landowner in respect of the legal ownership of any finds, and their transference to an appropriate local museum.
10.0 MONITORING

The archaeologist may be subject to regular monitoring and supervision by the Client and/or the local archaeological Curator. This will ensure that the Specification is being followed and that high professional standards are being maintained.

During the on-site work, the Client and Curator will be given full access to all site records and other information, and will discuss the project on receipt of the weekly verbal progress reports. During the post-excavation stage, progress will be monitored as appropriate, and regular progress reports must be provided.

11.0 GENERAL CONSIDERATIONS

Although situated on private land, members of the general public may attempt to visit the site from time to time. This is not to be encouraged and the archaeologist should report any suspicious activity and to be proactive in making sure any deeply excavated areas are appropriately fenced and made secure until they are backfilled.

The project may attract local and media interest. This is not to be encouraged and the archaeologist will refer any interested parties to the Client before making any statements and comments.

It is essential that the archaeologist is able to communicate and be contacted at all times while on site, both for Health and Safety issues, site access arrangements, and in case of any unforeseen difficulties or eventualities; the use of a mobile telephone is therefore required.

12.0 REFERENCES


2) National Heritage List: Prehistoric pit alignment and associated features on Lawford Heath, adjacent to the northernmost Blue Boar Farm https://historicengland.org.uk/listing/the-list/list-entry/1020937
APPENDIX A

Drawing 1 – Site Plan
Drawing 2 – HV Cable Route
SM-1 PREHISTORIC PIT ALIGNMENT

CLIENT SIDE SUBSTATION

DNO SUBSTATION & ACCESS

CONSULTANT DESIGN PREPARED REVIEW APPROVED

YYYY-MM-DD

PROJECT No.

REV.

INFORMATION:

Project:

Title:

File Name:

Path:

CONSORTIUM

1:7,500

125

250

METERS

LEGEND

SITE BOUNDARY

LAND OWNERSHIP BOUNDARY

1 KM STUDY AREA

SCHEDULED MONUMENT

HV CABLE ROUTE

SOLAR DEVELOPMENT PROJECT LING HALL, RUGBY

REG LING HALL SOLAR LTD

HV CABLE ROUTE - ARCHAEOLOGICAL MONITORING

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At Golder Associates we strive to be the most respected global company providing consulting, design, and construction services in earth, environment, and related areas of energy. Employee owned since our formation in 1960, our focus, unique culture and operating environment offer opportunities and the freedom to excel, which attracts the leading specialists in our fields. Golder professionals take the time to build an understanding of client needs and of the specific environments in which they operate. We continue to expand our technical capabilities and have experienced steady growth with employees who operate from offices located throughout Africa, Asia, Australasia, Europe, North America, and South America.