

Written Scheme of Investigation for

**LAND AT HILL FARM
DUNS TEW, BICESTER**

For IPV Flexgen

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Written Scheme of Investigation for

LAND AT HILL FARM DUNS TEW, BICESTER

Client:	IPV Flexgen
Local Authority:	Cherwell District Council
NGR:	445944, 229978
Planning App:	20/00574/F
Author(s):	S Vucicic & A. Short
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1. Introduction

- 1.1. This Written Scheme of Investigation (WSI) has been prepared by S. Vucicic and A. Short of MOLA on behalf of IPV Flexgen.
- 1.2. This document sets out the scope and methodology for archaeological evaluation works to be undertaken at the proposed development site on Land at Hill Farm, Duns Tew, Bicester, OX25 6JJ (hereafter referred to as “the site”). If archaeological deposits are identified within the evaluation subsequent mitigation works may be required and subject to an additional WSI. The National Grid reference (NGR) for the centre point of the site is 445944, 229978 (FIGURE 1).
- 1.3. This document has been prepared in response to a planning condition attached to granted planning consent granted at the site by the Local Planning Authority (LPA), Cherwell District Council (CDC) (planning reference 20/00574/F). The scope of works has been determined by MOLA based on the brief supplied by the Oxfordshire County Archaeological Services (OCAS) who provide archaeological advice for CDC.
- 1.4. The site code, allocated by MOLA prior to the start of the works, will be used to label all elements of the documentary archive for all phases of work within site boundary. The OASIS ID for the project is molastan1-515076.
- 1.5. This document sets out research aims, detailed framework methods, archiving standards and reporting strategy to be employed for evaluation. All works will be carried out with full adherence to the Chartered Institute for Archaeologists’ (CIFA) *Standard and guidance for archaeological field evaluation* (CIFA 2020). The project will be managed in accordance with the expectations of Historic England (HISTORIC ENGLAND 2015).

2. Site Background

2.1.PLANNING

- 2.1.1. Planning permission has been granted for the installation of a Solar Photovoltaic array with associated infrastructure, access and landscaping on land covering 14ha to the north of Hill Farm, Hill Farm Lane, Duns Tew, Bicester (FIGURE 2). The planning reference for the application is 20/00574/F.
- 2.1.2. A programme of heritage assessment and geophysical survey was completed by South West Archaeology Ltd prior to determination of the application, which identified potentially significant archaeological areas within the development area (FIGURE 3).
- 2.1.3. The proposed development was identified as having the potential to impact upon archaeological deposits. Therefore a programme of archaeological evaluation via trial trenching following geophysical survey was recommended by OCAS based on the guidance given in National Planning Policy Framework paragraph 189 and 190 (HCLG 2021).
- 2.1.4. This WSI has been prepared for a programme of targeted trial trenching based on the results of heritage assessment and geophysical survey to investigate and determine the presence or absence, extent, date, character, condition and significance of any archaeological remains within the development area.

2.2.NATIONAL PLANNING LEGISLATION

- 2.2.1. In July 2021, a revised edition of the National Planning Policy Framework (NPPF) was published by the Ministry for Housing Communities and Local Government, wholly replacing the original 2012 version, with updates in February 2019 (HCLG 2021). This document sets out planning policies regarding the historic environment in section 16 “Conserving and enhancing the historic environment”.

2.3.LOCAL PLANNING LEGISLATION

- 2.3.1. Cherwell District Council takes archaeological advice from Oxfordshire County Archaeological Services (OCAS). In providing advice, OCAS must consider

appropriate policies within relevant Local Plan. The Cherwell Local Plan adopted 2015, sets out the LPA's policies and proposals to support the development of the district from 2011-31. Policies relating to the Historic Environment are set out in Policy ESD 15: The Character of the Built Historic Environment.

POLICY ESD 15: THE CHARACTER OF THE BUILT HISTORIC ENVIRONMENT

Conserve, sustain and enhance designated and non designated 'heritage assets' (as defined in the NPPF) including buildings, features, archaeology, conservation areas and their settings, and ensure new development is sensitively sited and integrated in accordance with advice in the NPPF and NPPG. Proposals for development that affect non-designated heritage assets will be considered taking account of the scale of any harm or loss and the significance of the heritage asset as set out in the NPPF and NPPG. Regeneration proposals that make sensitive use of heritage assets, particularly where these bring redundant or under used buildings or areas, especially any on English Heritage's At Risk Register, into appropriate use will be encouraged.

Include information on heritage assets sufficient to assess the potential impact of the proposal on their significance. Where archaeological potential is identified this should include an appropriate desk based assessment and, where necessary, a field evaluation.

2.3.2. The following conditions were placed on the granted planning consent for the application by Cherwell District Council and are based on the guidance given in the NPPF:

Condition 7:

Prior to any demolition and the commencement of the development a professional archaeological organisation acceptable to the Local Planning Authority shall prepare an Archaeological Written Scheme of Investigation, relating to the application site area, which shall be submitted to and approved in writing by the Local Planning Authority.

Reason:

To safeguard the recording of archaeological matters within the site in accordance with Government guidance contained within the National Planning Policy Framework.

Condition 8:

Following the approval of the Written Scheme of Investigation referred to in condition 7, and prior to any demolition on the site and the commencement of the development (other than in accordance with the agreed Written Scheme of Investigation), a staged programme of archaeological evaluation and mitigation shall be carried out by the commissioned

archaeological organisation in accordance with the approved Written Scheme of Investigation. The programme of work shall include all processing, research and analysis necessary to produce an accessible and useable archive and a full report for publication which shall be submitted to the Local Planning Authority within two years of the completion of the archaeological fieldwork.

Reason

To safeguard the identification, recording, analysis and archiving of heritage assets before they are lost and to advance understanding of the heritage assets in their wider context through publication and dissemination of the evidence in accordance with Government guidance contained within the National Planning Policy Framework.

2.4.GEOLOGY

2.4.1. The British Geological Survey GeoIndex records the underlying bedrock deposits of the site to be that of Charmouth Mudstone Formation – Mudstone. No superficial deposits are recorded across the majority of the site, with a narrow band of alluvial deposits comprising clay, silt sand and gravel along the course of Deddington Brook which runs broadly east to west along the northern site boundary (BGS 2023).

2.5.TOPOGRAPHY AND SITE CONDITIONS

2.5.1. The site is located to the north of Hill Farm, Duns Tew, to the northeast of Hill Farm Lane. The village of Duns Tew is located c.1.6km to the south of the site and the village of Deddington is located c.1.9km to the north. Deddington Brook, a narrow winding watercourse meanders broadly east to west close to the northern border of the site.

2.5.2. The site is surrounded by gently undulating farmland comprising fields of both arable and pasture. Field parcels are largely irregularly shaped and vary in size. An existing solar farm is located to the immediate west of the site. The site prior to development formed part of the land belonging to Hill Farm.

2.5.3. The development area measures c.14ha of broadly flat agricultural land. In the west the site lies at c,90m above Ordinance Datum (aOD) sloping slightly to the north and south to c.87m aOD.

2.6.ARCHAEOLOGY AND HISTORY

2.6.1. A search of the background of the site and the vicinity was conducted and significant results are discussed below. A Heritage Assessment and Geophysical Survey produced in advance of the development by South West Archaeology Ltd in 2019 provides a detailed overview of the archaeological background of the site. A search of the Historic Environment Record (HER) will be obtained prior to production of the site evaluation report.

2.6.2. National Heritage List for England numbers (NHLE1234567) and Historic Environment Records (HER) numbers (MOX12345) are given as such.

PREHISTORIC

2.6.3. Evidence of Prehistoric activity in the vicinity of the site is limited and comprises several isolated findspots recorded in the 1.5km radius of the site boundary. A Neolithic flint scraper was found to the north of the site (MOX3777), two Neolithic stone axes were recorded to the west and southeast of the site (MOX3732), and a Bronze Age whetstone was recorded to the southeast of the site (MOX23619).

IRON AGE/ ROMAN

2.6.4. There is evidence for significant Iron Age activity in the area. An Iron Age hillfort was recorded at Ilbury c.1.5km west of the site. Immediately to the west of the site, at the adjacent PV solar farm, geophysical survey identified a Middle to Late Iron Age “clothes line” settlement in two clusters (MOX27100). Subsequent trial trench evaluation of the settlements recorded two domestic enclosures, linked by a single linear ditch. Several smaller roundhouse ring ditches and sub-enclosures were recorded along southern side of the linear ditch. Iron Age pottery sherds, abraded animal bone fragments, and a small assemblage of burnt clay fragments were recovered during the course of the archaeological evaluation (MOX28739).

2.6.5. Geophysical survey of the site itself identified several possible settlement enclosures and structures continuing from the single linear ditch indicating the continuation of the settlements. Anomalies identified appear to represent possible roundhouse structures of a Mid to Late Iron Age date and a potential

trackway was also identified (MOX27937)(BONVOISIN ET AL. 2019).

- 2.6.6. A Roman villa complex was identified c.0.7km to 1.2km east of the site during excavations by Banbury Historical Society in the late 1960s (MOX3775).
- 2.6.7. Artefact scatters comprising Roman finds have been recorded within the 1km search radius of the site. Several Roman pottery sherds have been recovered from Danes Hill (MOX3783). Two pottery jars and a carved stone slab with the figure of Vulcan were recovered from the meadow in the vicinity of Ilbury Hillfort to the west of the site (MOX3677).

MEDIEVAL AND POST MEDIEVAL

- 2.6.8. A late Saxon brooch was recovered to the south of Duns Tew (MOX3619). By the time of the Domesday Survey of 1086, a settlement comprising a population of 31 households in the hundred of Wootton was recorded (DOMESDAY ONLINE 2023).
- 2.6.9. The site was part of Open Field enclosure, established during the 8th century and belonging to Duns Tew and used for agricultural purposes. This suggests the framework of the modern landscape was established around this time, with a high probability of concurrent settlement nucleation.
- 2.6.10. Preserved Early Medieval earthworks are well attested in the HER in the vicinity of the site, including a holloway, embanked platforms and a possible mill site located to the southeast of Hill Farm (MOX3653). Ploughed out ridge and furrow cropmarks are visible across the site itself and the remains of a Deserted Medieval Village (DMV)(MOX3692) and possible moated site (MOX4621) are recorded below Ilbury Hillfort.
- 2.6.11. During the Medieval period and into the Post Medieval period, earthworks recorded at Duns Tew (MOX23129) and Deddington (MOX3763) indicate a period of decline with the shifting or shrinking of settlements.
- 2.6.12. Hill Farm appears to have been associated with relatively early enclosure of part of the Open Fields attached to Duns Tew (17th century or earlier). By 1808, the Open Field was subdivided into numerous straight closes running down to the stream (then called South Brook). Historic Landscape

Characterisation (HLC) records the fields comprising the site as 'Prairie/Amalgamated Enclosures' with 'Planned Enclosures' to the north of the stream, arising from Open Field enclosure in the 19th century (BONVOISIN ET AL. 2019).

2.6.13. Several records in the HER provide evidence of local industrial activity including pottery works to the west of the site (MOX3776), lime kilns to the southeast of the site (MOX3606) and brickworks to the northeast (MOX3744). The farm buildings at Hill Farm appear to be early 18th century in date including a former domestic range. Two barns at Hill Farm are Grade II listed (NHLE1200578)

2.6.14. Early edition OS mapping (1875-1880) indicates the field divisions had decreased and by this time the land comprised a plot of four field parcels divided by boundaries. Details of numerous sales of Hill Farm and the surrounding farmland are recorded through the 19th and 20th century, indicating it was a stock and dairy farm with 10ha listed as arable, though none of the field names are recorded (BONVOISIN ET AL. 2019).

2.6.15. During the 20th century the four field divisions amalgamated into a single land parcel. An easement for a pumping main between Tackley and Milton is visible on the 2015-16 satellite imagery for the site, which bisects the site north to south. The solar farm adjacent to the west of the site was constructed in the late 2010s.

2.7. PROPOSED DEVELOPMENT

2.7.1. Planning consent has been granted for the proposed installation of a standalone Solar PV array and associated infrastructure and landscaping (planning reference 20/00574/F). The proposed development will include rows of solar photovoltaic panels, battery storage, inverters, a substation and switchroom, security cameras, fencing and access track (APPENDIX 1).

3. Aims

3.1. The aims of the evaluation are:

- ◆ To evaluate the character, date, location and preservation of any archaeological remains on the site;
- ◆ To determine the presence or absence of archaeological deposits or remains;
- ◆ To limit damage to significant archaeological deposits;
- ◆ To sample excavate any deposits on site in order to record the character, date, location and preservation of any archaeological remains on site within the areas identified as being impacted upon by the works;
- ◆ To ensure that the significance of the historic environment of the site is investigated, evidenced, recorded and made publicly accessible in line with National Planning Policy;
- ◆ To characterise the full archaeological sequence down to undisturbed geological deposits. Where the full depths of deep features cannot be safely or practicably excavated their full depths will be established by hand auger soundings;
- ◆ To establish the requirement for preservation of *in situ* remains and to collect enough information to allow further investigation and a suitable mitigation strategy to be devised, if required. If further mitigation works are required as a result of the evaluation these will be agreed in a separate document;
- ◆ Identify any research priorities that may be relevant which are outlined in the East Midlands Historic Environment Research Framework (ALGAO 2023).

3.2. The specific aims of the evaluation are:

- ◆ To further define and understand the extent and character of the possible Mid/Late Iron Age to Early Roman identified as a result of the geophysical survey undertaken at the site;
- ◆ To further understand the extent to which past activity at the site, such as Medieval and Post Medieval ridge and furrow and modern agricultural activity and drainage, has affected the state of preservation of any archaeological remains that are present.

4. Methodology

4.1. SITE WORKS

- 4.1.1. The trenching sample has been reduced from the usual requirement due to the cabling being carried out above the ground. Therefore, across the development area which measures c.14ha, the excavation of a total of 10 trenches measuring 50m in length by 1.8m wide has been agreed with OCAS targeted to investigate features of interest as identified in the geophysical survey (BONVOISIN ET AL. 2019). The trenches will also target areas identified in the geophysical survey as being absent of archaeological features.
- 4.1.2. The trench locations will be accurately surveyed prior to excavation and will be located using a Leica Survey Grade RTK GPS operating to an accuracy of +/- 0.05m to Ordnance Survey National Grid and Datum.
- 4.1.3. The trenches will be scanned by Cable Avoidance Tools (CAT) and if necessary a generator prior to commencement of the trench strip to identify any unmapped or unplanned services within the immediate vicinity of the area. The scan survey will be undertaken by a suitably trained and qualified individual. Any potential anomalies identified by the CAT scanner will be demarcated by non intrusive means and an exclusion zone of 1m will be maintained for excavation. Plant will not come to rest over any buried services. All work will be undertaken in accordance with HSG47 *Avoiding danger from underground services* (HSE 2014).
- 4.1.4. The trenches will be excavated by a suitably sized (14t or larger) 360 degree mechanical tracked excavator fitted with a 1.8m toothless ditching bucket under the constant supervision of an experienced archaeologist. The topsoil and subsoil will be stripped and stored separately and kept safe distance from the trench edge. One end of the trench will be battered back for safe access and egress.
- 4.1.5. The trench location is subject to reasonable change by the field officer dependent on conditions on site, to avoid services or obstructions. Any required changes will require the approval of IPV Flexgen in consultation with the OCAS Planning Archaeologist. No changes will be made that affect the aims

of the project.

4.1.6. Machine excavation will be conducted in successive level spits to the depth of the uppermost significant archaeological horizon or interface with the underlying geological (natural) deposits, whichever is encountered first. When determining the level to which machine excavation can be carried out it should not be assumed that the most recent archaeological remains on the site are the least important. Care will be taken not to damage archaeological deposits through excessive use of mechanical excavation.

4.1.7. Trench and archaeological feature locations will be recorded by DGPS survey and related to the National Grid.

4.2. EXCAVATION METHODOLOGY

4.2.1. Examination and cleaning of all archaeological deposits will be by hand using appropriate hand tools, and will be cleaned prior to excavation to expose and clarify the extent. Any archaeological deposits will be examined and recorded both in plan and section (See Section 4.5). The objective will be to sufficiently sample the remains to characterise and date them, rather than totally remove them.

4.2.2. When investigation occurs, features will be excavated as follows:

- ◆ 50% of each intrusive/discrete feature (pits, postholes etc);
- ◆ Slots of 1m width across linear features;
- ◆ All terminals and intersections of linear features;
- ◆ Hand excavation and sampling 1m x 1m test pits of any horizontal archaeological deposits such as buried soils;
- ◆ Excavation of structural and domestic/industrial working features will be subject to excavation following strategy consultation and agreement with the OCAS.

4.2.3. Should significant archaeological deposits be encountered that are worthy of preservation *in situ*, excavation will cease. A site meeting will be held with the OCAS Planning Archaeologist to assess the significance of the deposits and to

decide on a strategy for sampling them to provide sufficient data for a useful assessment or subsequent mitigation strategy. Additional excavation work may be requested by OCAS for areas of defined archaeology which are likely to be preserved as archaeological remains and therefore may not be subject to further mitigation work.

- 4.2.4. Should a deep feature of likely archaeological origin be encountered, Trenches may be widened in localised areas to facilitate their excavation, or excavation with the 360 excavator may be permitted, subject to agreement with OCAS. Excavations deeper than 1.2m bgl will have to be stepped and no personnel are to work in deep unsupported excavations. An auger will be present on site to test features deeper than 1.2m bgl.
- 4.2.5. A metal detector, which will not be set to discriminate against iron, will be used at all stages of the evaluation in checking the trench and spoil to enhance artefact recovery.
- 4.2.6. The site code will be used to label (using appropriate materials not adhesive labels) all sheets, plans and other drawings; all context and recording sheets; all photographs (but not negatives); all other elements of the documentary archive.
- 4.2.7. Progress of the project must be reported to the OCAS Planning Archaeologist at regular intervals. Monitoring visits may be undertaken as required by the OCAS Planning Archaeologist and IPV Flexgen and a final site meeting will be held upon completion of the trench strip. Once satisfactory investigation of archaeological features within trenches has been carried out, trenches will be backfilled by machine with spoil as it was removed. Backfilling will not occur until the trenches have been inspected by OCAS and there is agreement to backfill.
- 4.2.8. All works will be carried out in accordance with the *Code of Conduct* as set out by the Cifa (CIFA 2021) and *Standard and guidance for archaeological field evaluation* (CIFA 2020A).
- 4.2.9. Progress will be discussed with the planning archaeologist and IPV Flexgen upon completion of the trenches. This will allow for assessment of any

potential further works to be undertaken.

4.2.10. No parts of the excavation areas will be handed back to the developer until written confirmation that they have been signed off is obtained from OCAS. A post excavation plan showing the features and interventions along with grid references will need to be provided for any sign off areas in advance of this written confirmation.

4.3. FINDS

4.3.1. All identified finds, artefacts, industrial and faunal remains will be collected and retained. Certain classes of building material can sometimes be discarded after recording if an appropriate sample is retained. No finds will, however, be discarded without the prior approval of the OCAS Planning Archaeologist.

4.3.2. Excavated material will be examined in order to retrieve information to assist in the analysis of the spatial distribution of artefacts.

4.3.3. All finds will be processed at the MOLA Stansted facility.

4.3.4. The finds assemblage will be retained for deposition with the site archive at Oxfordshire Museum Services.

4.3.5. Marking of finds will follow the requirements of Oxfordshire Museum Services. Bulk finds will be bagged in clear self-sealing plastic bags with the same details.

4.3.6. All finds which constitute Treasure under the 1996 Treasure Act for England and Wales (amended 2003) will be reported to the coroner by the finder and also to OCAS within 14 days of discovery. Any treasure will be excavated and moved to a safe storage facility or suitable security will be arranged on site if immediate removal is not possible.

4.3.7. Any human remains encountered will be treated with care and respect. Should human remains be identified, the exposed portion will be recorded and will be left *in situ*, covered and protected. If removal is essential it can only take place under appropriate government regulations. Furthermore, if removal is essential, such removal will be in accordance with the *Excavation and Post*

Excavation Treatment of Cremated and Inhumed Human Remains (MCKINLEY AND ROBERTS 1993) and the *Guidelines for the Standards for Recording Human Remains* (BRICKLEY AND MCKINLEY 2004) as set out by Cifa. Upon identifying human remains and prior to excavation a license for their excavation will be obtained from the Ministry of Justice. OCAS will need to be informed of any human remains encountered.

4.3.8. Should finds that require immediate conservation be encountered, they will be exposed, lifted, cleaned, conserved, marked, bagged and boxed in accordance with the guidelines set out by the United Kingdom Institute for Conservation (UKIC) *Conservation Guideline No. 2* (UNITED KINGDOM INSTITUTE FOR CONSERVATION 1983). Appropriate guidance set out in the Museums and Galleries Commissions *Standards in the Museum Care of Archaeological Collections* (MUSEUMS AND GALLERIES COMMISSION 1992) and the current Cifa *Standard and Guidance for the collection, documentation, conservation and research of archaeological materials* (CIFA 2014) will also be followed. Packaging of all organic finds and metalwork will follow the UKIC/Rescue guidelines, *First Aid for Finds* (LEIGH 2001). Any necessary conservation and treatment of metalwork will be arranged in conjunction with specialist conservators.

4.4. ENVIRONMENTAL SAMPLING

4.4.1. An environmental sampling strategy will be agreed between MOLA's Environmental Archaeology Specialist and the OCAS Planning Archaeologist once fieldwork is underway. Environmental sampling during the evaluation will target a representative range of significant contexts from each phase and examine the survival of material and key archaeological contexts.

4.4.2. Samples will be taken and processed in line with English Heritage guidelines (CAMPBELL ET AL. 2011) and the Historic England Regional Science Advisor and the OCAS Planning Archaeologist will be notified in the case of significant deposits. Provision will be made for the requirement of the following samples:

- ◆ Bulk samples of 40-60 litres, or 100% of the context, for process using a floatation tank for the recovery of charred plant remains from the 'flot' and artefacts such as small bones, mineralised plant remains, charcoal and

hammer scale from the residues;

- ◆ Samples of 1-5 litres from waterlogged deposits for analysis of waterlogged plant remains. These may be taken as sub-samples from bulk samples;
- ◆ Samples of 5-15 litres from waterlogged deposits for analysis of insect remains and other macroscopic artefacts. These may be taken as sub-samples from bulk samples;
- ◆ Samples of 2 litres for mollusc analysis, with associated continuous column samples;
- ◆ Monolith samples which may be sub-sampled for diatom, spore or pollen analysis;
- ◆ Monolith samples for soil micromorphology.

4.4.3. The sampling strategy will be overseen by MOLA's Environmental Archaeology Specialist. All environmental samples will be assessed for potential through summary analysis by an environmental specialist.

4.4.4. Bulk samples will be processed as soon as possible or discarded with the agreement of the OCAS Planning Archaeologist. Residues and any retained samples will be treated as part of the finds assemblage.

4.4.5. Further guidance will be used as appropriate and will include *Waterlogged Organic Artefacts* (HISTORIC ENGLAND 2018), *Investigative Conservation* (ENGLISH HERITAGE 2008), and *Waterlogged Wood* (ENGLISH HERITAGE 2010).

4.5. SCIENTIFIC DATING

4.5.1. Where appropriate, samples will be collected during on site works allowing for potential dating at the later stage. Recommendations for scientific dating will be included at the reporting stage. Provision will be made for:

- ◆ Dendrochronological analysis from timbers.
- ◆ C14 dating from organic material, which may be taken as sub-samples from bulk or monolith samples.

- ◆ Archaeomagnetic dating from hearths or other suitable deposits.

4.6.RECORDING SYSTEM

- 4.6.1. The site code will be used to label (using appropriate materials not adhesive labels) all sheets, plans and other drawings; all context and recording sheets; all photographs (but not negatives) and all other elements of the documentary archive.
- 4.6.2. The recording system used is based on the Museum of London *Archaeological Site Manual* (SPENCE 1994).
- 4.6.3. The integrity of the site archive will be maintained during the course of the project and will be deposited for long-term curation with Oxfordshire Museum Services. See Section 6 or further details on the archive.

THE WRITTEN RECORD

- 4.6.4. The written archive will consist of recording pro-forma recording sheets that are based on the Museum of London “single context” system and conform to the standards for archive deposition so as to ensure maximum cross archive compatibility.
- 4.6.5. Trench sheets will be used to record all information of the trenches excavated and the presence or absence of archaeological remains. Where further detail is required, register sheets will be employed to act as master indices of all types of documentary resources. In particular a context register will be maintained at all times that acts as a master list of the contexts that have been issued. Sample registers, drawing sheets and photo registers will also be used where required.
- 4.6.6. Should detailed recording be required, for example archaeological features identified, information will be supplemented by context sheets. Context record sheets will contain individual descriptions of all archaeological strata exposed, and will further include all relevant stratigraphic relationships and a separate matrix diagram.
- 4.6.7. The back of all sheets will be printed with a grid for sketches and notes. Such notes and marginalia are considered an essential part of the record.

- 4.6.8. Documentary material including the paper archive, photographic negatives and prints will be stored in boxes to the standard required for submission to Oxfordshire Museum Services (see Section 6).
- 4.6.9. If there is any doubt over recording techniques and terminology, the Museum of London Archaeological Site Manual will be used as a guide (SPENCE 1994). Copies of the manual will be available on site in the site office.

DRAWN RECORD

- 4.6.10. A site location plan will be prepared using a desktop Geographic Information System (GIS) using base data derived from Ordnance Survey's Mastermap series. This data will be supplemented by GIS shapefiles which will show the investigation area and development site in relation to the surrounding locality and the National Grid. This will be supplemented by a detailed plan (at an appropriate scale, usually 1:200 or 1:100), which will show the location of the trial trenches investigated in relation to the site area. This will be made available on paper and digitally in the site office.
- 4.6.11. At least one representative section of each trench will be recorded to demonstrate the stratigraphic composition of the trench, and subsequent representative sections drawn where changes in the stratigraphy occur including a profile of natural deposits. The stratigraphy will be recorded, even if no archaeological deposits have been identified.
- 4.6.12. Sections of archaeological features will be hand drawn at an appropriate scale, usually 1:10 or 1:20. Upon completion of each significant feature at least one sample section will be drawn, including a profile of the top of natural deposits where possible (extrapolated from cut features if it has not been fully excavated). This should be at an appropriate scale, usually 1:10 or 1:20. All sections will be related to the Ordnance Datum using spot heights and registers of sections and plans will be kept.
- 4.6.13. The extent of any visible archaeological deposits will be recorded in plan by the excavator of the context using 6H and 4H pencil on the provided permatrace drawing sheets at an appropriate scale, usually 1:20. Burials will be hand drawn at 1:10. Other detailed plans will be drawn at an appropriate scale,

usually 1:50 or 1:20. Significant or complex deposits can be drawn at a higher scale such as 1:10 provided that the drawing is clearly marked as such.

4.6.14. The drawing sheet should be completed in accordance with the site manual. Drawing conventions and line types are set out in detail in the manual. Drawings must also include: context number, matrix information and levels information. Hachures will be used to denote break of slope and gradient of slope in all hand drawn and digitised plans as a standard, regardless of complexity of archaeological features.

4.6.15. Sketch plans and other drawings should be made on the back of context sheets, which have a grid printed to assist drawing. Such sketches provide valuable additional information and should be annotated in as much detail as possible.

PHOTOGRAPHIC RECORD

4.6.16. The photographic record will be sufficiently thorough and detailed to illustrate all significant phases, structures, important stratigraphic and structural relationships, photographs of sections and individual items of interest, including artefacts. Working shots will also be taken throughout the course of the project. These will illustrate in both detail and general context the principal features and finds discovered. If in doubt, most completely excavated contexts should be photographed.

4.6.17. All photographs will be taken using a digital SLR. The photographic record will also include working shots to illustrate the general nature of the archaeological works. A register of all photographs taken will be kept on standardised forms.

4.6.18. Post excavation trench photographs will be taken of each completed trench alongside photographs of all features and sections excavated. All photographs must include an appropriate scale, a north arrow, and a photo board. Photo boards will be positioned in a way that the writing is legible and, as a minimum, include the context number and site code. Photo boards will not obscure the archaeological feature that is being recorded.

4.6.19. All digital cameras will have sensors of APS-C (or larger) and all images taken will be interpolated and be at least 10 megapixels in size. High quality non-

proprietary RAW files or TIFF images will be saved for the purposes of digital archiving.

4.7.SURVEY

4.7.1. The location of the area(s) investigated and any identified and excavated features will be accurately surveyed and related to the National Grid using Global Satellite Navigation System (GNSS).

4.7.2. Basic site surveying and scale drawing will be undertaken by the excavation team using offset planning between the grid markers.

4.7.3. Where archaeological features are identified within trenches, the visible extent of the entire feature within the trench will be recorded alongside the section location and a level in the base of the feature once excavated.

4.7.4. A GIS will be set up to maintain and manage the site data. It will be set to use the coordinate reference system EPSG:27700 (OS National Grid). Data held within the GIS will include, but not be limited to:

- ◆ Site boundary
- ◆ Constraints such as existing services
- ◆ Survey data
- ◆ Digitised plans
- ◆ Context information, including information of finds and environmental distribution

4.7.5. The entire drawn archive will be scanned, georeferenced to the National Grid, digitised, and maintained within a desktop GIS.

4.8.COMMUNITY INVOLVEMENT

4.8.1. On site staff will be allowed to answer questions from members of the public regarding the archaeology of the area and potential archaeology of the site as described in publicly available documents. Detailed inquiries from members of the public regarding the results of the works, or sensitive information, will be directed to the project manager.

4.8.2. Given the nature and scale of the works information boards, site tours and other community involvement activities are not considered appropriate.

5. Report

5.1. A formal report on the results of the excavation will be prepared on completion of the fieldwork.

5.2. The evaluation report will conform to MoRPHE (HISTORIC ENGLAND 2015), the *Advice Note for Post-Excavation Assessment* (ALGAO 2015), and Annex 2 of the Cifa's *Standard and guidance for archaeological field evaluation* (CIFA 2020A) and will include:

- ◆ A non-technical summary (abstract);
- ◆ Introductory statements and site background to include: the location of the site, relevant references such as site code and planning application reference, a date of the recording fieldwork and a list of staff attending;
- ◆ The aims and methods adopted in the course of the evaluation;
- ◆ A description of the nature, extent, date, condition and significance of all archaeological deposits recorded during groundworks, with specialist opinions and parallels from other sites if required;
- ◆ Illustrative material including maps, plans (showing at least two grid references), sections, drawings and photographs as necessary;
- ◆ A catalogue of finds, including any specialist reports;
- ◆ A discussion and summary of the results of the trenching including an assessment of the wider landscape setting and regional context, and a statement of significance;
- ◆ An index of the contents and location of the archive;
- ◆ Sources consulted;
- ◆ A copy of the OASIS record sheet.

5.3. The evaluation report will include any recommendations for further mitigation works, subject to approval by the OCAS Planning Archaeologist. Following approval, a digital copy of the report will be sent to Oxfordshire Historic Environment Record (OHER). Digital PDF copies will also be supplied to the client and uploaded to OASIS subject to any contractual requirements on confidentiality. Bound copies can be

produced on request at the expense of the client.

- 5.4.A copy of any relevant spatial data, including feature distribution and phase plans where appropriate and registered to the National Grid, will also be deposited to Oxfordshire Historic Environment Record in ESRI Shapefile format with the approved report.
- 5.5.A fieldwork summary report or short article in the relevant local journal, shall be produced for publication, dependent on the results of the evaluation.
- 5.6.MOLA shall retain full copyright of any report under the Copyright, Designs and Patents Act 1988 with all rights reserved; excepting that it hereby provides an exclusive licence to the client in all matters directly relating to the project as described in this document. Any document produced to meet planning requirements can be copied for planning purposes by the Local Planning Authority. Any information deposited in the HER can be freely copied without reference to the originator for research or planning purposes.

6. Archive

- 6.1. The site code will be used to mark all plans, drawings, context and recording sheets, photographs and other site material during excavation.
- 6.2. The site archive will be so organised as to be compatible with current requirements of Oxfordshire Museum Services and Cifa's *Standard and Guidance for the creation, compilation, transfer and deposition of Archaeological Archives* (CIFA 2020B).
- 6.3. Individual descriptions of all archaeological strata and features excavated or exposed will be entered onto *pro forma* recording sheets. Relevant context, sample and photograph registers and environmental sample sheets will also be used.
- 6.4. Selection and retention of the archive material will be in line with specialist recommendations and museum guidelines.
- 6.5. On completion of finds analysis, the landowner will be asked to sign a Deed of Transfer transferring title of the finds to Oxfordshire Museum Services.
- 6.6. The integrity of the site archive will be maintained. All finds and records will be properly curated (subject to the Deed of Transfer) by Oxfordshire Museum Services and be available for public consultation.
- 6.7. General guidance is set out in the Society for Museum Archaeology's *Standards and Guidance in the Care of Archaeological Collections* (BOYLE AND RAWDEN 2020) and the *Selection, Retention and Disposal of Archaeological Collections* (SOCIETY OF MUSEUM ARCHAEOLOGISTS 1993) will be followed in all circumstances.
- 6.8. The minimum acceptable standard for the archival report is defined in the *Management of Research Projects in the Historic Environment* (MORPHE) (HISTORIC ENGLAND 2015). It will include all materials recovered (or the comprehensive record of such materials) and all written, drawn and photographic records relating directly to the investigations undertaken. It will be quantified, ordered, indexed and internally consistent. It will also contain a site matrix, a site summary and brief written observations on the artefactual and environmental data.
- 6.9. United Kingdom Institute for *Conservation Guidelines for the Preparation of Excavation Archives for Long-term Storage* (WALKER 1990) will be followed. With

consent of the landowner, arrangements for the curation of the site archive will be agreed with Oxfordshire Museum Services.

- 6.10. Pursuant to these agreements the archive will be presented to Oxfordshire Museum Services within six months of the completion of the post excavation work (unless alternative arrangements have been agreed in writing with the planning archaeologist). In addition, written confirmation from the client will be provided for the transfer of ownership.
- 6.11. The project will be registered and regularly updated as part of the OASIS project. The OASIS ID for the project is molastan1-515076. Digital material will be archived through the Archaeology Data Service (ADS) and the unique digital object identifier will be sent to the HER.
- 6.12. Oxfordshire Museum Services shall be granted licence for the use of the archive for educational purposes, including academic research, as long as such use is non-profit making and conforms to the Copyright and Related Rights regulation 2003.

7. Data Management Plan

7.1. DATA COLLECTION

7.1.1. The archaeological work will consist of an archaeological evaluation.

7.1.2. The key archaeological techniques expected to be undertaken are excavation, recording and reporting.

7.1.3. Given the nature of the work the following data types are anticipated to be created and stored (exact volumes are undeterminable prior to commencement of works):

Images:

Type	Format	Estimated Volume
Digital SLR Images	.jpg / .tiff/ .raf	<100, av size 6.5MB
Mavic Air 2 Drone	.jpg/ .dnp / .MP4	<100 images, av size 6.5MB <2 footage, av size 30-200MB

Written and Drawn:

Type	Format	Estimated Volume
Text / documents -Reports	.pdf	2 objects, size <20MB
Text / documents - site fieldwork sheets and drawings)	.pdf	<50, av size <20, av size 60KB
Spreadsheets	.xlsx / .pdf	3, av size 300KB

GIS

Type	Format	Estimated Volume
shapefiles	.shp	9 files, including associated layers <10MB

7.1.4. The standard method of data collection will be applied through out the project to all born data and digitised records, these will adhere to the project Written

Scheme of Investigation (WSI) and best practice guidance.

7.1.5. All born digital data and digitised records are kept within a specific project folder on L - P : Archaeology's, now part of Museum of London Archaeology (MOLA), secure shared drive. These folders are organised using an in-house style, named with an identifier, descriptor and version.

7.1.6. Site data is regularly is checked and reviewed by the appropriate project staff during the life or the project; with project folders maintained and back up by L - P : Archaeology's (now part of MOLA) in-house team of IT specialists.

7.1.7. Data collected and created will follow the appropriate Best Practice, Standards and Guidelines, as well as, MOLA's in-house styles and policies.

7.2.DOCUMENTATION AND METADATA

7.2.1. The data collected will include standard formats, which maximise its use and re-use in the future, unless otherwise stipulated within the WSI, Museum Deposition Guidelines or Digital Repository Guidelines.

7.2.2. Data will retain, as far as possible, the original metadata ascribed during creation. All metadata that is incorporated in the creation of the file, particularly date of creation, will be retained.

7.3.ETHICS AND LEGAL COMPLIANCE

7.3.1. MOLA has policies regarding the ethical use of its data which comply with National law and Industry Guidelines.

7.3.2. All data shared and preserved by MOLA adheres to GDPR and is overseen by GDPR manager Michael Johnson.

7.3.3. Copyright for all data collected belongs to MOLA. Where relevant formal permission from external specialists and contractors has been secured on the engagement of specialists or contractors.

7.4.DATA SECURITY AND SETUP

7.4.1. L - P : Archaeology (now part of MOLA) uses a cloud storage service provider, this is managed by a dedicated in-house digital team, with regular offline

physical backups. The server is accessible by staff on and offsite through a secure log-in.

7.5. SELECTION AND PRESERVATION

7.5.1. All data relating to the archaeological understanding of the site is kept within the working project archive.

7.5.2. It is understood that not all data accumulated needs to be retained and deposited with the Archaeological Archives. Prior to deposition a selection strategy and DMP will be reviewed and agreed with the appropriate stakeholders, with all relevant data then deposited.

7.5.3. A minimum this will include is:

- ◆ All relevant on site and post excavation photographs.
- ◆ All relevant copies of on site recording sheets (including any relevant sketches or explanatory notes).
- ◆ All relevant copies of reports associated with the life of the project.

7.5.4. Any de-selected data may be kept by MOLA within a secure company server, if the data is considered to have intrinsic value. Any material selected for deletion will comply with the standards laid out within MOLA's in-house standards.

7.5.5. The long term preservation plan for the dataset is for safe storage with MOLA until it is securely deposited with Archaeological Data Service (ADS), OASIS, the Royal Commission for Historical and Archaeological Monuments Wales (RCHAMW) or Historic Environment Scotland.

7.5.6. The relevant Museum will be contacted at the project initiation stage, with confirmation of depositing with a trusted digital repository. ADS will be notified of the intended repository and updated at an appropriate time.

7.5.7. Exact costs of the deposition of digital data are not possible to produce prior to commencement of works. All archaeological projects have the potential to produce a wide range and size of data sets, depending on the scale of the archaeological resource found, the techniques required to record and other environmental factors during works.

7.5.8. Taking into consideration our current understanding of the site and the type of archaeological works being undertaken, this project is considered unlikely to produce data in excess of what can be submitted through ADS-easy. These costs have been estimated and included into the project budget.

7.6.DATA SHARING

7.6.1. Data will be shared with OASIS and via upload to ADS and attached to the project.

7.6.2. There are no known restrictions on data sharing.

7.7.RESPONSIBILITIES

7.7.1. Data capture, metadata production and data quality is the responsibility of the Project Team, assured by the Project Manager.

7.7.2. Storage and backup of data in the field is the responsibility of the field team.

7.7.3. Once data is incorporated into MOLA's server, its storage and backup is managed by an in-house team of specialists.

7.7.4. Data archiving is undertaken by the project team under the guidance of the Archives Officer, who is responsible for the transfer of the Archaeological Project Archive to the agreed repository.

8. Access and Safety

- 8.1. Access to the site will be arranged for Cherwell District Council and OCAS Planning Archaeologist who may wish to make site inspections to ensure that the archaeological investigations are progressing satisfactorily.
- 8.2. The OCAS Planning Archaeologist will should be given notice of at least two working weeks prior to the commencement date of site works. All works will be monitored by OCAS who will be kept informed and updated during all stages of work.
- 8.3. Before any site work commences, a full Risk Assessment Method Statement (RAMS) and accompanying Risk Assessment Document (RAD) will be produced setting out the site specific health and safety policies that will be enforced in order to reduce to an absolute minimum any risks to health and safety.
- 8.4. All relevant health and safety regulations will be followed. Barriers, hoardings and warning notices will be installed as appropriate. Safety helmets and visibility jackets will be used by all personnel as necessary.
- 8.5. No personnel will work in deep unsupported excavations. The installation of temporary support work and other attendance will be provided as required.

9. Staffing and Timetable

- 9.1. The project manager of MOLA will be responsible for the overall coherency of the team and for the management of the archaeological excavation. Additional field officers, when required on site, will be under their direction and will be responsible for particular tasks that are assigned to them.
- 9.2. Management oversight will be provided by John Duffy of MOLA. The field team will consist of a Project Officer and Archaeologist. Machine watching will be undertaken by a suitably qualified archaeologist.
- 9.3. The post excavation team will consist of members of MOLA Stansted staff who will be responsible for undertaking the processing of artefacts and environmental samples prior to assessment and analysis.
- 9.4. Specialists will be consulted based on the results of the trial trenching (APPENDIX 2). All specialists will have knowledge of the area and will be acceptable to OCAS. CVs of all specialists to be used can be provided if required.
- 9.5. A start date for the work is yet to be confirmed and the length of time on site will be determined by the development timetable. Adequate time is to be allowed for full archaeological recording of archaeological deposits before any construction work can commence on site. OCAS will be given ten working working days notice before the commencement of groundworks on site.
- 9.6. Monitoring of the fieldwork will be undertaken by OCAS. A charge of £240 will be made per monitoring visit. This will be charged to the archaeological consultant who arranged the site meeting. If the archaeological consultant or contractor's client wishes to pay this monitoring fee directly, they will need to contact us in advance of the site visit. A purchase order to this amount will need to be provided in advance of the agreement of any site visits and there may be an additional fee to cover the cost of adding them to our invoice system.

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FIGURES

FIGURE 1 // Site Location - General



0 0.25 0.5 km



PROJECT // 4463E - Duns Tew, Tew, Bicester

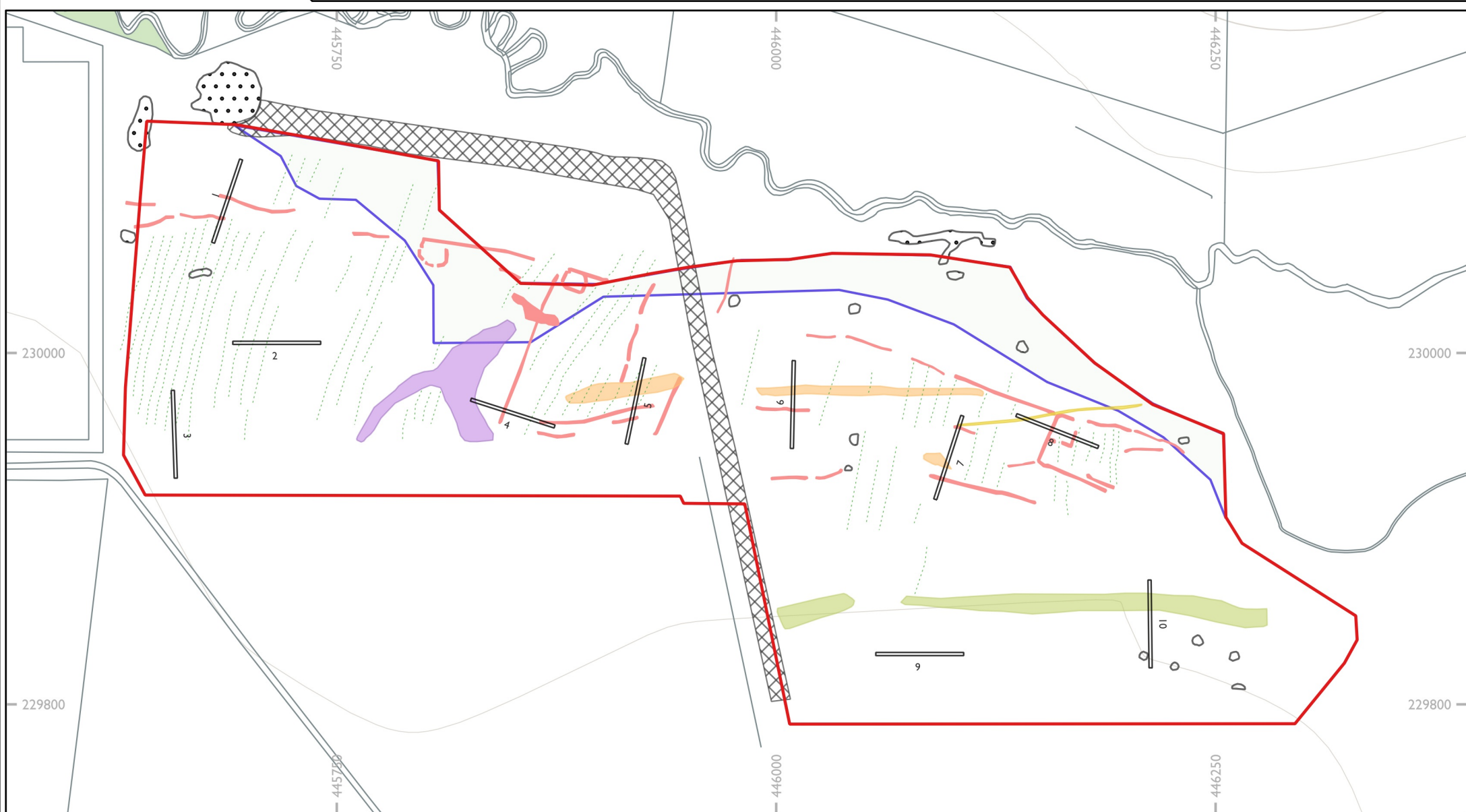
DESCRIPTION // Site Location

Contains OS data © Crown Copyright 2023 Open Government Licence 3.0

DOC REF: LP4463E-WSI-v1.0

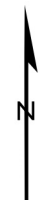
L-P:ARCHAEOLOGY

FIGURE 2 // Proposed Trench Locations



Site red line	Geophysics	Weak archaeology	Modern pipe line
Flood zone boundary	Probable archaeology	Mixed response	Magnetic response
Proposed trenching	Possible archaeology	Historic field boundary	Agricultural

0 200 m



PROJECT // 4463E - Duns Tew, Tew, Bicester

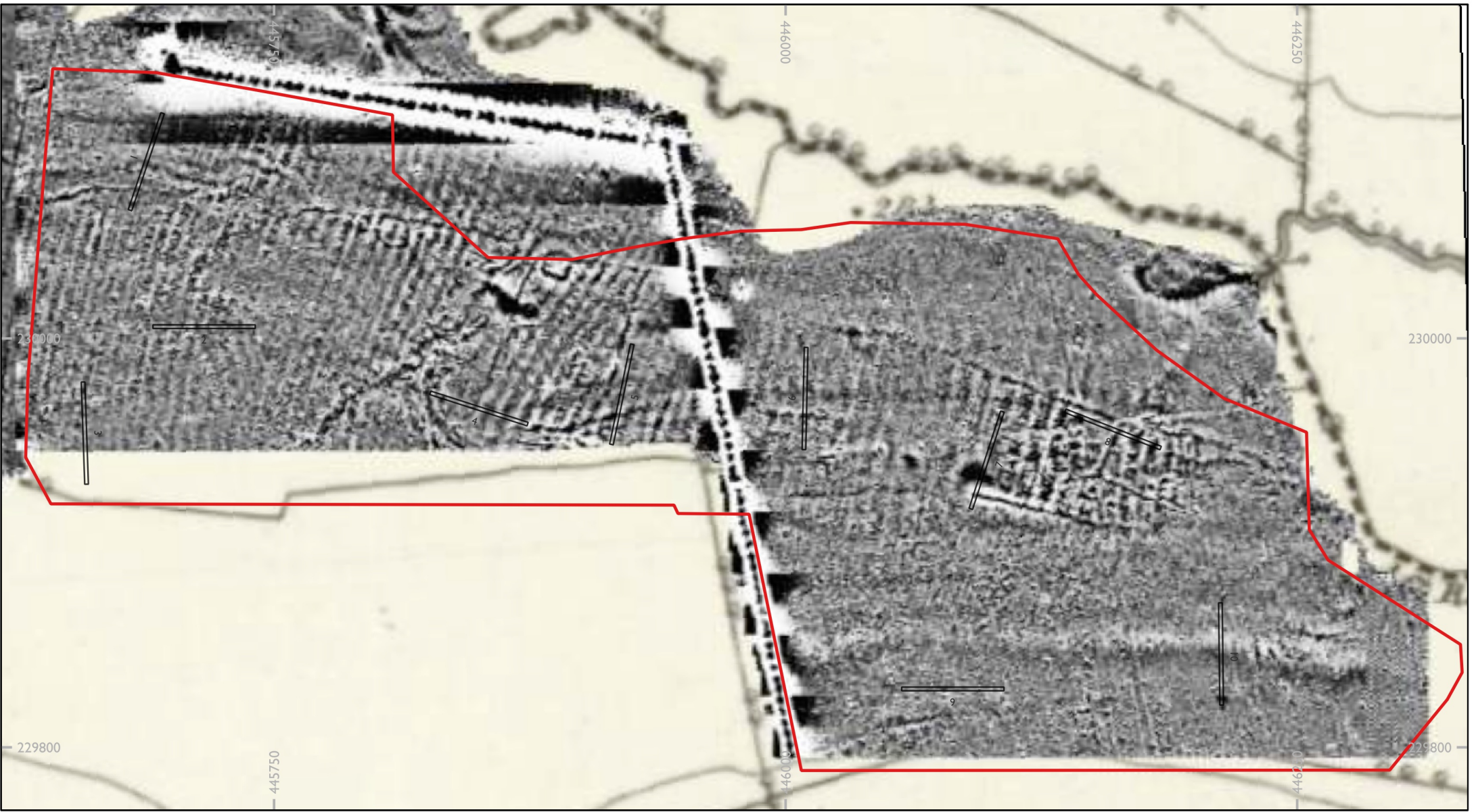
DESCRIPTION // Proposed Trench Locations

Contains OS data © Crown Copyright 2023 Ordnance Survey 100041041

DOC REF: LP4463E-WSI-v1.0

L~P:ARCHAEOLOGY

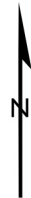
FIGURE 3 // Geophysics - Greyscale Plot



Site red line

Proposed trenching

0 100 m



PROJECT // 4463E - Duns Tew, Tew, Bicester

DESCRIPTION // Proposed Trench Locations overlaying geophysical greyscale plot

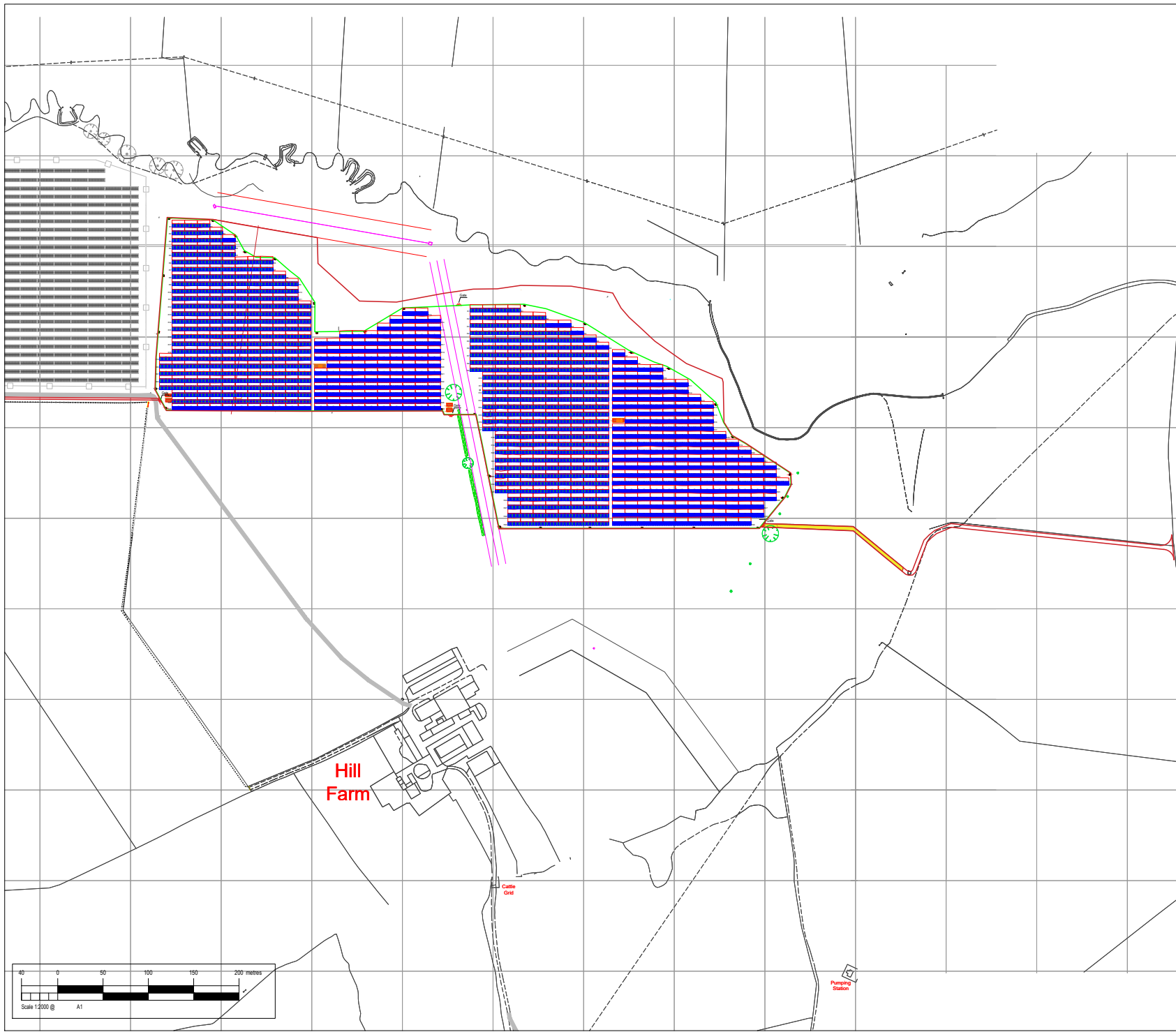
Provided by South West Archaeology LTD showing geophysics results in relation to the OS 1st Edition Map

DOC REF: LP4463E-WSI-v1.0

L~P:ARCHAEOLOGY

PROPOSED DEVELOPMENT PLAN

APPENDIX I



Total Area 13.03ha

- Security Fencing
- Red line planning boundary
- Security cameras
- Cable to DNO Substation
- Existing Solar PV Modules
- Proposed Solar PV Modules
- 40 ft Inverter / Transformer Container
- 20ft Inverter / Transformer / Spares
- Customer Sub Station
- Access Track

Date:	01/09/2020
Initial Issue:	21/11/2018
Revision Number:	28.5

Company Name and Address:
 IPV Flexgen Limited, Nelson House
 2 Hamilton Terrace
 Leamington Spa
 CV32 4LY

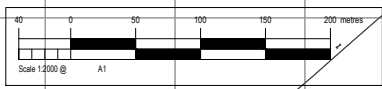


Project Name and Address:
 Duns Tew Energy Park
 Duns Tew
 Bicester
 Oxfordshire
 OX25 6JJ

Drawing: Site Layout Plan

Project: Duns Tew Energy Park	Drawing Number: PV-0446-02
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Scale: 1:2000@A1	Drawn By: JC
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SPECIALISTS

APPENDIX 2

Specialism	Specialist	Organisation
Animal Bone	Yasmine De Gruchy Chris Faine	Museum of London Archaeology (MOLA)
Environmental and Molluscs	Dr Matthew Law	MOLA
Human Remains	Chris Chinnock	MOLA
Post Roman Pottery	Sue Anderson	Spoilheap Archaeology
Prehistoric and Roman Pottery	Adam Sutton	MOLA
Ceramic Building Material	Han Li	MOLA
Conservation works	Brooke Pollio	MOLA
Lithics	Yvonne Wolfram-Murray	MOLA
Metalwork	Michael Marshall	MOLA