East Thickley Farm, Shildon, County Durham

Report on an Archaeological Evaluation

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Report on an Archaeological Evaluation

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EXECUTIVE SUMMARY

This report details the results of a programme of evaluation trenching undertaken on land at East Thickley Farm, Shildon, County Durham in advance of the submission of outline planning application. The trenching was undertaken in order to characterise the potential effects of the proposed development on the archaeological resource, in particular any archaeological deposits associated with the nearby deserted medieval village of East Thickley. A linear feature visible on mid-20th century aerial photography crosses the proposed development site, and has been interpreted as a possible medieval boundary.

Two trenches of c.10m length 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 Institute for Archaeologists guidance and detailed in the methodology in Appendix 2 below.

Anthropogenic features observed were restricted to a substantial dump of stone at the east edge of the proposed development site, and a thin levelling layer of likely 20th century date. A single find of medieval or early post-medieval pottery was recovered from a developed soil sealed beneath the more recent activity, which in turn suggests that, had there been archaeological features of this date within the trenched area, then these would have survived and been visible. The location of the linear feature identified on aerial photography coincided with a band of limestone brash outcropping at a higher level through the thin clay substrate. Given this, it is considered most likely that the linear feature visible on aerial photographs is geological and not archaeological in origin.

The results of the evaluation indicate that the potential direct effect of the proposed development on the archaeological resource is negligible to zero. It is considered that the results of the programme of evaluation trenching are sufficient and proportionate to satisfy the requirements of paragraph 128 of NPPF without the need for additional field evaluation prior to determination of the application. Equally, given that the evaluation indicates that there would likely be no adverse effects on archaeological or palaeoenvironmental deposits as a result of the proposed development, it is considered that there would be no requirement for mitigation fieldwork as a condition of planning permission.

1. INTRODUCTION

1.1 PROJECT BACKGROUND

This report has been prepared by Solstice Heritage on behalf of Mr T. McAneney to outline the results of a programme of archaeological evaluation. The evaluation was requested by Durham County Council (DCC) in advance of an outline application for planning permission for the construction of two dwellings and associated infrastructure on land near East Thickley Farm, Shildon, County Durham.

1.2 SITE LOCATION

The proposed development is situated on a plot of land west of East Thickley Farm on the east edge of Shildon, County Durham, centred at grid reference 417858 537463 (Fig. 2). The proposed footprint of the new buildings is shown on Fig. 3 below, along with the location of the two evaluation trenches.

1.3 PREVIOUS WORK

There has been no previous evaluation work on the site directly, though the HER records six previous interventions within 500m of the proposed development. Two of the events are desk-based assessments, the first of which comprised part of an EIA for the National Railway Museum Reserve Collection undertaken by The Archaeological Practice, which identified only the potential for remains associated with the surviving portions of the Stockton and Darlington Railway. Alan Williams Archaeology then undertook a limited programme of evaluation trenching in 2003, which concluded that the area around the railway had been scoured down to the clay substrate and no archaeological features remained in that location.

The second desk-based assessment was the first part of a staged process of work led by Northern Archaeological Associates (NAA) in advance of proposed development to the east of Shildon, and it identified potential impacts on the deserted medieval village as being the key concern. GSB Prospection then followed this up with geophysical survey across approximately half of the proposed site to assess the potential extent of the medieval remains. The results did not indicate the presence of extensive or easily characterisable remains, but there were anomalies of a likely anthropogenic nature. The evaluation of the site concluded with a programme of fieldwalking and trenching, which revealed archaeological features relating to medieval agriculture, and artefacts representing scattered Mesolithic activity along with pottery of medieval to post-medieval date.

The final event recorded within the HER relates to an approved application for a substantial new-build housing estate on land to the immediate west of the proposed development site, referred to as Shildon Spout Lane. In 2007 Tyne and Wear Museums Archaeology undertook a programme of 19 evaluation trenches revealing only one archaeological feature: a stone-lined gully interpreted as a pre-19th century boundary feature.

1.4 POTENTIAL SIGNIFICANCE

Within the footprint of the proposed development there is a single linear feature recorded in the HER crossing the western portion of the plot from south to north (see Fig. 3 below). This feature was identified as an extant bank on the 1946 aerial photography and mapped as part of the National Mapping Programme (NMP) undertaken in 2009 (Hewitt *et al*. 2011). It has been interpreted as a medieval boundary associated with the shrunken medieval village (SMV) of East Thickley. Within 500m of the proposed development site, the NMP mapped eight parcels of post-medieval ridge and furrow.

Though this is no longer extant it suggested the extensive and likely presence of archaeological remains relating to medieval and post-medieval agriculture within the plot under evaluation.

The principal archaeological potential, and impetus for the evaluation work, relates to the SMV of East Thickley, of which the boundary crossing the proposed development site may be part. The tiny township of East Thickley was originally part of Redworth but had been separated by the time of Boldon Book in AD1183, and by the 14th century was in the possession of the Lilburn Family where it stayed for many centuries (NAA 2004, 7). The known remains of the medieval settlement lie principally to the south-east of the modern farmstead and comprise four-five building platforms and associated enclosures (ibid. 6).

1.5 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" (IfA 2008a, 2).

The overarching aim of the evaluation 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 evaluation were:

- To record, excavate and environmentally sample any archaeological deposits encountered
- To establish the date, character and significance of any archaeological and palaeoenvironmental deposits, including in relation to other similar features within the area
- To ensure there is a permanent record of the work undertaken deposited with the local Historic Environment Record (HER) and made available online (this report)
- To ensure all work is undertaken in compliance with the Code of Conduct of the Institute for Archaeologists (IfA) (2000), the IfA Standard and Guidance for Field Evaluation (2008a), and the Regional Statement of Good Practice.

2. POLICY AND GUIDANCE FRAMEWORK

2.1 LEGISLATION

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

Table 1 Legislation relating to cultural heritage in planning

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 that have been selected by a set of non-statutory criteria to be of national significance. 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).

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:

Table 2 Key passages of NPPF in reference to cultural heritage (archaeology)

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".
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.
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.

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 the County Durham Local Plan, currently in consultation and to be approved.

2.3 GUIDANCE

2.3.1 NATIONAL

During the evaluation and preparation of this document, the following guidance documents have been referred to, where relevant:

Table 3 National guidance documentation consulted

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, particular as case law develops in relation to the implementation of NPPF. In relation to cultural heritage the NPPG follows previous guidance in wording and 'keys in' with, in particular, extant English Heritage guidance documents. The NPPG references many similar terms to the previous PPS5 Practice Guidance.
Conservation Principles, Policies and Guidance (EH 2008)	This 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	This document represents non-statutory industry best practice as set out by the Institute for Archaeologists. The evaluation work has

Evaluation (IfA revised 2008a)	been undertaken to these standards, as subscribed to by Solstice Heritage.

2.3.2 REGIONAL

Archaeological work within County Durham 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 in relation to the evaluation undertaken are summarised in the table below:

Table 4 Key principles of the Regional Statement of Good Practice

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 (this document), 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.
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 report.
13	During the course of archaeological work arrangements will be made, where possible, for disseminating information about the site to the general public.

3. METHODOLOGY

3.1 FIELDWORK

The two trenches were laid out in the locations agreed in the Written Scheme of Investigation (Brightman 2014) and excavations were undertaken and completed on Tuesday 22nd July 2014. 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.

Where archaeological features and deposits were encountered, these were to be recorded to the standards outlined in the relevant IfA Standard and Guidance. All features and deposits were to be 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 the trench was made at a suitable scale, and photography was completed.

Prior to fieldwork a full WSI (Brightman 2014) was prepared and submitted to the Durham County Council (DCC) Senior Archaeologist. The methodological sections of this document have been included as Appendix 2 below.

3.2 POST-FIELDWORK

The primary site archive comprises site records and digital photography on cd. This has been used to compile this report, which will be deposited with the local HER in digital and paper format as the principal record of the evaluation work. Given the lack of archaeological features, the physical archive comprises primary field records and a single sherd of unstratified likely medieval pottery, and advice will be sought on the 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 **solstice1-186574**.

In the absence of any material culture (other than the single sherd of pottery noted below), faunal or human remains, or deposits of palaeoenvironmental significance no further work was required to catalogue, process or assess such remains for integration within the report and archive. The procedures and strategy that would have been followed had such remains been encountered is set out within the earlier WSI and included in Appendix 2 below.

3.3 CHRONOLOGY

Where chronological and archaeological periods are referred to in this WSI, the relevant date ranges are broadly defined as follows:

- Palaeolithic (Old Stone Age): 1 million – 12,500 BP (Before present)
- Mesolithic (Middle Stone Age): 10500 – 4000 BC
- Neolithic (New Stone Age): 4000 – 2400 BC
- Bronze Age: 2400 – 700 BC
- Iron Age: 700 BC – AD 43
- Roman/Romano-British: AD 43 – 410
- Anglo-Saxon/Anglo-Scandinavian: AD 410 – 1066
- Medieval: AD 1066 – 1485
- Post-medieval: AD 1485 – 1750
- Industrial: AD 1750 – 1900

- Modern: AD 1900 – Present

3.4 Quality Assurance

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

3.5 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.

3.6 Copyright

4. RESULTS

4.1 GENERAL STRATIGRAPHY (FIGS 4-5)

Five contexts were observed in both trenches comprising a sequence of natural and introduced deposits that most likely extend across the entire proposed development area. A shallow, modern (likely 20th century) topsoil (001) overlay a thin (*c*.0.1m thick) levelling layer (002). This levelling layer is most likely associated with the development of the adjacent plot of land and the erection of two adjoining bungalows in the mid-20th century; an observation corroborated by the landowner. Sealed beneath the modern overburden there was a relatively well-developed soil (003) up to *c*.0.45m in thickness from which the only small finds are likely to have come. Two small fragmentary body sherds of medieval pottery (see below) were recovered from loose material at the top of (003), indicating that this was the active soil in the medieval period. Beneath the buried soil there was a thin lens of clay substrate (004) containing substantial amounts of fractured limestone brash derived from the underlying bedrock (005). The upper surface of the clay substrate was indistinct and graded into the buried soil horizon above.

4.2 TRENCH 1 (FIGS 4 AND 6)

Trench 1 contained the only anthropogenic feature observed during the evaluation. The east end of the trench was dominated by a substantial dump of stone (007) within a barely perceptible cut [008] that truncated the buried soil (003), the underlying clay substrate (004) and even cut into the limestone bedrock (005). The deposit comprised a large dump of limestone boulders in a clayey sand matrix and most likely represents deposition of stone cleared from nearby areas, though whether this is a product of post-medieval agricultural clearance or modern construction cannot be said with any certainty as no finds were recovered. Above the dump of stone a thin coal-rich lens (006) was observed, also sealed by the modern levelling layer (002).

4.3 TRENCH 2 (FIGS 5 AND 7)

The stratigraphy was more straightforward in Trench 2 with the basic sequence of deposits as outlined in section 4.1 above. The clay substrate (004) was noted as being particularly thin in this trench, with two distinct areas of outcropping limestone brash (005) where the upper part of the underlying bedrock is outcropping through the clay above. The more prominent area of limestone towards the western end of the trench coincides with the linear feature observed on aerial photography.

5. SPECIALIST ASSESSMENTS

5.1 MEDIEVAL CERAMICS

One sherd of pottery was recovered from the loose material at the top of the buried soil horizon (003) and, whilst recorded as unstratified, it is considered most likely that it derives from the developed medieval and post-medieval soil rather than being residual material incorporated into the modern levelling deposit above.

The piece is a single body sherd from a wheel thrown vessel of uniformly fired reddish-brown fabric with very few gritty inclusions (not microscopically inspected). The outermost portion of the fabric is lighter and carries a yellow-green mottled lead glaze. The sherd is most likely later medieval or early post-medieval date and is relatively typical of the kind of waste detritus that is spread on arable fields along with nightsoil during these periods.

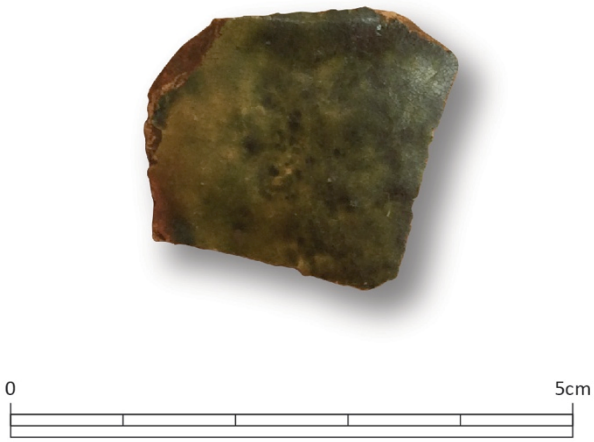

Fig. 1 Medieval or early post-medieval sherd recovered during trenching.

6. ASSESSMENT OF EFFECTS

6.1 ARCHAEOLOGICAL POTENTIAL

Anthropogenic features observed during the evaluation trenching were restricted to a substantial dump of stone at the east edge of the proposed development site, and a thin levelling layer of likely 20th century date. A single find of medieval or early post-medieval pottery indicates the soil level from this date is sealed beneath the more recent activity, which in turn suggests that, had there been archaeological features of this date within the trenched area, then these would have survived and been visible.

The location of the linear feature identified on aerial photography coincided with a band of limestone brash outcropping at a higher level through the thin clay substrate. Given this, it is considered most likely that the linear feature visible on aerial photographs is geological and not archaeological in origin.

The results of the evaluation indicate that the potential direct effect of the proposed development on the archaeological resource is negligible to zero.

6.2 RECOMMENDATIONS

It is considered that the results of the programme of evaluation trenching are sufficient and proportionate to satisfy the requirements of paragraph 128 of NPPF without the need for additional field evaluation prior to determination of the application. Equally, given that the evaluation indicates that there would likely be no adverse effects on archaeological or palaeoenvironmental deposits as a result of the proposed development, it is considered that there would be no requirement for mitigation fieldwork as a condition of planning permission.

7. SOURCES

7.1 BIBLIOGRAPHY

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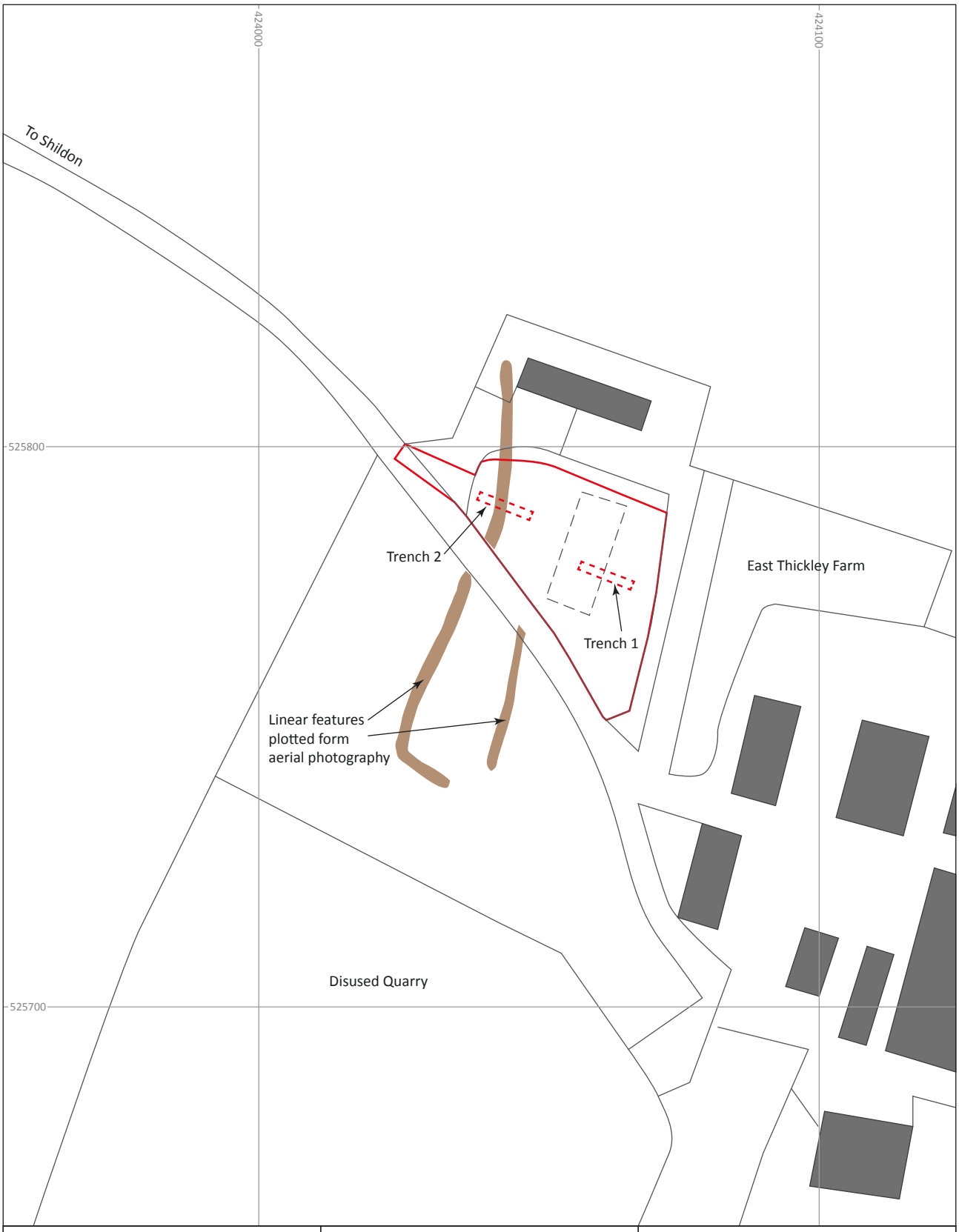
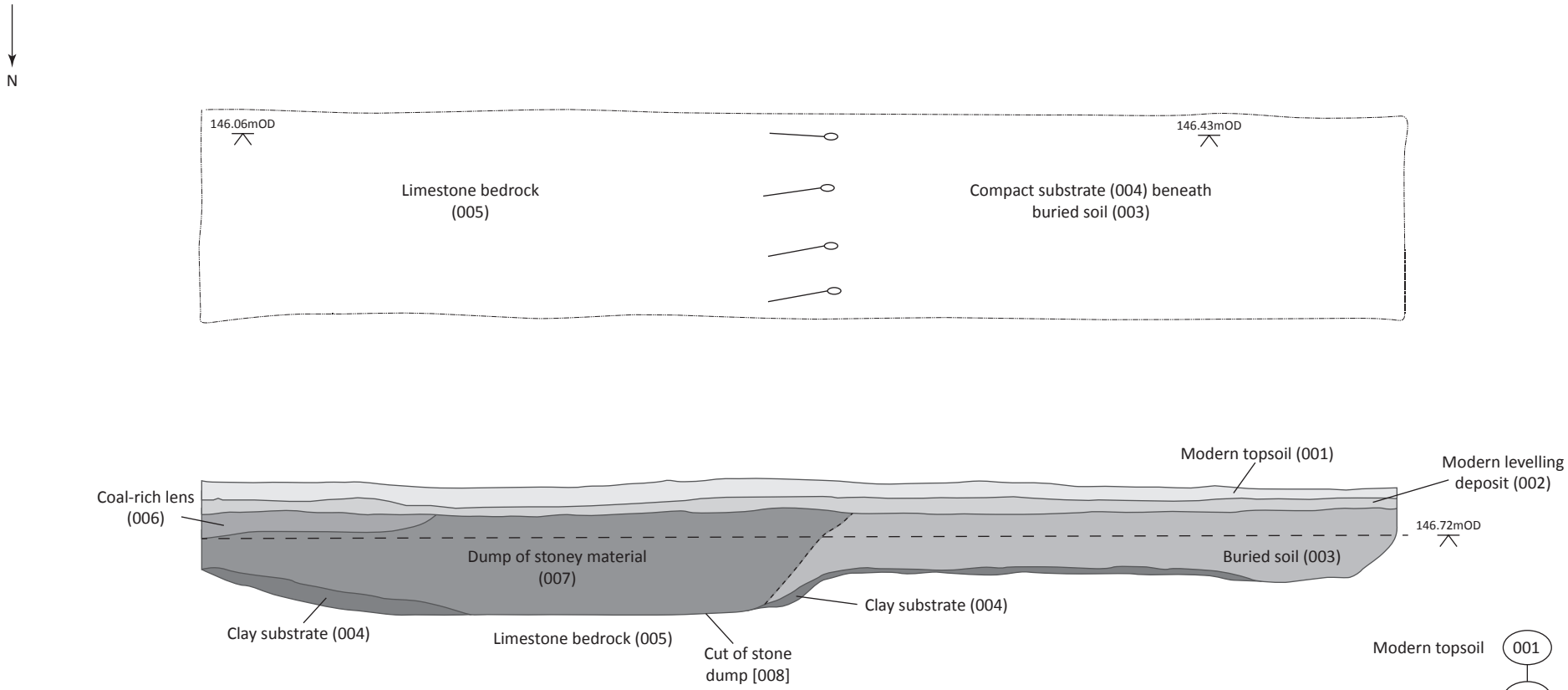
APPENDIX 1 – ILLUSTRATIONS

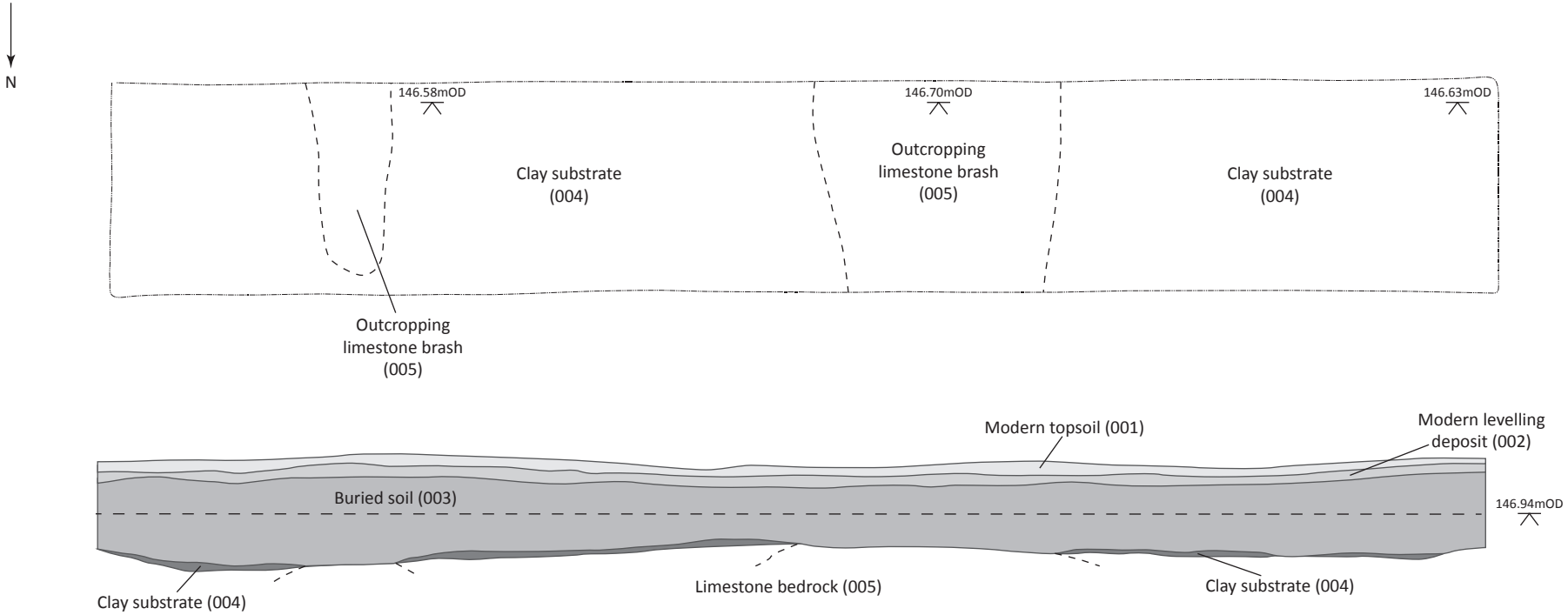
Project East Thickley Farm, Shildon, Co. Durham Evaluation Trenching	Legend Proposed Development	Solstice Heritage Crabtree Hall Business Centre Little Holtby Northallerton North Yorkshire DL7 9NY www.solsticeheritage.co.uk		
Drawing Figure 1 Site Location	0 500 1000 1500 2000 m 	Drawn By JB	Date August 2014	



Project East Thickley Farm, Shildon, Co. Durham Evaluation Trenching	Legend Planning boundary Trench Locations Proposed development	Solstice Heritage Crabtree Hall Business Centre Little Holtby Northallerton North Yorkshire DL7 9NY www.solsticeheritage.co.uk	
Drawing Figure 2 Trench Locations	0 50m	Drawn By JB	Date August 2014



Project East Thickley Farm, Shildon, Co. Durham Evaluation Trenching	Legend	Solstice Heritage Crabtree Hall Business Centre Little Holtby Northallerton North Yorkshire DL7 9NY www.solsticeheritage.co.uk	
Drawing Figure 4 Trench 1 Plan, Section and Matrix	0 2m	Drawn By JB	Date August 2014



Modern topsoil	001
Modern levelling deposit	002
Buried soil	003
Clay substrate	004
Limestone bedrock	005

Project East Thickley Farm, Shildon, Co. Durham Evaluation Trenching	Legend	Solstice Heritage Crabtree Hall Business Centre Little Holtby Northallerton North Yorkshire DL7 9NY www.solsticeheritage.co.uk	
Drawing Figure 5 Trench 2 Plan, Section and Matrix	0 2m	Drawn By JB	Date August 2014

Fig. 6 Post-excavation view of Trench 1 looking east. The interface of the clay substrate can be seen in the foreground with the limestone bedrock at the base of cut [008] at the back of the trench.

Fig. 7 Post-excavation photograph of Trench 2 looking east. The prominent area of outcropping limestone brash that coincides with the aerial photograph feature is partially under and in front of the ranging rods.

APPENDIX 2 – WRITTEN SCHEME OF INVESTIGATION

Only the methodology, resources and programming section of the WSI are included within this appendix in order to prevent unnecessary repetition.

FIELDWORK METHODOLOGY

TRENCH LOCATIONS

Following consultation with the DCC Senior Archaeologist the evaluation will comprise two evaluation trenches measuring *c.*10m x 1.5m each. The first trench will be located to the west of the proposed development plot across the linear earthwork feature identified on aerial photography. This is the principal archaeological feature known on site and crosses the line of the proposed access road. The second trench is positioned in the east of the proposed development plot and extends across the proposed footprint of the new build and the likely area of services/septic tank to its east.

EXCAVATION METHODOLOGY

Initial excavations will be undertaken with a back-acting mechanical excavator under constant archaeological supervision to the first archaeological horizon. Where standing structures are encountered, their full extent within the trench will be exposed and recorded. Where cut features are exposed, they will be cleaned and delimited as much as is practicable within the area of the trench and investigated using the sampling strategy outlined in Table 5 below. Where cut features contain material culture or palaeoenvironmental remains of significance then they will be subject to a more rigorous sampling strategy, usually included 100% excavation of fill material and palaeoenvironmental sampling as detailed below.

The evaluation trenching will continue in a controlled manner until natural substratum has been reached, in order to ensure that all archaeological features and strata are adequately characterised. Given the topographical and geomorphological setting of the proposed development site, it is not anticipated that there will be a need for a 'second strip' to remove alluvial or colluvial sediment units that may have buried earlier remains.

Table 5 Sampling strategy for investigation of cut features

Size/Nature of Feature	Minimum percentage of fill excavated and sampled
Cut feature less than *c.*1m in diameter or equivalent area	50%
Cut feature greater than *c.*1m in diameter or equivalent area	25% or until form, function and date can be adequately characterised
Linear features	10% in 1m slots evenly spaced along the length of the features though focussing on junctions and relationships with other features where present. Minimum sample of 2m where the linear feature is less than 20m in total length.

RECORDING METHODOLOGY

All archaeological features will be recorded on *pro-forma* sheets creating a primary written record that will be accompanied by drawn and photographic records. A site diary giving a summary of each day's monitoring will also be maintained including overall interpretive observations.

A drawn record will be compiled of all features, including plan and section/profile illustrations, at a suitable scale (usually 1:10, 1:20 or 1:50) depending on the complexity and significance of the remains.

The photographic record of the monitoring will be undertaken in high-resolution digital format and black and white, archive-stable, print format. Photographs will be taken of all archaeological and palaeoenvironmental features in addition to general site photography locating the individual features in their wider context.

The total area of groundworks will be located and tied to the National Grid at a scale of 1:2500 or 1:1250 as practical. All features will be located accurately within this area and their height also accurately recorded above Ordnance Datum. The same level of accuracy will be applied to measuring the respective heights of the top and base of excavations.

Small Finds

Given the relatively small total area of trenching, and nature of anticipated archaeological features, all small finds will be initially retained and bagged by context for assessment at the post-fieldwork stage. Should an unexpected quantity of material be uncovered that is deemed to be of little significance then this will be noted but not retained, subject to the agreement of the DCC Senior Archaeologist.

Small finds will be handled, packed and stored in accordance with the guidelines in *First Aid for Finds* (Watkinson and Neal 1998).

In the event that finds of 'treasure' are uncovered then the local Coroner will be informed and the correct procedures will be followed as outlined under the *Treasure Act 1996*.

Within County Durham the procedure involves alerting the Finds Liaison Officer who then informs the coroner. The contact details for the Finds Liaison Officer are:

Portable Antiquities Scheme
Heritage, Landscape and Design
5th Floor
County Hall
Durham
County Durham
DH1 5UQ

Human Remains

In the event of human remains being uncovered, including evidence of cremations, these will be initially left *in situ*, protected and covered from view. Should removal of the remains be deemed necessary then a licence will be obtained from the Ministry of Justice (MoJ) prior to excavation proceeding. Exhumation of human remains will proceed in accordance with the MoJ licence and all health and safety regulations and guidance.

Scientific and Palaeoenvironmental Sampling Strategy

Aim of the Sampling Strategy

Given the uncertainty of the presence or level of archaeological remains likely to be encountered as part of this trenching, the general aim of the scientific and palaeoenvironmental sampling strategy is:

- To provide information on the nature of human activity and the past environment in the immediate area, in relation to the archaeological deposits uncovered during the project.

Overview

Table 7 below provides an overview of the basic sampling strategy. Sampling levels and feature-specific approaches may vary from this broad outline in accordance with the characteristics and potential of individual features to address the aims and objectives outlined above. Should the nature of archaeological remains observed during the course of fieldwork be markedly different to that anticipated, then modifications to this sampling strategy will be agreed with the DCC Senior Archaeologist. Sampling and assessment methodologies will follow best practice as set out in relevant guidance documents, including *Environmental Archaeology* (English Heritage 2011).

Site-Specific Requirements

The features considered most likely to be encountered on site are linear boundaries relating to the shrunken/deserted medieval settlement of East Thickley. Should such linear features be identified then there is the potential for ditch deposits that contain a sealed stratigraphic sequence, though wet deposits are unlikely given the permeable limestone bedrock. The deposits of any ditches would be assessed and sampled in the same way as for any other linear feature associated with settlement or activity (see Table 6 below) including taking monolith samples of any suitable preserved stratigraphy (e.g. laminated ditch deposits).

Table 6 Outline of scientific and palaeoenvironmental sampling strategy					
Potential Data	**Botanical Macrofossils**		**Pollen, Foraminifera**	**Radiocarbon Dating**	**Archaeometallurgy/Industrial Residue**
Sample Type	**Bulk (flotation)**		**Monolith/ Subsample**	**Individual**	**Bulk (residue)**
	Min. Sample Size	**Min. Excavated Sample**			
Feature or Context Type					
Structural or occupational features (isolated or with little observed palaeoenvironmental potential)	-	50%	-	Individual samples where observed during excavation and suitable sample recovered from bulk flotation	-
Structural or occupational features (concentrated, containing material culture, or with demonstrable palaeoenvironmental potential)	40 litre or 100% of excavated fill	100%	Subsample of single fill or monolith sample of stratigraphy where suitable		40 litre or 100% of excavated fill
Isolated pit features (Prehistoric to Early Medieval containing material culture)		100%			
Isolated pit features (medieval containing material culture)		100%			
Isolated pit features (Post-medieval containing material culture)		50%		-	
Isolated pit features < *c.*1m in diameter or equivalent area (undated or with little observed palaeoenvironmental potential)	-	50%		-	-
Isolated pit features > *c.*1m in diameter or equivalent area (undated or with little observed palaeoenvironmental potential)	-	25%		-	-
Linear features (associated with structural or occupational features)	40 litre or 100% of excavated fill	10% or 2m if less than 20m in total length	Monolith sample of preserved stratigraphy where suitable (e.g. laminated	Individual samples where observed during excavation and suitable sample	40 litre or 100% of excavated fill

			ditch deposits)	recovered from bulk flotation	
Linear features (isolated)	-			-	-
On-site processing methods	On-site flotation using graduated sieves with a minimum of 500 micron mesh		None beyond approved storage and packaging methods	None beyond approved storage and packaging methods	Residue from on-site flotation

Health and Safety

All archaeological work will be undertaken in a safe manner in compliance with the *Health and Safety at Work Act 1974*. A full risk assessment will be undertaken in advance of the commencement of work, a copy of which will be available on site for the duration of the fieldwork. Solstice Heritage has a full Safety, Health and Environment Policy, which can be supplied upon request.

Extensive Remains and/or Significant Finds

In the event of discovery of archaeological remains that are more extensive and/or significant than could reasonably have been anticipated then the following procedure will be followed:

- Where remains can be rapidly characterised within the scope of this stage of work, including a small extension to existing trenching, this will be undertaken following agreement with the client and the DCC Senior Archaeologist.
- If, following consultation with the DCC Senior Archaeologist and client, a further stage of evaluation is deemed necessary and proportionate to the potential significance of the archaeological remains, a modified WSI or addendum to this document will be prepared and agreed with all stakeholders.
- Where remains are significant, but are characterised by this phase of evaluation to a degree where their significance and extent can be understood, then the most suitable course may be the agreement with the DCC Senior Archaeologist and the client of a programme of conditioned mitigation to be undertaken post-permission.

Post-Fieldwork Methodology

Small Finds Processing

All finds will be processed and catalogued in line with standard guidance documents including *First Aid for Finds* (Watkinson and Neal 1998) and the *Standard and Guidance for the Collection, Documentation, Conservation and Research of Archaeological Materials* (IfA 2008b).

Specialist Assessment and Analysis

After processing, artefacts and ecofacts will be quantified and assessed to provide an overview of their potential to meet the aims and objectives of the project. This will be undertaken, where necessary, by a relevant specialist, as set out below, and will include a statement on the potential and requirement for further analysis. Where extensive analysis is recommended and justified by the potential of the assemblage or sample then this will be undertaken after agreement with the client and DCC Senior Archaeologist.

Reporting

Following completion of any specialist assessment and analysis, all information will be synthesised in a project report, which will include as a minimum:

- Planning application number, OASIS reference number and site grid reference
- A non-technical summary of results
- Introduction
- Aims and method statement

- Legislative, policy and guidance framework
- Tabular summary of data outlining all archaeological deposits, features, classes and numbers of artefacts and spot dating of significant finds
- Specialist reports (where necessary)
- Discussion of results
- Illustrative photography
- Location plan of the site of at least 1:10000 scale
- Extent plan of the proposed development site and individual trench plans at a suitable and recognised scale positioning all archaeological and palaeoenvironmental features and deposits in relation to the national grid
- Plans and section of all archaeological features at a suitable scale (see section 5.2 above)
- Above Ordnance Datum (aOD) levels on plans and incorporated into the text
- A copy of this WSI as an appendix

Any variation to the minimum requirements above will be approved in advance in writing by the DCC Senior Archaeologist. One bound hard copy and one digital copy will be supplied to the client and to the DCC Senior Archaeologist (for inclusion in the DHER) upon completion.

ARCHIVING

Within 6 months of the completion of all post-fieldwork stages of the project, a full archive will be compiled and deposited with a local recipient museum. The archive will be compiled in accordance with the *Standard and Guidance for the Creation, Compilation, Transfer and Deposition of Archaeological Archives* (IfA 2009). The archive and all material contained in it will be compiled according to the guidelines of the recipient museum, and will include as a minimum:

- A list of archive contents, by box if required
- Hard copies of all relevant project documentation
- Digital material created for the project
- Artefacts and ecofacts for which there is a reason for retention (e.g. inherent significance, potential for future analysis).

Should there be no material archive arising from the project then, as a minimum, the project report will be submitted to the County Durham HER in bound hard copy and digital format, and project details and a copy of the report will be made available through OASIS (see below).

OASIS

Solstice Heritage is registered with the Online Access to Index of Archaeological Investigations (OASIS) Project and fully supports all project documentation and records being made available through the OASIS website. Upon completion of the post-fieldwork reporting and archiving, an OASIS record will be completed, and a copy of the project report will be uploaded.

PUBLICATION AND DISSEMINATION

In the event that formal publication and/or wider dissemination is deemed necessary, then a suitable format will be agreed with the client and the DCC Senior Archaeologist. This may include a digital download document made freely available or publication in a local, regional or national journal.

Extensive Remains and/or Significant Finds

In the event of discovery of archaeological remains which are more extensive and/or significant than could reasonably have been anticipated then this will require a more detailed post-fieldwork approach. Should this be required, a suitable and proportionate post-fieldwork methodology will be agreed with the client and the DCC Senior Archaeologist upon completion of fieldwork, including a suitable level of publication and/or dissemination as noted above.

Resources and Programming

Fieldwork Staff

The project will be managed by Jim Brightman of Solstice Heritage. Jim holds full, accredited professional membership of the Institute for Archaeologists (IfA) at MIfA level. It is anticipated that Jim Brightman will also undertake the fieldwork, though in the event of a change, details of fieldwork staff will be confirmed in writing to the DCC Senior Archaeologist prior to commencement.

Post-Fieldwork Staff

The post-fieldwork reporting and archiving will also be managed by Jim Brightman. Details of other post-fieldwork or reporting staff will be confirmed in writing to the DCC Senior Archaeologist prior to commencement.

Specialist Input

Should specialist input be required for assessment and analysis at post-fieldwork stage, then it is intended that the following specialists be used:

Table 7 Proposed specialist input to post-fieldwork stages

Specialism	Specialist	Company/Institution
Lithics	Spencer Carter	Independent specialist (Lithoscapes)
Prehistoric pottery	Dr Clive Waddington	ARS Ltd
Romano-British Pottery	Dr Gerry Evans	Barbican Research Associates
Roman brick/tile	Alex Croom	Tyne and Wear Archives & Museums
Early glasswork	Dr Hilary Cool	Barbican Research Associates
Medieval/Post-medieval pottery	Dr Chris Cumberpatch	Independent specialist
Archaeometallurgy	Dr Gerry McDonnell	Independent specialist
Clay pipe	Dr Susie White	University of Liverpool
Industrial/later glasswork	Chris Howard-Davies	Oxford Archaeology North (OAN)
Industrial/later brickwork	Ian Miller	OAN
Industrial/later metalwork	Chris Scott	ARS Ltd
Conservation of artefacts	Jennifer Jones	Archaeological Services Durham University (ASDU)
Botanical macrofossils	Dr Charlotte O'Brien	ASDU
Pollen	Dr Charlotte O'Brien	ASDU
Human remains	Milena Gyrzbowska	ARS Ltd
Faunal remains	Milena Gyrzbowska	ARS Ltd
All dating techniques	Dr Gordon Cook	Scottish Universities Environmental Research Centre (SUERC)

This list is subject to change depending on individual availability of specialists and the specific requirements of the archaeological and palaeoenvironmental remains uncovered during the course of fieldwork.

Fieldwork Programme

The trenching will be undertaken on 22nd-23rd July 2014. Although this is shorter than the usual minimum two-week notice period for monitoring of fieldwork, this timetable has been discussed and agreed with the DCC Senior Archaeologist.

Post-Fieldwork Programme

The post-fieldwork process will commence immediately upon completion of the fieldwork. Unless a more in-depth post-fieldwork process has been agreed as an addendum to this document, then a report will be compiled within two months, subject to any required specialist input. An OASIS record will be completed and any archive will be deposited within six months of the completion of the post-fieldwork phase.

Monitoring

Initial discussion, and agreement of this WSI, has been with the DCC Senior Archaeologist Lee McFarland. Monitoring of the project will be undertaken by either David Mason or Clare Henderson:

Heritage, Landscape and Design Team
Planning Service
Regeneration and Economic Development
Durham County Council
County Hall
5th Floor
Durham
DH1 5UQ
Tel: 03000-267009