

Lamb's Hill Wind Farm  
Stillington, Stockton-on-Tees

Archaeological Evaluation



Solstice Heritage  
Crabtree Hall Business Centre  
Little Holtby  
Northallerton  
North Yorkshire  
DL7 9NY

[www.solsticeheritage.co.uk](http://www.solsticeheritage.co.uk)



# Lamb's Hill Wind Farm, Stillington, Stockton-on-Tees

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## Archaeological Evaluation

Prepared for:	Laura Garcia Senior Heritage Consultant AECOM 2 City Walk Leeds LS11 9AR
Prepared by:	Jim Brightman BA (Hons), MLitt, MCifA Solstice Heritage Crabtree Hall Business Centre Little Holtby Northallerton North Yorkshire DL7 9NY
Checked by:	Chris Scott BA (Hons), MA, MCifA
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## **EXECUTIVE SUMMARY**

*This report details the results of a programme of evaluation trenching undertaken on land west of Stillington, Stockton-on-Tees as a condition of planning permission in advance of the construction of a four-turbine wind farm. The trenching was undertaken in order to characterise the potential effects of the proposed development on the archaeological resource, with the trenches targeted to areas of ground impact.*

*Five trenches of 30m x 2m and one of 15m x 2m were excavated by machine under archaeological supervision and any features were further investigated and excavated with hand tools. All recording was undertaken to standards as set out in the relevant Chartered Institute for Archaeologists guidance and in accordance with an agreed Written Scheme of Investigation (WSI), included as Appendix 2 below.*

*Anthropogenic features observed were restricted entirely to the truncated basal remains of plough furrows of a likely post-medieval or modern date and a single truncated field drain in Trench 6. No other anthropogenic features, deposits or artefacts were identified.*

*The results of the evaluation indicate that the potential direct impact of the proposed development on the archaeological resource is likely to be negligible.*

## 1. INTRODUCTION

### 1.1 PROJECT BACKGROUND

This report has been prepared by Solstice Heritage on behalf of AECOM to outline the results of a programme of archaeological evaluation. The evaluation was undertaken to address a condition of planning permission in advance of the construction of a four-turbine wind farm on land west of the village of Stillington, Stockton-on-Tees.

### 1.2 SITE LOCATION

The proposed development is situated over several fields totalling c. 185ha between Stillington and Old Stillington; the site also straddles the Clarence Railway (Figure 1). The locations of the six evaluation trenches are shown on Figure 2 below; given the distance between trenches due to the overall scale of the development site, coordinates are also given for the centre points of each trench end in Table 1 below:

Trench	Centrepoint of Trench End 1		Centrepoint of Trench End 2	
	E	N	E	N
1	436306	523495	436328	523514
2	435926	523320	435938	523309
3	435704	523679	435728	523661
4	436126	523930	436155	523927
5	436831	523107	436860	523103
6	436895	523104	436895	523134

Table 1 Coordinates of trench locations

### 1.3 AIMS AND OBJECTIVES

Archaeological field evaluation is defined as:

“A limited programme of non-intrusive and/or intrusive fieldwork which determines the presence or absence of archaeological features, structures, deposits, artefacts or ecofacts within a specified area or site on land, inter-tidal zone or underwater. If such archaeological remains are present field evaluation defines their character, extent, quality and preservation, and enables an assessment of their worth in a local, regional, national or international context as appropriate” (ClfA 2014, 2).

The overarching aim of the investigation was:

- To assess, through a programme of intrusive trenching, the potential direct effect of the proposed development on the archaeological resource.

The objectives of the investigation were:

- To determine (where possible) the nature, depth, extent, significance and date of buried archaeological remains that may be located within the proposed development area
- To determine the condition or state of preservation of any archaeological deposits or features encountered
- To determine the likely range, quality and quantity of artefactual and environmental evidence present
- To answer any relevant research questions
- To inform the scope of archaeological mitigation works if required
- To produce a report on the findings at the site.



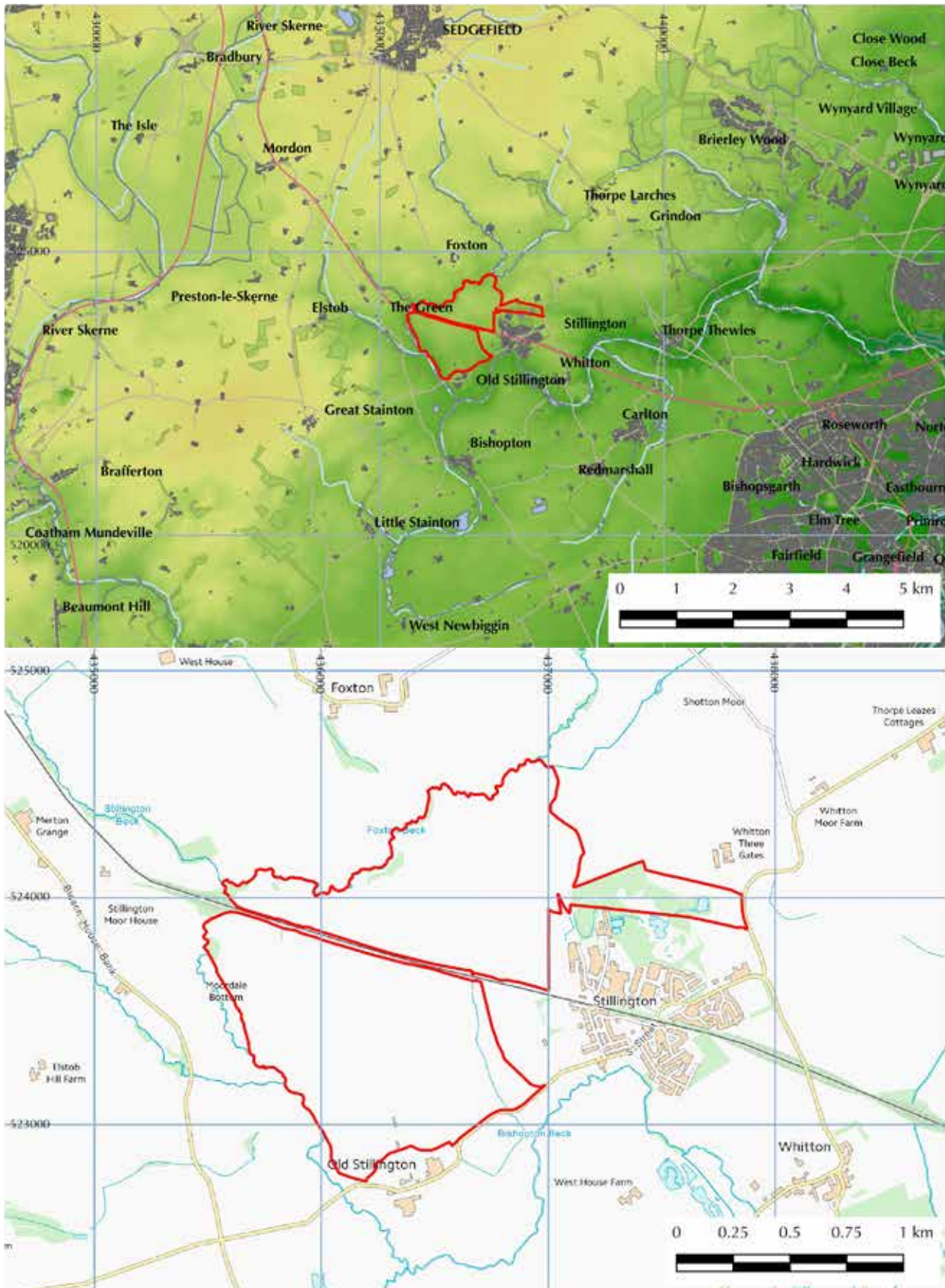
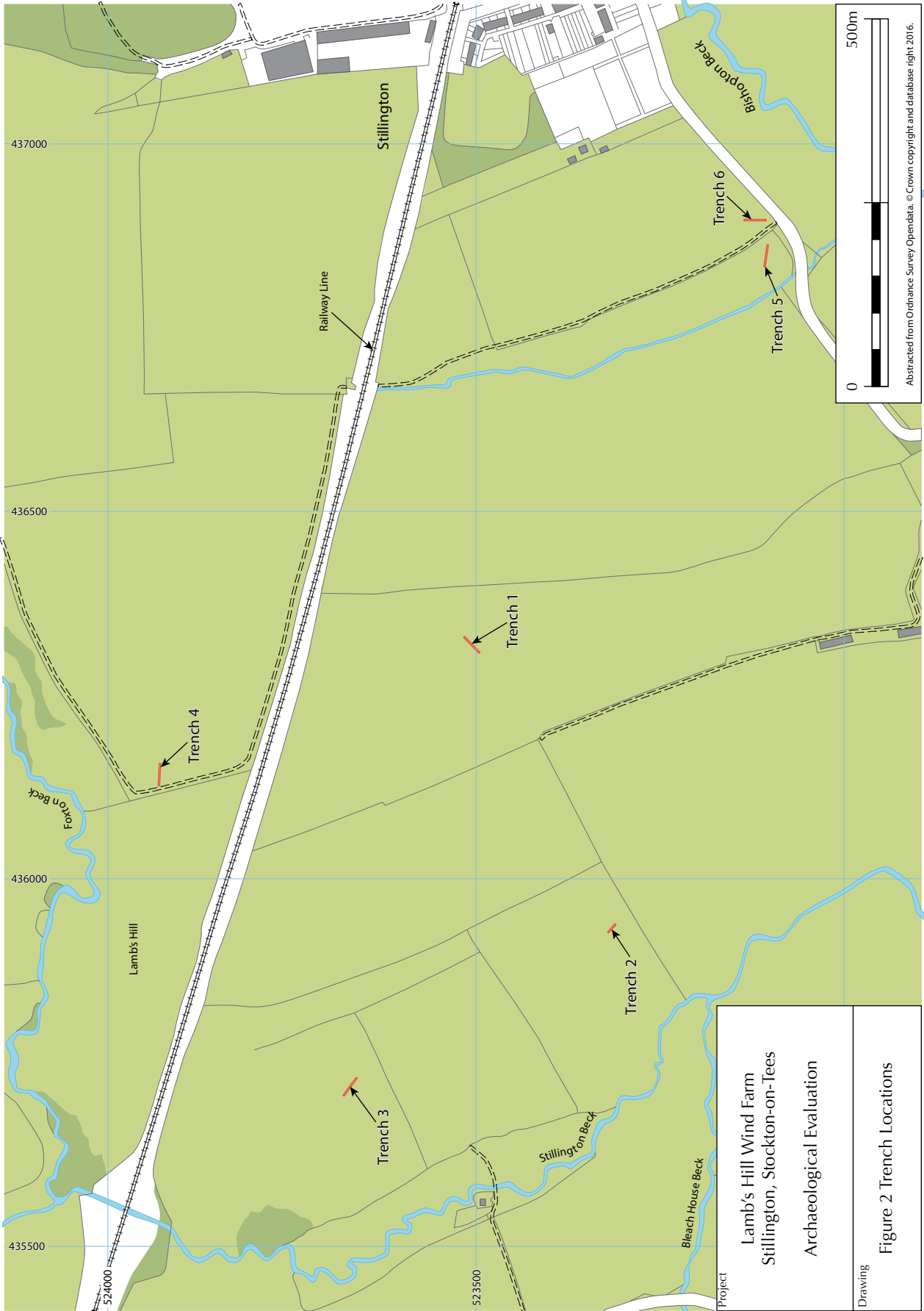


Figure 1 Site Location



## 2. POLICY AND GUIDANCE FRAMEWORK

### 2.1 LEGISLATION

National legislation which applies to the consideration of cultural heritage within development and the wider planning process is set out in Table 1 below.

Title	Key Points
Ancient Monuments and Archaeological Areas Act 1979 (amended by the National Heritage Act 1983 and 2002)	Scheduled Monuments, as defined under the Ancient Monuments and Archaeological Areas Act (1979), are sites which have been selected by a set of non-statutory criteria to be of national importance. Where scheduled sites are affected by development proposals there is a presumption in favour of their physical preservation. Any works, other than activities receiving class consent under The Ancient Monuments (Class Consents) Order 1981, as amended by The Ancient Monuments (Class Consents) Order 1984, which would have the effect of demolishing, destroying, damaging, removing, repairing, altering, adding to, flooding or covering-up a Scheduled Monument require consent from the Secretary of State for the Department of Culture, Media and Sport.
Planning (Listed Building and Conservation Areas) Act 1990	Buildings of national, regional or local historical and architectural importance are protected under the Planning (Listed Buildings and Conservation Areas) Act 1990. Buildings designated as 'Listed' are afforded protection from physical alteration or effects on their historical setting.
Hedgerows Regulations 1997	The Hedgerow Regulations (1997) include criteria by which hedgerows can be regarded as historically important (Schedule 1 Part III).

Table 2 Legislation relating to cultural heritage in planning

### 2.2 POLICY

#### 2.2.1 NATIONAL

The principal instrument of national planning policy within England is the *National Planning Policy Framework* (NPPF) (CLG 2012) which outlines the following in relation to cultural heritage within planning and development:

Paragraph	Key Points
7	Contributing to protecting and enhancing the historic environment is specifically noted as being a part of what constitutes 'sustainable development' – the "golden thread" which, when met, can trigger presumption in favour.
17	A core planning principle is to "conserve heritage assets in a manner appropriate to their significance, so that they can be enjoyed for the contribution to the quality of life of this and future generations".
128	During the determination of applications "local planning authorities should require an applicant to describe the significance of any heritage assets affected, including any contribution made by their setting". This information should be proportionate to the significance of the asset and only enough to "understand the potential impact of the proposal on their significance". The normal minimum level is expected to be a desk-based assessment of proportional size "and, where necessary, a field evaluation".

Paragraph	Key Points
129	Paragraph 129 identifies that Local planning authorities should identify and assess the particular significance of any heritage asset that may be affected by a proposal (including by development affecting the setting of a heritage asset) taking account of the available evidence and any necessary expertise. They should take this assessment into account when considering the impact of a proposal on a heritage asset, to avoid or minimise conflict between the heritage asset's conservation and any aspect of the proposal.
132	It is noted that significance – the principal measure of inherent overall heritage worth – can be harmed or lost through development within its setting. Heritage assets are an irreplaceable resource and any adverse effects require “clear and convincing justification” relative to the significance of the asset in question.
135	At paragraph 135 it states that the effect of an application on the significance of a non-designated heritage asset should be taken into account in determining the application. In weighing applications that affect directly or indirectly non designated heritage assets, a balanced judgement will be required having regard to the scale of any harm or loss and the significance of the heritage asset.
139	At paragraph 139 it states that non-designated heritage assets of archaeological interest that are demonstrably of equivalent significance to scheduled monuments, should be considered subject to the policies for designated heritage assets.
141	In paragraph 141 amongst other matters it states that planning authorities should require developers to record and advance understanding of the significance of any heritage assets to be lost (wholly or in part) in a manner proportionate to their importance and the impact, and to make this evidence (and any archive generated) publicly accessible. However, the ability to record evidence of our past should not be a factor in deciding whether such loss should be permitted.

Table 3 Key passages of NPPF in reference to cultural heritage

### 2.2.2 LOCAL

Under planning law, the determination of an application must be made, in the first instance, with reference to the policies of the local development plan. For the proposed development this is represented by a combination of material from the old *Local Plan* (SBC 1997), a later alteration (SBC 2006), a new *Core Strategy* (SBC 2010) and associated supplementary documents. The current schedule anticipates adoption of the emerging Local Plan in September 2017. With specific reference to this work, the most relevant local planning policy is included below:

Policy	Key Points
EN30	'Development which affects sites of archaeological interest will not be permitted unless: (i) An investigation of the site has been undertaken; and (ii) An assessment has been made of the impact of the development upon the remains; and where appropriate; (iii) Provision has been made for preservation 'in situ'. Where preservation is not appropriate, the local planning authority will require the applicant to make proper provision for the investigation and recording of the site before and during development' (SBC 1997, 28).

Table 4 Relevant local planning policy

## 2.3 GUIDANCE

### 2.3.1 NATIONAL

During the preparation of this document, the following guidance has been referred to, where relevant:

Document	Key Points
National Planning Practice Guidance (NPPG) (CLG 2014)	The Department for Communities and Local Government (CLG) released the guidance to NPPF in March 2014 in a 'live' online format which, it is intended, can be amended and responsive to comment, particularly as case law develops in relation to the implementation of NPPF. For cultural heritage the NPPG follows previous guidance in wording and 'keys in' with, in particular, extant Historic England guidance.
Conservation Principles, Policies and Guidance (Historic England 2008)	This document sets out the guiding principles of conservation as seen by English Heritage and also provides a terminology for assessment of significance upon which much that has followed is based.
Standard and Guidance for Archaeological Field Evaluation (ClfA 2014)	This document represents non-statutory industry best practice as set out by the Chartered Institute for Archaeologists. The evaluation work has been undertaken to these standards, as subscribed to by Solstice Heritage.

Table 5 National guidance documentation consulted

### 2.3.2 REGIONAL

Archaeological work within Stockton-on-Tees is often required to comply with *Yorkshire, The Humber and The North East: A Regional Statement of Good Practice for Archaeology in the Development Process* (SYAS 2011). The key principles are summarised in the table below:

Principle	Key Points
2	Archaeological work should be undertaken by professionally qualified and appropriately experienced archaeologists and organisations.
3	All archaeological work will have a scope agreed in advance with the archaeological curator, and any changes to the scope or methodology will be agreed in writing with the archaeological curator.
4	Monitoring of archaeological work by the local archaeological curator will be the norm, and reasonable notice of commencement of fieldwork will be given by the archaeologist.
5	Archaeological work will be undertaken in accordance with the best practice guidance of English Heritage and the IfA.
6	The local Historic Environment Record should be consulted prior to the commencement of fieldwork.
7	Archaeological work in the planning process should have regard to national and local published research agenda (see section 4.2 below)
9	Reports and required data will be submitted to the archaeological curator and local HER in a timely fashion and in accordance with the agreed WSI.
10	Any comments made by the archaeological curator on reports and outputs will be made within a reasonable timetable of receipt.
11	Where appropriate significant archaeological findings will be submitted for publication in a suitable journal or journals.
12	Any archive produced will be deposited in an ordered and acceptable fashion within a reasonable timetable, the details of which will be given in the project report.
13	During the course of archaeological work arrangements will be made, where possible, for disseminating information about the site to the general public.

Table 6 Key principles of the Regional Statement of Good Practice



### 3. ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

#### 3.1 LANDSCAPE AND GEOLOGY

The proposed development site sits within the 'Tees Lowlands' National Character Area (NCA). This landscape is defined as 'a broad, open plain dominated by the meandering lower reaches of the River Tees and its tributaries' (NE 2014, 3). In comparison to the dynamic coastline and large Teeside conurbation, the area around the proposed development site is typically rural: 'agricultural land is intensively farmed, with large fields and sparse woodland, and a settlement pattern influenced both by the river and by past agricultural practices' (ibid. 3).

The Tees Lowlands, as with the Vale of Mowbray to the south, sits on a bedrock geology which straddles the divide between the Carboniferous, Permian and Triassic periods. The proposed development area, for the most part, sits on the uppermost Permian limestone of the Seaham Formation, with Trench 4 to the north of the railway line on the join between the thin Edlington mudstone and the Ford limestone beneath (BGS 2016).

In terms of determinant factors on the archaeological remains of the site, however, the more dominant geological influence is that of the overlying superficial deposits. Trench 1, 5 and 6 all sit on glacially derived till and are in areas of noticeably poor drainage, given the clay-dominated substrata. Trench 3 is mapped as lying on an undifferentiated mixed deposit of clay, sand and gravel units, an observation borne out on site. Similarly, Trench 4 to the north of the railway line straddles the mapped divide between glacial till and an undifferentiated deposit containing more sand and gravel, and this accords with the field observations. Finally, Trench 3 is mapped as lying within an area of 20th-century made ground; this is discussed in more detail below (BGS 2016).

Online mapping provided by the UK Soil Observatory (2016) characterises the soils across the development site as 'slowly permeable, seasonally wet, slightly acid but base-rich loamy and clayey soils'.

#### 3.2 PREVIOUS WORK

Prior to the evaluation work described within this report, the site was the subject of a desk-based assessment, undertaken by ASWYAS (Pollington 2010). The desk-based assessment identified the following:

- Known prehistoric activity within the wider landscape in terms of scattered lithic finds and enclosures/houses of late prehistoric or Romano-British date identified from aerial photography. None within the development area. The most notable site in the wider vicinity is the Iron Age and Romano-British site at Thorpe Thewles c. 3km to the east (see Heslop 1987).
- Characterisation of the development site as being in agricultural use through the medieval period.
- Continuation of agricultural use through the post-medieval period with the notable introduction of the railway line and the associated Lamb's Hill Station in the 1830s.
- Small-scale industrial activity is noted for the post-medieval period, particularly in terms of the quarry pit near Trench 3. It should be noted, however, that historic mapping suggests the pit is only active for a short time in the mid-20th century, and both the early name for the plot of land – Gravel Hill – and an existing standing section suggest that it was for the excavation of a localised pocket of gravel rather than for quarrying limestone.

#### 3.3 POTENTIAL SIGNIFICANCE

Based upon the desk-based assessment, an Environmental Statement accompanying the planning application summarised the potential significance of the proposed development site. It highlighted the known remains of ridge and furrow and quarrying as being of low significance and therefore sensitivity.

Given that the trenches were located so as to target areas of potential impact rather than potential or known archaeological features, there were no specific research agenda priority areas upon which this work focused.

## 4. METHODOLOGY

### 4.1 FIELDWORK

The six trenches were laid out in the locations agreed in the Written Scheme of Investigation (WSI) (AECOM 2015b) and excavations were undertaken and completed between the 29th February and the 1st March 2016. The work was undertaken by Chris Scott and Jim Brightman of Solstice Heritage.

All mechanical excavation (through overburden and non-anthropogenic levelling layers) was undertaken with a back-acting, toothless ditching bucket under constant supervision of a suitably qualified archaeologist. The trenches consisted of 5no. 30m x 2m trenches and 1no. 15m x 2m.

Where archaeological features and deposits were encountered, these were recorded to the standards outlined in the agreed WSI and the relevant ClfA Standard and Guidance. All features and deposits were recorded on *pro-forma* record sheets, drawn in plan and section at a suitable scale, and photographed. In addition to any specific features or deposits, a general record of the trench stratigraphy was made on *pro-forma* record sheets, a plan and section of each trench was made at a suitable scale and photography was completed. Detailed methodology was outlined in the agreed WSI, and this has been included as Appendix 2 below.

Constraints on the fieldwork were minimal. The smaller trench (Trench 2) was excavated with the agreement of the Planning Archaeologist following the original proposed trench location being inaccessible. It is not considered that this amendment to the schedule of works affected the value or diminished the accuracy of the results of the evaluation.

### 4.2 POST-FIELDWORK

The primary site archive comprises site records, black and white photographic prints and digital photography on CD. This has been used to compile this report, all of which will be deposited with a local repository museum in digital and paper format as the principal record of the evaluation work. The physical archive comprises primary field records (no artefactual material was recovered), and advice will be sought on the detailed requirements for retention and deposition. An OASIS record has been completed for this work, including a digital version of this report, the reference for which is **solstice1-244730**. Deposition of the physical archive will be undertaken following acceptance of the final project report.

### 4.3 CHRONOLOGY

Where chronological and archaeological periods are referred to in the text, the relevant date ranges are broadly defined in calendar years as follows:

- Palaeolithic (Old Stone Age): 1 million – 12,000 BP (Before present)
- Mesolithic (Middle Stone Age): 10000 – 4000 BC
- Neolithic (New Stone Age): 4000 – 2400 BC
- Chalcolithic/Beaker Period: 2400 – 2000 BC
- Bronze Age: 2000 – 700 BC
- Iron Age: 700 BC – AD 70
- Roman/Romano-British: AD 70 – 410
- Anglo-Saxon/Anglo-Scandinavian: AD 410 – 1066
- Medieval: AD 1066 – 1540
- Post-medieval: AD 1540 – 1750
- Industrial: AD 1750 – 1900
- Modern: AD 1900 – Present

#### **4.4 QUALITY ASSURANCE**

Solstice Heritage commits all fieldwork and post-fieldwork assessment, analysis, reporting and dissemination to be undertaken to the standards stipulated by the Chartered Institute for Archaeologists (CIfA) as is outlined in Appendix 2 below. The project has been managed by Chris Scott, who is a fully accredited member of the CIfA (MCIfA level).

#### **4.5 ASSUMPTIONS AND LIMITATIONS**

Data and information obtained and consulted in the compilation of this report has been derived from a number of secondary sources. Where it has not been practicable to verify the accuracy of secondary information, its accuracy has been assumed in good faith. All statements and opinions arising from the works undertaken are provided in good faith and compiled according to professional standards. No responsibility can be accepted by the author/s of this report for any errors of fact or opinion resulting from data supplied by any third party, or for loss or other consequence arising from decisions or actions made upon the basis of facts or opinions expressed in any such report(s), howsoever such facts and opinions may have been derived.

#### **4.6 COPYRIGHT**

Solstice Heritage will retain the copyright of all documentary and photographic material under the Copyright, Designs and Patent Act (1988).





## 5. RESULTS

### 5.1 TRENCH 1

Trench 1 was excavated in the centre of a large field, itself roughly central to the southern half of the proposed development site. The trench measured 28m x 2m in plan; shortened by 2m due to the proximity of borehole infrastructure and previous geotechnical test pits. It was excavated through a well-developed dark to mid-brown, clayey loam topsoil (005) with an average thickness of 0.25m, derived from a long history of arable agricultural practice in the field. Below the topsoil the natural mottled mid-yellow-brown glacial till substrate (006) was encountered. Unlike in the other trenches excavated, where remains were interrupted and seriously truncated, the substrate at the base of Trench 1 preserved the truncated remains of a series of regular plough furrows. These furrows were filled with the basal layer of the developed topsoil with no discernible change in deposit. A small section was cut through one of the furrows (Figure 4), revealing only a very shallow (c. 0.1m) survival of depth to the features and a bi-partite cross-section. No small finds were recovered from the excavated plough furrow.



Figure 3 Trench 1 after excavation facing north-east (scale = 1m+2m)



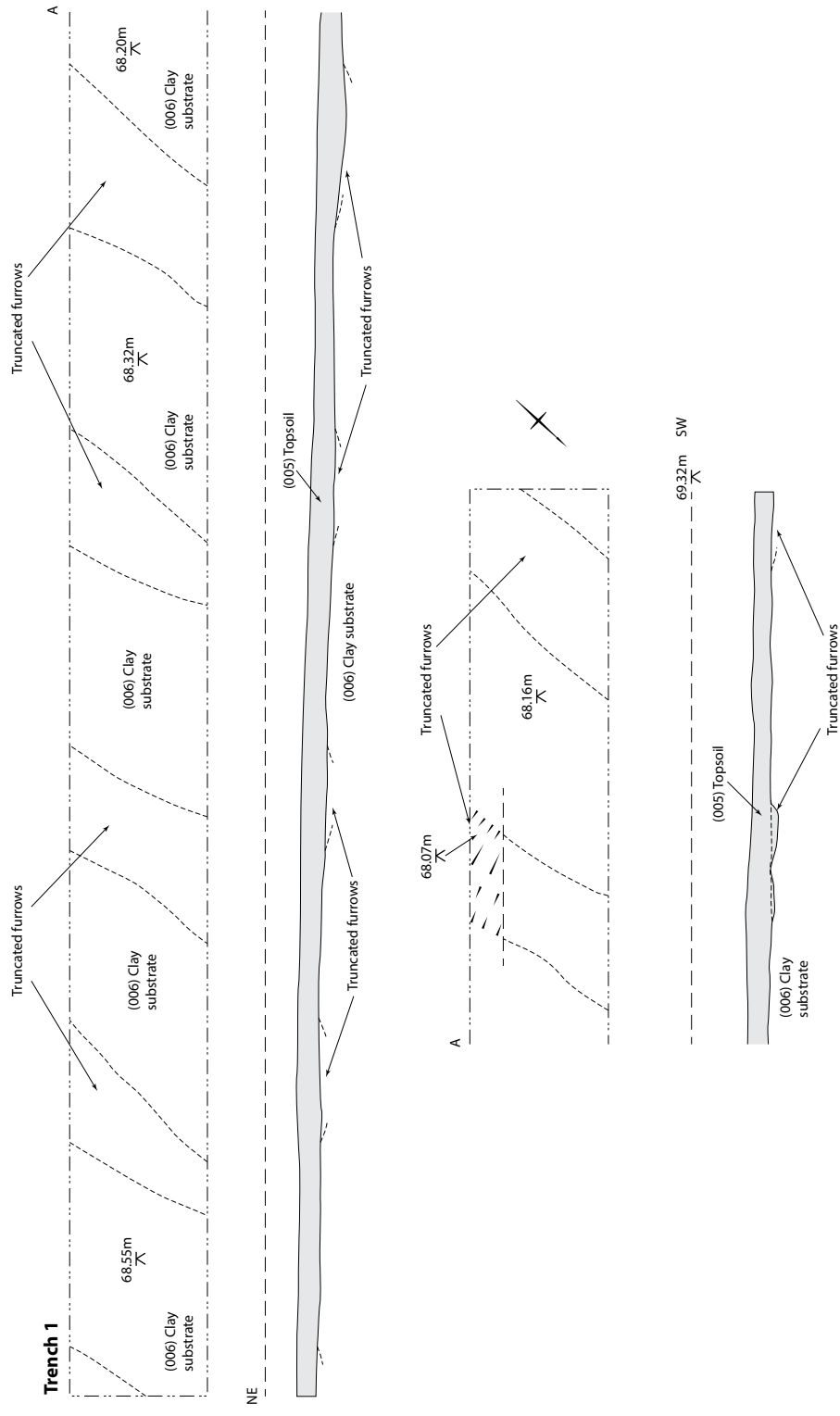
Figure 4 Section across plough furrow in Trench 1 facing south-east (scale = 1m)

## 5.2 TRENCH 2

Trench 2 was excavated c. 30m to the south-west of its original intended position so as to ensure a safe working distance from overhead cables. Given the sloping nature of the field within which the trench was excavated, and therefore the low potential of surviving archaeological remains, Trench 2 also measured 15m x 2m in plan, following agreement with the Planning Archaeologist. The trench was excavated through a mid-brown clayey loam topsoil (004), with an average depth of 0.28m. Below the topsoil the mottled red-grey substrate (003) comprised predominantly clay mixed with poorly sorted pockets of gravels. Closely spaced plough scarring was visible orientated roughly up and down the main slope. No other anthropogenic deposits, finds or features of any kind were noted within the trench.



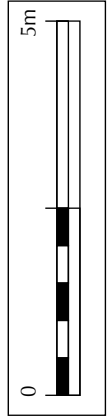
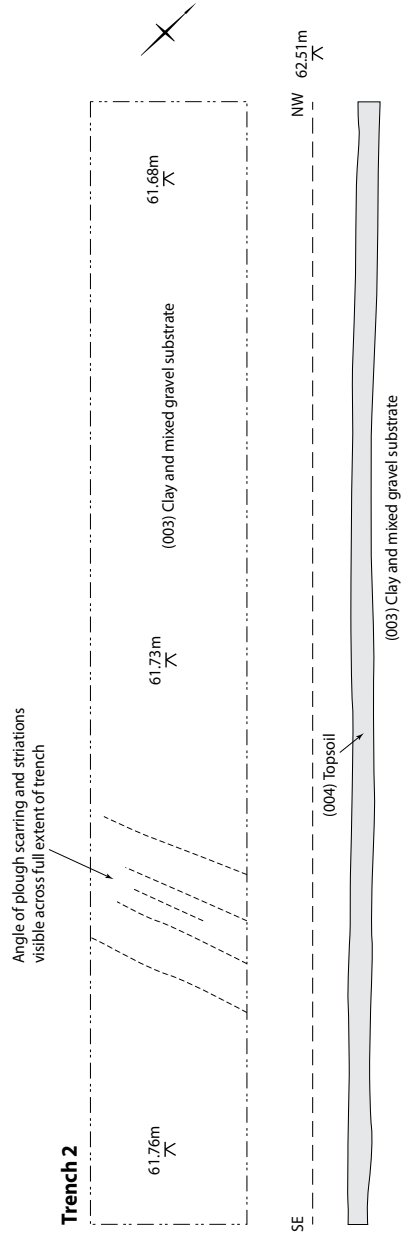
Figure 5 Trench 2 after excavation facing north-west (scale = 1m+2m)



Project	Lamb's Hill Wind Farm Stillington, Stockton-on-Tees Archaeological Evaluation
Drawing	Figure 6 Trench 1 Plan and Section







Project	Lamb's Hill Wind Farm Stillington, Stockton-on-Tees Archaeological Evaluation
Drawing	Figure 7 Trench 2 Plan and Section

### 5.3 TRENCH 3

Trench 3 was excavated close to the north-western extent of the site, close to a mid-20th century gravel (or other aggregate) extraction pit. The trench measured 30m x 2m in plan and was excavated through a clayey loam topsoil (004) of an average 0.25m thickness, identified as the same or similar to that in Trench 2. Given the formation processes within the two trenches, however, they are likely to have developed as deposits at different times.

The available BGS mapping (2016) notes that the area to the west of the extant pit, extending west to the Stillington Beck at Moordale Bottom and including the location of the excavated trench, is reinstated or made ground. The substrate observed beneath the topsoil (008) was a glacial till with mottled appearance and mixed, undifferentiated character similar to that in Trench 2, though having been clearly and extensively reworked or truncated. The appearance of the deposit was not of imported and redeposited material, and it is considered that the area of 'made ground' mapped by the BGS actually represents an area where the natural substrate has been intermittently disturbed or reworked rather than removed and reinstated.



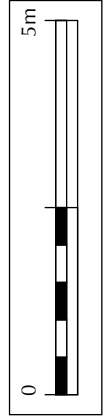
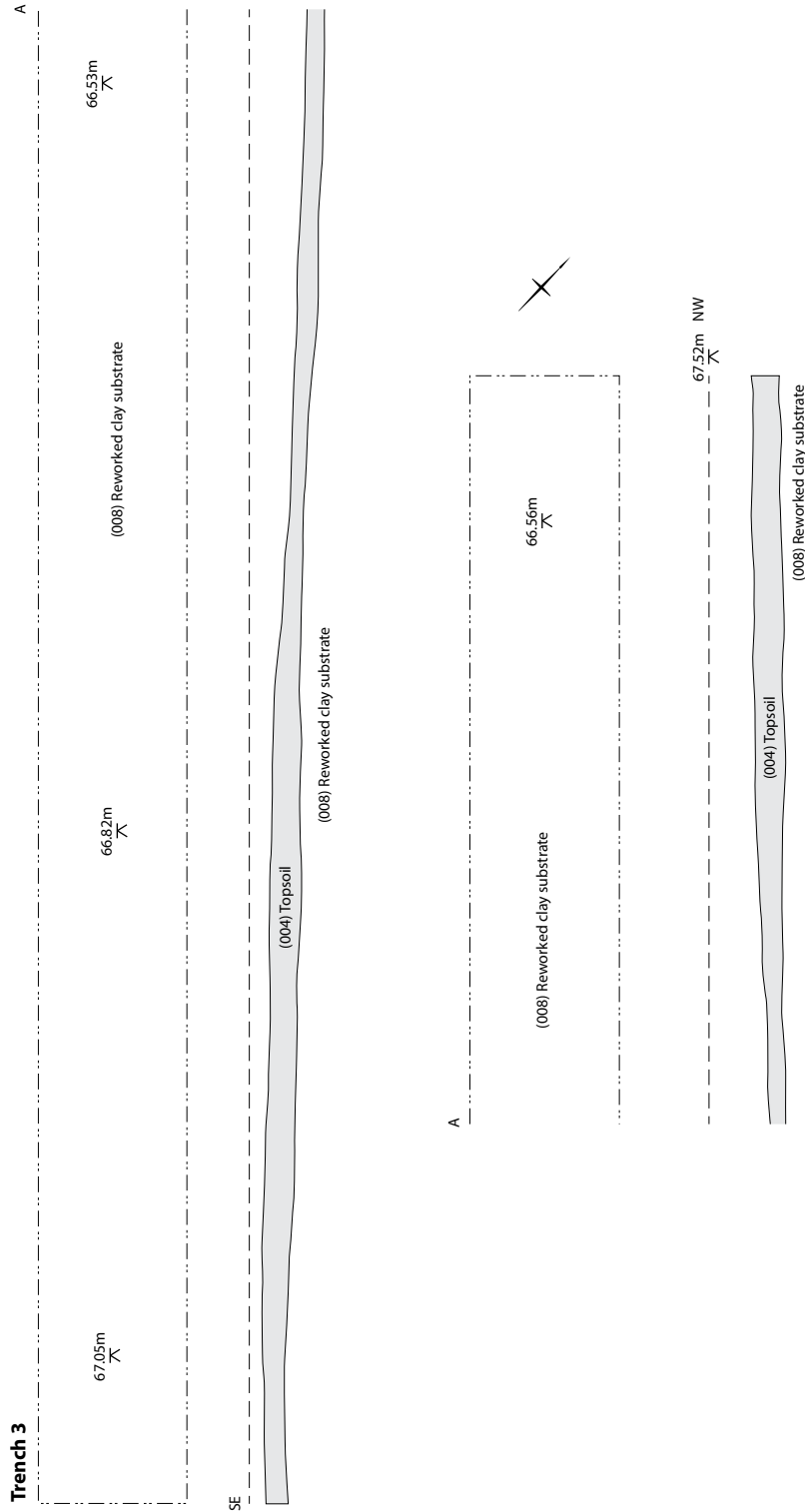
Figure 8 Trench 3 after excavation facing north-west (scale = 1m+2m)

#### 5.4 TRENCH 4

Trench 4 was the sole trench excavated to the north of the railway line. The trench measured 30m x 2m in plan and was excavated through a well-developed dark to mid-brown clayey loam topsoil (007), with an average thickness of 0.3m. Below the topsoil was the natural mottled glacial till substrate (003) observed in most of the other trenches. At the eastern extent of the trench, a mixed deposit was encountered comprising clay with mixed sand, gravel and silt; this roughly accords with the mapped extent of a 'finger' of Holocene alluvium associated with the Foxton Beck to the north (BGS 2016). The change between the two deposits can be seen clearly in the foreground of Figure 9 below. The till substrate contained a mineral stain which was investigated to ensure it was non-anthropogenic, and no other anthropogenic deposits, finds or features were noted.

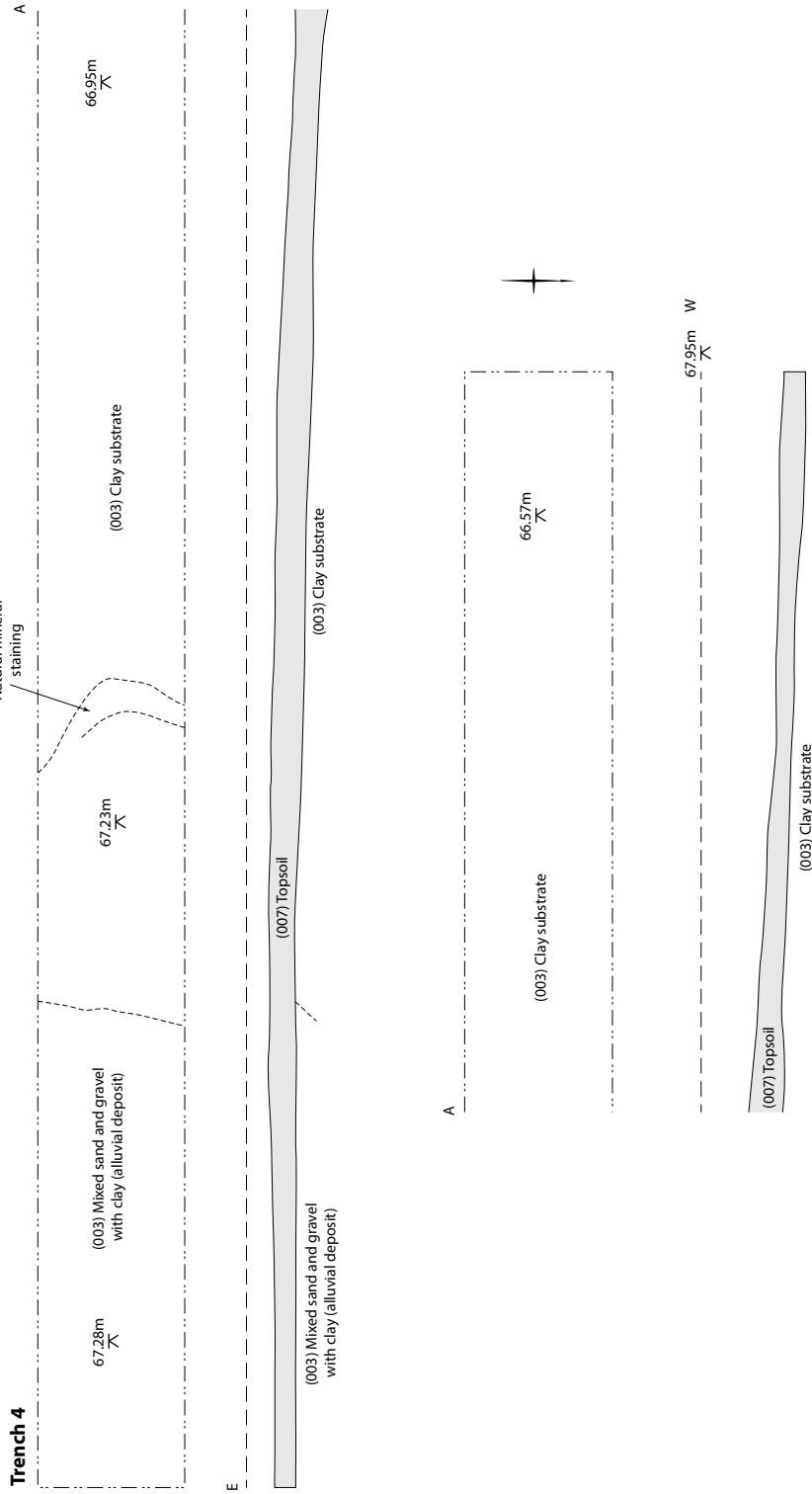


Figure 9 Trench 4 after excavation facing west (scale = 1m+2m)



Project	Lamb's Hill Wind Farm Stillington, Stockton-on-Tees Archaeological Evaluation
Drawing	Figure 10 Trench 3 Plan and Section





<p>Project Lamb's Hill Wind Farm Stillington, Stockton-on-Tees Archaeological Evaluation</p>	<p>Drawing Figure 11 Trench 4 Plan and Section</p>
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## 5.5 TRENCHES 5-6

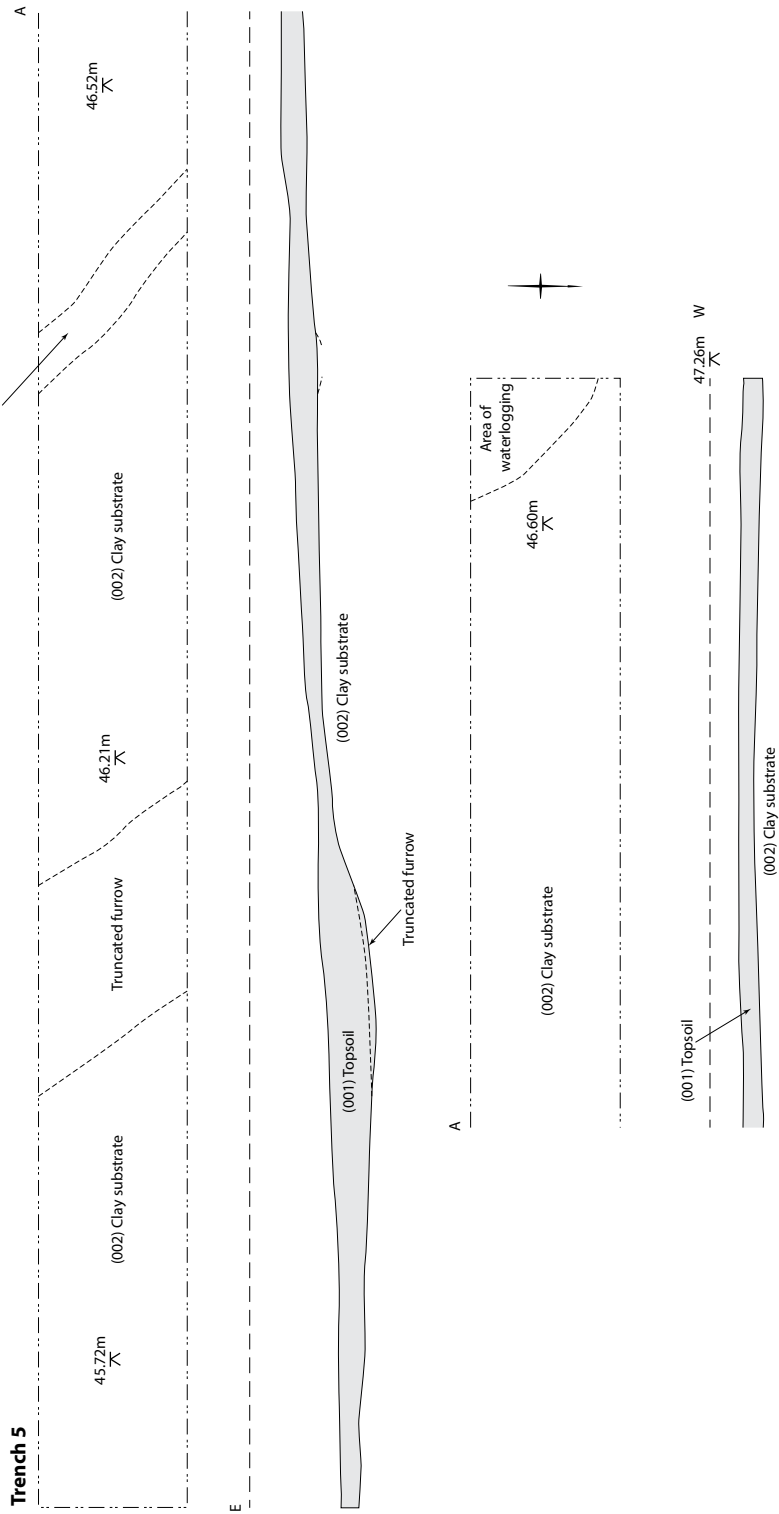
Trenches 5 and 6 were excavated close to each other at the south-eastern extent of the site. Both trenches measured 30m x 2m in plan and were excavated through a well-developed dark brown clayey loam topsoil (001) with an average thickness of 0.25m. Below the topsoil in both trenches was a mottled red-brown to grey glacial till substrate (002). Both trenches contained the truncated basal remains of plough furrows aligned roughly north-west to south-east. These were intermittent and had themselves been truncated by modern reworking of the soil above. At the southern end of Trench 6, a rough and truncated field drain was noted on the same alignment, containing fragments of modern brick and drain. No other anthropogenic deposits, finds or features were noted.



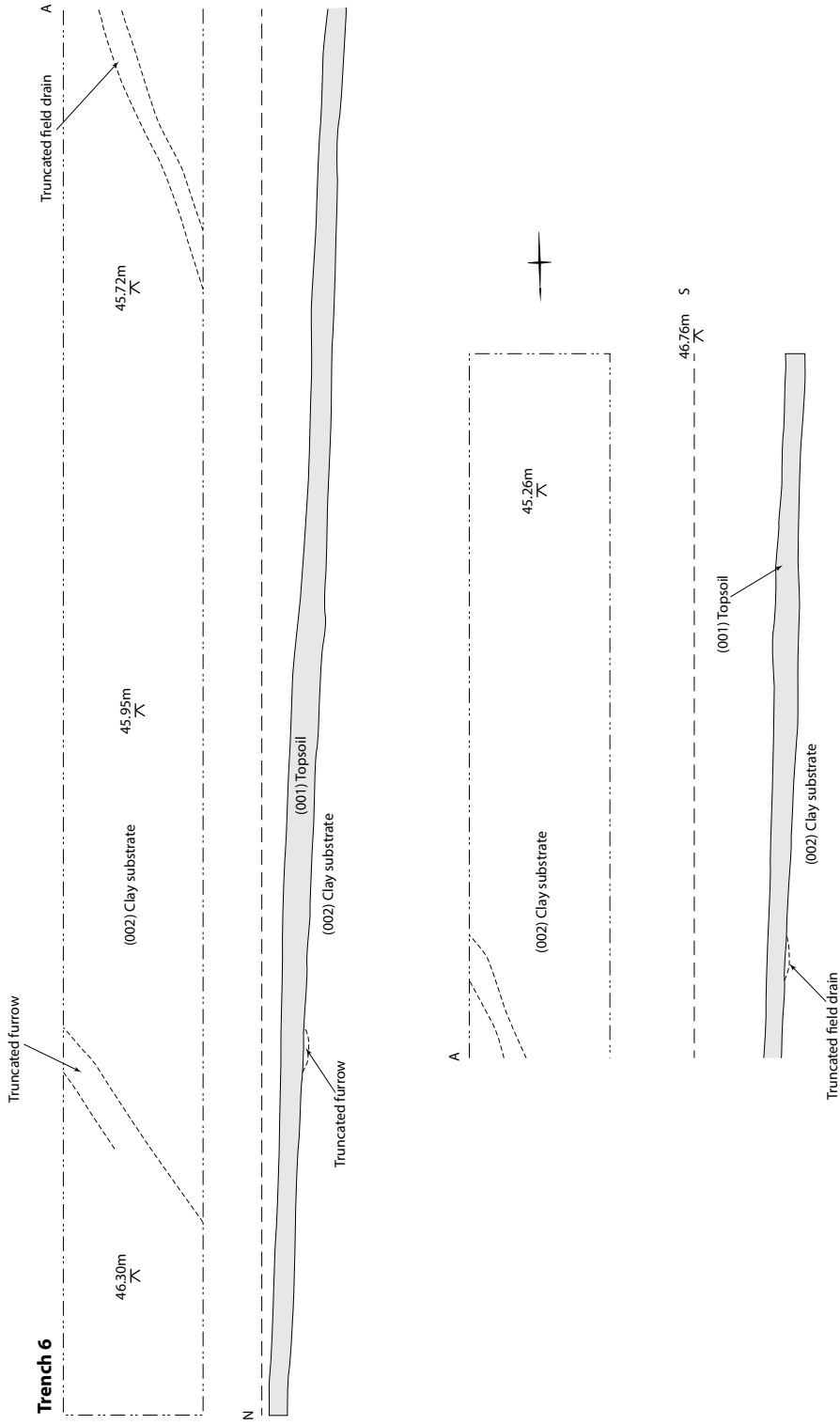
Figure 12 Trench 5 after excavation facing west (scale = 1m+2m)



Figure 13 Trench 6 after excavation facing north (scale = 1m+2m)



Project	Lamb's Hill Wind Farm Stillington, Stockton-on-Tees Archaeological Evaluation
Drawing	Figure 14 Trench 5 Plan and Section



<b>Project</b>	Lamb's Hill Wind Farm Stillington, Stockton-on-Tees
<b>Archaeological Evaluation</b>	
<b>Drawing</b>	Figure 15 Trench 6 Plan and Section



## **6. DISCUSSION**

### **6.1 GEOLOGY AND GEOMORPHOLOGY**

In addition to characterising the principal underlying substrate as being typical of the local area and in line with the extant BGS mapping, the evaluation work has also investigated the area of 'made ground' to the west of the mid-20th century extraction pit in the north-west of the site. The observed stratigraphy and deposits are consistent with having been disturbed or reworked and truncated rather than having been part of a wholesale removal and reinstatement. This most likely relates to disturbance caused by the use of the area for mineral extraction.

### **6.2 POST-MEDIEVAL TO MODERN**

No anthropogenic features, deposits or artefacts were recovered through the evaluation trenching other than the truncated remains of plough furrows. Where encountered, such furrows were shallow, narrowly spaced and contained no material culture. It is considered that the features represent post-medieval or even modern agricultural practices.

## **7. CONCLUSIONS**

### **7.1 CONFIDENCE, CONSTRAINTS AND LIMITATIONS**

Constraints on the fieldwork were minimal. The location and size of Trench 2 were altered to allow for a safe working distance from overhead cables and Trench 1 was shortened by 2m to avoid existing infrastructure and earlier geotechnical test pits. It is not considered that these minor constraints have affected the value or diminished the accuracy of the results of the evaluation.

### **7.2 RESEARCH POTENTIAL**

No features, deposits or artefacts were recovered with which to address any research agenda questions or priorities.

### **7.3 POTENTIAL IMPACTS ON THE ARCHAEOLOGICAL RESOURCE**

The results of the evaluation indicate that the potential direct impact of the proposed development on the archaeological resource is likely to be negligible.

### **7.4 PROJECT ARCHIVE**

The physical and digital archive for this project is currently held by Solstice Heritage pending acceptance of the final evaluation report. Following this, the archive will be prepared and deposited in line with the agreed WSI and ClfA Standards and Guidance.

## APPENDIX 1 – CONTEXT REGISTER

Context Number	Type	Description	Probable Date
001	Deposit	Topsoil in Trenches 5 and 6	Post-medieval to Modern
002	Deposit	Natural substrate in Trenches 5 and 6	Glacial
003	Deposit	Natural substrate in Trenches 2 and 4	Glacial
004	Deposit	Topsoil in Trenches 2 and 3	Post-medieval to Modern
005	Deposit	Topsoil in Trench 1	Post-medieval to Modern
006	Deposit	Natural substrate in Trench 1	Glacial
007	Deposit	Topsoil in Trench 4	Post-medieval to Modern
008	Deposit	Reworked clay substrate in Trench 3	mid-20 <sup>th</sup> century

## APPENDIX 2 – WRITTEN SCHEME OF INVESTIGATION



## 1. INTRODUCTION

### 1.1 Background

This Written Scheme of Investigation (WSI) for archaeological evaluation trenching has been prepared by AECOM on behalf of Banks Renewables Ltd as part of the conditions applied to the grant of planning permission for the construction of four wind turbines and associated infrastructure at land west of Stillington, Stockton on Tees (Figure 1). A desk-based assessment carried out by Archaeological Services West Yorkshire Archaeology Service (ASWYAS) in 2010 and the subsequent Environmental Statement also undertaken in 2010 identified a low potential for archaeology within the development site and mitigation was proposed in the form of archaeological fieldwork.

Planning permission for the scheme was granted in December 2011 (10/2549/EIS). The archaeology planning condition (No. 06) stated:

***“Phased Archaeological Work – Unless otherwise agreed in writing by the Local Planning Authority, no development hereby approved shall take place within the application site boundary until a written scheme of investigation has been submitted to and approved in writing by the Local Planning Authority. The written scheme of investigation shall detail a phased programme of archaeological work including:***

- *An assessment of significance;*
- *Research questions*
- *A programme and methodology of site investigation and recording;*
- *A programme for post investigation assessment;*
- *Provision for analysis of the site investigation and recording;*
- *Provision to be made for publication and dissemination of the analysis and records of the site investigation;*
- *Provision to be made for archive deposition of the analysis and records of the site investigation;*
- *Nomination of a competent person or persons/organization to undertake the works set out within the WSI;*
- *Post investigation assessment;*
- *Provision made for analysis, publication and dissemination of results and archive deposition has been secured; and*
- *Timing for each part of the project.*

*Where important archaeological remains exist provision should be made for their preservation in situ. The development shall be undertaken in strict accordance with the details of the approved Written Scheme of Investigation and programme of archaeological work.”*

## 1.2 Purpose of this Report

This Written Scheme of Investigation (WSI) sets out the methodology for the excavation and recording of six evaluation trenches (Trenches 1 – 6) prior to commencement of the development. It has been proposed, in consultation with the Archaeology Advisor to the Local Authority that should significant archaeological remains be identified in the evaluation trenches (the criteria for significant archaeological deposits will be assessed on site with the Archaeological Contractor and the Archaeological Advisor, but will be in the order of human remains, structural features etc), that any mitigation required would be undertaken concurrently with the evaluation. This WSI will also cover the methodology for any mitigation works, should they be required.

The WSI has been prepared in consultation with the Archaeology Advisor to the Local Planning Authority, Tees Archaeology (hereafter referred to as the Archaeology Advisor) and has been prepared in line with the Code of Conduct of the Chartered Institute for Archaeologists (CIfA 2014) and other best practice guidelines.

The works specified in this document will be undertaken by a suitably qualified contractor (the Archaeological Contractor), under the supervision of the Archaeological Consultant.

All works, operations and visits are to be undertaken subject to the Health and Safety requirements of Banks Renewables Ltd.

## 1.3 Site Location and Geology

The development is located to the west of Stillington at NGR NZ 3650 2350, Stockton on Tees (Figure 1). The entire development area covers 185 ha, though the actual area of land to be disturbed by development is much less than this. The village of Old Stillington is located on the southern boundary of the development. The site is undulating, rising towards the northwest from 40mOD to 70mOD on Lambs Hill. The current land use is pasture and arable fields divided by hedgerows and the site is bisected by the line of the Clarence Railway running from southeast to northwest.

The underlying geology of the site consists of Upper Magnesian Limestone, overlain by reddish glaciolacustrine drift and till, comprising slowly permeable, seasonally waterlogged, reddish clayey soil (ASWYAS 201).



## 2. ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

### 2.1 Desk Based Study

The archaeological evaluation follows a desk-based assessment that was undertaken by ASWYAS in 2010 which supported the ES chapter submitted for planning.

There is evidence of prehistoric activity from the study area, which is a 1km area around the development boundary. This is in the form of flints recovered during fieldwalking and aerial photographic analysis identifying a number of enclosures and roundhouses which could represent settlement from the Iron Age or Roman period. There is no evidence for prehistoric activity within the development boundary.

During the early medieval, medieval and post-medieval periods, the site was most likely used as agriculture. Small settlements were established in the early medieval –medieval period with Old Stillington documented in the Domesday Book and Whitton and Carlton mentioned in 12<sup>th</sup> century charters. There are also remains of shrunken or deserted medieval villages in the area, including to the west of Shotton. Medieval pottery has been recovered from the study area, though care must be taken to ensure this is not simply the result of manuring of the fields, rather than be taken as an indicator of settlement. The development site at this time was most likely used for agriculture for the nearby Old Stillington and there is evidence of this with the remaining areas of ridge and furrow located near T3.

The post-medieval period saw the continuation of the agricultural lifestyle with enclosure creating smaller field parcels. The development area is shown on the Stillington Tithe Map of 1841 as agricultural land. The only major change to occur within the development site was the creation of the railway in the 1830s which bisected the site. A railway station was situated on Lambs Hill serving the Clarence Line, but this is no longer extant. Industrial activity on a very small and localized scale also occurred in the development area with a quarry pit being excavated adjacent to the location of T3. In general though, the area retained its small, nucleated settlements established in the medieval period and the development site remained in agricultural use.

A small number of archaeological fieldwork events have taken place within the vicinity of the development, mainly at Carlton located to the southeast which thus far have only identified 20<sup>th</sup> century remains. Fieldwalking in the area between Whitton, Carlton and Thorpe Thewles over a ten year period has identified a number of flint implements and Roman and medieval pottery indicating a possible general background of archaeological potential

The Environmental Statement produced in support of the planning condition made an assessment of the significance of the known heritage assets within the development area. The area of ridge and furrow and former quarry were assessed as being of low sensitivity, with their significance limited to providing evidence of the agricultural use of this land since the post-medieval period and the later small-scale industrial exploitation of the natural limestone resource.

**3. PROJECT OBJECTIVES**

The principal objective of the archaeological evaluation is to establish if archaeological remains are present within the site by excavating six evaluation trenches (Trenches 1 - 6) – (Figure 2). The evaluation will target known heritage assets and areas that will be disturbed during construction activities associated with the stripping of topsoil and subsoil deposits, including the proposed turbine bases, crane pads, temporary site compound and the site control compound areas.

The specific objectives of the evaluation are:

- to determine (where possible) the nature, depth, extent, significance and date of buried archaeological remains that may be located within the proposed development area;
- to answer any relevant research questions;
- to determine the condition or state of preservation of any archaeological deposits or features encountered;
- to determine the likely range, quality and quantity of artefactual and environmental evidence present;
- For trench 3, to record the ridge and furrow in this area;
- to inform the scope of archaeological mitigation works if required; and
- To produce a report on the findings at the site.

**3.1 Trench locations**

Trench No	Dimensions	Trench Co-ords Terminus A	Trench Co-ords Terminus B
1	30m x 2m	436306, 523495	436328, 523514
2	30m x 2m	435930, 523343	435951, 523322
3	30m x 2m	435704, 523679	435728, 523661
4	30m x 2m	436126, 523930	436155, 523927
5	30m x 2m	436831, 523107	436860, 523103
6	30m x 2m	436895,523104	436895, 523134

The trench locations can be found on Figures 2 -4. The trench locations area described below:

- Trench 1 – located across Turbine (T)1 and the adjacent crane pad;
- Trench 2 – located across T2 and the crane pad;
- Trench 3 – located across T3 and the crane pad – only trench targeting a known archaeological asset, the extant ridge and furrow;
- Trench 4 – located across T4 and the crane pad within the site compound footprint;
- Trench 5 – located within the site control compound;
- Trench 6 - located within the temporary construction compound.

## 4. METHODOLOGY FOR TRIAL TRENCHING

### 4.1 Specific Works

All archaeological works will be carried out in accordance with this WSI (and any further instructions from the Archaeological Consultant), and with the Standard and Guidance for Field Evaluation issued by the Chartered Institute for Archaeologists (CIfA 2014), the CIfA Code of Conduct (CIfA 2014) and other current and relevant good practice and standards and guidance (refer to Appendix 1: References).

The definition of an archaeological field evaluation is '*a limited programme of non-intrusive and / or intrusive fieldwork which determines the presence or absence of archaeological features, structures, deposits, artefacts or ecofacts with a specified area or site on land, inter-tidal zone or underwater. If such archaeological remains are present field evaluation defines their character, extent, quality and preservation, and enables an assessment of their significance in a local, regional, national or international context as appropriate*' (CIfA 2014).

The evaluation will comprise a total of six 30 x 2m trenches. The location and the size of the trenches are shown on Figure 2. The trenches will be located using metric-survey equipment to an accuracy of  $\pm 100\text{mm}$  of the specified trench location.

### 4.2 Access

Access to the site will be arranged by the client, Banks Renewables Ltd.

### 4.3 Methodology

The Archaeological Contractor shall prepare and submit a Risk Assessment for the works prior to the commencement of fieldwork for approval by the Archaeological Consultant.

During the archaeological works archaeological remains will be identified and investigated (sample excavation) by the Archaeological Contractor, as defined by the Archaeological Consultant in consultation with Archaeological Advisor. It will involve the systematic examination and accurate recording of a sample of all archaeological features, horizons and artefacts identified.

Prior to the commencement of the excavation, the Archaeological Contractor will take a photographic record of the access points and ground conditions. This shall be repeated following the completion and backfilling of trenches to confirm the site is left in the condition in which it was found. During the excavation of the evaluation trenches topsoil/ subsoil/ overburden shall be removed under archaeological supervision. This will be done in order to control the levels to which machine excavation is undertaken, to ensure that the extent and character of the archaeological remains are identified, and to excavate, record and to preserve by record those archaeological remains that will be impacted by the Scheme.

#### ***Archaeological Evaluation Trenches***

Six evaluation trenches (Trenches 1-6) will be excavated at the locations shown on Figures 2 - 4. The trenches are not targeting known archaeological remains and the trench positions should be measured using survey grade GPS or equivalent metric survey equipment. The trench locations are focused on those areas where the turbines and crane pads are to be located and in the location of the site control compound and the temporary site construction compound area.

The excavator will be fitted with a toothless bucket, and the mechanical excavation will be carried out under archaeological supervision. Although utility service plans show no services

on the site, the trench locations will be scanned using a CAT scan or similar to check for unknown services prior to machining.

The arisings from the archaeological works will be stored adjacent to the trench (within a safe working distance but not less than 1m) and will be separated according to material, so that topsoil will be separated from subsoil and made ground separated from topsoil.

The arisings from the trenches shall be subject to a rapid metal detector scan, in order to recover metal artefacts not recovered during mechanical excavation of the trench. The excavation will proceed under direct archaeological supervision, in level spits, until either the top of the first archaeological horizon or undisturbed natural deposits are encountered.

Particular attention should be paid to achieving a clean and well-defined horizon with the machine. Under no circumstances should the machine be used to cut arbitrary sondage trenches down to natural deposits. The surface achieved through machine excavation will be inspected for archaeological remains. The mechanical excavator will not traverse any stripped areas.

If important concentrations of artefacts are uncovered during machining, suggestive of significant activity, these should be left in situ in the first instance. The machined surface will be cleaned by hand, where required, for the acceptable definition of archaeological remains. Following cleaning, all archaeological remains will be planned, to enable the selection of features and deposits for sample excavation by the Archaeological Contractor.

If, in the opinion of the Archaeological Contractor, extensive or significant archaeological remains are discovered, they will notify the Archaeological Consultant immediately. It may be appropriate to extend the area of investigation so that all archaeological remains in the area can be recorded. If further mitigation is thought to be required, this will occur concurrently with the evaluation, with the scope agreed on site with the Archaeological Consultant, Archaeological Contractor, Archaeological Advisor and the Client. The methodology for this is contained within section 5 below.

The trial trenches will be clearly demarcated with netlon fencing, supplied by the Archaeological Contractor, to ensure that persons or plant cannot inadvertently traverse across the area of investigation whilst archaeological works are in progress. The netlon fencing will be regularly inspected and maintained until works in the area have been completed, inspected and approved by the Archaeological Consultant and the trenches backfilled.

The trial trenches shall only be backfilled by machine under appropriate conditions and with direct archaeological supervision. Arisings will be returned strictly in the correct order.

Any land drains encountered during the archaeological works will be left in situ and upon completion of the works they will be carefully backfilled and covered over to avoid damage. A buffer of 0.5m will be left either side of a land drain and excavation will proceed either side of it. Any damage to land drains must be rectified immediately and notified to the Archaeological Consultant. The location of any damaged field drain will be recorded on the trench plan and the co-ordinates provided to the Archaeological Consultant.

#### **4.4 Hand Excavation**

Sample excavation shall be restricted to that required to meet the key objectives of the evaluation.

Archaeological deposits/ features selected for sample excavation will be hand excavated in an archaeologically controlled and stratigraphic manner in order to meet the objectives of the evaluation. Machine-assisted excavation may be permissible if large deposits are

encountered but only after consultation with the Archaeological Consultant and the Archaeological Advisor. A sufficient number of deposits / features will be investigated through sample excavation in each trench to record the horizontal and vertical extent of the stratigraphic sequence down to the level of undisturbed natural deposits. No archaeological deposit should be entirely removed unless this is unavoidable. Excavation must be undertaken with a view to avoiding damage to any features or deposits which appear to be worthy of preservation in situ.

The following sampling strategies will be employed:

**Linear features:** A minimum of 10% sample (each length not less than 1m long) where the depositional sequence is consistent along the length. Linear features with complex variations of fill type will be sampled sufficiently in order to understand the sequence of deposition - a minimum of 20% along the length.

Where possible one section will be located and recorded adjacent to a trench edge. If appropriate all intersections will be investigated to determine the relationships between features. All termini will be investigated.

**Discrete features:** Pits, post-holes and other isolated features will normally be half-sectioned. A minimum requirement to meet the project objectives will be agreed in consultation with the Archaeological Consultant. It is not anticipated that all of these features will be half-sectioned. If large pits or deposits (over 1.5m diameter) are encountered then the sample excavated should be sufficient to define the extent and maximum depth of the feature and to achieve the objectives of the evaluation, but should not be less than 25%.

**Structures:** Each structure will be sampled sufficiently to define the extent, form, stratigraphic complexity and depth of the component features and its associated deposits to achieve the objectives of the evaluation. All intersections will be investigated to determine the relationship(s) between the component features.

## 4.5 Recording

The perimeter of each trench and all archaeological remains within the trenches will be recorded in plan using metric survey-grade equipment (or its equivalent).

A full written, drawn and photographic record will be made of each trench even where no archaeological features are identified. Hand drawn plans and sections of features will be produced at an appropriate scale (normally 1:20 for plans and 1:10 for sections). One long section of each trench will be drawn at a scale of not less than 1:50. All plans and sections will include spot heights relative to Ordnance Datum in metres, correct to two decimal places.

The photographic record should comprise digital format. Digital photography should use cameras with a minimum resolution of 10 megapixels. Note that conventional black and white print photography is still required and constitutes the permanent record. Any digital images are to be supplied on CDs by the archaeological contractor accompanying the hard copy of the report. These will then be sent to the Archaeological Advisor.

## 4.1 Artefact Recovery

All artefacts will be collected, stored and processed in accordance with standard methodologies and national guidelines (refer to Appendix 1). Except for modern artefacts all finds will be collected and retained. Each 'significant find' will be recorded three dimensionally. Similarly if artefact scatters are encountered these should be also recorded three dimensionally. Bulk finds will be collected and recorded by context.

Where necessary the artefacts will be stabilised, conserved and stored in accordance with the current conservation guidelines and standards (see Appendix 1). Artefacts will be properly

conserved after excavation and will be stabilised for storage. If necessary, a conservator will visit the site to undertake 'first aid' conservation treatment.

Artefacts will be stored in appropriate materials and conditions, and monitored to minimise further deterioration.

#### **4.2 Environmental Sampling**

The Historic England Regional Advisor for Archaeological Science will be notified of the commencement of the project and will be consulted regarding the sampling strategy proposed. Provision will also be made for the recovery of material suitable for scientific dating. Recommended volumes for environmental samples is 40 litres from each secure deposit.

Any samples taken must come from appropriately cleaned surfaces, be collected with clean tools and be placed in clean containers. They will be adequately recorded and labelled and a register of all samples will be kept. Once the samples have been obtained they should be stored appropriately in a secure location prior to being sent to the appropriate specialist for processing.

#### **4.3 Human Remains**

Should human remains be discovered during the course of the trial trenching the remains will be covered and protected and left in situ in the first instance. The removal of human remains will only take place in accordance with a licence obtained from the Ministry of Justice and under the appropriate Environmental Health regulations and the Burial Act 1857. In the event of the discovery of human remains the Archaeological Contractor will notify the Archaeological Consultant and the Ministry of Justice immediately.

#### **4.4 Treasure Trove**

Any artefacts which are recovered that fall within the scope of the Treasure Act 2002 will be reported to the Archaeological Consultant and to H. M. Coroner by the Archaeological Contractor. Any finds must be removed to a safe place and reported to the local coroner as required by the procedures as laid down in the 'Code of Practice'. Where removal cannot be effected on the same working day as the discovery, suitable security measures must be taken to protect the finds from theft.

#### **4.5 Unexpectedly Significant or Complex Discoveries**

Should there be unexpectedly significant or complex discoveries made that warrant, in the professional judgment of the archaeologist on site, more detailed recording than is appropriate within the terms of this specification, then the Archaeological Contractor should contact Archaeological Consultant with the relevant information to enable them to resolve the matter with the Archaeological Advisor.

#### **4.6 Completion of Fieldwork**

The Archaeological Contractor shall prepare and submit a Completion Statement to the Archaeological Consultant within one working day of completing the trial trenching. The site will be left in a tidy and workman-like condition and the Archaeological Contractor will ensure that all materials brought onto site are removed.

## 5. METHODOLOGY: DETAILED EXCAVATION

This is the methodology to be implemented should any significant archaeological deposits be encountered. Due to the limited area of impact associated with the proposed development it is proposed that any area requiring mitigation, in the form of detailed excavation, will be excavated and recorded concurrent with the trial trenching phase of works. The requirement for mitigation and the extent of the areas for detailed excavation will be agreed on site by the Archaeological Consultant, the Archaeological Contractor and the Archaeological Advisor.

The extent of the excavated areas identified for detailed archaeological excavation will be recorded using survey-grade GPS (English Heritage 2003) or equivalent metric-survey equipment.

### 5.1 Machine Excavation

Topsoil and subsoil will be removed using a 360° tracked excavator fitted with a toothless, smooth bladed grading bucket of no less than 1.8 metre width that will operate only under the constant supervision and direction of a suitably qualified archaeologist.

The mechanical excavator will not traverse any stripped areas.

Excavation of the topsoil will proceed in level spits of between 100-300mm at the discretion of the supervising archaeologist. Excavation of the subsoil will proceed in level spits of between 100-200mm at the discretion of the supervising archaeologist until the surface of the first archaeological horizon or undisturbed natural deposits are revealed; whichever is encountered first. Particular attention should be paid to achieving a clean and well-defined horizon with the machine. Under no circumstances should the machine be used to cut arbitrary trenches down to natural deposits.

The machined surface will be cleaned by hand, as appropriate, where definition of archaeological remains is unclear and requires clarification. Following cleaning, all archaeological deposits and remains will be pre-excavation planned immediately, while the machined surface is still 'fresh', to enable the selection of features and deposits for sample excavation by the Archaeological Contractor.

The machined surface will be examined regularly in order to identify any features revealed by weathering. Any such features will then be added to the site plan.

Prior to the machine strip, each excavation area will be subject to a rapid metal detector scan, in order to identify and recover metal artefacts within the upper topsoil/ploughsoil. The exposed surface and spoil heaps will also be rapidly scanned by metal detector. Scanning will only be undertaken by an experienced operator, if necessary under direct archaeological supervision. Unless of relevance to the project objectives all recent artefacts (later 19th century and modern) will be noted but will not be retained. An archaeological surveyor will record all the locations where an artefact has been detected and recorded. All finds should be surveyed-in and retrieved along with any associated markers by the close of each working day (the procedure for the reporting of artefacts defined as Treasure is set out in detail below).

### 5.2 Pre-excavation Planning

A site grid will be established using electronic survey equipment and tied in to the National Grid.

The exposed surface will be planned at a scale of 1:50 or 1:100, as is appropriate to the complexity and extent of any archaeological features and deposits revealed. Planning will be carried out immediately following completion of machine excavation and any hand cleaning required.



If electronic survey equipment is used to produce the pre-excavation plan the resultant digital dataset will be utilised to compare the position of the identified archaeological remains with those recorded during the programme of archaeological trial trench evaluation.

In addition to any electronic data capture sufficient levels will be taken across the stripped areas to allow possible future topographic modelling of the investigated area.

Following the pre-excavation planning of the detailed archaeological excavation areas, (or concurrent with the final stages of horizon planning) and prior to hand excavation and recording, a meeting will be held between the Archaeological Consultant, Archaeological Contractor, and the Archaeological Advisor to agree the excavation strategy, and any specialist inputs required.

The agreed excavation strategy will be confirmed in writing to the Archaeological Contractor by the Archaeological Consultant along with the updated aims and objectives of the investigation.

### 5.3 Hand Excavation during Detailed Excavation

All archaeological features and deposits within the detailed excavation areas will be hand excavated and recorded in an archaeologically controlled and stratigraphic manner in order to achieve suitable preservation by record and to fulfil the aims and objectives of the project.

Hand excavation will be initially targeted to provide information on the form, function and date of the archaeological features.

Machine-assisted excavation may be permissible if large deposits are encountered but only after consultation with the Archaeological Consultant and the Archaeological Advisor.

A sufficient sample of deposits/features will be investigated through hand excavation to record horizontal and vertical extent of the stratigraphic sequence to the level of undisturbed natural deposits.

The Archaeological Contractor will make provision for appropriate archaeological specialists to visit the site or attend meetings upon requested in order to advise on the excavation strategy.

Unless it is agreed otherwise the following excavation strategy will be employed:

- **Non-structural Linear features:** A minimum of 25% of the feature (including terminals) will be excavated in order to determine its character, date, morphology and function. Each section will be excavated away from intersections with other features in order to recover an uncontaminated artefact assemblage and will measure not less than 1m long or a minimum of a 1m long section if the feature is less than 10m in length. In addition to the 25% sample all intersections will be investigated to determine stratigraphic relationships between features.
- **Non-structural Discrete features:** A minimum of 50% of all pits, post-holes and other isolated discrete features will be excavated; unless it is proven that they are of modern origin. If large quarry pits (over 1.5m diameter) are encountered then the sample excavated should be sufficient to define the extent and maximum depth of the feature but should not be less than a 25% quadrant, unless agreed otherwise.
- **Structural remains and areas of significant and special activity:** are to be the subject of 100% excavation. Such features will be identified during pre-excavation planning to enable the input and advice of appropriate archaeological specialists. Where complex structures or activity areas are encountered additional detailed recording and specialist environmental sampling or scientific dating may be required.
- **Special or Burnt features:** are to be the subject of 100% excavation. Such features will be identified during pre-excavation planning to enable the input and advice of appropriate



archaeological specialists. Where in situ burning is identified (as at Site B during the archaeological trial trench evaluation) no excavation shall take place until the possible recovery of samples for scientific dating has been considered.

- **Human remains:** during detailed excavation human remains will be 100% excavated, recorded in situ and subsequently lifted, labelled and packed to the standard established by *Excavation and post-excavation treatment of cremated and inhumed human remains* (McKinley and Roberts 1993). Environmental samples will be recovered from grave fills and specific locations such as the abdominal cavity for specialist analysis. Site inspection will be made by a recognised specialist who will advise on the excavation and sampling strategy. The location of each grave, inhumation/cremation and any associated grave goods will be recorded three dimensionally using metric survey-grade equipment (or its equivalent). The exhumation of any human remains will only be undertaken in accordance with current UK legislation, published guidance and best practice.
- **Furrows:** each archaeological feature identified as a potential furrow will be subject to limited hand investigation and recorded in order to confirm the interpretation. Features where this interpretation is unclear should be treated as non-structural linear features and investigated in accordance with the strategy set out above.
- **Tree Throws:** where features are identified as tree throws, or hollows, a sample will be hand excavated to confirm the interpretation. Features where this interpretation is unclear should be treated as non-structural discrete features and investigated in accordance with the strategy set out above.
- **General:** features demonstrated as being the earliest or latest in the stratigraphic sequence will be considered for full (100%) hand excavation. Selection will be based on whether they may belong to a transitional period.

Archaeological recording will proceed in accordance with this WSI and accepted national, regional and professional standards and guidance.

#### 5.4 Recording

The perimeter of each trench and all archaeological remains within the trenches will be recorded in plan using metric survey-grade equipment (or its equivalent).

A full written, drawn and photographic record will be made of each trench even where no archaeological features are identified. Hand drawn plans and sections of features will be produced at an appropriate scale (normally 1:20 for plans and 1:10 for sections). One long section of each trench will be drawn at a scale of not less than 1:50. All plans and sections will include spot heights relative to Ordnance Datum in metres, correct to two decimal places.

The photographic record should comprise digital format. Digital photography should use cameras with a minimum resolution of 10 megapixels. Note that conventional black and white print photography is still required and constitutes the permanent record. Any digital images are to be supplied on CDs by the archaeological contractor accompanying the hard copy of the report. These will then be sent to the Archaeological Advisor.

#### 5.5 Artefact Recovery

All artefacts will be collected, stored and processed in accordance with standard methodologies and national guidelines (refer to Appendix 1). Except for modern artefacts all finds will be collected and retained. Each 'significant find' will be recorded three dimensionally. Similarly if artefact scatters are encountered these should be also recorded three dimensionally. Bulk finds will be collected and recorded by context.

Where necessary the artefacts will be stabilised, conserved and stored in accordance with the current conservation guidelines and standards (see Appendix 1). Artefacts will be properly

conserved after excavation and will be stabilised for storage. If necessary, a conservator will visit the site to undertake 'first aid' conservation treatment.

Artefacts will be stored in appropriate materials and conditions, and monitored to minimise further deterioration.

#### **5.6 Environmental Sampling**

The Historic England Regional Advisor for Archaeological Science will be notified of the commencement of the project and will be consulted regarding the sampling strategy proposed. Provision will also be made for the recovery of material suitable for scientific dating. Recommended volumes for environmental samples is 40 litres from each secure deposit.

Any samples taken must come from appropriately cleaned surfaces, be collected with clean tools and be placed in clean containers. They will be adequately recorded and labelled and a register of all samples will be kept. Once the samples have been obtained they should be stored appropriately in a secure location prior to being sent to the appropriate specialist for processing.

#### **5.7 Human Remains**

Should human remains be discovered during the course of the trial trenching the remains will be covered and protected and left in situ in the first instance. The removal of human remains will only take place in accordance with a licence obtained from the Ministry of Justice and under the appropriate Environmental Health regulations and the Burial Act 1857. In the event of the discovery of human remains the Archaeological Contractor will notify the Archaeological Consultant and the Ministry of Justice immediately.

#### **5.8 Treasure Trove**

Any artefacts which are recovered that fall within the scope of the Treasure Act 2002 will be reported to the Archaeological Consultant and to H. M. Coroner by the Archaeological Contractor. Any finds must be removed to a safe place and reported to the local coroner as required by the procedures as laid down in the 'Code of Practice'. Where removal cannot be effected on the same working day as the discovery, suitable security measures must be taken to protect the finds from theft.

#### **5.9 Unexpectedly Significant or Complex Discoveries**

Should there be unexpectedly significant or complex discoveries made that warrant, in the professional judgment of the archaeologist on site, more detailed recording than is appropriate within the terms of this specification, then the Archaeological Contractor should contact Archaeological Consultant with the relevant information to enable them to resolve the matter with the Archaeological Advisor.

#### **5.10 Completion of Fieldwork**

The Archaeological Contractor shall prepare and submit a Completion Statement to the Archaeological Consultant within one working day of completing the trial trenching. The site will be left in a tidy and workman-like condition and the Archaeological Contractor will ensure that all materials brought onto site are removed.

## **6. ARRANGEMENTS FOR IMMEDIATE CONSERVATION OF ARTEFACTS**

All artefacts will be retained, cleaned, labelled and stored as detailed in the guidelines of the UKIC (United Kingdom Institute of Conservators), set out in Appendix 1.

Finds will be stored in controlled conditions where appropriate.

## **7. POST-FIELDWORK ASSESSMENT AND ANALYSIS OF PROJECT DATA**

All assessment and analytical work will be carried out by suitably qualified and experienced staff, who will be appraised of the project design before commencing work, and who will understand the work required of them.

Artefacts and ecofacts will be assessed in accordance with ClfA Standard and Guidance for the Collection, Documentation, Conservation and Research of Archaeological Materials (ClfA, 2014). The level of recording and analysis will be appropriate to the aims and purpose of the project and will take account of the potential of artefacts and ecofacts to contribute to the understanding of the archaeological resources.

All data generated as a result of assessment and/or analysis will be included in the project archive.

All reports will address the aims and purposes of the WSI.

## 8. REPORTING

A fieldwork report will be submitted in draft within 1 weeks of the completion of fieldwork. If archaeological mitigation is required, this will be extended to two weeks. The reporting of the Archaeological Evaluation Trenching will be commensurate with the results, but as a minimum must stand as a sufficiently detailed report on the archaeological fieldwork to serve both future research and to inform future planning decisions. The preparation of the survey archive and fieldwork report will be undertaken in accordance with this WSI and relevant archaeological standards and national guidelines (see Appendix 1). The report will include the following:

- **Non-technical summary**
- **Contents list**
- **Introductory statements**
  - an account of the background and circumstances of the work;
  - the scope and date of the fieldwork, the personnel involved and who commissioned it; and,
  - the nature of potential impacts arising from the works.
- **Aims and objectives**
- **Full detailed methodology** (including any variation to the WSI) describing the methodology employed, work undertaken and the results.
- **Site location** including National Grid Reference and describing locations monitored and linked to illustrations.
- **Archaeological and historical background**
  - geology, soils and topography;
  - any known existing disturbances on the site;
  - background archaeological potential of the site; and,
  - any constraints on the archaeological monitoring.
- **Results** will include:
  - a full description, assessment of condition, quality and significance of the results;
  - descriptive material will be clearly separated from interpretative statements;
  - a list of, and spot dates for, any finds recovered and a description;
  - a description of any environmental or any other specialist work undertaken and the results obtained; and,
  - a table summarising the deposits, features, classes and numbers of artefacts encountered and any spot dating of significant finds, and recommendations for further analysis if applicable.
- **Discussion and assessment of significance**, including interpretation of the deposits identified and a thorough appraisal of the recorded evidence within its local, regional and national context.

- Interpretation of the archaeology, including its location, extent, date, condition, significance and importance and information to contribute to regional research agendas; and,
- Even if no archaeology is identified as present on the site, include a description of areas of disturbance, non-archaeological deposits and changes in geological subsoil where appropriate.
- **Conclusions**, including:
  - a confidence rating on the techniques used, or on limitations imposed by particular factors (e.g. weather or problems of access);
  - assessment of the research value of the results, in terms of their potential to address both the original research aims and objectives of the project and any further research objectives identified during the course of the onsite and post-excavation works;
  - an assessment of potential of project records, artefact and environmental assemblages to achieve the research potential identified in the assessment;
  - a description of the effects of the Scheme on any archaeological remains;
  - information about any areas of significant archaeological deposits that remain preserved within the Scheme area, noting any variations in the depth of overburden covering any archaeological deposits revealed; and,
  - an indication of the final destination of the project archives, their conservation status and a cross-referenced quantification and index of the project archive.
- **Appendices** containing essential technical and supporting data, including for example lists of artefacts and context or details of measurements etc. It may also be appropriate to include the WSI for ease of reference.
- **Illustrations**, including:
  - general and detailed plans and sections showing the location of the results and identifying any areas unsuitable for recording, accurately positioned on an OS base map (to a known scale commensurate with the objectives of the fieldwork) and related to the National Grid; and,
  - photographs to illustrate any identified features and finds, and general shots showing the Archaeological Evaluation in progress.
- **References and bibliography**

The description of the results of the Archaeological Evaluation will include the dimensions of the areas observed; the nature and depth of overburden soils encountered; a description of all archaeological features and finds encountered in each area observed, their dimensions, states of preservation and interpretation; and a description of the geological subsoil encountered across the site. Heights related to Ordnance Datum should be provided for each feature and deposit. For complex remains, a Harris Matrix diagram should be provided.

Finds recovered during the course of the Archaeological Evaluation will be described, quantified and assessed by artefact type within the report. The report will also provide an indication of the potential of each category of artefact for further analysis and research. For each category of artefact the report will describe the method of processing, any sub-sampling, conservation and assessment undertaken. Where appropriate, local reference collections will be referred to for descriptive and analytical consistency. Any implications for future archive,

conservation or discard of the artefacts should also be detailed. The report will include a table showing the contexts, classes and quantity of artefacts recovered, together with their date and interpretation.

The report will include an assessment of the environmental potential of the site. Details should be provided of any environmental sampling undertaken in connection with the fieldwork and the results of any processing and assessment of the samples. The report will describe the method of processing, any sub-sampling and assessment. Any potential for future analysis of the samples or environmental remains recovered from the sampling should be described. Implications for future archive, conservation or discard of environmental samples or remains should be detailed. The report will include, as appropriate, tables summarising environmental samples taken, together with the results of processing and assessment.

Any results from the Archaeological Evaluation involving the application of archaeological scientific techniques e.g. specialist dating should be included in the Archaeological Evaluation report.

The report should include sufficient illustrations to support descriptions and interpretations within the report text. Figures are to be fully cross-referenced within the document text. As a minimum the report should include the following figures:

- a site location plan tied into the Ordnance Survey at 1:1,250 scale or in the case of larger sites at 1:2,500 scale. The plan should also include at least two National Grid Reference points and show the site boundary;
- a plan at 1:100 or 1:200 scale showing the layout of the groundworks clearly indicating the areas observed. The plan should show significant archaeological features, coloured by phases or period as related to the Scheme area. Where possible, projection of archaeological features outside of the areas observed should be included on the plan. This plan should also include two National Grid Reference points;
- plans of the features revealed in each of the excavation areas at a larger scale e.g. 1:20 or 1:50; such plans are to also illustrate areas of disturbance, change in subsoil and location of sections; The location of significant finds and samples taken should also be indicated;
- relevant section drawings and soil trench profiles as appropriate;
- illustrations and/or photographs of significant finds should be included where appropriate.

All report illustrations must be fully captioned and scale drawings must include a bar scale. Standard archaeological drawing conventions must be used. Plan and section illustrations must include the numbers of all contexts illustrated. North must be included on all plans and should be consistent. Sections must indicate the orientation of the section and the Ordnance Datum height of the section datum.

Photographs should be included where appropriate to illustrate the archaeology of the site, the Scheme operations or the range of soil profiles encountered. All photographs should be appropriately captioned.

All reports will be written in a clear, concise and logical style; technical terms, including dating and period references, will be explained and a glossary and list of abbreviations/acronyms provided.

The report should include comments on the effectiveness of the methodology employed and the confidence of the results and interpretation.

Two bound hard copies, a digital editable copy and a .pdf copy (complete with illustrations and plates) of the completed report will be submitted to the Archaeological Consultant as a draft for comment no more than 2 weeks after completion of fieldwork. When the report is of a sufficient standard, the Archaeological Consultant will submit a copy of the report to the Client, and following internal Client review, will forward to the Archaeological Advisor for comment.

In finalising the report the comments of the Archaeological Consultant, the Archaeological Advisor and the Client will be taken into account.

Six bound copies, one unbound master-copy and a digital version of the finalised report will be submitted to the Archaeological Consultant within 1 week of the receipt of comments on the draft report. Copies will be circulated to the Archaeological Advisor and the Client. A copy of the final report will be submitted to the project archive.

A project PC CD-ROM shall be submitted containing all images, plans and maps in .bmp, .tiff or .jpg format, digital text files shall be submitted in MS Word format and illustrations in AutoCAD format or ArcView shapefile format. A fully collated version of the report shall be included in PDF format. The digital copy will be supplied for preference in .pdf format or alternatively in .rtf format accompanied by digital copies of images, plans and maps in .bmp, .tiff or .jpg format. Whichever software is used the digital files must be supplied in a PC readable format.



## **9. PUBLICATION AND DISSEMINATION PROPOSALS**

The Archaeological Contractor must complete an Online Access to Index of Archaeological Investigations (OASIS) form at <http://ads.ahds.ac.uk/project/oasis/>.

Depending on the results, the survey may be followed by an assessment of the character and significance of all categories of the recorded evidence. The assessment will be undertaken by suitably qualified specialists in accordance with MoRPHE (English Heritage, 2014).

Should the fieldwork be required to go straight into a mitigation phase and if significant results are obtained, publication of the results may be required. Publication proposals will only be put forward where these are warranted. At this stage publication is not envisaged for this project.

The format of any publication shall be commensurate with the importance of the results and be agreed in advance with the Archaeological Advisor and the Client. An assessment review will be held with the Archaeological Advisor in order to agree any proposals for further analysis and publication.

## **10. COPYRIGHT**

The Archaeological Contractor shall assign copyright in all reports, documentation and images produced as part of this project to the client. The Archaeological Contractor shall retain the right to be identified as the author /originator of the material. This applies to all aspects of the project. It is the responsibility of the Archaeological Contractor to obtain such rights from sub-contracted specialists.

Material copied or cited in reports will be duly acknowledged; all copyright conditions (such as those for Ordnance Survey maps or the National Grid) will be observed.

The Archaeological Contractor may apply in writing to use/disseminate any of the project archive or documentation (including images). Such permission will not be unreasonably withheld.

The Archaeological Consultant will submit the results of the archaeological works to the Client. The Archaeological Consultant will submit the results, on behalf of the Client, to the Archaeological Advisor and if required, to Historic England. The results will ultimately be made available for public access via the OASIS database (see Section 9).

## **11. ARCHIVE DEPOSITION**

Archaeological material recovered from fieldwork is irreplaceable and data recorded in the course of fieldwork can and should be copied and securely in a separate location in line with current good practice (English Heritage, 2008).

The site records (list of fieldwork interventions, notebooks /diaries, site geometry (drawings), photographs and films, and associated data files) will constitute the primary Site Archive. This is the key archive of the fieldwork project and the raw data upon which all subsequent assessment and analysis and future interpretation will be based. The archive will therefore not be altered or compromised – it remains the original record of the fieldwork. The site archive should be quantified, ordered, indexed and made internally consistent. The archive will also contain a summary of key findings, including summary processing and analysis of all features, finds or palaeoenvironmental data recovered during fieldwork. Arrangements should be made for the proper cataloguing and storage of the archive during the project life-cycle.

Separately the Project Archive will include full details of the project history, administration, risk register, documentation issue log, and where appropriate a Project Proposal, Project Design and list of specialist contributors (this list is not exhaustive).

Archiving of data associated will follow the advice provided in Archaeological Archives: A Guide to Best Practice in Creation, Compilation, Transfer and Curation (Brown, 2007).

The archive of records generated during the fieldwork will be removed from the site at the end of each day and kept secure at all stages of the project.

The Archaeological Contractor will ensure that the digital data is backed-up at regular intervals (at least daily) to ensure that there is a back-up of the data.

Arrangements for the deposition of the finds and site archive and archive storage at an appropriate local museum/repository agreed with the Archaeological Advisor should be made prior to the commencement of fieldwork. This will be undertaken by the Archaeological Contractor as part of the initial project start-up phase in order to submit the relevant paperwork in a timely manner. The Archaeological Contractor will copy all correspondence to the Archaeological Consultant, confirming where the archive will be deposited.

On completion of the archaeological post-excavation programme the Archaeological Contractor will arrange for the site archive to be deposited. Artefacts are to be suitably bagged, boxed and marked in accordance with the United Kingdom Institute for Conservation, Conservation Guidelines (UKIC 1983, 1984, 1990, 2001). The archive will be prepared for long term storage to the requirements of the museum. If alternative arrangements for storage are agreed, the archive should be prepared to the requirements of MoRPHE (English Heritage, 2014) and to the ClfA Standard and Guidance for the Creation, Compilation, Transfer and Deposition of Archaeological Archives (ClfA, 2014), Selection, Retention and Dispersal of Archaeological Collections 1993 (Society of Museum Archaeologists, 1993), and Standards in the Museum Care of Archaeological Collections 1992 (Museums and Galleries Commission, 1992).

## 12. TIMETABLE

The Archaeological Contractor must ensure that they have adequate and appropriate management procedures in place to ensure that risks to the programme timetable (e.g. limitations on site access, adverse weather conditions etc.) can be identified at an early stage. These risks will be kept under constant review by the Archaeological Contractor to ensure that the aims and objectives are met within the agreed budget. The Archaeological Consultant will be notified at the earliest opportunity of any changes to the methodology or programme of work that arise from review. Changes and variation to the programme will only be accepted after they have been agreed in writing with the Archaeological Consultant. The Archaeological Contractor shall give immediate warning to the Archaeological Consultant should any agreed programme date not be achievable.

The fieldwork is programmed to be implemented at the earliest available opportunity (subject to approved access and an approved Risk Assessment). The Archaeological Consultant will inform the Archaeological Contractor of the start date for the works. The Archaeological Consultant shall notify the Archaeological Advisor of the start date prior to the commencement of the works.

The timetable and programme for the investigations will be agreed in advance with the Client.

## 13. STAFFING

All archaeological personnel involved in the project should be appropriately accredited and competent persons, suitably qualified and experienced for their project roles, and employed in line with relevant legislation and ClfA by-laws (ClfA, 2014). The Archaeological Contractor shall provide the Archaeological Consultant with staff CVs of the Project Manager, Site Supervisor and any proposed specialists. Site assistants' CVs will not be required, but all site assistants should have an appropriate understanding of fieldwork and recording procedures.

All staff will be fully briefed and aware of the work required under this WSI and will understand the objectives of the investigation and the methodologies to be employed.

Sufficient and appropriate resources (staff, equipment, accommodation etc.) will be used by the Archaeological Contractor to enable the project to achieve its aims, the desired quality and timetable, and to comply with all statutory requirements.

## 14. PROFESSIONAL AND ETHICAL STANDARDS

All aspects of the Project, including employment practices, Health & Safety, welfare, field research and analysis, reporting, dissemination and archiving will comply with relevant ethical and technical standards noted in Appendix 1 to ensure that the Project is carried out to appropriate ethical and professional standards.

Particular attention will be paid to ensuring the integrity of data, access to data and the appropriate storage and retention of data. Any interference with or impediments to research and reporting should be declared, and any errors or omissions corrected in an open and collaborative manner. Potential and actual conflicts of interest will be declared, and authorship shall be attributed appropriately. The eventual accessibility of reporting and publications is important.

## 15. INSURANCES AND HEALTH AND SAFETY

The Archaeological Contractor will provide the Archaeological Consultant with details of their public and professional indemnity insurance cover prior to the commencement of the fieldwork for approval by the Archaeological Consultant.

The Archaeological Contractor will have their own Health and Safety policies compiled using national guidelines, which conforms to all relevant Health and Safety legislation and good practice. A copy of the Archaeological Contractor's Health and Safety policy will be submitted to the Archaeological Consultant with their tender.

The Archaeological Contractor shall prepare a project specific Risk Assessment and submit this to the Archaeological Consultant for approval prior to the commencement of the fieldwork. If amendments are required to the Risk Assessment during the works the Archaeological Consultant must be provided with the revised document at the earliest opportunity.

All staff involved in the fieldwork should be CSCS qualified to a minimum standard of 'Archaeologist Technician'. Staff CVs will include CSCS qualifications.

Archaeological Contractors undertaking fieldwork must observe safe working practices and comply with specific site rules.

All site personnel will familiarise themselves with the following:

- site emergency and evacuation procedures;
- the site's health and safety coordinator;
- the first aider; and
- the location of the nearest hospital and doctor's surgery.

The Archaeological Contractor will maintain a record of site attendance for each day that there is a team in the field.

All site personnel will wear appropriate personal protective equipment (PPE) at all times. The Archaeological Contractor will ensure that any visitors to the investigations are equipped with suitable PPE prior to entry to the site.

The Archaeological Contractor will adhere to all relevant Health & Safety guidance.

All equipment that is used in the course of the fieldwork must be 'fit for purpose' and be maintained in a sound working condition that complies with all relevant Health and Safety regulations and recommendations.

The ground where the evaluation trenches are to be positioned should be checked for buried services using a CAT scan or similar prior to machining.

All archaeological work should be undertaken in accordance with current Health and Safety legislation. Health and Safety will take priority over archaeological matters.

The Archaeological Contractor will assure that all staff are provided with adequate, suitable, sufficient and maintained welfare and sanitary facilities at appropriate locations for the duration of the works. The locations for temporary site welfare facilities will be agreed with the Client prior to the start of the works.

## 16. ENVIRONMENTAL PROTECTION

Construction activities, and archaeological mitigation fieldwork, have the potential to affect the surrounding environment including neighbours as well as the wider environment. Good environmental practice enables these effects to be managed positively. They can take many forms, for example effects on surrounding flora and fauna, watercourses, noise or pollution. Clients, their professional advisers, contractors and the whole construction supply chain have responsibilities for environmental management and resource efficiency.

All work will be carried out in accordance with the relevant statutory provisions and should seek to exceed them where possible. All reasonably practicable measures will be taken to avoid and/or ameliorate potential damage or nuisance to people and impact on the environment (ClfA 2014).

The Archaeological Contractor shall seek to avoid, control and minimise the environmental impacts of their operations in accordance with the Construction Industry Research and Information Association's Environmental Good Practice on Site (CIRIA 2015), ClfA's Policy statement on environmental protection (ClfA 2014), and any other environmental briefings and policies issued by the Client.

## 17. MONITORING PROCEDURES

The Archaeological Evaluation may be subject to monitoring visits by the Archaeological Consultant, the commissioning body or their nominated representatives, who will have unrestricted access to the site, fieldwork records and any other information. The work will be inspected to ensure that it is being carried out to the required standards and that it will achieve the stated objectives.

The Archaeological Consultant will give the Archaeological Advisor notice of when work is due to commence. Access to the site for monitoring purposes will be accorded to the Archaeological Advisor who may monitor the implementation of the programme of works and evaluate the work being undertaken on site against the methodology detailed in this WSI.

Verbal progress reports will be provided to the Archaeological Consultant upon request and weekly written progress reports will be provided to the Archaeological Consultant if requested.

Progress meetings between the Archaeological Consultant, the Archaeological Advisor and the Archaeological Contractor may be held on site during the course of the fieldwork.

The Archaeological Contractor will only accept instruction from the Archaeological Consultant.

## **18. CONFIDENTIALITY AND PUBLICITY**

The archaeological survey works may attract interest.

All communication regarding this project is to be directed through the Archaeological Consultant. The Archaeological Contractor will refer all inquiries to the Archaeological Consultant without making any unauthorised statements or comments.

The Archaeological Contractor will not disseminate information or images associated with the project for publicity or information purposes without the prior written consent of the Archaeological Consultant.

## **19. ACCESS ARRANGEMENTS AND SITE INFORMATION**

Access to the site is restricted to authorised personnel only.

Access will be arranged and organised on behalf of the Client by the Archaeological Consultant. Approved routes into and out of the site will be clearly identified and adhered to at all times. The location of welfare facilities and site offices will be agreed between the Archaeological Consultant and the Client.

Should the Archaeological Contractor require an adjustment to the location of the works areas due to local conditions, these shall be agreed with the Archaeological Consultant prior to implementation.

The Archaeological Contractor will notify the Archaeological Consultant immediately if any of the proposed trench locations cannot be investigated and will provide a clear explanation for the situation.

The Archaeological Contractor will record photographically (digital photographs) ground conditions in the area of the proposed trenches and will record any damage caused by the works that may result in a claim for compensation. Photographs will be taken prior to the start of the evaluation, during works, and upon completion and backfilling of the trenches.

## **20. ADHERENCE TO PROJECT DESIGN**

The Archaeological Contractor will undertake the works according to this WSI and any subsequent written variations. No variation from or changes to the WSI will occur except by prior agreement with the Archaeological Consultant.

## **21. GENERAL PROVISIONS**

The Archaeological Contractor will supply all plant, welfare facilities and fencing, as required.

The Archaeological Contractor will provide day rates, a lump sum for reporting, plus any contingencies (e.g. excavation of human remains, scientific dating, specialist finds and conservation work etc.), with a cost breakdown, detailed where applicable.

All communications on archaeological matters will be directed through the Archaeological Consultant.

The Archaeological Contractor shall make the minimum of disturbance during the survey and will avoid any unnecessary damage.

The Archaeological Contractor will immediately notify the Archaeological Consultant of any evidence of or damage to the integrity of the survey caused by any third party.

Any technical queries arising from the specification detailed above will be addressed to the Archaeological Consultant without delay.

## **22. VALID PERIOD OF WSI**

This WSI is valid for a period of 6 months from date of issue, after which it will be reviewed by the Archaeological Consultant and may need to be revised, updated or amended in order to take account of new discoveries and to accommodate changes to policy, legislation, standards and guidance, good practice, the introduction of new working practices or techniques or changes in design associated with the project.



## APPENDIX 1: REFERENCES

### WSI References

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