From:
To:
Cleve Hill Solar Park; Jones, Hefin
Cc:
Subject:
EN010085 - Cleve Hill Solar Park - The Applicant"s Deadline 3 Submission (email 3 of 7)

Date: 01 August 2019 23:17:07

Attachments:



Dear Hefin,

EN010085 - Cleve Hill Solar Park - The Applicant's Deadline 3 Submission (email 3 of 7)

Please find attached the Applicant's Deadline 3 submission.

Please do not hesitate to get in touch if you have any queries.

Kind regards,

Mike

Michael Bird

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CLEVE HILL SOLAR PARK

UPDATES TO EXISTING DOCUMENTS
OUTLINE WRITTEN SCHEME OF INVESTIGATION

August 2019 Revision B

Document Reference: 6.4.11.4

Submitted: Deadline 3







Cleve Hill Solar Farm, Graveney Kent

Written Scheme of Investigation for a Programme of Archaeological Works



for Cleve Hill Solar Park Limited

CA Project: 770820

October 2018



Cleve Hill Solar Park Graveney Kent

Outline Written Scheme of Investigation for a Programme of Archaeological Works

CA Project: 770820













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1. INTRODUCTION

- 1.1 This document sets out details of a Written Scheme of Investigation (WSI) by Cotswold Archaeology (CA) for a programme of archaeological works, comprising a detailed archaeological watching brief, historic building recording and a metal detector survey, at Cleve Hill, Graveney, Kent (centred on National Grid Reference (NGR) 603510 163919) at the request of Cleve Hill Solar Park Ltd.
- 1.2 The development will comprise the installation of a series of ground mounted solar PV panels. Associated works are likely to include access tracks, other ancillary equipment such as transformers, a substation, underground cabling, security measures, and landscaping. To-date the evaluation stages of the archaeological works has comprised a desk based assessment, a geo-archaeological borehole survey and a watching brief during geo-technical investigations. The documentation associated with the above works (along with this WSI) are to be submitted in support of the DCO application for the installation of the photovoltaic (PV) solar array within the proposed Development footprint. This document and any subsequent reports for the works identified above will be submitted to Simon Mason Principal Archaeological Officer (PAO) at Kent County Council (KCC) for his review/approval.
- 1.3 This WSI has been guided in its composition by Standard and guidance: Archaeological field evaluation (CIfA 2014), Archaeological Watching Brief (CIfA 2014a), the Management of Research Projects in the Historic Environment (MORPHE): Project Planning Note 3 (EH 2008), the Management of Research Projects in the Historic Environment (MORPHE): Project Manager's Guide (EH 2006) and any other relevant standards or guidance contained within Appendix B. The composition of the WSI has also been informed in its composition by a desk-based assessment produced by Wessex Archaeology (WA 2017). The works will also be undertaken in accordance with the KCC standard specification part B for archaeological watching briefs.

The site

1.4 The Site comprises an irregular parcel of land of approximately 360 hectares (ha located on the north Kent coast, 500m to the north of Graveney, 3 km to the northeast of Faversham and 5.2 km to the west of Whitstable (Figure 1). The majority of the Site is currently under arable cultivation and consists of 20 fields of varying size

and shape. The majority of the fields are enclosed by drainage ditches and vehicular access through the centre of the proposed development can be achieved via a raised trackway. Some of the boundaries at the southern part of the proposed development are delineated by mature trees. A set of overhead cables traverse the proposed development from the substation in the east to Faversham Creek in the west. The proposed development is bordered by the sea wall and the Swale Channel to the north, the sea wall and Faversham Creek to the west, an electricity substation, open land and Seasalter Road to the east and agricultural land (belonging to Sandbanks Farm) and the village of Graveney to the south (WA 2017).

- 1.6 The proposed development varies in height from 1.8m aOD close to Faversham Creek and the Swale in the west, to the highest point at Graveney Hill in the east at approximately 15m aOD. The current works are focussed around the Cleve Hill Substation Compound.
- 1.7 The underlying bedrock geology throughout the Site is mapped as the London Clay Formation: clay and silt formed 34-56 million years ago in the Palaeogene period, overlain by alluvium formed 2 million years ago in the Quaternary period (British Geological Survey, Geology of Britain Viewer 2017).

2. ARCHAEOLOGICAL BACKGROUND

- 2.1 The archaeological background below is drawn from an archaeological desk-based assessment of the proposed development produced by Wessex Archaeology (WA 2017).
- 2.2 Three phases of intrusive investigation were carried out within or immediately adjacent to the site as part of the London Array Grid Connection (WA143); the first two phases of work being undertaken by Wessex Archaeology in 2007 and 2008. The first phase was an archaeological watching brief upon five geotechnical test pits (Figure 2; 67610V). No archaeological features were recorded, although a probable alluvial sequence associated with the former Saltmarsh was observed. Burnt flint was also identified within the plough soil (Wessex Archaeology 2007), indicative, if nothing else of transient prehistoric activity within the wider area. The next phase of work comprised a strip, map and sample excavation over the temporary access road and foundation pits. Modern features were identified comprising a drainage ditch

and sea defence bank. Alluvial deposits were recorded beneath the topsoil (Wessex Archaeology 2008a). The third phase of work comprised a further watching brief on 16 geotechnical test pits. The lower lying test pits demonstrated an alluvial sequence associated with the former salt marsh, with one, producing evidence of an ancient shoreline. The ancient shoreline recorded within this phase works corresponds with the location of the 'old foreshore' identified in a subsequent PCA investigation in 2011. A small number of possible archaeological features were identified including a possible shell midden dating to the medieval period. Burnt and worked flints were collected from the topsoil (Wessex Archaeology 2008b).

- 2.3 A geophysical survey for the London Array was also carried out in 2008 (WA144) over an area to the south of the works discussed above, but it did not identify any features of probable archaeological origin (Archaeological Surveys Ltd 2008). This survey was undertaken on the higher ground of the London Array footprint and demonstrates that a geophysical survey on the even less productive alluvial deposits of the Cleve Hill footprint would be unlikely to yield data that would be helpful in targeting areas of watching brief.
- 2.4 Further work was undertaken for the London Array by PCA in 2008 comprising an Archaeological Evaluation of 53 trenches which revealed ditches, pits and postholes containing Iron Age pottery in the north-eastern part of the Site. The presence of domestic material suggested some form of settlement. A few features of unknown date as well as a gravel surface (possibly a causeway) were also identified, as well as Iron Age and medieval pottery sherds recovered from an alluvial layer (PCA 2008). It is possible that such potential could survive within/extend into the current site.
- 2.5 Following this an archaeological watching brief was undertaken in the same area. This comprised the stripping of topsoil in the north-eastern part of the Site where features were found during the evaluation. No features were found in this area during the watching brief as the features were preserved beneath the subsoil; however Roman pottery, brick, medieval pottery, a 17th century brick fragment and an 18th century crotal bell were recovered during the process. Also recovered during the watching brief were 19 WWII German shells and the tailfin of a British WWII 9 inch mortar. The excavation of a pile trench was also monitored but nothing was observed (PCA 2010).

- 2.6 In 2011 four trenches were excavated for the export cables and monitoring undertaken of the exploration works for unexploded ordnance. A deposit of sand thought to represent the alignment of the ancient swale foreshore was identified E-W across all four trenches, which corresponded with the ancient shoreline identified within a Wessex Archaeology test pit (MBH10; Wessex Archaeology 2008). Two pieces of oak which appear to have been placed within a channel between earthen banks were interpreted to be part of a possible fish trap. The UXO survey identified two cut features that were perhaps part of the dummy harbour created for the bombing decoy. Several 20mm shells were also found during this phase of work (PCA 2011).
- 2.7 A non-intrusive survey was undertaken in 2009 comprising a Historic Building Recording of WWII structures within the eastern part of the Development site close to Cleve Farm. This comprised the recording of a pillbox and the 'Starfish' Decoy operation post prior to their demolition (WA64 & WA69; PCA 2009).
- 2.8 A Geo-archaeological Borehole Survey was undertaken in February 2018 comprising 59 Boreholes across the Site. The boreholes did not identify any deposits of high archaeological or palaeo-environmental potential, however the organic mud deposits which may represent the preservation of the saltmarsh, could be deemed to have moderate potential. Channel fill sands identified could possibly represent abandoned tidal creeks and gravel deposits identified may indicate the presence of a buried Pleistocene terrace within transect 4 (ARCA 2018). No peat beds were found during these works.
- 2.9 Also in 2018 a watching brief was undertaken during the sinking of geo-technical pits and whilst these were devoid of archaeological evidence, two pits did record evidence of peat lenses; these logs are in the south-west corner of the proposed substation compound footprint. It is possible that this part of the compound is located on the edge of a bed that developed further round the corner of Cleve Hill and that any plant material is subsequently a little reworked.
- 2.10 Overall only limited evidence for prehistoric medieval activity has been recorded from within the Site. Finds were recovered from the ground surface of the Site during a field walking exercise, which included a Neolithic tranchet axe, worked and burnt flints and Iron Age and Romano-British pottery fragments (WA 2017). This apparent lack of evidence may reflect limited activity in the area as a result of the

marshland having been prone to frequent inundation and therefore often unsuitable for habitation. Settlement activity is therefore likely to have been focussed upon the higher ground at the eastern edge of the proposed development at Cleve Hill and Graveney Hill – such as the previously recorded Iron Age activity. The level of inundation since the last Ice Age, will have enabled the build-up of waterlogged deposits and the accumulation of peat layers containing potentially important palaeo-environmental evidence, however such deposits are for the most part likely to survive at considerable depth below the current ground surface.

- 2.11 Graveney is recorded in the Domesday Book as a sizable settlement and it is therefore likely that a somewhat smaller settlement may have existed there at the end of the Anglo-Saxon period. Salt production at Graveney is recorded at the time of the Domesday Book and Ordnance Survey mapping records 'medieval salt workings' to the east of the proposed development (WA 2017). Indeed the road that runs northwards from the village of Graveney to the coast is called Seasalter Road, suggesting there was a pre-existing track where salt would have been transported inland. Mounds of unknown date and function are recorded from aerial photos and these may also relate to salt production from the medieval period onwards. Whilst no pre-medieval evidence for salt production has been identified from within the proposed development site, it is possible that these activities may also have taken place at an earlier date.
- 2.12 It is likely that Graveney Marsh was reclaimed during the medieval or early post-medieval period and historic mapping shows a possible former sea wall or flood defence embankment to lie within the proposed development site. A medieval midden was recorded during a watching brief on geotechnical investigations for the London Array Grid Connection at the eastern extent of the proposed development. The possible midden contained oyster shell and three sherds of medieval pottery, indicative of medieval activity on the reclaimed marshland (WA 2017).
- 2.13 Prior to the twentieth century, the proposed development was used for pasture with natural, semi-natural and manmade drainage channels forming the boundaries of the land parcels. Sheepfolds, sheepwashes, farm buildings and wildfowl decoys have all been recorded within the proposed development dating to the post-medieval and early modern periods; historic mapping illustrates that changes to field boundaries also took place during this time. Many of the former natural and

manmade channels are clearly visible as cropmarks on googlemaps images (Google images 2002-2017).

2.14 In the early part of WWII, Kent was at the fore during the Battle of Britain and the last fighting recorded on British soil took place at Graveney Marsh in September 1940 between the crew of a crashed German aircraft and a patrol from the London Irish Rifles billeted at the Sportsman Pub, located close to the eastern boundary of the proposed development. A German Junkers is recorded as having crashed within the proposed development and it is thought likely that the battle took place within the proposed footprint. The aircraft was subsequently removed for immediate examination, but it is thought possible that part of the undercarriage, may have remained buried. Any surviving parts of the aircraft are protected as military remains. Other WWII military assets recorded within the proposed development comprise two pillboxes (one of which has been demolished), possible anti-glider ditches, castellated trenches, and a 'starfish' decoy (WA 2017). All these locations where likely to be impacted will require investigation.

3. AIMS AND OBJECTIVES

- 3.1 Summary of proposed works (as outlined in 1.1 above):
 - Watching Brief during groundwork
 - Building Recording of WWII Pillbox
 - Metal Detector Survey of WWII crash site
- 3.2 The objectives of the archaeological mitigation are to:
 - · record the nature of the main stratigraphic units encountered
 - assess the overall presence, survival and potential of structural and industrial remains
 - assess the overall presence, survival, condition, and potential of artefactual and ecofactual remains
 - to monitor groundworks which penetrate below the topsoil, and to identify, investigate and record all significant buried archaeological deposits revealed on the site during the course of the development groundworks;
- 3.3 The specific aims of the work are to (See Figure 1):

- record any evidence of Late Iron Age/Romano British activity at the western
 extent (WA05) of the development or perhaps even earlier prehistoric activity
 (albeit it perhaps not in situ) in close proximity to the proposed
 Substation/construction compound location (WA09)
- record any evidence of medieval domestic/fishing activity as previously indicated by the presence of a shell midden (WA09)
- to record any evidence of salt mounds as previously recorded in the north of the site close to the sea wall (WA111)
- where the opportunity is provided to record and date more closely evidence of a pit group of possible medieval date (WA117)
- to record any evidence of sheepfolds (probably post-medieval) as previously indicated by records WA29 and WA112
- to record any evidence of a sheepwash or similar (probably post-medieval) as previously indicated by records WA31
- to record any evidence for the foundations of since demolished postmedieval buildings such as those for Kye Cottage (WA31) and Decoy House (WA21)
- to record any evidence for the foundations of since demolished postmedieval buildings such as those for Kye Cottage (WA31) and Decoy House (WA21)
- to record any evidence of enclosure activity as indicated by (WA119)
- to record any evidence of the landing place near Faversham Creek (WA17)
- to record any remains of WWII defences where they are encountered
- the protected military crash site (WA74) may potentially be impacted by the design; therefore a metal detector survey will be undertaken prior to any groundwork in the area. It is thought all surface remains of the aircraft were successfully removed but it remains possible that parts of the under-carriage for example may still lie buried. Though again such remains may now be buried at depth. Permission for any works will need to be sought from the appropriate authorities
- HBR survey to record surviving pillbox (WA75) in its setting
- To record any further evidence of the castellated trench system previously recorded (WA89)
- To record any further evidence of the Graveney Hill WWII bombing decoy site previously recorded (WA64)

- recover artefactual evidence to date any evidence of past settlement that may be identified
- sample and analyse environmental remains to create a better understanding of past land use and economy
- compare results with those previously undertaken at the site
- ensure that any finds are considered in their local context and where appropriate analysis (of pottery for example) should be undertaken by a local/regional specialist
- Where deep impacts are proposed there should be a determination to establish the degree of complexity of the horizontal and/or vertical stratigraphy present within the later Pleistocene/Holocene deposits – to help further augment the site wide deposit model already established – where appropriate to recover/record any early prehistoric remains encountered; where and as necessary consult/organise specialist recording by ARCA (geo-archaeologists) and additional specialists where appropriate
- Should significant deep deposits be encountered consideration will be given to the suitability of any sediment units encountered for optically stimulated luminescence dating (OSL) – sampling for this will be undertaken on site where appropriate
- record any land divisions identified and compare them with historic mapping
- Sample any mounds identified (if not contaminated) and assess their nature/character and date

4. METHODOLOGY

Targeted Detailed Watching Brief

- 4.1 The watching brief comprises the observation by a suitably experienced archaeologist of intrusive groundwork below the topsoil, in areas of the design as detailed below. Non-archaeologically significant deposits will be removed by the contractors under archaeological supervision. Where mechanical excavators are used, these will be equipped with a toothless bucket.
- 4.2 If archaeological deposits are encountered they will be planned and recorded in accordance with Technical Manual 1 Fieldwork Recording Manual. Each context will be recorded on a pro-forma context sheet by written and measured description; principal deposits will be recorded by drawn plans (scale 1:20 or 1:50, or

electronically using Leica GPS as appropriate) and drawn sections (scale 1:10 or 1:20 as appropriate). Should detailed feature planning be undertaken using GPS this will be carried out in accordance with Technical Manual 4 *Survey Manual*. Photographs digital colour (and B&W colour slide where appropriate) will be taken. All finds and samples will be bagged separately and related to the context record. All artefacts will be recovered and retained for processing and analysis in accordance with Technical Manual 3 *Treatment of Finds Immediately after Excavation*.

4.3 In the event of archaeological deposits being found for which the resources allocated are not sufficient to support treatment to a satisfactory and proper standard or which are of sufficient significance to merit an alternative approach such as contingency excavation or physical preservation, the client and the KCC PAO will be contacted immediately. Destructive work in that area will cease until agreement has been reached on an appropriate archaeological response.

Areas of WB Investigation

- 4.4 The watching brief will be undertaken throughout the main elements of impact of the Solar Park development detailed below. The watching brief maybe curtailed (following agreement with KCCs PAO) in those areas where archaeological potential is not being encountered.
- 4.5 All cable trench routes (up to 1.1m in depth) will be archaeologically monitored unless prior deep ground impacts (such as for the transformer stations) have already indicated low archaeological potential in specific locations of the Site.
- 4.6 The entire main east/west access route (anticipated depth of impact of 600 mm) will be monitored during the overburden strip with special attention being paid when close to historically significant assets such as the duck decoys, star fish decoy etc. which may survive in the upper topography of the site albeit most probably heavily truncated or disturbed/landscaped. Monitoring maybe curtailed with the agreement of KCC's PAO if archaeological potential is proven to be persistently absent.
- 4.7 Where deep excavation for transformers is proposed (up to 2.3 m in depth) all such locations will be monitored and where they coincide with the estimated locations of channel fill sands (which could potentially represent abandoned tidal creeks and gravel deposits and/or indicate the presence of a buried Pleistocene terrace such as that identified in Transect 4 of the borehole survey (ARCA 2018)) ARCA will be

present to record any exposed sections for subsequent assessment and analysis. Other areas, where deep exposures of deposits will potentially need to be recorded by ARCA are in Zones 1, 3, 4 and 7 (See Figure 2).

- Zone 1: deep sequence of intertidal muds have low-moderate potential for palaeoenvironmental data
- Zone 3: Deep channel closely resembling that from which the Graveney Boat was recovered
- Zone 4: Marks the southern margin of the marshes and the interface with dry slightly elevated topography – archaeological features may survive in waterlogged ground
- Zone 7: Creek and bank deposits may have limited archaeological potential
- 4.8 Groundwork associated with the electrical compound, including the installation of the temporary construction compound, in the far east of the Site will be monitored; where deep impact is proposed in the south-east corner of the substation footprint, ARCA will be present to record any exposure of peat lenses similar to those revealed during the geotechnical watching brief earlier this year.
- 4.9 Should potential UXO's be identified either during a pre-construction survey or during the construction phase no excavation will be undertaken within these areas until the appropriate authorities have safely removed/detonated the said ordnance and established that no further ordnance is present within the immediate area. Once clearance has been provided by the appropriate authorities, archaeological investigation will be undertaken to establish whether any archaeological remains may have been present and subsequently disturbed.
- 4.10 Monitoring locations and excavation areas will be set out on OS National Grid (NGR) co-ordinates using a Leica GPS and scanned for live services by trained staff using CAT and Genny equipment in accordance with the Cotswold Archaeology Safe System of Work for avoiding underground services. The final 'as dug' areas will be recorded with GPS.
- 4.11 In those areas identified above works will initially comprise the mechanical removal of non-archaeologically significant soils, under constant archaeological supervision, using a toothless ditching bucket. The generated spoil will be monitored in order to recover artefacts. Hand-cleaning of the stripped surface, to better define any identified archaeological deposits/features, will be undertaken where necessary. In

all the areas identified for monitoring, machining will be conducted under archaeological supervision and will cease when the first archaeological horizon or natural substrate is revealed (whichever is encountered first). All archaeological features will be recorded in plan using Leica GPS.

- 4.12 Examination of any features identified, will concentrate on recording (where possible) such evidence in plan and especially any structural sequences. Particular emphasis will be placed upon retrieving a stratigraphic sequence and upon obtaining details of the phasing of any remains. All funerary/ritual activity and domestic/industrial deposits will be 100% excavated. All discrete features (post holes, pits) will be sampled by hand excavation (average sample to be a minimum of 50%) unless their common/repetitious nature suggests they are unlikely to yield significant new information. All linear features (ditches, pathways etc) will be sampled to a maximum of 10%. Bulk horizontal deposits will as a minimum be 10% by area hand excavated, after which a decision may be taken (in conjunction with the KCC PAO) to remove the remainder with machinery. Priority will be attached to features which yield sealed assemblages which can be related to the chronological sequence of the site.
- All archaeological features revealed will be planned and recorded in accordance with CA Technical Manual 1 *Fieldwork Recording Manual*. Each context will be recorded on a pro-forma context sheet by written and measured description; principal deposits will be recorded by drawn plans (scale 1:20 or 1:50, or electronically using Leica GPS or Total Station (TST) as appropriate) and drawn sections (scale 1:10 or 1:20 as appropriate). Where detailed feature planning is undertaken using GPS/TST this will be carried out in accordance with CA Technical Manual 4 *Survey Manual*. Photographs (digital colour) will be taken as appropriate. All finds and samples will be bagged separately and related to the context record. All artefacts will be recovered and retained for processing and analysis in accordance with CA Technical Manual 3 *Treatment of Finds Immediately after Excavation*.
- 4.14 Due care will be taken to identify deposits which may have environmental potential, and where appropriate, a programme of environmental sampling will be initiated. Samples will be taken, processed and assessed for potential in accordance with CA Technical Manual 2 *The Taking and Processing of Environmental and Other Samples from Archaeological Sites*.

- 4.15 If human remains are encountered, the client and the archaeological advisor to the LPA will be informed immediately. Where excavation of human remains is undertaken, this will be conducted following the provisions of the Coroners Unit in the Ministry of Justice.
- 4.16 CA will comply fully with the provisions of the Treasure Act 1996 and the Code of Practice referred to therein.

Artefact retention and discard

4.17 Artefacts from topsoil and subsoil and un-stratified contexts will normally be noted but not retained unless they are of intrinsic interest (e.g. worked flint or flint debitage, featured pottery sherds, and other potential 'registered artefacts'). All artefacts will be collected from stratified excavated contexts.

Human remains

4.18 In the case of the discovery of human remains (skeletal or cremated), at all times they should be treated with due decency and respect. Where human remains are encountered, these will not be excavated unless their disturbance by the development is unavoidable. In cases where exhumation of human remains is deemed unavoidable/necessary, this will be conducted following the provisions of the Coroners Unit in the Ministry of Justice. All excavation and post-excavation processes will be in accordance with the standards set out in ClfA Technical Paper No 7 Guidelines to the Standards for recording Human Remains (ClfA 2004).

Environmental remains

4.19 Due care will be taken to identify deposits which may have environmental potential, and where appropriate, a programme of environmental sampling will be initiated. This will follow the Historic England environmental sampling guidelines outlined in Environmental Archaeology, A guide to the Theory and Practice of Methods, from Sampling and Recovery to Post-excavation (English Heritage 2011), and CA Technical Manual 2: The Taking and Processing of Environmental and Other Samples from Archaeological Sites. The sampling strategy will be adapted for the specific circumstances of the site, in close consultation with the CA Environmental Officer.

4.20 The processing of the samples will be done in conjunction with the relevant specialist following the Historic England general environmental processing guidelines (English Heritage 2011). Flotation or wet sieve samples will be processed to 0.25mm. Other more specialist samples such as those for pollen will be prepared by the relevant specialist. Further details of the general sampling policy and the methods of taking and processing specific sample types are contained within CA Technical Manual 2: The Taking and Processing of Environmental and Other Samples from Archaeological Sites.

Treasure

4.21 Upon discovery of Treasure CA will notify the client and the curator immediately. CA will comply fully with the provisions of the Treasure Act 1996 and the Code of Practice referred to therein. Findings will be reported to the coroner within 14 days.

Historic Building Recording

- 4.22 Prior to the construction phase, A Historic Building survey of a WWII pillbox (WA 75) will be undertaken to Level II standard as defined in Understanding Historic Buildings; A guide to good recording practice (English Heritage 2006). The pillbox is to be retained, but adapted to use as a bat roost.
- 4.23 The drawn record will include measured plans as existing, indicating the form and location of any structural features and/or detail of historic significance including any evidence for fixtures of significance, including alterations/enhancements; drawings showing measured elevations and cross-sections, long sections necessary to aid the understanding of the building's design, development or function; and a site plan at 1:500 or 1:1250 relating the building to other structures, topographical and landscape features.
- 4.24 The photographic record will include general views of the buildings, shots of their external appearance and the overall appearance of principal room/s and circulation areas.
- 4.25 The written account will include the location of the structure; the date and circumstances of the record and name of recorder; an account of the buildings' form, function, date, and development sequence; and the names of architects/builders/ patrons and owners will be given, where known. Internal recording will be subject to

a Health and Safety Assessment. The work of recording would include a detailed inspection of the structures in their current form, together with a full photographic and written record being compiled. Access will be required to both the interior and exterior of the buildings concerned. Plans/elevations of the buildings will also be required, and it is assumed that standard plans can be sourced. It would not be our intention, or indeed a requirement at this level, to carry out any more extensive research with regard to the pillbox, but sources available online and any previous reports will be utilised to inform the report.

4.26 The survey will of course, also record the setting of the pillbox (to be a 360° photo record), recording on the one hand shots towards pill box from locations from where it is visible from the north, east and west, and on the other hand recording fields of view/fire from within pillbox. Sam Wilson, CA's battlefield expert, will be asked to advise on fields of fire and likely range of fire.

Level 2 Survey

Plans/Drawings (it is assumed that plans and elevations can be sourced)

- Sketched plan, section, elevation or detail drawings.
- Measured plans as existing. Plans will show the form and location of any structural features of historic significance, such as blocked doors, windows, masonry joints, and other changes in floor and ceiling levels, and any evidence for fixtures of significance.
- Measured drawings recording the form or location of other significant structural detail,
- Measured cross-sections, long-sections or elevational sections illustrating the vertical relationships within the pillbox (floor and ceiling heights, or the form of roof supports, for example).
- Measured elevations, where these are necessary to an understanding of the pillbox's design, development or function and not more readily obtained by photography.
- A site plan, typically at 1:500 or 1:1250, relating the building to other structures and to related topographical and landscape features.

Photography

We would use digital photography in accordance with the standard set out in the Historic England Guidance 'Digital Image Capture and File Storage: Guidelines for Best Practice' (2105).

- A general view or views of the pillbox (in its wider setting or landscape).
- The pillbox's external appearance.
- The overall appearance of the principal room/s and circulation areas.

Written Account/Report

The report will utilise any heritage reports provided by the client, in addition to the results of any preliminary research undertaken utilising online sources, and will comprise:

- The building's precise location, both as a National Grid reference and in address form.
- A note of any designation (Conservation Area). Non-statutory designations (local list etc) may be added.
- The date of the record, the name(s) of the recorder(s) and, if an archive has been created, its location.

Metal Detecting Survey

- 4.27 A metal detecting survey will be undertaken over an area of *c*. 1ha centered on the WWII Crash Site (**WA 74**). As the location is a protected crash site, the survey will only be allowed to progress once a license has been requested and subsequently obtained from the Department of Commemorations and Licensing (MOD). Initial contact has been made with Deborah Morgan at the DCL to discuss the nature of a potential future request. Once the license has been obtained the proposed survey area will first be assessed as to whether ground conditions (e.g. crop cover, weathering, ploughing regime) are suitable for metal detecting, so that the maximum level of coverage can be undertaken. It should be noted that the area is very prone to hard frosts (recorded during the geoarch survey) and any survey should be programmed to be undertaken either before or after the winter period. Landowner permissions will be sought through the client or their agents.
- 4.28 Metal detecting will take place over the fields using transects established at 10m intervals and related to the OS grid. Every artefact of possible archaeological significance will be marked and find spot surveyed using a Leica GPS. Bags will be

marked with the site code and a unique registered artefact number. The location of the transects will be established using standard survey techniques and plotted using GPS.

- 4.29 The metal detectorists will cover a two metre wide transect as a basis for artefact collection. The initial survey will be along one axis of the transect line, with the secondary survey along the opposing axis. A CA Project Officer, Sam Wilson, (who specializes in surveying Battlefield sites) will lead the survey and ensure uniformity of results. Sam Wilson will be accompanied by a geomatics officer. Where possible, and subject to Health and Safety and insurance requirements, the local Metal Detecting Club will be invited to assist in the survey, subject to the approval of and following discussions with the Finds Liaison Officer for KCC. Sam Wilson will also liaise with Mark Harrison of Historic England, who has undertaken a lead role in the Forgotten Frontline Project. Recording will be undertaken in non-ferrous mode.
- 4.30 In the event that UXO is encountered it will be appropriately reported and the authorities informed, see 4.9 above. As identified in the background section above, main body of the Junkas is recorded as having been removed for detailed analysis immediately following the emergency landing and the capture of its crew. The objective of the MDS is purely to ensure that every effort has been made to secure any remaining parts of the aircraft (however small) prior to any development in this part of the site. It is not considered therefore likely that large sections of the aircraft remain buried. The reasoning is that this aircraft was the latest of its kind (at that time) and the Air Ministry were keen to recover as complete an aircraft as possible for analysis etc. There are no human remains associated with the crash site, as all flight crew survived the crash and the subsequent exchange of fire; so the sensitivities are not quite the same as in cases where remains have been buried with an aircraft. In the unlikely event that substantial sections of the aircraft are uncovered advice will be sought in line with the License as to the most appropriate next stage of investigation/record – most likely recording and removal of the remains to the appropriate museum in keeping with the License. The metal detector survey will therefore be used to indicate/identify the extent of the crash site and what form of further investigation/excavation should be undertaken and whether/what form of any design modification to the array should/might be anticipated. Any decisions regarding any further investigation will be approved by KCC and agreed under the authority of the License.

5. STAFF AND TIMETABLE

- 5.1 This project will be under the management of Richard Greatorex, Principal Fieldwork Manager, BA Hons, MlfA, Cotswold Archaeology (Andover Office).
- 5.2 The staffing structure will be organised thus: the Project Manager will direct the overall conduct of the proposed work as required during the archaeological programme. Day to day responsibility however will rest with the Project Leaders who will be on-site throughout the project.
- 5.3 The field team will consist of a Project Leaders, supplemented by additional Archaeologists as required).
- 5.4 The duration of the fieldwork will be dependent upon the contractor's programme.
- 5.5 Specialists who will be invited to provide advice and report on specific aspects of the project as necessary are:

Ceramics Ed McSloy MCIfA (CA)
Metalwork Ed McSloy MCIfA (CA)

Flint Jacky Sommerville PCIfA (CA)

Animal Bone Andy Clarke (CA)/

Matty Holmes BSc MSc ACIfA (freelance)

Human Bone Sharon Clough MCIfA (CA)
Environmental Remains Sarah Wyles PCIfA (CA)

Conservation Pieta Greeves BSc MSc ACR

(Drakon Heritage and Conservation)

Geoarchaeology Dr Keith Wilkinson (ARCA)

Building Recording Peter Davenport MCIfA, FSA (CA)

5.6 Depending upon the nature of the deposits and artefacts encountered it may be necessary to consult other specialists not listed here. A full list of specialists currently used by Cotswold Archaeology is contained within Appendix A.

6. POST-EXCAVATION, ARCHIVING AND REPORTING

- 6.1 Following completion of fieldwork, all artefacts and environmental samples will be processed, assessed, conserved and packaged in accordance with CA Technical Manuals and the relevant recipient Museum guidelines. A recommendation will be made regarding material deemed suitable for disposal/dispersal in line with the relevant recipient Museums' collection policy.
- An illustrated report will be compiled on the results of the fieldwork and assessment of the artefacts, palaeo-environmental samples etc. The report will include:
 - (i) an abstract containing the essential elements of the results preceding the main body of the report, and a summary of the project's background;
 - (ii) description and illustration of the site location;
 - (iii) a methodology of the works undertaken;
 - (iv) integration of, or cross-reference to, appropriate cartographic and documentary evidence and the results of other research undertaken, where relevant to the interpretation of the watching brief results;
 - (v) a description of the project's results;
 - (vi) an interpretation of the results in the appropriate context;
 - (vii) a summary of the contents of the project archive and its location (including summary catalogues of finds and samples);
 - (viii) a site location plan at an appropriate scale on an Ordnance Survey, or equivalent, base-map;
 - (ix) a plan showing the location of the areas observed and exposed archaeological features and deposits in relation to the site boundaries;
 - (x) plans of each area in which archaeological features are recognised. These will be at an appropriate scale to allow the nature of the features exposed to be shown and understood. Plans will show the orientation of features recorded in relation to north. Section drawing locations will be shown on these plans. Archaeologically sterile areas will not be illustrated unless this can provide information on the development of the site stratigraphy or show palaeoenvironmental deposits that have influenced the site stratigraphy;
 - (xi) section drawings of areas/trenches and features will be included where appropriate, with OD heights and at scales appropriate to the stratigraphic detail being represented. These will show the orientation of the drawing in relation to

north/south/east/west. Archaeologically sterile trenches will not be illustrated unless they provide significant information on the development of the site stratigraphy or show palaeoenvironmental deposits that have influenced the site stratigraphy;

- (xiii) photographs showing significant features and deposits that are referred to in the text. All photographs will contain appropriate scales, the size of which will be noted in the illustration's caption:
- (xiv) a consideration of evidence within its wider local/regional context;
- (xv) a summary table and descriptive text showing the features, classes and numbers of artefacts recovered and soil profiles with interpretation;
- (xvi) specialist assessment or analysis reports where undertaken;
- 6.3 Specialist artefact and palaeoenvironmental assessment will take into account the wider local/regional context of the archaeology and will include:
 - (i) specialist aims and objectives
 - (ii) processing methodologies (where relevant)
 - (iii) any known biases in recovery, or problems of contamination/residuality
 - (iv) quantity of material; types of material present; distribution of material
 - (v) for environmental material, a statement on abundance, diversity and preservation
 - (vi) summary and discussion of the results to include significance in a local and regional context
- 6.4 Copies of the <u>draft report</u> will be distributed to the Client or their Representative and to KCC's PAO thereafter for verification and approval. Thereafter, copies of the <u>approved report</u> will be issued to the Client, KCC's PAO and the local Historic Environment Record (HER). Reports will be issued in digital format (PDF/PDFA as appropriate) except where hard copies have been specifically requested, and will be supplied to the HER along with shapefiles containing location data for the areas investigated, if required.
- An ordered, indexed, and internally consistent site archive will be prepared and deposited in accordance with *Archaeological Archives: A Guide to Best Practice in Creation, Compilation, Transfer and Curation* (Archaeological Archives Forum 2007) and the relevant museum guidelines.

Academic dissemination

As the limited scope of this work is likely to restrict its publication value, it is anticipated that a short publication note only will be produced, suitable for inclusion within an appropriate local archaeological journal [Kent Archaeological Society online publication]. Subject to any contractual constraints, a summary of information from the project will also be entered onto the OASIS online database of archaeological projects in Britain including the upload of a digital (PDF) copy of the final report, which will appear on the Archaeology Data Service (ADS) website once the OASIS record has been verified.

Public dissemination

In addition to the ADS website, a digital (PDF) copy of the final report will also be made available for public viewing via Cotswold Archaeology's *Archaeological Reports Online* web page, generally within 12 months of completion of the project (http://reports.cotswoldarchaeology.co.uk/).

Archive deposition

6.8 CA will make arrangements with the appropriate museum (accession number TBC) for the deposition of the site archive and, subject to agreement with the legal landowner(s), the artefact collection. The appropriate museum will be consulted at this stage concerning their requirements and notified in advance of the expected time limits for deposition of the archive.

7. HEALTH AND SAFETY

- 7.1 CA will conduct all works in accordance with the Health and Safety at Work Act 1974 and all subsequent Health and Safety legislation, CA Health and Safety and Environmental policies and the CA Safety, Health and Environmental Management System (SHE), as well as any Principal Contractor's policies or procedures. A site-specific Construction Phase Plan (form SHE 017) will be formulated prior to commencement of fieldwork.
- 7.2 As on all archaeological projects where Ordnance may be anticipated (whether Low or High risk) Cotswold Archaeology will ensure that all staff have received a UXO briefing (along with all plant operatives) so that they can be confident that they can

identify all common forms of Ordnance and know the appropriate protocols in instances where such are identified on site. Many CA Andover staff have had such briefings in the past when working in such locations as Plymouth, Southampton and Portsmouth etc. A copy of the UXO Preliminary Assessment will be requested by CA and copies of any subsequent reports so that the CA Health and Safety RAMS can fully reflect the findings of the report/s and updated as and when required.

8. INSURANCES

8.1 CA holds Public Liability Insurance to a limit of £10,000,000 and Professional Indemnity Insurance to a limit of £10,000,000.

9. MONITORING

9.1 Notification of the start of site works will be made to the KCC PAO so that there will be opportunities to visit the site and check on the quality and progress of the work.

10. QUALITY ASSURANCE

- 10.1 CA is a Registered Organisation (RO) with the Chartered Institute for Archaeologists (RO Ref. No. 8). As a RO, CA endorses the *Code of Conduct* (ClfA 2014) and the *Code of Approved Practice for the Regulation of Contractual Arrangements in Field Archaeology* (ClfA 2014). All CA Project Managers and Project Officers hold either full Member or Associate status within the ClfA.
- 10.2 CA operates an internal quality assurance system in the following manner. Projects are overseen by a Project Manager who is responsible for the quality of the project. The Project Manager reports to the Chief Executive who bears ultimate responsibility for the conduct of all CA operations. Matters of policy and corporate strategy are determined by the Board of Directors, and in cases of dispute recourse may be made to the Chairman of the Board.

11. PUBLIC ENGAGEMENT, PARTICIPATION AND BENEFIT

11.1 The construction phase of this project will not afford opportunities for on-site public engagement due to the over-riding concerns for Health and Safety. However, the metal detector survey which will be undertaken prior to construction, will afford some limited public involvement through the engagement with local metal detector groups who will be invited to assist in the implementation of the survey. Subject to further agreement, it is the intention of the client to erect heritage information panels/boards at appropriate locations around the site. The client may also seek to offer support to such projects as the Defence of the Realm Project and/or the Forgotten Frontline, which have specific associations with the site and its immediate environs. The results will be made publicly available on the ADS and Cotswold Archaeology websites, as set out in Section 6 above, in due course.

12. STAFF TRAINING AND CPD

- 12.1 CA has a fully documented mandatory Performance Management system for all staff which reviews personal performance, identifies areas for improvement, sets targets and ensures the provision of appropriate training within CA's adopted training policy. In addition, CA has developed an award-winning Career Development Programme for its staff, which ensures a consistent and high quality approach to the development of appropriate skills.
- 12.2 As part of the company's requirement for Continuing Professional Development, all members of staff are also required to maintain a Personal Development Plan and an associated log which is reviewed within the Performance Management system. All staff are subject to probationary periods on appointment, with monthly review; for site-based staff additional monthly Employee Performance Evaluations measure and record skills and identify training needs.

13. REFERENCES

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CA 2018a Written Scheme of Investigation for an Archaeological Watching brief During Geotechnical Investigations on the Proposed Cleve Hill (Solar Farm) Substation Compound (Client Report)

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APPENDIX A: COTSWOLD ARCHAEOLOGY SPECIALISTS

Ceramics

Neolithic/Bronze Age Ed McSloy BA MCIFA (CA)

Emily Edwards (freelance)

Dr Elaine Morris BA PhD FSA MCIFA (University of Southampton)

Iron Age/Roman Ed McSloy BA MCIFA (CA)

Kayt Marter Brown BA MSc MCIFA (freelance)

(Samian) Gwladys Montell MA PhD (freelance)
(Amphorae stamps) Dr David Williams PhD FSA (freelance)

Anglo-Saxon Paul Blinkhorn BTech (freelance)

Dr Jane Timby BA PhD FSA MCIFA (freelance)

Medieval/post-medieval Ed McSloy BA MCIFA (CA)

Kayt Marter Brown BA MSc MCIFA (freelance)

Stephanie Ratkai BA (freelance) Paul Blinkhorn BTech (freelance) John Allan BA MPhil FSA (freelance)

South West Henrietta Quinnell BA FSA MCIFA (University of Exeter)

Clay tobacco pipe Reg Jackson MLitt MCIFA (freelance)

Marek Lewcun (freelance)

Ceramic Building Material Ed McSloy MCIFA (CA)

Dr Peter Warry PhD (freelance)

Other Finds

Small Finds Ed McSloy BA MCIFA (CA)

Metal Artefacts Katie Marsden BSc (CA)

Dr Jörn Schuster MA DPhil FSA MCIFA (freelance)

Dr Hilary Cool BA PhD FSA (freelance)

Lithics Ed McSloy BA MCIFA (CA)

Jacky Sommerville BSc MA PCIFA (CA)

(Palaeolithic) Dr Francis Wenban-Smith BA MA PhD (University of Southampton)

Worked Stone Dr Ruth Shaffrey BA PhD MCIFA (freelance)

Dr Kevin Hayward FSA BSc MSc PhD PCIFA (freelance)

Inscriptions Dr Roger Tomlin MA DPhil, FSA (Oxford)

Glass Ed McSloy MCIFA (CA)

Dr Hilary Cool BA PhD FSA (freelance)

Dr David Dungworth BA PhD (freelance; English Heritage)

Coins Ed McSloy BA MCIFA (CA)

Dr Peter Guest BA PhD FSA (Cardiff University) Dr Richard Reece BSc PhD FSA (freelance)

Leather Quita Mould MA FSA (freelance)

Textiles Penelope Walton Rogers FSA Dip Acc. (freelance)

Iron slag/metal technology Dr Tim Young MA PhD (Cardiff University)

Dr David Starley BSc PhD

Worked wood Michael Bamforth BSc MCIFA (freelance)

Biological Remains

Animal bone Dr Philip Armitage MSc PhD MCIFA (freelance)

Dr Matilda Holmes BSc MSc ACIFA (freelance)

Human Bone Sharon Clough BA MSc MCIFA (CA)

Environmental sampling Sarah Wyles BA PCIFA (CA)

Sarah Cobain BSc MSc ACIFA (CA)

Dr Keith Wilkinson BSc PhD MCIFA (ARCA)

Pollen Dr Michael Grant BSc MSc PhD (University of Southampton)

Dr Rob Batchelor BSc MSc PhD MCIFA (QUEST, University of Reading)

Diatoms Dr Tom Hill BSc PhD CPLHE (Natural History Museum)

Dr Nigel Cameron BSc MSc PhD (University College London)

Charred Plant Remains Sarah Wyles BA PCIFA (CA)

Sarah Cobain BSc MSc ACIFA (CA)

Wood/Charcoal Sarah Cobain BSc MSc ACIFA(CA)

Dana Challinor MA (freelance)

Insects Enid Allison BSc D.Phil (Canterbury Archaeological Trust)

Dr David Smith MA PhD (University of Birmingham)

Mollusca Sarah Wyles BA PCIFA (CA)

Dr Keith Wilkinson BSc PhD MCIFA (ARCA)

Ostracods and Foraminifera Dr John Whittaker BSc PhD (freelance)

Fish bones Dr Philip Armitage MSc PhD MCIFA (freelance)

Geoarchaeology Dr Keith Wilkinson BSc PhD MCIFA (ARCA)

Soil micromorphology Dr Richard Macphail BSc MSc PhD (University College London)

Scientific Dating

Dendrochronology Robert Howard BA (NTRDL Nottingham)

Radiocarbon dating SUERC (East Kilbride, Scotland)

Beta Analytic (Florida, USA)

Archaeomagnetic dating Dr Cathy Batt BSc PhD (University of Bradford)

TL/OSL Dating Dr Phil Toms BSc PhD (University of Gloucestershire)

Conservation Karen Barker BSc (freelance)

Pieta Greaves BSc MSc ACR (Drakon Heritage and Conservation)

APPENDIX B: ARCHAEOLOGICAL STANDARDS AND GUIDELINES

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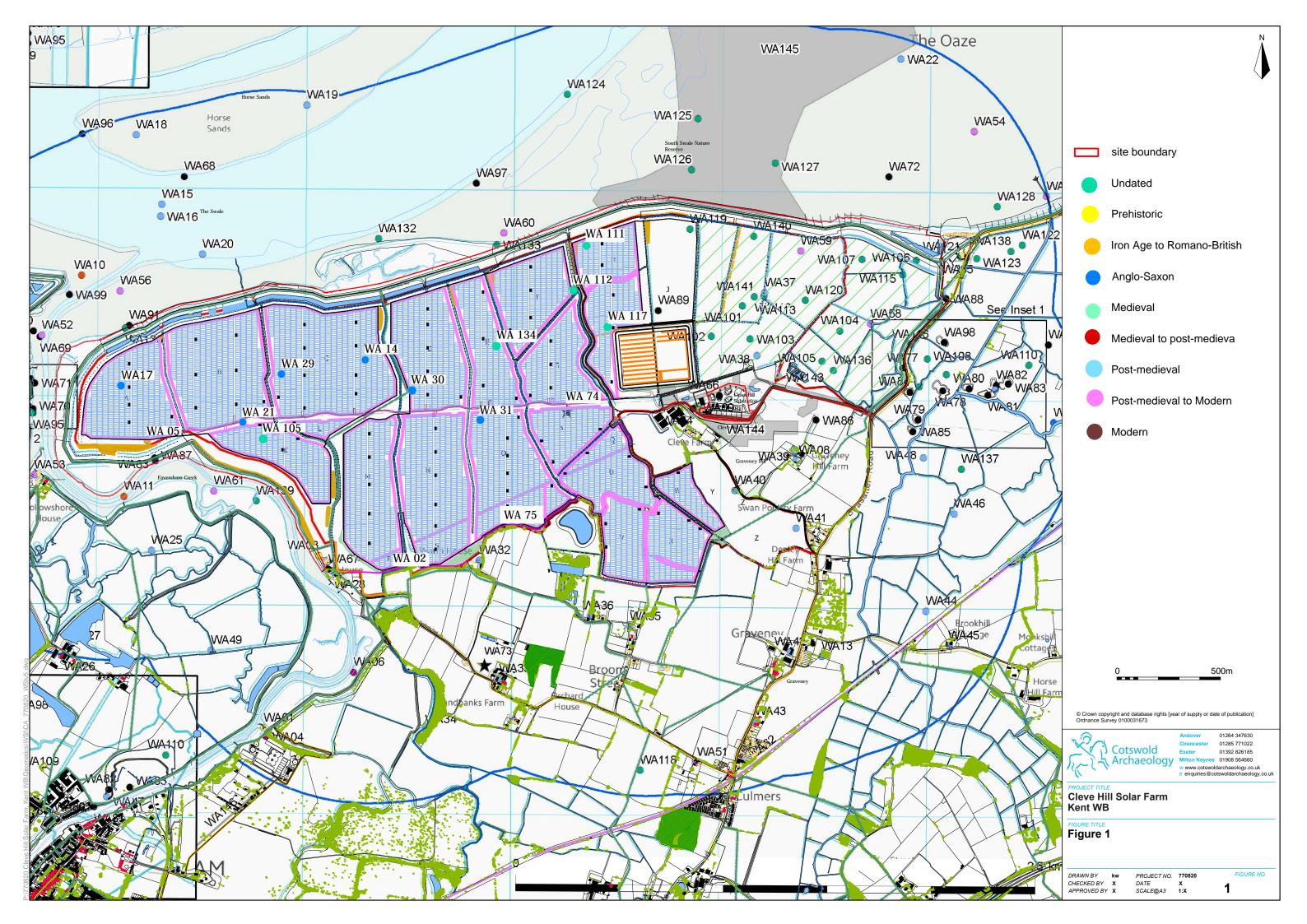
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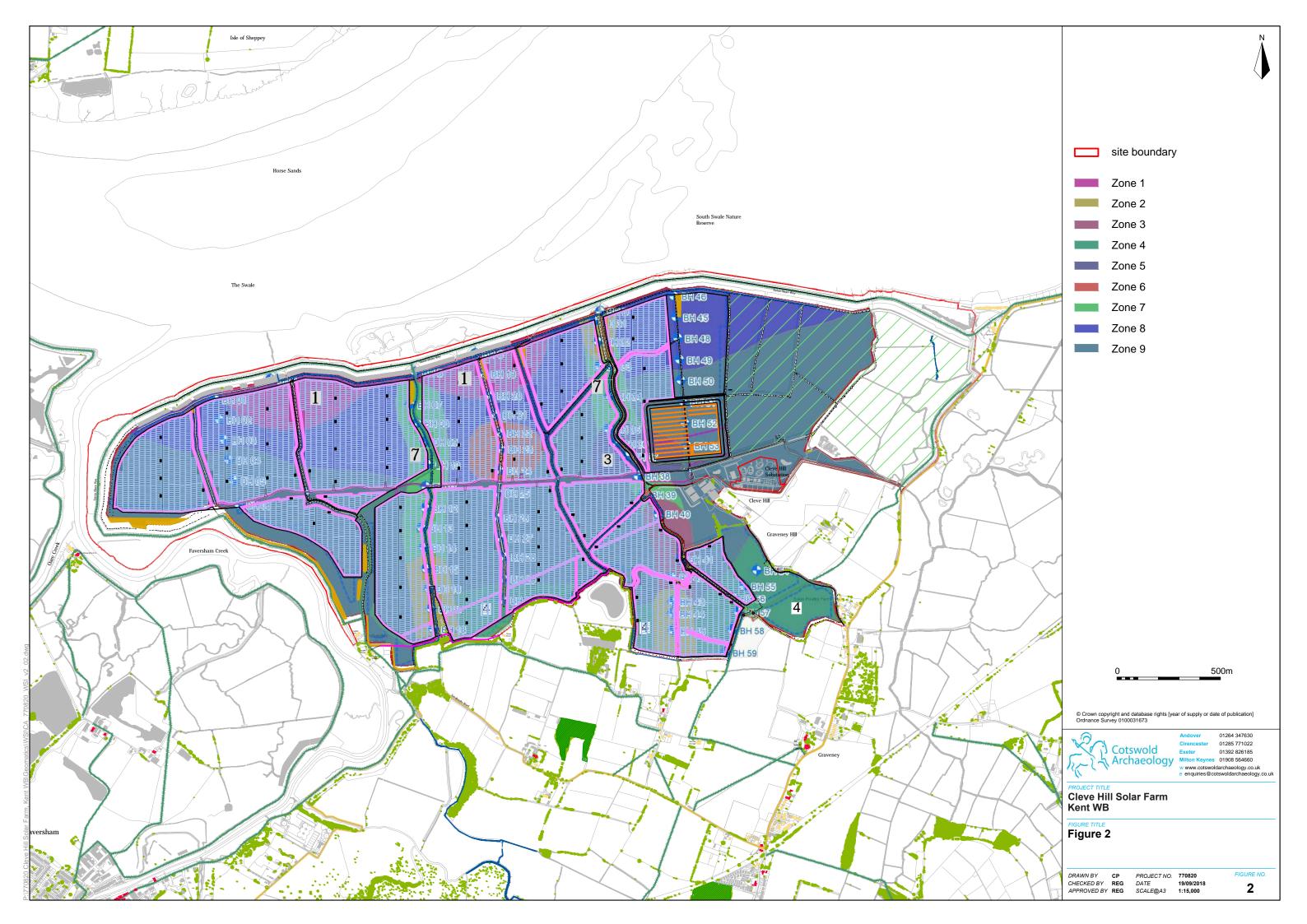
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