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LAND AT CHURCH LANE, SPROUGHTON, SUFFOLK

AN ARCHAEOLOGICAL EVALUATION

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NGR: TM 125 445	Report No. 4175
District: Babergh	Site Code: SPT 038
Approved: Claire Halpin MIfA	Project No. 4347
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Between the 19th and 30th of October 2012, Archaeological Solutions Ltd (AS) carried out an archaeological evaluation of land at Church Lane, Sproughton, Suffolk (NGR TM 125 445). The evaluation was conducted in advance of the granting of planning permission (Babergh District Council, Planning Ref. B/11/00745/OUT) for residential development, based on advice from Suffolk County Council Archaeological Service Conservation Team (SCCAS-CT). *Prehistoric struck flint was found within the colluvium (L1002) and unstratified. The struck flint includes a large blade, possibly Mesolithic (Struck Flint Report below). A residual sherd of medieval (11th – 13th century) pottery was found in Pit F1025 (Tr.4). A range of features (pits, ditches and gullies) was recorded across the site. The majority of features contained no finds and were undated. Large pits F1015 and F1025 (Tr.4) contained post-medieval CBM and may have been quarry pits.*			
Project dates (fieldwork)	19th - 30th October 2012		
Previous work (Y/N/?)	*N*	Future work	*TBC*
P. number	*4347*	Site code	*SPT 038*
Type of project	*Archaeological Evaluation*		
Site status	-		
Current land use	*Arable land*		
Planned development	*Residential*		
Main features (+dates)	*Pits, ditches, gullies*		
Significant finds (+dates)	*Residual struck flint and a medieval (11th – 13th C) pottery sherd*		
Project location			
County/ District/ Parish	*Suffolk*	*Babergh*	
HER/ SMR for area	*Suffolk Historic Environment Record*		
Post code (if known)	-		
Area of site	*1.1ha*		
NGR	*TM 125 445*		
Height AOD (max/ min)	*c. 10m to 6m*		
Project creators			
Brief issued by	*Suffolk County Council Archaeological Service Conservation Team (Jess Tipper)*		
Project supervisor/s (PO)	*Gareth Barlow and Samuel Egan*		
Funded by	*HW de Zoete Will Trust*		
Full title	*Land at Church Lane, Sproughton, Suffolk. An Archaeological Evaluation*		
Authors	*Barlow, G. and Egan, S.*		
Report no.	*4175*		
Date (of report)	*October 2012 (Revised November 2012)*		

LAND AT CHURCH LANE, SPROUGHTON, SUFFOLK
AN ARCHAEOLOGICAL EVALUATION

SUMMARY

Between the 19th and 30th of October 2012, Archaeological Solutions Ltd (AS) carried out an archaeological evaluation of land at Church Lane, Sproughton, Suffolk (NGR TM 125 445; Figs. 1 and 2). The evaluation was conducted in advance of the granting of planning permission (Babergh District Council, Planning Ref. B/11/00745/OUT) for residential development (Figs. 6 and 7), based on advice from Suffolk County Council Archaeological Service Conservation Team (SCCAS-CT).

The site had a potential for archaeological remains, as highlighted on the Suffolk Historic Environment Record, but had not been the subject of any systematic investigation. Archaeological remains are recorded to the east and south-east (HER SPT 002 and SPT 005; Fig. 1). These comprise a Mesolithic flint scatter found on a knoll on the Gipping floodplain, a Neolithic pit with Beaker finds at the Anglian water Sewage Works, and early Bronze Age collared urns found at Gipping Way. The site also had archaeological potential given its topographic location overlooking the valley of the river Gipping, which would have been attractive to early settlers. A potential for palaeoenvironmental deposits and geoarchaeological deposits was also possible, given that the eastern part of the site may contain early land surfaces buried by later sedimentation.

Prehistoric struck flint was found within the colluvium (L1002) and unstratified. The struck flint includes a large blade, possibly Mesolithic (Appendix 2). A residual sherd of medieval (11th – 13th century) pottery was found in Pit F1025 (Tr.4; Fig. 4). A range of features (pits, ditches and gullies) was recorded across the site. The majority of features contained no finds and were undated. Large pits F1015 and F1025 (Tr.4; Fig. 4) contained post-medieval CBM and may have been quarry pits.

1 INTRODUCTION

1.1 Between the 19th and 30th of October 2012, Archaeological Solutions Ltd (AS) carried out an archaeological evaluation of land at Church Lane, Sproughton, Suffolk (NGR TM 125 445; Figs. 1 and 2). The evaluation was conducted in advance of the granting of planning permission (Babergh District Council, Planning Ref. B/11/00745/OUT) for residential development (Figs. 6 and 7), based on advice from Suffolk County Council Archaeological Service Conservation Team (SCC AS-CT).

1.2 The programme of archaeological investigation comprised an archaeological field evaluation by geophysical survey (Marsh 2012) and trial trenching. The geophysical survey was undertaken by Stratascan Ltd prior to the evaluation.

1.3 The project was carried out in accordance with a brief issued by Suffolk County Council Archaeological Service Conservation Team (SCC AS-CT) (Jess Tipper, dated 12/09/2012), and a specification compiled by AS (dated 14/09/2012) and approved by SCC AS-CT. It followed the procedures outlined in the Institute of

Field Archaeologists' *Code of Conduct, Standard and Guidance for Archaeological Field Evaluation* (revised 2008). It also adhered to the relevant sections of *Standards for Field Archaeology in the East of England* (Gurney 2003).

1.4 The principal objectives of the evaluation were:

- To establish whether any archaeological deposit exists in the area, with particular regard to any which are of sufficient importance to merit preservation *in situ.*

- To identify the date, approximate form and purpose of any archaeological deposit within the application area, together with its likely extent, localised depth and quality of preservation.

- To evaluate the likely impact of past land uses, and the possible presence of masking colluvial/alluvial deposits, along with the potential for the survival of environmental evidence.

- To provide sufficient information to construct an archaeological conservation strategy dealing with preservation, the recording of archaeological deposits, working practices, timetables and orders of cost.

Planning Policy Context

1.5 The National Planning Policy Framework (NPPF 2012) states that those parts of the historic environment that have significance because of their historic, archaeological, architectural or artistic interest are heritage assets. The NPPF aims to deliver sustainable development by ensuring that policies and decisions that concern the historic environment recognise that heritage assets are a non-renewable resource, take account of the wider social, cultural, economic and environmental benefits of heritage conservation, and recognise that intelligently managed change may sometimes be necessary if heritage assets are to be maintained for the long term. The NPPF requires applications to describe the significance of any heritage asset, including its setting that may be affected in proportion to the asset's importance and the potential impact of the proposal.

1.6 NPPF aims to conserve England's heritage assets in a manner appropriate to their significance, with substantial harm to designated heritage assets (i.e. listed buildings, scheduled monuments) only permitted in exceptional circumstances when the public benefit of a proposal outweighs the conservation of the asset. The effect of proposals on non-designated heritage assets must be balanced against the scale of loss and significance of the asset, but non-designated heritage assets of demonstrably equivalent significance may be considered subject to the same policies as those that are designated. The NPPF states that opportunities to capture evidence from the historic environment, to record and advance the understanding of heritage assets and to make this publicly available is a requirement of development management. This opportunity should be taken in a manner proportionate to the significance of a heritage asset and to impact of the proposal, particularly where a heritage asset is to be lost.

2 DESCRIPTION OF THE SITE

2.1 Topography, Geology and Soils

2.1.2 The geology of the site comprises the Anglian glacial sand and gravel, situated at the crest of the River Gipping valley. The drift deposits of sand and gravel may have minor inter-beds of silt and clay, typically chalk and flint rich. These drift deposits are underlain by a solid geology of London Clay, and overlain by the Ludford association of typical brown earth soils.

2.2 Archaeological Background

2.2.1 Archaeological remains recorded in the vicinity of the site are limited to those from the prehistoric period, a trait not unexpected given the topographic location of the site overlooking the River Gipping, which would have been very attractive to early settlers. All Historic Environment Record (HER) entries cited in the text are plotted on Figure 1. Bramford Road Pit (HER IPS 018) produced artefacts of Palaeolithic, middle Neolithic and Bronze Age date. The Palaeolithic artefacts included cordate, Mousterian and Coombe-Chapelle flint hand-axes, and a Soluttrean leaf-shaped flint implement. Also recovered were sherds of middle Neolithic Peterborough ware pottery and gritty Bronze Age pottery with incised decoration. A probable Neolithic flint hand axe was also recovered from Sproughton Road (HER IPS 097), while archaeological excavations at Morrison's Supermarket, Boss Hall (HER IPS 400) recorded an early Bronze Age ring ditch containing four Beaker burials.

2.3 Previous Archaeological Investigation

2.3.1 A geophysical survey was undertaken by Stratascan Ltd (Marsh 2012). In summary:

Two anomalies (one linear and one discrete) were detected. They are indicative of in-filled cut features which may be of archaeological origin. In addition two areas of disturbed or made ground were noted.

2.3.2 Figure 8 shows the location of the evaluation trenches in relation to gradiometer anomalies (after Marsh 2012, fig. 4). No modification to trench locations was made in response to the limited survey results; final trench locations were approved by Jess Tipper (Archaeological Officer, SCC AS) prior to the evaluation.

3 METHODOLOGY

3.1 Eight trial trenches providing a 5% sample of the site were excavated using a 360^0 mechanical excavator fitted with a toothless ditching bucket. The trenches were linear (40m long x 1.60m wide), and were arranged in a grid pattern (Fig. 2).

3.2 Undifferentiated overburden was mechanically removed under close archaeological supervision. Thereafter, all investigation was undertaken by hand. Exposed surfaces were cleaned and examined for archaeological features and finds.

Deposits were recorded using *pro forma* recording sheets, drawn to scale and photographed as appropriate. Excavated spoil was checked for finds and the trenches were scanned by metal detector.

4 DESCRIPTION OF RESULTS

4.1 Individual trench descriptions are presented below:

Trench 1 (Fig. 2)

Sample Section 1A *0.00m = 9.23m AOD*		
0.00 – 0.21m	L1000	Topsoil. Dark reddish brown, friable, sandy silt with occasional small and medium flint
0.21 – 0.39m	L1001	Subsoil. Mid reddish brown, friable, sandy silt with occasional small flint
0.39m+	L1006	Natural. Pale yellow brown, firm, sandy silt with sparse small flint.

Sample Section 1B *0.00m = 10.79m AOD*		
0.00 – 0.29m	L1000	Topsoil. As above.
0.29 – 0.42m	L1001	Subsoil. As above.
0.42 – 0.51m	L1002	Colluvium. Light orange brown, friable, sandy silt with occasional flint.
0.51m+	L1006	Natural. As above

Description: Trench 1 contained no archaeological features or finds.

Trench 2 (Figs. 2 and 3; DPs 1-3 and 10)

Sample Section 2A *0.00m = 9.50m AOD*		
0.00 – 0.28m	L1000	Topsoil. As above Tr.1.
0.28 – 0.50m	L1001	Subsoil. As above Tr.1.
0.50 – 0.82m	L1002	Colluvium. As above Tr.1.
0.82m+	L1006	Natural. As above Tr.1.

Sample Section 2B *0.00m = 10.26m AOD*		
0.00 – 0.36m	L1000	Topsoil. As above Tr.1.
0.36 – 0.44m	L1001	Subsoil. As above Tr.1.
0.44m+	L1006	Natural. As above Tr.1.

Description: Trench 2 contained Pits F1017 and F1021. Neither contained finds.

4.2 Pit F1017 was ill-defined in plan as it extended beyond the trench (6.30 x 1.60+ x 1.44m). A mechanical slot was excavated through the feature. It had steep sides and a flattish base. Its basal fill, L1018, was a mid grey brown, friable, sandy silt with occasional flint. No finds were present. The middle fill, L1019, was a mid orange brown, friable, sandy silt with frequent flint. It contained no finds. The upper

fill, L1020, was a mid orange / grey, friable, sandy silt with occasional flint. It contained no finds.

4.3 Pit F1021 was ill-defined in plan as it extended beyond the trench (12.30 x 1.60+ x 1.64m+). A mechanical slot was excavated through the feature. It had steep sides and its base was unseen. Its basal fill, L1022, was a mid orange brown, friable, sandy silt with occasional flint. No finds were present. The middle fill, L1023, was a mid orange brown, friable, sandy silt with frequent flint. It contained no finds. The upper fill, L1024, was a mid orange / grey, friable, sandy silt with occasional flint. It contained no finds.

Trench 3 (Fig. 2)

Sample Section 3A *0.00m = 8.50m AOD*		
0.00 – 0.39m	L1000	Topsoil. As above Tr.1.
0.39 – 0.66m	L1001	Subsoil. As above Tr.1.
0.66 – 0.83m	L1002	Colluvium. As above Tr.1.
0.83m+	L1006	Natural. As above Tr.1.

Sample Section 3B *0.00m = 9.27m AOD*		
0.00 – 0.33m	L1000	Topsoil. As above Tr.1.
0.33 – 0.55m	L1001	Subsoil. As above Tr.1.
0.55 – 0.85m	L1002	Colluvium. As above Tr.1.
0.85m+	L1006	Natural. As above Tr.1.

Description: Trench 3 contained no archaeological features or finds.

Trench 4 (Figs. 2 and 4; DPs 4-6 and 11)

Sample Section 4A *0.00m = 8.36m AOD*		
0.00 – 0.40m	L1000	Topsoil. As above Tr.1.
0.40 – 0.42m	L1001	Subsoil. As above Tr.1.
0.42m+	L1006	Natural. As above Tr.1.

Sample Section 4B *0.00m = 7.90m AOD*		
0.00 – 0.28m	L1000	Topsoil. As above Tr.1.
0.28 – 0.42m	L1001	Subsoil. As above Tr.1.
0.42 – 0.59m	L1002	Colluvium. As above Tr.1.
0.59m+	L1006	Natural. As above Tr.1.

Description: Trench 4 contained Ditch F1003, Pits F1015 and F1025, and Gully F1029. Pits F1015 and F1025 contained post-medieval CBM and the other features contained no finds. A sherd of residual medieval (11th – 13th century) pottery was found in Pit F1025.

4.4 Ditch F1003 was linear in plan (1.60+ x 1.15 x 0.04m), orientated NE/SW. It had moderately sloping sides and an irregular base. Its basal fill, L1004, was a mid reddish brown, friable, sandy silt. No finds were present. It upper fill, L1005, was a light reddish brown, friable, sandy silt. It contained no finds.

4.5 Pit F1015 was ill-defined in plan as it extended beyond the trench (5.30 x 1.60+ x 0.07m). It had gently sloping sides and a concave base. Its basal fill, L1016, was a dark orange brown, friable, sandy silt with frequent flint. It contained post-medieval CBM (1136g) and animal bone (928g). It upper fill, L1028, was a mid greyish brown, friable, sandy silt with sparse flint. It contained no finds.

4.6 Pit F1025 was ill-defined in plan as it extended beyond the trench (3.00 x 1.60+ x 0.70m). It had gently sloping sides and a concave base. Its basal fill, L1026, was a dark orange brown, friable, sandy silt with frequent flint. It contained a residual sherd of medieval (11th – 13th century) pottey (6g), post-medieval CBM (52g) and animal bone (48g). It upper fill, L1027, was a grey brown, friable, sandy silt with sparse flint. It contained no finds.

4.7 Gully F1029 was linear in plan (1.60+ x 0.62 x 0.21m), orientated NE/SW. It had moderately sloping sides and a flattish base. Its fill, L1030, was a mid orange brown, friable, sandy silt with frequent flint. No finds were present.

Trench 5 (Figs. 2 and 4; DP 7)

Sample Section 5A *0.00m = 6.23m AOD*		
0.00 – 0.32m	L1000	Topsoil. As above Tr.1.
0.32 – 0.46m	L1001	Subsoil. As above Tr.1.
0.46 – 0.62m	L1002	Colluvium. As above Tr.1.
0.62m+	L1006	Natural. As above Tr.1.

Sample Section 5B *0.00m = 7.22m AOD*		
0.00 – 0.24m	L1000	Topsoil. As above Tr.1.
0.24 – 0.30m	L1001	Subsoil. As above Tr.1.
0.30m+	L1006	Natural. As above Tr.1.

Description: Trench 5 contained Ditch F1011 and Pit F1013. Neither feature contained finds.

4.8 Ditch F1011 was linear in plan (0.70+ x 0.67 x 0.24m), orientated SE/NW. It had moderately sloping sides and a concave base. Its fill, L1012, was a mid orange brown, friable, sandy silt with moderate flint. No finds were present.

4.9 Pit F1013 was oval in plan (0.79 x 0.28+ x 0.16m). It had steep sides and a concave base. Its fill, L1014, was a mid orange brown, friable, sandy silt with moderate flint. No finds were present.

Trench 6 (Fig. 2)

Sample Section 6A *0.00m = 6.31m AOD*		
0.00 – 0.25m	L1000	Topsoil. As above Tr.1.
0.25 – 0.34m	L1001	Subsoil. As above Tr.1.
0.34 – 0.41m	L1002	Colluvium. As above Tr.1.
0.41m+	L1006	Natural. As above Tr.1.

Sample Section 6B *0.00m = 6.13m AOD*		
0.00 – 0.20m	L1000	Topsoil. As above Tr.1.
0.20 – 0.52m	L1001	Subsoil. As above Tr.1.
0.52 – 0.67m	L1002	Colluvium. As above Tr.1.
0.67m+	L1006	Natural. As above Tr.1.

Description: Trench 6 contained no archaeological features or finds.

Trench 7 (Figs. 2 and 5; DP 8)

Sample Section 7A *0.00m = 6.14m AOD*		
0.00 – 0.20m	L1000	Topsoil. As above Tr.1.
0.20 – 0.34m	L1001	Subsoil. As above Tr.1.
0.34 – 0.62m	L1002	Colluvium. As above Tr.1.
0.62m+	L1006	Natural. As above Tr.1.

Sample Section 7B *0.00m = 6.01m AOD*		
0.00 – 0.27m	L1000	Topsoil. As above Tr.1.
0.27 – 0.40m	L1001	Subsoil. As above Tr.1.
0.40 – 0.54m	L1002	Colluvium. As above Tr.1.
0.54m+	L1006	Natural. As above Tr.1.

Description: Trench 7 contained Pit F1009. It contained no finds. Two struck flint were found within Colluvium L1002.

4.10 Pit F1009 was oval in plan (0.52 x 0.50 x 0.10m). It had shallow sides and a concave base. Its fill, L1010 was a dark greyish brown, friable, sandy silt with occasional flint. No finds were present.

Trench 8 (Figs. 2 and 5; DP 9)

Sample Section 8A *0.00m = 6.02m AOD*		
0.00 – 0.25m	L1000	Topsoil. As above Tr.1.
0.25 – 0.45m	L1001	Subsoil. As above Tr.1.
0.45m+	L1006	Natural. As above Tr.1.

Sample Section 8B *0.00m = 5.52m AOD*		
0.00 – 0.15m	L1000	Topsoil. As above Tr.1.
0.15 – 0.39m	L1001	Subsoil. As above Tr.1.
0.39 – 0.44m	L1002	Colluvium. As above Tr.1.
0.44m+	L1006	Natural. As above Tr.1.

Description: Trench 8 contained Gully F1007; it contained no finds.

4.11 Gully F1007 was linear in plan (0.70m+ x 0.82 x 0.20m), orientated ENE/WW. It had moderately sloping sides and a concave base. Its fill, L1008 was a mid orange brown, friable, sandy silt with moderate flint. No finds were present.

5 CONFIDENCE RATING

5.1 It is not felt that any factors restricted the identification of archaeological features or finds.

6 DEPOSIT MODEL

6.1 Uppermost was Topsoil L1000, a dark reddish brown, friable, sandy silt with occasional small and medium flint (0.20 – 0.40m thick). In each trench below the topsoil was Subsoil L1001, a mid reddish brown, friable, sandy silt with occasional small flint (0.08 – 32m thick). Below L1001 was Colluvium L1002, a light orange brown, friable, sandy silt with occasional flint. It was not always present, for example, the northern end of Trenches 1, 2 and 4, and tended to be most shallow within the northern half of the site (0.09m Tr.1 and 0.05m Trench 8). In the southern half of the site, particularly the south-western sector, it was thicker (*c*.0.15 – 30m).

6.2 Below either Subsoil L1001 or Colluvium L1002 was the natural, L1006, a pale yellow brown, firm, sandy silt with sparse small flint. The natural occurred *c*.0.40 – 0.85m below the present day ground surface with the deepest trenches in the south-western sector of the site.

7 DISCUSSION

7.1 The evaluation recorded the following features:

Trench	context	description	Date
2	F1017	Pit	Undated
	F1021	Pit	Undated
4	F1003	Ditch	Undated
	F1015	Pit	Post-medieval
	F1025	Pit	Post-medieval
	F1029	Gully	Undated
5	F1011	Ditch	Undated
	F1013	Pit	Undated
7	F1009	Pit	Undated
8	F1007	Gully	Undated

7.2 The geophysical survey recorded few anomalies (Fig. 8) but was likely inhibited by the deep overburden. Colluvium was present in the southern half of the site, particularly the south-western sector.

7.3 Prehistoric struck flint was found within the colluvium (L1002) and unstratified. The struck flint includes a large blade, possibly Mesolithic (Struck Flint Report below). A residual sherd of medieval (11^{th} – 13^{th} century) pottery was found in Pit F1025 (Tr.4). A range of features (pits, ditches and gullies) was recorded across the site. The majority of features contained no finds and were undated. Large pits F1015 and F1025 (Tr.4) contained post-medieval CBM and may have been quarry pits.

7.4 The site had a potential for archaeological remains. The latter are recorded to the east and south-east (HER SPT 002 and SPT 005). These comprise a Mesolithic flint scatter found on a knoll on the Gipping floodplain, a Neolithic pit with Beaker finds at the Anglian water Sewage Works, and early Bronze Age collared urns found at Gipping Way. In the event post-medieval and undated features were recorded.

8 DEPOSITION OF THE ARCHIVE

8.1 Archive records, with an inventory, will be deposited at the County Historic Environment Record. The archive will be quantified, ordered, indexed, cross-referenced and checked for internal consistency. In addition to the overall site summary, it will be necessary to produce a summary of the artefactual and ecofactual data. The archive will be deposited within six months of the conclusion of the fieldwork. It will be prepared in accordance with the UK Institute for Conservation's *Conservation Guideline No.2* and according to the document *Deposition of Archaeological Archives in Suffolk* (SCC AS Conservation Team, 2008).

ACKNOWLEDGEMENTS

AS would like to thank the HW de Zoete Will Trust for their co-operation and funding of the project. AS is also pleased to acknowledge Robinson & Hall LLP, who commissioned the archaeological investigation, in particular Mr Peter le Grys.

AS also gratefully acknowledges the input and advice of Dr Jess Tipper of the Suffolk County Council Archaeology Service Conservation Team (SCC ASCT).

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APPENDIX 1: CONCORDANCE OF FINDS BY FEATURE

Feature	Context	Segment	Trench	Description	Spot Date	Pottery	CBM (g)	A. Bone (g)	Other
1002			7	Colluvium					Str. Flint (2) - 8g
			5	Colluvium					Str. Flint (1) – 90g
1015	1016		4	Fill of Pit			1136	928	
1025	1026		4	Primary Fill of Pit	Residual 11th - 13th C	(1) 6g	52	48	
U/S	U/S		1 2	Unstratified			 22		Str. Flint (3) - 2g

APPENDIX 2 SPECIALIST REPORTS

The Struck Flint
Andrew Peachey

A total of 6 flakes of struck flint (100g) were recovered from Colluvium L1002 and as un-stratified material.

A single flake (90g) form Colluvium L1002 (Tr.5) comprised a long blade in a heavily patinated condition. The blade (150mm) long has had the bulb of percussion snapped off and exhibits parallel dorsal scars that indicate it must have been struck from a large tablet or core with a prepared striking platform. These characteristics are indicative of Mesolithic lithic technology although similar blades were also utilised in the Upper Palaeolithic.

The remainder of the struck flint comprised blade-like tertiary flakes of debitage in a slightly to moderately patinated condition. These flakes were probably produced by the blade technology and core reduction typical of the late Mesolithic to Neolithic period, especially the earlier Neolithic, but the condition of the flakes suggest they have been repeatedly re-deposited and weathered.

The Pottery
Andrew Peachey

A single sherd (6g) of slightly abraded pottery was contained in Pit F1025 (L1026). The fabric of the sherd has very dark grey surfaces and core, with slightly lighter margins and inclusions that comprise common coarse quartz (0.25-1mm). The sherd is from the junction of the wall and base of a flat-bottomed vessel. These characteristics indicate the vessel was medieval in date, probably 11th-13th century.

The Ceramic Building Materials
Andrew Peachey

A total of 15 fragments (1210g) of abraded post-medieval CBM were recovered from Pits F1015, F1025 and as un-stratified material. The CBM occurs entirely in a red-orange fabric with inclusions of common medium sand, spare red clay pellets and flint (both <5mm). The CBM contained in Quarry Pit F1015 (L1016) includes two fragments (1057g) of incomplete brick with partial dimensions of ?x120x50mm and a flat base, which suggest the brick was originally manufactured between the 15th and early 17th centuries. The remainder of the assemblage, including CBM in both quarry pits is comprised of small fragments of 12-14mm thick flat tile, almost certainly peg tile. The limited quantity and abraded condition of this assemblage suggest the CBM has been re-deposited and is not directly associated with a post-medieval building.

The Environmental Remains

Dr John Summers

Introduction

Two bulk soil samples for environmental archaeological assessment were taken and processed during trial excavations at Church Lane, Sproughton. Both were from undated deposits.

Methodology

Samples were processed at the Archaeological Solutions Ltd facilities in Bury St. Edmunds using a Siraf style flotation tank. The light fractions were washed onto a mesh of 250µm (microns), while the heavy fractions were sieved to 500µm. The dried light fractions were scanned under a low power stereomicroscope (x10-x30 magnification) and any significant remains recorded. Potential contaminants, such as modern roots, seeds and invertebrate fauna were also recorded in order to gain an insight into possible disturbance of the deposits.

Samples of up to 40 litres were taken. Initially, 20 litres of larger samples were processed, with further processing conditional based on the potential of the material recovered.

Results

The results from the assessment of the bulk sample light fractions are presented in Table 1.

The two samples were found to contain very little material of environmental archaeological significance. A small number of charcoal fragments were present in sample 1 of L1012 but the concentration was too small to be of any analytical value. The light fractions were dominated by modern rootlets, along with a small number of modern seeds and burrowing molluscs (*Cecilioides acicula*).

Statement of potential

Based on the available data, it can be stated that the deposits on the site have a low potential for the recovery of significant environmental archaeological remains. On the basis of these two samples, no further environmental archaeological work is recommended.

Site code	Sample number	Context	Feature	Feature type	Spot date	Volume (litres)	% processed	Charcoal		Contaminants		
								Charcoal>2mm	Notes	Roots	Molluscs	Modern seeds
SPT038	1	1012	1011	Ditch	Un-dated	10	100%	X	-	XX	-	X
SPT038	2	1014	1013	Pit	Un-dated	20	50%	-	-	XX	X	-

Table 1: Results from the assessment of bulk sample light fractions

APPENDIX 3 OASIS DATA COLLECTION FORM

OASIS DATA COLLECTION FORM: England

Printable version

OASIS ID: archaeol7-137960

Project details

Project name	Land at Church Lane, Sproughton, Suffolk
Short description of the project	Between the 19th and 30th of October 2012, Archaeological Solutions Ltd (AS) carried out an archaeological evaluation of land at Church Lane, Sproughton, Suffolk (NGR TM 125 445). The evaluation was conducted in advance of the granting of planning permission (Babergh District Council, Planning Ref. B/11/00745/OUT) for residential development, based on advice from Suffolk County Council Archaeological Service Conservation Team (SCCAS-CT). Prehistoric struck flint was found within the colluvium (L1002) and unstratified. The struck flint includes a large blade, possibly Mesolithic (Struck Flint Report below). A residual sherd of medieval (11th - 13th century) pottery was found in Pit F1025 (Tr.4). A range of features (pits, ditches and gullies) was recorded across the site. The majority of features contained no finds and were undated. Large pits F1015 and F1025 (Tr.4) contained post-medieval CBM and may have been quarry pits.
Project dates	Start: 19-10-2012 End: 30-10-2012
Previous/future work	No / Not known
Any associated project reference codes	P4347 - Contracting Unit No.
Any associated project reference codes	SPT 038 - Sitecode
Type of project	Field evaluation
Site status	None
Current Land use	Other 15 - Other
Monument type	PITS, DITCHES AND GULLIES Modern
Significant Finds	POTTERY SHERD Medieval
Methods & techniques	"Sample Trenches","Targeted Trenches"
Development type	Rural residential
Prompt	Planning condition
Position in the planning process	Pre-application

Project location

Country	England

Site location	SUFFOLK BABERGH SPROUGHTON Land at Church Lane, Sproughton, Suffolk
Study area	1.10 Hectares
Site coordinates	TM 125 445 52 1 52 03 27 N 001 06 00 E Point
Height OD / Depth	Min: 6.00m Max: 10.00m

Project creators

Name of Organisation	Archaeological Solutions Ltd
Project brief originator	Suffolk County Council Archaeological Service Conservation Team
Project design originator	Jon Murray
Project director/manager	Jon Murray
Project supervisor	Gareth Barlow
Type of sponsor/funding body	HW de Zoete Will Trust

Project archives

Physical Archive recipient	Suffolk County Archaeological Store
Physical Contents	''Ceramics''
Digital Archive recipient	Suffolk County Archaeological Store
Digital Contents	''Survey''
Digital Media available	''Images raster / digital photography'',''Survey'',''Text''
Paper Archive recipient	Suffolk County Archaeological Store
Paper Contents	''Survey''
Paper Media available	''Drawing'',''Photograph'',''Plan'',''Report'',''Survey ''

Project bibliography 1

Publication type	Grey literature (unpublished document/manuscript)
Title	Land at Church Lane, Sproughton, Suffolk
Author(s)/Editor(s)	Barlow, G
Author(s)/Editor(s)	Egan, S
Other bibliographic details	Archaeological Solutions Report No. 4175
Date	2012
Issuer or publisher	Archaeological Solutions
Place of issue or publication	Bury St Edmunds

Entered by	Sarah Powell (info@ascontracts.co.uk)

Entered on 21 November 2012

OASIS:

Please e-mail English Heritage for OASIS help and advice

APPENDIX 4 WRITTEN SCHEME OF INVESTIGATION

LAND SOUTH OF CHURCH LANE, SPROUGHTON, SUFFOLK

WRITTEN SCHEME OF INVESTIGATION FOR AN ARCHAEOLOGICAL EVALUATION

14th September 2012

ARCHAEOLOGICAL SOLUTIONS LTD

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LAND SOUTH OF CHURCH LANE, SPROUGHTON, SUFFOLK GEOPHYSICAL SURVEY & ARCHAEOLOGICAL TRIAL TRENCH EVALUATION

1 INTRODUCTION

1.1 This specification has been prepared in response to a brief issued by Suffolk County Council Archaeological Service Conservation Team (SCC AS-CT, Jess Tipper, dated 12th September 2012). It provides for an archaeological evaluation in advance of proposals to construct a new residential development on land at Church Road, Sproughton, Suffolk (NGR TM 125 445). The evaluation is required to comply with a requirement of planning (Babergh District Council, Planning Ref. B/11/00745/OUT), requiring a programme of archaeological work, on advice from SCC AS-CT.

1.2 It is understood that the programme of archaeological investigation should comprise an archaeological field evaluation by geophysical survey and trial trenching, to comply with the planning requirement of the local planning authority (on advice from SCC AS-CT).

2 COMPLIANCE

2.1 The brief has been read and understood. If AS carried out the evaluation, AS would comply with SCC AS-CT's requirements. The work will be carried out according to rthe brief and to the SCC AS-CT documents *Requirements for a Trenched Archaeological Evaluation 2011 Ver 1.3* and *Requirements for a Geophysical Survey 2011 Ver 1.1.*

3 SITE & DEVELOPMENT DESCRIPTION ARCHAEOLOGICAL BACKGROUND

3.1 The site lies in an area of archaeological potential on the western side of Church Road, Sproughton. It is an arable field of some 1.1ha

3.2 It is proposed to construct a new residential development on the site.

3.3 The site has a potential for archaeological remains, as highlighted on the Suffolk Historic Environment Record, but has not been the subject of any systematic investigation. Archaeological remains are recorded to the east and south-east (HER SPT 002 and SPT 005). These comprise a Mesolithic flint scatter found on a knoll on the Gipping floodplain, a Neolithic pit with Beaker finds at the

Anglian water Sewage Works, and early Bronze Age collared urns found at Gipping Way. The site also has an archaeological potential given its topographic location overlooking the valley of the river Gipping, which would have been attractive to early occupation. A potential for palaoenvironmental deposits and geoarchaeological deposits is also present, given that the eastern part of the site may contain early land surfaces buried by later sedimentation.

3.4 The archaeological background will be discussed in detail in the project report, with reference to the Suffolk HER

4 BRIEF FOR THE ARCHAEOLOGICAL EVALUATION SPECIFICATION FOR A GEOPHYSICAL SURVEY AND TRIAL TRENCH EVALUATION GENERAL MANAGEMENT

4.1 The principal research objectives for the evaluation as a whole include:

- To establish whether any archaeological deposit exists in the area, with particular regard to any which are of sufficient importance to merit preservation *in situ*

- To identify the date, approximate form and purpose of any archaeological deposit within the application area, together with its likely extent, localised depth and quality of preservation.

- To evaluate the likely impact of past land uses, and the possible presence of masking colluvial/alluvial deposits, along with the potential for the survival of environmental evidence

- To provide sufficient information to construct an archaeological conservation strategy dealing with preservation, the recording of archaeological deposits, working practices, timetables and orders of cost.

4.2 Research Design

4.2.1 The research priorities for the region are set out in Glazebrook (1997) and Brown & Glazebrook (2000) and updated by Medlycott and Brown (2008) and Medlycott (2011).

4.2.2 Medlycott & Brown (2008) and Medlycott (2011) note the importance of characterising Upper Palaeolithic and early Mesolithic settlement in the region and gaining a clearer understanding of the environment during these periods. A predictive model is required for identifying important sites of this date (Medlycott 2011) They also note that further work is required on Mesolithic technology, especially with

regard to the exploitation of flint sources and analysis of use-wear patterns.

4.2.3 The key issues for the Neolithic and Bronze Age (as set out by Brown & Murphy in Brown & Glazebrook 2000, 9-13) centre on the theme of the development of farming and the attendant development and integration of monuments, fields and settlements. Medlycott & Brown (2008) and Medlycott (2011, 13) suggest that future research on the Neolithic should include synthetic and regional studies for the region; an examination of the Mesolithic/Neolithic transition through radiocarbon dates; the establishment of a chronology for Neolithic ring-ditches; improved understanding of the chronological development of pottery; the excavation and study of cropmark complexes; greater understanding of burial practices; a study of the inter-relationships of settlements; greater use of scientific methods of dating and modelling of the environmental conditions during this period; targeted programmes of sedimentological, palynological and macrofossil analyses of sediment sequences in valley bottoms, lakes or the intertidal zone; and the human impact on the natural landscape during this period. The nature of Neolithic burial in the region and the pattern of burial practice, including the relationship between settlement sites and burial, require further research. Settlement sites themselves also form part of an important research subject as there is a requirement to identify if a consensus exists on the subject of non-permanent settlement in the Neolithic (Medlycott 2011, 13). Further work on understanding the effects of plough damage on Neolithic sites is considered to be an important research subject for the region (Medlycott 2011, 13).

4.2.4 Inter-relationships between settlements and greater understanding of patterns of burial practice are important areas of research for the Bronze Age (Medlycott & Brown 2008). Medlycott (2011, 21) identifies artefact studies as of particular importance for the study of the Bronze Age in the region; the typological identification of later Bronze Age pottery linked to close radiocarbon dating, the further study of Bronze Age flintworking and the significance of hoarding and other depositional practices are all identified as being key research subjects. Artefact studies can contribute to the refinement of chronologies for the period and to an assessment of the reasons behind the marked divide in research results between the northern and southern parts of the region, which are identified by Medlycott (2011, 21) as important research areas. Like the Neolithic, sedimentological, palynological and macrofossil analyses of sediment sequences are considered to be important areas of research as are the effects of colluviation and the possibility that colluvial deposits mask some significant sites (Medlycott 2011, 21).

4.2.5 Research topics for the Iron Age set out by Bryant (in Brown & Glazebrook 2000, 14-18) include further research into chronologies, precise dating and ceramic assemblages, further research into the

development of the agrarian economy (particularly with regard to field systems), research into settlement chronology and dynamics, research into processes of economic and social change during the late Iron Age and Romano-British transition (particularly with regard to the development of Aylesford/Swarling and Roman culture, and also regional differences and tribal polities in the late Iron Age and further research into *oppida* and ritual sites), further analysis of development of social organisation and settlement form/function in the early and middle Iron Age, further research into artefact production and distribution and the Bronze Age/Iron Age transition. Medlycott & Brown (2008) and Medlycott (2011, 29-32) build on these themes, paying particular attention to chronological and spatial development and variation and adding subjects as the Bronze Age/Iron Age transition and manufacturing and industry.

4.2.6 The principal research issues for the site will be to identify and characterise any further evidence of prehistoric activity in the Gipping Valley, as evidenced by nearby finds, as well as being alert to the presence of any remains of later activity. It will also be important to characterise any palaeoenvironmental evidence.

References

Brown, N & Glazebrook, J (eds), 2000, *Research and Archaeology: A Framework for the Eastern Counties. 2. Research Agenda and Strategy*, East Anglian Archaeology Occasional Papers 8

Glazebrook, J (eds), 1997, *Research and Archaeology: A Framework for the Eastern Counties. 1. Resource Assessment,* East Anglian Archaeology Occasional Papers 3

Medlycott, M & Brown, N, 2008, *Revised East Anglian Archaeological Research Frameworks,* www.eaareports/algaoee

Medlycott, M. (ed.) 2011, *Research and Archaeology revisited: a revised framework for the East of England*, ALGAO East of England Region, East Anglian Archaeology Occasional Papers 24

5 SPECIFICATION
GEOPHYSICAL SURVEY & TRENCHED EVALUATION

6.1 Details of Senior Project Staff

6.1.1 AS has developed a professional and well-qualified team who have undertaken numerous archaeological projects (both desk-based and field evaluations) on all types of developments, including commercial, residential, road schemes and golf courses. AS is a Registered Organisation of the IfA.

6.1.2 Profiles of key project staff are provided (Appendix 2).

A Method Statement is presented
Trial Trench Evaluation Appendix 1

6.1.3 The evaluation will conform with the guidelines set down in the brief and the Institute for Archaeologists *Standard and Guidance for Archaeological Evaluations (revised 2008)* and *Standard and Guidance for Archaeological Desk-Based Assessments (revised 2008)* and English Heritage *Geophysical Survey in Archaeological Evaluation* (2008). It will also adhere to the document *Standards for Field Archaeology in the East of England* (Gurney 2003) and the requirements of the SCC document *Requirements for a Trenched Evaluation* 2011 Ver. 1.3 and *Geophysical Survey* 2011 Ver 1.1.

6.1.4 The brief requires a programme of geophysical survey followed by trial trenching. The initial geophysical survey will be carried out by Stratascan. It will comprise a detailed fluxgate gradiometer survey conducted on a regular grid pattern, to include a sampling interval of 1m x 0.25m.

6.1.5 Following the geophysical survey a trial trench evaluation will be undertaken.

6.1.6 The SCC AS-CT brief requires a programme of archaeological trial trenching, and stipulates that a 5% sample of the site, to comprise c.306 linear metres of trenching at 1.8m width, should be excavated across the area of proposed development. A trench plan to allow for 1 trenches, each 30m x 1.8m, or equivalent, is therefore proposed. AS is happy to review the scale/location of the trenches following comment from the client and/or SCC AS-CT. The proposed trench plan will be reviewed with SCC AS-CT in the light of the results of the geophysical survey, in order that any revealed anomalies and 'blank' areas are targeted by the trenching.

6.1.7 The environmental strategy will adhere to the guidelines issued by English Heritage (*Environmental Archaeology; A guide to the theory and practice of methods, from sampling and recovery to post-excavation,* Centre for Archaeology Guidelines, 2011). An environmentalist will be invited to visit the site if remains of interest are found. Dr Rob Scaife will be the Environmental Coordinator for the project. The specialist will make his/her results known to Helen Chappell who co-ordinates environmental archaeology in the region on behalf of English Heritage. It will be particularly important on this project to identify any palaeoenvironmental remains and to identify any waterlogged remains present on the site.

6.1.68 Estimate of time and resources required for each phase, to complete the geophysical survey, trial trenching, project archive and the production of an evaluation report.

Trial Excavation
Processing, Cataloguing and Conservation of Finds
Preparation of Report and Archive *c.*15-20 Days

Staff on site: a Project Officer and Site Assistant/s (as necessary)

6.1.9 In advance of the field work AS will liaise with the County HER to fulfil their requirements for the long term deposition of the project archive. These will encompass: their collection policy, and their financial and technical requirements for long term storage. The resources include provision for the long term-deposition of the project archive.

6.1.10 Details of staff and specialist contractors are provided (Appendix 2). The project will be managed by Claire Halpin MIFA /Jon Murray MIFA.

6.1.11 AS is a member of FAME formerly the Standing Conference of Archaeological Unit Managers (SCAUM) and operates under the `Health & Safety in Field Archaeology Manual'. A risk assessment and management strategy will be completed prior to the start of works on site.

6.1.12 AS is a member of the Council for British Archaeology and is insured under their policy for members.

7 SERVICES

7.1 The client is to advise AS of the position of any services which traverse the site.

8 SECURITY

8.1 Throughout all site works care will be taken to maintain all existing security arrangements, and to minimise disruption.

9 REINSTATEMENT

9.1 No provision has been made for reinstatement, excepting simple backfilling.

10 REPORT REQUIREMENTS

10.1 The report will include (as a minimum):

a) the archaeological background

b) a consideration of the aims and methods adopted in the course of the recording
c) a detailed account of the nature, location, extent, date, significance and quality of any archaeological evidence recorded.
d) Excavation methodology and detailed results including a suitable conclusion and discussion
e) plans and sections of any recorded features and deposits
f) discussion and interpretation of the evidence. An assessment of the projects significance in a regional and local context and appendices.
g) All specialist reports or assessments
h) A concise non-technical summary of the project results
i) A HER summary sheet
j) An OASIS summary sheet

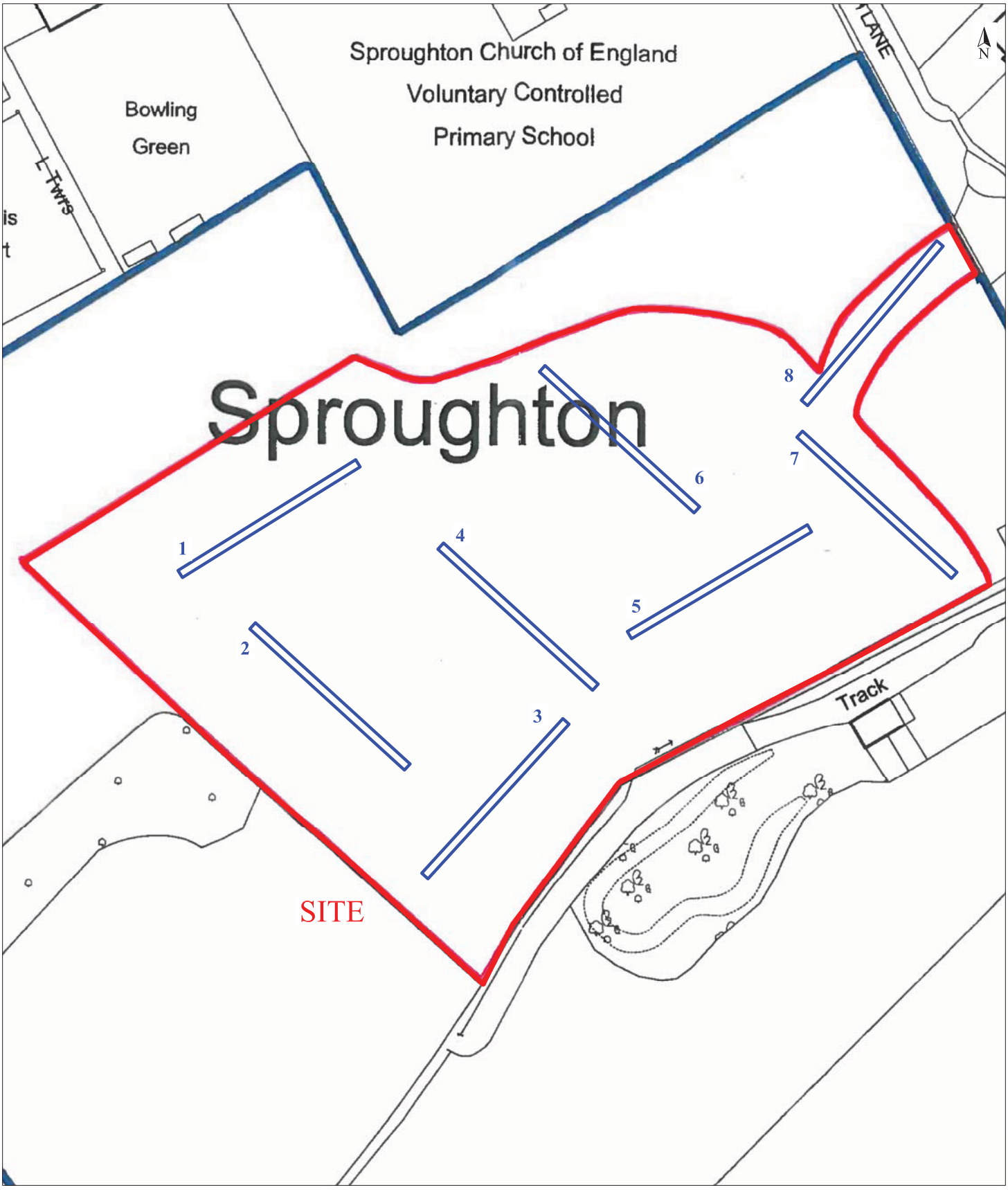
11 ARCHIVE

11.1 The requirements for archive storage will be agreed with the County HER.

11.2 The archive will be deposited within six months of the conclusion of the fieldwork. It will be prepared in accordance with the UK Institute for Conservation's *Conservation Guideline No.2* and according to the document *Deposition of Archaeological Archives in Suffolk* (SCC AS Conservation Team, 2008). A unique event number will be obtained from the County HER Officer.

11.3 The full archive of finds and records will be made secure at all stages of the project, both on and off site. Arrangements will be made at the earliest opportunity for the archive to be accessed into the collections of Suffolk HER; with the landowner's permission in the case of any finds. It is acknowledged that it is the responsibility of the field investigation organisation to make these arrangements with the landowner and HER. The archive will be adequately catalogued, labelled and packaged for transfer and storage in accordance with the guidelines set out in the United Kingdom Institute for Conservation's *Conservation Guidelines No.2* and the other relevant reference documents.

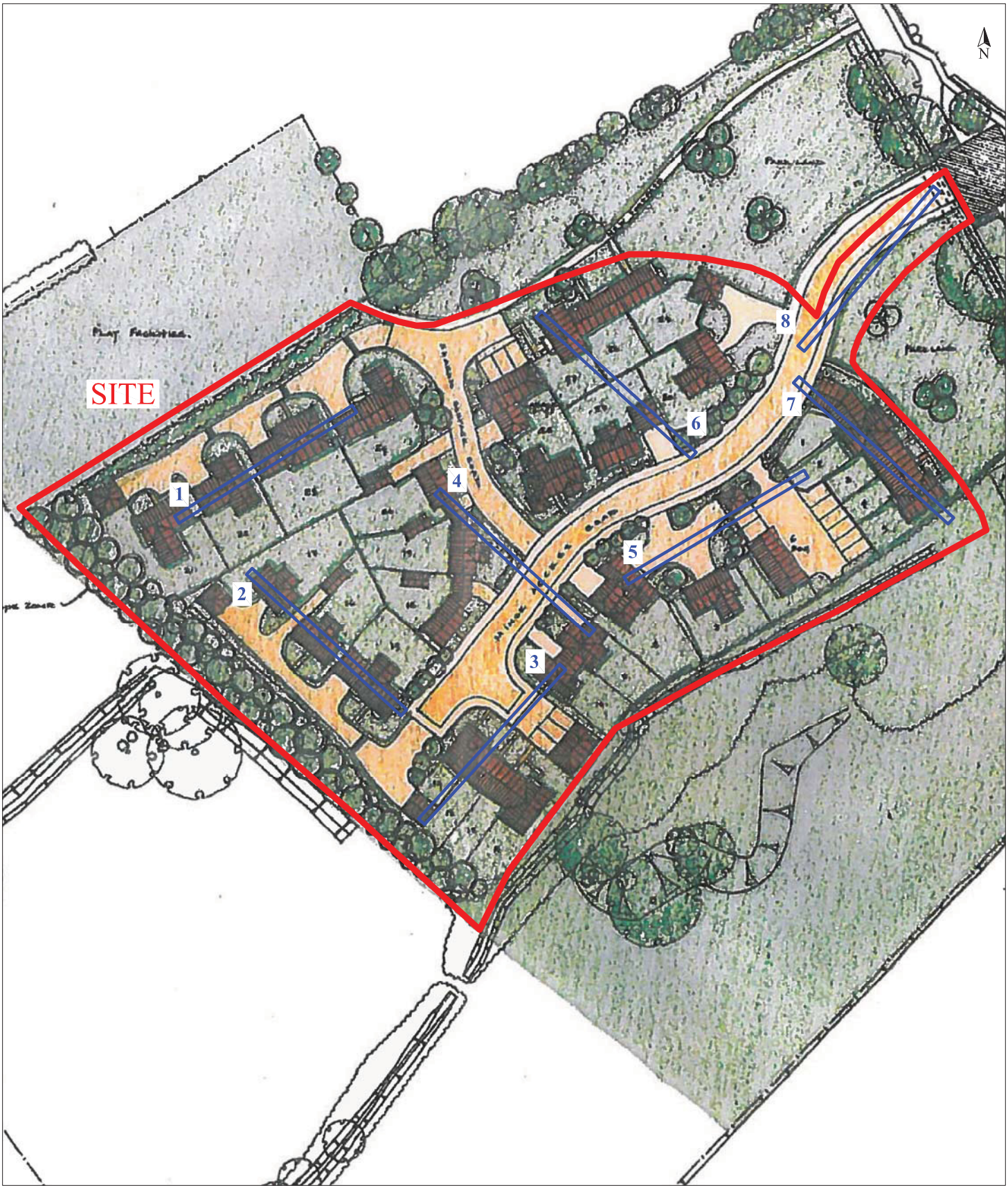
11.4 Archive records, with inventory, are to be deposited, as well as any donated finds from the site, at the county HER and in accordance with their requirements. The archive will be quantified, ordered, indexed, cross-referenced and checked for internal consistency. In addition to the overall site summary, it will be necessary to produce a summary of the artefactual and ecofactual data. A unique accession number will be obtained from the HER.



Archaeological Solutions Ltd

Proposed trench location plan - existing development

Scale 1:1000 at A4



Archaeological Solutions Ltd

Proposed trench location plan - proposed development

Scale 1:1000 at A4

APPENDIX 1
METHOD STATEMENT

Method Statement for the recording of archaeological remains

The archaeological evaluation will be conducted in accordance with the project brief, and the code of the Institute of Field Archaeologists.

1 Mechanical Excavation

1.1 A mechanical excavator fitted with a wide toothless bucket will be used to remove the topsoil/overburden. The machine will be powerful enough for a clean job of work and be able to mound spoil neatly, at a safe distance from the trench edges.

1.2 The mechanical stripping will be controlled, and the mechanical excavator will only operate under the full-time supervision of an experienced archaeologist.

2 Site Location Plan

2.1 On conclusion of the mechanical excavation, a `site location plan', based on the current Ordnance Survey 1:1250 map and indicating site north, will be prepared. This will be supplemented by an `area plan' at 1:200 (or 1:100) which will show the location of the area(s) investigated in relationship to the development area, OS grid and site grid.

3 Manual Cleaning & Base Planning of Archaeological Features

3.1 Exposed areas will be hand-cleaned to define archaeological features sufficient to produce a base plan.

4 Full Excavation

Excavation of Stratified Sequences

The trenches will be excavated according to phase, from the most recent to the earliest, and the phasing of features will be distinguished by their stratigraphic relationships, fills and finds.

Deep features e.g. quarry holes, may incorporate stratified deposits which will be excavated by hand-dug sections and recorded.

Excavation of Buildings

Building remains are likely to comprise stake holes, post holes and slots/gullies, masonry foundations and low masonry walls. Associated features may be present e.g. hearths.

The features comprising buildings will be excavated fully and in plan/phase, to a level sufficient for the requirements of an evaluation.

Full Excavation

Industrial remains and intrinsically interesting features e.g hearths, burials will clearly merit full excavation, though will be excavated sufficient to characterise such deposits within the context of an evaluation. Discrete features associated with possible structures and/or settlement will be fully excavated, again sufficient to characterise them for the purposes of an evaluation.

Ditches

The ditches will be excavated in segments up to 2m long, and the segments will be placed to provide adequate coverage of the ditches, establish their relationships and obtain samples and finds.

5 Written Record

5.1 All archaeological deposits and artefacts encountered during the course of the excavation will be fully recorded on the appropriate context, finds and sample forms.

5.2 The site will be recorded using AS.'s excavation manual which is directly comparable to those used by other professional archaeological organisations, including English Heritage's own Central Archaeological Service.

6 Photographic Record

6.1 An adequate photographic record of the investigations will be made. It will include black and white prints and colour transparencies (on 35mm) illustrating in both detail and general context the principal features and finds discovered. It will also include `working and promotional shots' to illustrate more generally the nature of the archaeological operations. The black and white negatives and contacts will be filed, and the colour transparencies will be mounted using appropriate cases. All photographs will be listed and indexed.

7 Drawn Record

7.1 A record of the full extent, in plan, of all archaeological deposits encountered will be drawn on A1 permatrace. The plans will be related to the site, or OS, grid and be drawn at a scale of 1:50 or 1:20, as appropriate. In addition where appropriate, e.g. recording an inhumation, additional plans at 1:10 will be produced. The sections of all archaeological contexts will be drawn at a scale of 1:10 or, where appropriate, 1:20. The OD height of all principal strata and features will be calculated and indicated on the appropriate plans and sections.

8 Recovery of Finds

GENERAL

The principal aim is to ensure that adequate provision is made for the recovery of finds from all archaeological deposits.

The Small Finds, e.g. complete pots or metalwork, from all excavations will be 3-dimensionally recorded.

A metal detector will be used to enhance finds recovery. The metal detector survey will be conducted on conclusion of the topsoil stripping, and thereafter during the course of the excavation. The spoil tips will also be surveyed. Regular metal detector surveys of the excavation area and spoil tips will reduce the loss of finds to unscrupulous users of metal detectors (treasure hunters). All non-archaeological staff working on the site should be informed that the use of metal detectors is forbidden.

WORKED FLINT

When flint knapping debris is encountered large-scale bulk samples will be taken for sieving.

POTTERY

It is important that the excavators are aware of the importance of pottery studies and therefore the recovery of good ceramic assemblages.

The pottery assemblages are likely to provide important evidence to be able to date the structural history and development of the site.

The most important assemblages will come from `sealed' deposits which are representative of the nature of the occupation at various dates, and indicate a range of pottery types and forms available at different periods.

`Primary' deposits are those which contain sherds contemporary with the soil fill and in simple terms this often means large sherds with unabraded edges. The sherds have usually been deposited shortly after being broken and have remained undisturbed. Such sherds are more reliable in indicating a more precise date at which the feature was `in use'. Conversely, `secondary' deposits are those which often have small, heavily abraded sherds lacking obvious conjoins. The sherds are derived from earlier deposits.

HUMAN BONE

Any human remains present would not normally be excavated at the stage of an evaluation, but would be protected and preserved in situ, on advice from SCC AS-CT. Should human remains be discovered and be required to be removed, the coroner will be informed and a licence from the Ministry of Justice sought immediately; both the client and the monitoring officer will also be informed. Any excavation of human remains at the stage of an evaluation would only be carried out following advice from SCC AS-CT. Excavators would be made aware, and comply with, provisions of Section 25 of the Burial Act of 1857 and pay due attention to the requirements of Health & Safety.

ANIMAL BONE

Animal bone is one of the principal indicators of diet. As with pottery the excavators will be alert to the distinction of primary and secondary deposits. It will also be important that the bone assemblages are derived from dateable contexts.

ENVIRONMENTAL SAMPLING

The sampling will adhere to the guidelines prepared by Drs Peter Murphy and Patricia Wiltshire, and the specialist will make his/her results known to Helen Chappell who co-ordinates environmental archaeology in the region on behalf of English Heritage. The project will also accord with the recent guidelines of the English Heritage document *Environmental Archaeology, a guide to the theory and practice of methods, from sampling and recovery to post-excavation*, Centre for Archaeology Guidelines 2011.

Provision will be made for the sampling of appropriate materials for specialist and/or scientific analysis (e.g. radiocarbon dating, environmental analysis). The location of samples will be 3-dimensionally recorded and they will also be shown on an appropriate plan. AS has its own environmental sampling equipment (including a pump and transformer) and, if practical, provision will be made to process the soil samples during the fieldwork stage of the project.

If waterlogged remains are found advice on sampling will be obtained on site from Dr Rob Scaife. Dr Rob Scaife and AS will seek advice from the EH Regional Scientific Advisor if significant environmental remains are found.

The study of environmental archaeology seeks to understand the local and near-local environment of the site in relation to phases of human activity and as such is an important and integral part of any archaeological study. .

Environmental remains, both faunal and botanical, along with pedological and sedimentological analyses may be used to understand the environment and the impact of human activity.

There may be a potential for the recovery of a range of environmental remains (ecofacts) from which data pertaining to past environments, land use and agricultural economy should be forthcoming.

Sampling strategies on evaluations aim to determine the potential of the site for both biological remains (plants, small vertebrates) and small sized artefacts which would otherwise not be collected by hand. The number/range of samples taken will represent the range of feature types encountered, but with an aim of at least three samples from each feature type.

For plant remains, the samples taken at evaluation stage would aim to characterise:

- The range of preservation types (charred, mineral-replaced, waterlogged) and their quality
- Any differences in remains from dated/undated features
- Variation between different feature types/areas

To realise the potential of the environmental material encountered, a range of specialists from different disciplines is likely to be required. The ultimate goal will be the production of an interdisciplinary environmental study which can be of value to an understanding of, and integrated with, the archaeology.

Organic remains may allow study of the contemporary landscape (occupation/industrial/agricultural impact and land use) and also changes after the abandonment of the site.

The nature of the environmental evidence

Aspects of sampling and analysis may be divided into four broad categories; faunal remains, botanical remains, soils/sediments and radiocarbon dating measurements.

a) Faunal remains: These comprise bones of macro and microfauna, birds, molluscs and insects.

a.i) Bones: The study of the animal bone remains, in particular domestic mammals, domestic birds and marine fish will enhance understanding of the development of the settlement in terms of the local economy and also its wider influence through trade. The study of the small animal bones will provide insight into the immediate habitat of any settlement.

The areas of study covered may include all of the domestic mammal and bird species, wild and harvested mammal, birds, marine and fresh water fish in addition to the small mammals, non-harvest birds, reptiles and amphibia.

Domestic mammalian stock, domestic birds and harvest fish

The domestic animal bone will provide insight into the different phases of development of any occupation and how the population dealt with the everyday aspect of managing and utilising all aspects of the animal resource.

Small animal bones

Archaeological excavation has a wide role in understanding humans' effect on the countryside, the modifications to which have in turn affected and continue to affect their own existence. Small animals provide information about changing habitats and thereby about human impact on the local environment.

a.ii) Molluscs: Freshwater and terrestrial molluscs may be present in ditch and pit contexts which are encountered. Sampling and examination of molluscan assemblages if found will provide information on the local site environment including environment of deposition.

a.iii) Insects: If suitable waterlogged contexts (pit, pond and ditch fills) are encountered (which can potentially be expected to be encountered on the project), sampling and assessment will be carried out in conjunction with the analysis of waterlogged plant remains (primarily seeds) and molluscs. Insect data may provide information on local site environment (cleanliness etc.) as well as proxies for climate and vegetation communities.

b) Botanical remains: Sampling for seeds, wood, pollen and seeds are the essential elements which will be considered. The former are most likely to be charred but possibly also waterlogged should any wells/ponds be encountered.

b.i) Pollen analysis: Sampling and analysis of the primary fills and any stabilisation horizons in ditch and pit contexts which may provide information on the immediate vegetation environment including aspects of agriculture, food and subsistence. These data will be integrated with seed analysis.

b.ii) Seeds: It is anticipated that evidence of cultivated crops, crop processing debris and associated weed floras will be present in ditches and pits. If waterlogged features/sediments are encountered (for example, wells/ponds) these will be sampled in relation to other environmental elements where appropriate (particularly pollen, molluscs and possibly insects).

c) Soils and Sediments: Characterisation of the range of sediments, soils and the archaeological deposits are regarded as crucial to and an integral part of all other aspects of environmental sampling. This is to afford primary information on the nature and possible origins of the material sampled. It is anticipated that a range of 'on-site' descriptions will be made and subsequent detailed description and analysis of the principal monolith and bulk samples obtained for other aspects of the environmental investigation. Where considered necessary, laboratory analyses such as loss on ignition and particle size may also be undertaken. A geoarchaeologist will be invited to visit the site as necessary to advise on sampling.

d) Radiocarbon dating: Archaeological/artifactual dating may be possible for most of the contexts examined, but radiocarbon dating should not be ruled out

Sampling strategies

Provision will be made by the environmental co-ordinator that suitable material for analysis will be obtained. Samples will be obtained which as far as possible will meet the requirements of the assessment and any subsequent analysis.

a) Soil and Sediments: Samples taken will be examined in detail in the laboratory. An overall assessment of potential will be carried out. Analysis of particle size and loss on ignition, if required would be undertaken as part of full analysis if assessment demonstrates that such studies would be of value.

b) Pollen Analysis: Contexts which require sampling may include stabilisation horizons and the primary fills of the pits and ditches, and possibly organic well/pond fills. It is anticipated that in some cases this

will be carried out in conjunction with sampling for other environmental elements, such as plant macrofossils, where these are also felt to be of potential.

c) Plant Macrofossils: Principal contexts will be sampled directly from the excavation for seeds and associated plant remains. It is anticipated that primarily charred remains will be recovered, although provision for any waterlogged sequences will also be made (see below). Sampling for the former will, where possible (that is, avoiding contamination) comprise samples of an average of 40-60 litres which will be floated in the AS facilities for extraction of charred plant remains. Both the flot and residues will be kept for assessment of potential and stored for any subsequent detailed analysis. The residues will also be examined for artifactual remains and also for any faunal remains present (cf. molluscs). Where pit, ditch, well or pond sediments are found to contain waterlogged sediments, principal contexts will be sampled for seeds and insect remains. Standard 5 litre+ samples will be taken which may be sub-sampled in the laboratory for seed remains if the material is found to be especially rich. The full sample will provide sufficient material for insect assessment and analysis.

d) Bones: Predicting exactly how much of what will be yielded by the excavation is clearly very difficult prior to excavation and it is proposed that in order to efficiently target animal bone recovery there should be a system of direct feedback from the archaeozoologist to the site staff during the excavation, allowing fine tuning of the excavation strategy to concentrate on the recovery of animal bones from features which have the highest potential. This will also allow the faunal remains to materially add to the interpretation as the excavation proceeds. Liaison with other environmental specialists will need to take place in order to produce a complete interdisciplinary study during this phase of activity. In addition, this feedback will aid effective targeting of the post-excavation analysis.

e) Insects: If contexts having potential for insect preservation are found, samples will be taken in conjunction with waterlogged plant macrofossils. Samples of 5 litres will suffice for analysis and will be sampled adjacent to waterlogged seed samples and pollen; or where insufficient context material is available provision will be made for exchange of material between specialists.

f) Molluscs: Terrestrial and freshwater molluscs. Samples will be taken from a column from suitable ditches. Pits may be sampled, based on the advice of the Environmental Consultant and / or English Heritage Regional Advisor. Provision will also be made for molluscs obtained from other sampling aspects (seeds) to be examined and/or kept for future requirements.

g) Archiving: Environmental remains obtained should be stored in conditions appropriate for analysis in the short to medium term, that is giving the ability for full analysis at a later date without any degradation of samples being analysed. The results will be maintained as an archive at AS and supplied to the EH regional co-ordinator as requested.

Waterlogged Deposits/Remains

Should waterlogged deposits (such as wells/deep ditches) be encountered, provision has been made for controlled hand excavation and sampling. Dr Rob Scaife will visit to advise of sampling as required, and AS will take monolith samples as necessary for the recovery of palaeoenvironmental information and dating evidence.

Scientific/Absolute Dating

- Samples will be obtained for potential scientific/absolute dating as appropriate (eg Carbon-14).

FINDS PROCESSING

The project director will have overall responsibility for the finds and will liaise with AS's own finds personnel and the relevant specialists. A person with particular responsibility for finds on site will be appointed for the excavation.
The person will ensure that the finds are properly labelled and packaged on site for transportation to AS's field base. The finds processing will take place in tandem with the excavations and will be under the supervision of AS's Finds Officer.

The finds processing will entail first aid conservation, cleaning (if appropriate), marking (if appropriate), categorising, bagging, labelling, boxing and basic cataloguing (the compilation of a Small Finds Catalogue and quantification of bulk finds) i.e. such that the finds are ready to be made available to the specialists. The Finds Officer, having been advised by the Project Officer and relevant specialists, will select material for conservation. AS's Finds Officer, in conjunction with the Project Officer, will arrange for the specialists to view the finds for the purpose of report writing.

APPENDIX 2
ARCHAEOLOGICAL SOLUTIONS LIMITED:
PROFILES OF STAFF & SPECIALISTS

DIRECTOR **Claire Halpin BA MIFA**

Qualifications: Archaeology & History BA Hons (1974-77).
Oxford University Dept for External Studies In-Service Course (1979-1980).
Member of Institute of Field Archaeologists since 1985: IFA Council member (1989-1993)

Experience: Claire has 25 years' experience in field archaeology, working with the Oxford Archaeological Unit and English Heritage's Central Excavation Unit (now the Centre for Archaeology). She has directed several major excavations (e.g. Barrow Hills, Oxfordshire, and Irthlingborough Barrow Cemetery, Northants), and is the author of many excavation reports e.g. St Ebbe's, Oxford: *Oxoniensia* 49 (1984) and 54 (1989). Claire moved into the senior management of field archaeological projects with Hertfordshire Archaeological Trust (HAT) in 1990, and she was appointed Manager of HAT in 1996. From the mid 90s HAT has enlarged its staff complement and extended its range of skills. In July 2003 HAT was wound up and Archaeological Solutions was formed. The latter maintains the same staff complement and services as before. AS undertakes the full range of archaeological services nationwide.

DIRECTOR **Tom McDonald MIFA**

Qualifications: Member of the IFA

Experience: Tom has twenty years' experience in field archaeology, working for the North-Eastern Archaeological Unit (1984-1985), Buckinghamshire County Museum (1985), English Heritage (Stanwick Roman villa (1985-87) and Irthlingborough barrow excavations, Northamptonshire (1987)), and the Museum of London on the Royal Mint excavations (1986-7)., and as a Senior Archaeologist with the latter (1987-Dec 1990). Tom joined HAT at the start of 1991, directing several major multi-period excavations, including excavations in advance of the A41 Kings Langley and Berkhamsted bypasses, the A414 Cole Green bypass, and a substantial residential development at Thorley, Bishop's Stortford. He is the author of many excavation reports, exhibitions etc. Tom is AS's Health and Safety Officer and is responsible for site management, IT and CAD. He specialises in prehistoric and urban archaeology, and is a Lithics Specialist.

OFFICE MANAGER **Rose Flowers**

Experience: Rose has a very wide range of book-keeping skills developed over many years of employment with a range of companies, principally Rosier Distribution Ltd, Harlow (now part of Securicor) where she managed eight accounts staff. She has a good working knowledge of both accounting software and Microsoft Office.

SENIOR PROJECTS MANAGER **Jon Murray BA MIFA**

Qualifications: History with Landscape Archaeology BA Hons (1985-1988).

Experience: Jon has been employed by HAT (now AS) continually since 1989, attaining the position of Senior Projects Manager. Jon has conducted numerous archaeological investigations in a variety of situations, dealing with remains from all periods, throughout London and the South East, East Anglia, the South and Midlands. He is fluent in the execution of (and now project-manages) desk-based assessments/EIAs, historic building surveys (for instance the recording of the Royal Gunpowder Mills at Waltham Abbey prior to its rebirth as a visitor facility), earthwork and landscape surveys, all types of evaluations/excavations (urban and rural) and environmental archaeological investigation (working closely with Dr Rob Scaife), preparing many hundreds of archaeological reports dating back to 1992. Jon has also prepared numerous publications; in particular the nationally-important Saxon site at Gamlingay, Cambridgeshire (*Anglo-Saxon Studies in Archaeology & History*). Other projects published include Dean's Yard, Westminster (*Medieval Archaeology*), Brackley (*Northamptonshire Archaeology*), and a medieval cemetery in Haverhill he excavated in 1997 (*Proceedings of the Suffolk Institute of Archaeology).* Jon is a member of the senior management team, principally preparing specifications/tenders, co-ordinating and managing the field teams. He also has extensive experience in preparing and supporting applications for Scheduled Monument Consent/Listed Building Consent

PROJECTS MANAGER
(FIELD & ARCHIVES) **Martin Brook BA**

Qualifications: University of Leicester BA (Hons) Archaeology (2003 -2006)

Experience: Martin worked on archaeological excavations throughout his university career in and around Leicester including two seasons excavating a medieval abbey kitchen at Abbey Park, Leicester with ULAS. He specialised in Iron Age funeral traditions and grave goods for his 3rd year dissertation advancing his skills in museum research, database use and academic correspondence. He joined AS in September 2006 as an excavator involved in projects such as Earsham Bronze Age Barrow and cremation site. From May 2007, Martin has moved across to the Post-Excavation team to become Assistant Archives Officer, and thereafter Martin has returned to fieldwork as a Supervisor before being promoted to project management in 2009

PROJECT OFFICER **Zbigniew Pozorski MA**

Qualifications: University of Wroclaw, Poland, Archaeology (1995-2000, MA 2003)

Experience: Zbigniew has archaeological experience dating from 1995 when as a student he joined an academic group of excavators. He was involved in numerous archaeological projects throughout the Lower Silesia region in southwest Poland and a number of projects in old town of Wroclaw. During his university years he specialized in medieval urban archaeology. He had his own research project working on an early/high medieval stronghold in Pietrzykow. He was a member of a University team which located and excavated an unknown high medieval castle in Wierzbna, Poland. Zbigniew has worked for archaeological contractors in Poland on several projects as a supervisor where he gained experience in all types of evaluations and excavations in urban and rural areas. Recently he worked in Ireland where he

completed two large long-term projects for Headland Archaeology Ltd. He joined AS in January 2008 as a Project Officer.

SUPERVISOR **Gareth Barlow MSc**

Qualifications: University of Sheffield, MSc Environmental Archaeology & Palaeoeconomy (2002-2003)
King Alfred's College, Winchester, Archaeology BA (Hons) (1999-2002)

Experience: Gareth worked on a number of excavations in Cambridgeshire before pursuing his degree studies, and worked on many archaeological projects across the UK during his university days. Gareth joined AS in 2003 and has worked on numerous archaeological projects throughout the South East and East Anglia with AS. Gareth was promoted to Supervisor in the Summer 2007.

PROJECT OFFICER
(DESK-BASED ASSESSMENTS) **Kate Higgs MA (Oxon)**

Qualifications: University of Oxford, St Hilda's College
Archaeology & Anthropology MA (Oxon) (2001-2004)

Experience: Kate has archaeological experience dating from 1999, having taken part in clearance, surveying and recording of stone circles in the Penwith area of Cornwall. During the same period, she also assisted in compiling a database of archaeological and anthropological artefacts from Papua New Guinea, which were held in Scottish museums. Kate has varied archaeological experience from her years at Oxford University, including participating in excavations at a Roman amphitheatre and an early church at Marcham/ Frilford in Oxfordshire, with the Bamburgh Castle Research Project in Northumberland, which also entailed the excavation of human remains at a Saxon cemetery, and also excavating, recording and drawing a Neolithic chambered tomb at Prissé, France. Kate has also worked in the environmental laboratory at the Museum of Natural History in Oxford, and as a finds processor for Oxford's Institute of Archaeology. Since joining AS in November 2004, Kate has researched and authored a variety of reports, concentrating on desk-based assessments in advance of archaeological work and historic building recording.

ASSISTANT PROJECTS MANAGER (POST-EXCAVATION) **Andrew Newton MPhil PIFA**

Qualifications: University of Bradford, MPhil (2002-04)
University of Bradford, BSc (Hons) Archaeology (1998-2002)
University of Bradford, Dip Professional Archaeological Studies (2002)

Experience: Andrew has carried out geophysical surveys for GeoQuest Associates on sites throughout the UK and has worked as a site assistant with BUFAU. During 2001 he worked as a researcher for the Yorkshire Dales Hunter-Gatherer Research Project, a University of Bradford and Michigan State University joint research programme, and has carried out voluntary work with the curatorial staff at Beamish Museum in County Durham. Andrew is a member of the Society of Antiquaries of Newcastle-upon-Tyne and a Practitioner Member of the Institute for Archaeologists. Since joining AS in early Summer 2005, as a Project Officer writing desk-based assessments, Andrew has gained considerable experience in post-excavation work. His principal role with AS is conducting post-excavation research and authoring site reports for publication. Significant post-excavation projects Andrew has been responsible for include the Ingham Quarry Extension, Fornham St. Genevieve, Suffolk – a site with large Iron Age pit clusters arranged around a possible wetland area; the late Bronze Age to early Iron Age enclosure and early Saxon cremation cemetery at the Chalet Site, Heybridge, Essex; and, Church Street, St Neots, Cambridgeshire, an excavation which identified the continuation of the Saxon settlement previously investigated by Peter Addyman in the 1960s. Andrew also writes and co-ordinates Environmental Impact Assessments and has worked on a variety of such projects across southern and eastern England. In addition to his research responsibilities Andrew undertakes outreach and publicity work and carries out some fieldwork.

ASSISTANT PROJECTS MANAGER (POST-EXCAVATION) **Tom Woolhouse MA AIfA**

Qualifications: 2009 – present PhD Archaeology and Ancient History (University of Leicester)
2006 MA (Cantab.) (Trinity College, University of Cambridge)
1999 – 2002 BA Hons. History (Trinity College, University of Cambridge)

Tom studied ancient and medieval history at Cambridge, specialising in late Roman and early medieval Britain and Europe. During his degree, he took part in a number of volunteer archaeological excavations at sites including Arbeia Roman fort in South Shields and Whitehall Farm Roman villa in Northamptonshire. He has seven years' experience in professional archaeology, working for Archaeological Solutions, as well as the Colchester Archaeological Trust, and as a consultant with Mott MacDonald. Tom has experience of running both small and large-scale archaeological excavations, as well as undertaking evaluations, watching briefs and archaeological walkover surveys; he has also researched and compiled desk-based assessments and environmental impact assessments for rural and urban sites across southern England, the Midlands and East Anglia. Tom's principal role is post-excavation analysis of archaeological sites and researching and writing reports for publication. He also assists with the management of AS's post-excavation team. In addition to over 100 reports

for clients, Tom has had academic articles published in local archaeological journals in Norfolk, Essex and Cambridgeshire; he has also written book reviews for the international journal *Medieval Archaeology* and has had a popular article published in *British Archaeology* magazine. He is currently working on bringing AS's long-running excavations in connection with a major housing development at Cedars Park, Stowmarket, Suffolk, to publication in *East Anglian Archaeology*. Alongside his professional work, Tom is currently studying part-time for a PhD with Leicester University, investigating changes in rural settlements in eastern England during the post-Roman transition. He is an Associate Member of the Institute for Archaeologists.

PROJECT OFFICER (POST-EXCAVATION) **Antony Mustchin BSc MSc DipPAS**

Qualifications: University of Bradford BSc (Hons) Bioarchaeology (1999-2003)
University of Bradford MSc Biological Archaeology (2004-2005)
University of Bradford Diploma in Professional Archaeological Studies (2003)

Experience: Antony has 11 years' experience in field archaeology, gained during his higher education and in the professional sector. Commercially in the UK, Antony has worked for Archaeology South East (2003), York Archaeological Trust (2004) and Special Archaeological Services (2003). He has also undertaken a six-month professional placement as Assistant SMR Officer/ Development Control Officer with Kent County Council (2001-2002). Antony is part-way through writing up a PhD on Viking Age demographics, a long-term academic interest that has led to his gaining considerable research excavation experience across the North Atlantic. He has worked for projects and organisations including the Old Scatness & Jarlshof Environs Project, Shetland (2000-2003), the Viking Unst Project, Shetland (2006-2007), the Heart of the Atlantic Project/ Føroya Fornminnissavn, Faroe Islands (2006-2008) and City University New York/ National Museum of Denmark/ Greenland National Museum and Archives, Greenland (2006 & 2010). Shortly before Joining Archaeological Solutions in November 2011, Antony spent three years working for the Independent Commission for the Location of Victims Remains, assisting in the search for and forensic recovery of "the remains of victims of paramilitary violence ("The Disappeared") who were murdered and buried in secret arising from the conflict in Northern Ireland". Antony has a broad experience of fieldwork and post-excavation practice including specialist (archaeofauna), teaching, supervisory and directing-level posts.

POTTERY, LITHICS AND CBM RESEARCHER **Andrew Peachey BA MIFA**

Qualifications: University of Reading BA Hons, Archaeology and History (1998-2001)

Experience: Andrew joined AS (formerly HAT) in 2002 as a pottery researcher, and rapidly expanded into researching CBM and lithics. Andrew specialises in prehistoric and Roman pottery and has worked on numerous substantial assemblages, principally from across East Anglia but also from southern England. Recent projects have included a Neolithic site at Coxford, Norfolk, an early Bronze Age domestic site at Shropham, Norfolk, late Bronze Age material from Panshanger, Hertfordshire, middle Iron Age pit clusters at

Ingham, Suffolk and an Iron Age and early Roman riverside site at Dernford, Cambridgshire. Andrew has worked on important Roman kiln assemblages, including a Nar Valley ware production site at East Winch Norfolk, a face-pot producing kiln at Hadham, Hertfordshire and is currently researching early Roman Horningsea ware kilns at Waterbeach, Cambridgeshire. Andrew is an enthusiastic member of the Study Group for Roman Pottery, and also undertakes pottery and lithics analysis as an 'external' specialist for a range of archaeological units and local societies in the south of England.

POTTERY RESEARCHER **Peter Thompson MA**

Qualifications: University of Bristol BA (Hons), Archaeology (1995-1998)
University of Bristol MA; Landscape Archaeology (1998-1999)

Experience: As a student, Peter participated in a number of projects, including the excavation of a Cistercian monastery cemetery in Gascony and surveying an Iron Age promontory hillfort in Somerset. Peter has two years excavation experience with the Bath Archaeological Trust and Bristol and Region Archaeological Services which includes working on a medieval manor house and a post-medieval glass furnace site of national importance. Peter joined HAT (now AS) in 2002 to specialise in Iron Age, Saxon and Medieval pottery research and has also produced desk-based assessments. Pottery reports include an early Iron pit assemblage and three complete Early Anglo-Saxon accessory vessels from a cemetery in Dartford, Kent.

PROJECT OFFICER
(OSTEOARCHAEOLOGY) Julia Cussans PhD

Qualifications: University of Bradford, PhD (2002-2010)
University of Bradford, BSc (Hons) Bioarchaeology (1997-2001)
University of Bradford, Dip. Professional Archaeological Studies (2001)

Experience: Julia has c. 12 years of archaeozoological experience. Whilst undertaking her part time PhD she also worked as a specialist on a variety of projects in northern Britain including Old Scatness (Shetland), Broxmouth Iron Age Hillfort and Binchester Roman Fort. Additionally Julia has extensive field experience and has held lead roles in excavations in Shetland and the Faroe Islands including, Old Scatness, a large multi-period settlement centred on an Iron Age Broch; the Viking Unst Project, an examination of Viking and Norse houses on Britain's most northerly isle; the Laggan Tormore Pipeline (Firths Voe), a Neolithic house site in Shetland; the Heart of the Atlantic Project, an examination of Viking settlement in the Faroes and Við Kirkjugarð, an early Viking site on Sanday, Faroe Islands. Early on in her career Julia also excavated at Sedgeford, Norfolk as part of SHARP and in Pompeii, Italy as part of the Anglo-American Project in Pompeii. Since joining AS in October 2011 Julia has worked on animal bone assemblages from Beck Row, a Roman villa site at Mildenhall, Suffolk and Sawtry, an Iron Age, fen edge site in Cambridgeshire. Julia is a full and active member of the International Council for Archaeozoology, the Professional Zooarchaeology Group and the Association for Environmental Archaeology.

ENVIRONMENTAL ARCHAEOLOGIST Dr John Summers

Qualifications: 2006-2010: PhD "The Architecture of Food" (University of Bradford)
2005-2006: MSc Biological Archaeology (University of Bradford)
2001-2005: BSc Hons. Bioarchaeology (University of Bradford)

Experience: John is an archaeobotanist with a primary specialism in the analysis of carbonised plant macrofossils and charcoal. Prior to joining Archaeological Solutions, John worked primarily in Atlantic Scotland. His research interests involve using archaeobotanical data in combination with other archaeological and palaeoeconomic information to address cultural and economic research questions. John has made contributions to a number of large research projects in Atlantic Scotland, including the Old Scatness and Jarlshof Environs Project (University of Bradford), the Viking Unst Project (University of Bradford) and publication work for Bornais Mound 1 and Mound 2 (Cardiff University). He has also worked with plant remains from Thruxton Roman Villa, Hampshire, as part of the Danebury Roman Environs Project (Oxford University/ English Heritage). John's role at AS is to analyse and report on assemblages of plant macro-remains from environmental samples and provide support and advice regarding environmental sampling regimes and sample processing. John is a member of the Association for Environmental Archaeology.

SENIOR GRAPHICS OFFICER **Kathren Henry**

Experience: Kathren has twenty-five years experience in archaeology, working as a planning supervisor on sites from prehistoric to late medieval date, including urban sites in London and rural sites in France/Italy, working for the Greater Manchester Archaeological Unit, Passmore Edwards Museum, DGLA and Central Excavation Unit of English Heritage (at Stanwick and Irthlingborough, Northamptonshire). She has worked with AS (formerly HAT) since 1992, becoming Senior Graphics Officer. Kathren is AS's principal photographer, specializing in historic building survey, and she manages AS's photographic equipment and dark room. She is in charge of AS's Graphics Department, managing computerised artwork and report production. Kathren is also the principal historic building surveyor/illustrator, producing on-site and off-site plans, elevations and sections.

HISTORIC BUILDING RECORDING **Tansy Collins BSc**

Qualifications: University of Sheffield, Archaeological Sciences BSc (Hons) (1999-2002)

Experience: Tansy's archaeological experience has been gained on diverse sites throughout England, Ireland, Scotland and Wales. Tansy joined AS in 2004 where she developed skills in graphics, backed by her grasp of archaeological interpretation and on-site experience, to produce hand drawn illustrations of pottery, and digital illustrations using a variety of packages such as AutoCAD, Corel Draw and Adobe Illustrator. She joined the historic buildings team in 2005 in order to carry out both drawn and photographic surveys of historic buildings before combining these skills with authoring historic building reports in 2006. Since then Tansy has authored numerous such reports for a wide range of building types; from vernacular to domestic architecture, both timber-framed and brick built with date ranges varying from the medieval period to the 20th century. These projects include a number of regionally and nationally significant buildings, for example a previously unrecognised medieval aisled barn belonging to a small group of nationally important agricultural buildings, one of the earliest surviving domestic timber-framed houses in Hertfordshire, and a Cambridgeshire house retaining formerly hidden 17th century decorative paint schemes. Larger projects include The King Edward VII Sanatorium in Sussex, RAF Bentley Priory in London as well as the Grade I Listed Balls Park mansion in Hertfordshire.

HISTORIC BUILDING RECORDING **Lisa Smith BA**

Qualifications: University of York, BA Archaeology (1998-2001)

Experience: Lisa has nine years archaeological experience undertaken mainly in the north of England previously working as a senior site assistant for Field Archaeology Specialists in York on both rural and urban sites as well as Castle Sinclair Girnigoe and Tarbat in Scotland. Prior to working for FAS Lisa was involved in various excavation projects for Oxford Archaeology North and Archaeological Services, University of Durham. Lisa joined AS as a supervisor in January 2008 and in November 2009 transferred to historic building recording and has since worked on a variety of buildings dating from the medieval period onwards, working closely with external consultant Dr Lee Prosser.

GRAPHICS OFFICER **Rosanna Price BSc**

Qualifications: University of Kent, Medical Anthropology BSc (Hons) (2005 - 2008)

Experience: Rosanna's interests have always revolved around art and human history, and she has combined these throughout her work and education. During her degree she specialised in Osteoarchaeology and Palaeopathology, and personally instigated the University's photographic database of human remains. This experience gained her the post of Osteoarchaeologist at Kent Osteological Research and Analysis in early 2009, where she worked on a number of human bone collections including the Thanet Earth Skeletons. In January 2010 she joined AS as a Finds and Archives assistant, and by the summer had achieved a new role as graphics officer. In her current position Rosanna uses a range of computer programmes, such as AutoCAD, Adobe Illustrator and CorelDraw to produce digital figures and finds illustrations. These accompany a wide range of archaeological reports, from desk-based assessments and interim reports through to publication standard.

GRAPHICS OFFICER **Charlotte Davies MPhil**

Qualifications: University of Exeter, Archaeology BA (Hons) (2004-2007)
Surrey Institute of Art & Design, BTEC Foundation Diploma in Art & Design (2003-2004)
University of Cambridge, Archaeology (Heritage & Museum Studies) MPhil (2010-2011).

Experience: Charlotte has always had a passionate interest in art and archaeology, and has combined these interests in her higher education. Charlotte worked on archaeological excavations in South Dakota, USA, before joining AS in 2007 as part of the graphics team. Charlotte's role within AS comprises the production of a wide range of high quality figures and illustrations for reports, from desk-based assessments and interim reports through to publication. Charlotte became a member of the Association of Archaeological Illustrators and Surveyors in 2009 (this subsequently became incorporated into the Institute for Archaeologists), and in 2010 undertook a masters degree in archaeology at the University of Cambridge.

ARCHAEOLOGICAL SOLUTIONS: PRINCIPAL SPECIALISTS

GEOPHYSICAL SURVEYS	Stratascan Ltd
AIR PHOTOGRAPHIC ASSESSMENTS	Air Photo Services
PHOTOGRAPHIC SURVEYS	Ms K Henry
PREHISTORIC POTTERY	Mr A Peachey
ROMAN POTTERY	Mr A Peachey
SAXON & MEDIEVAL POTTERY	Mr P Thompson
POST-MEDIEVAL POTTERY	Mr P Thompson
FLINT	Mr A Peachey
GLASS	H Cool
COINS	British Museum, Dept of Coins & Medals
METALWORK & LEATHER	Ms Q Mould, Ms N Crummy
SLAG	Ms J Cowgill
ANIMAL BONE	Dr J Cussans
HUMAN BONE:	Ms J Curl
ENVIRONMENTAL CO-ORDINATOR	Dr R Scaife
POLLEN AND SEEDS:	Dr R Scaife
CHARCOAL/WOOD	Dr J Summers
SOIL MICROMORPHOLOGY	Dr R MacPhail, Dr C French
CARBON-14 DATING:	English Heritage Ancient Monuments Laboratory (for advice).
CONSERVATION	University of Leicester

PHOTOGRAPHIC INDEX

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Trench 2, pit F1017, taken from SW..

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Trench 2, pit F1021, taken from SW.

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Trench 2, sample section 2A, taken from NE.

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Trench 4, ditch F1003, taken from SW.

5
Trench 4, pit F1025, taken from SW.

6
Trench 4, sample section 4B, taken from NE.

7
Trench 5, ditch F1011, taken from SE.

8
Trench 7, pit F1009, taken from NE.

9
Trench 8, ditch F1007, taken from E.

10
Trench 2 post excavation, taken from SE.

11
Trench 4 post excavation, taken from NW.

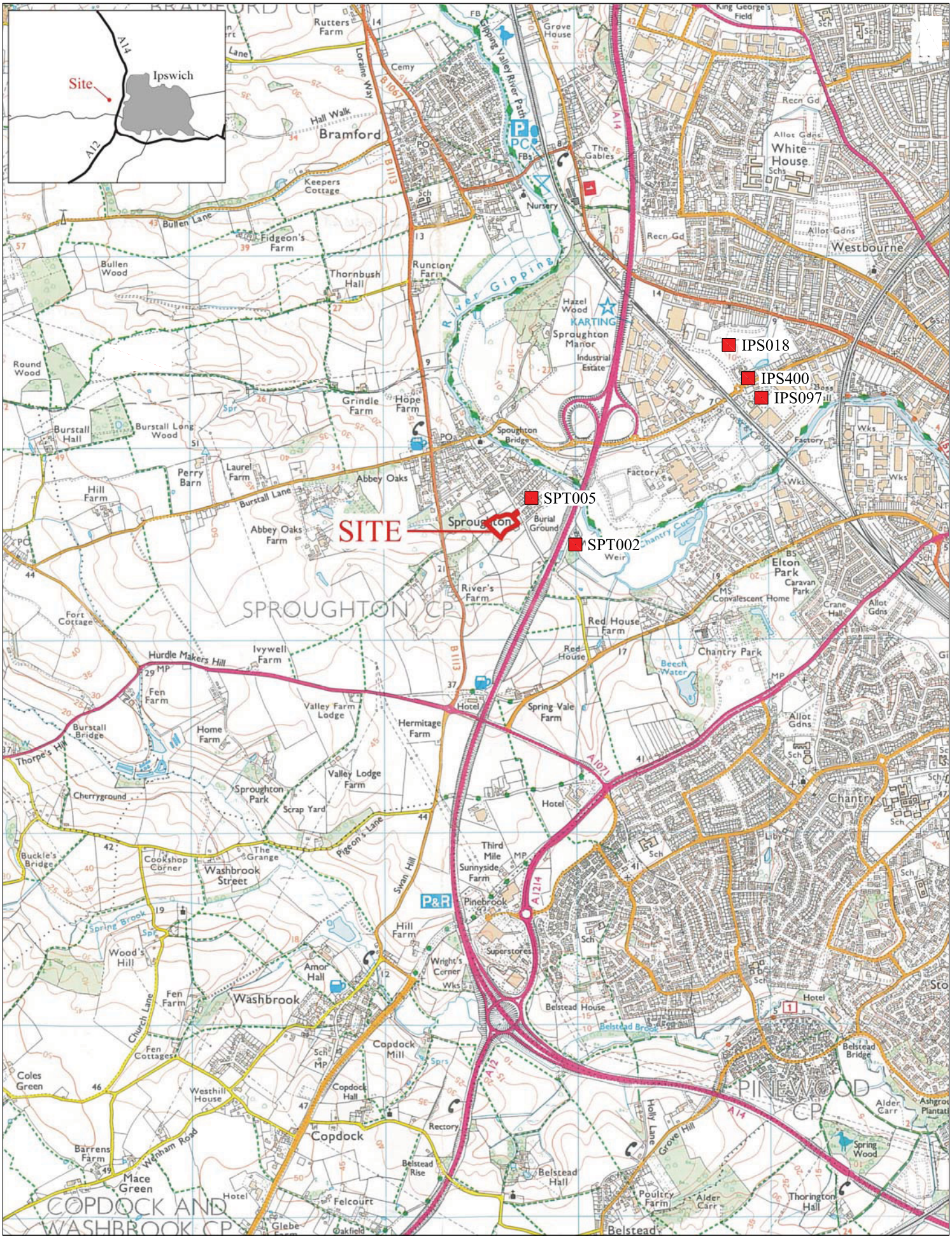

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Fig. 1 Site location plan with HER points

Scale 1:25000 at A4

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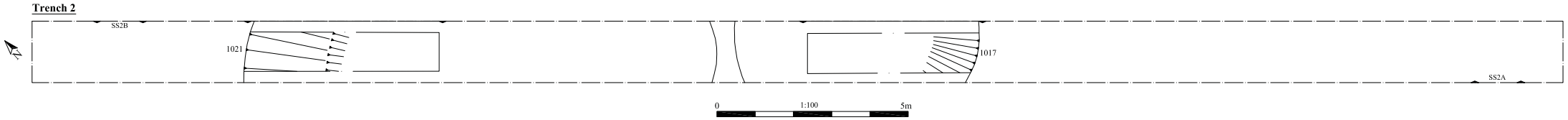
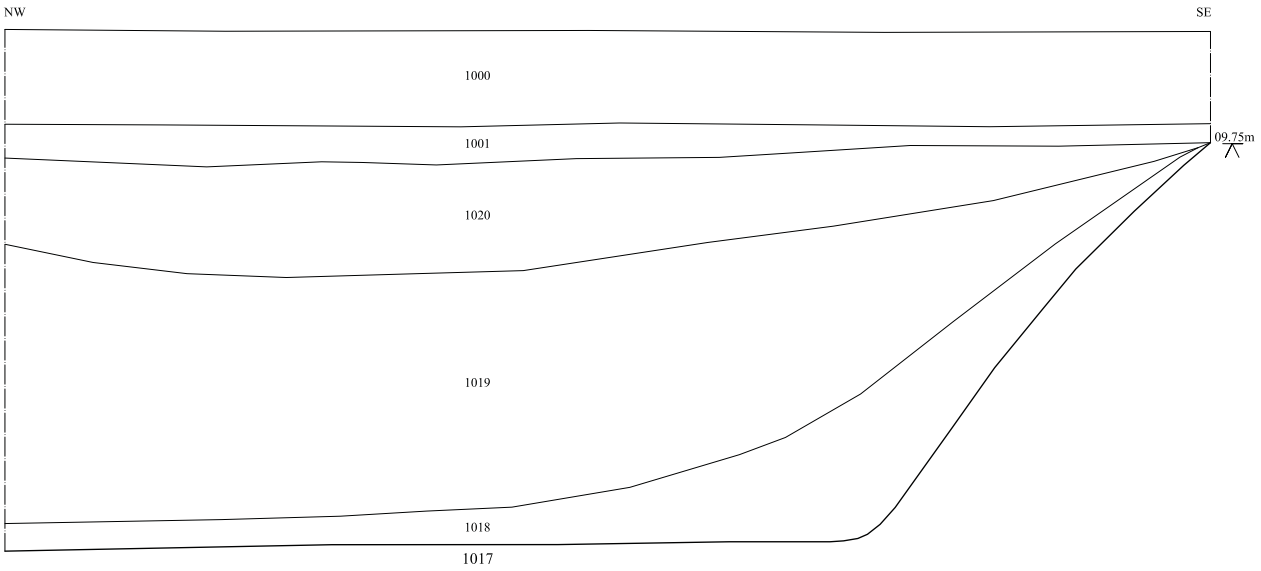
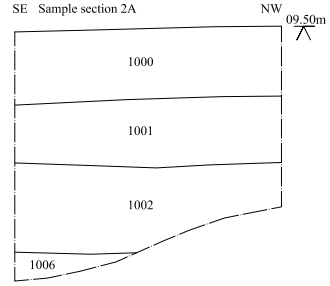
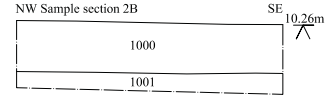
Fig. 2 Trench location plan

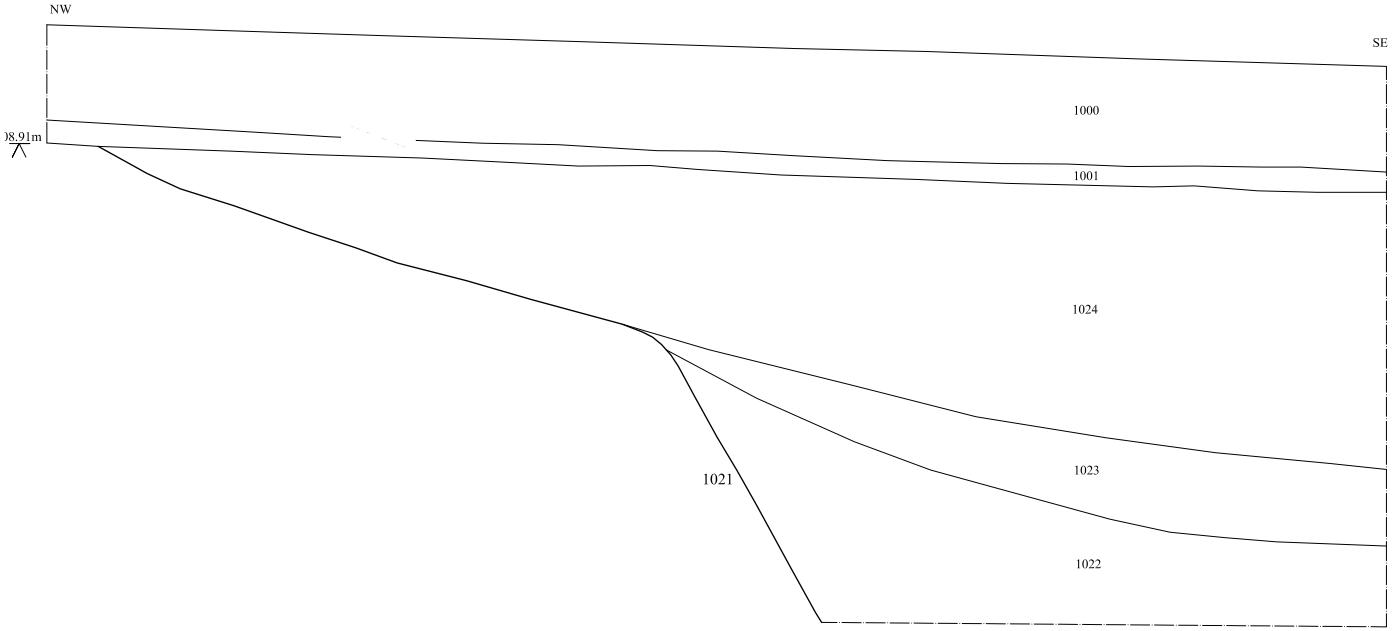
Scale 1:750 at A3











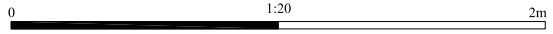


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Fig. 3 Trench plans and sections

Scale 1:100 and 1:20 at A3

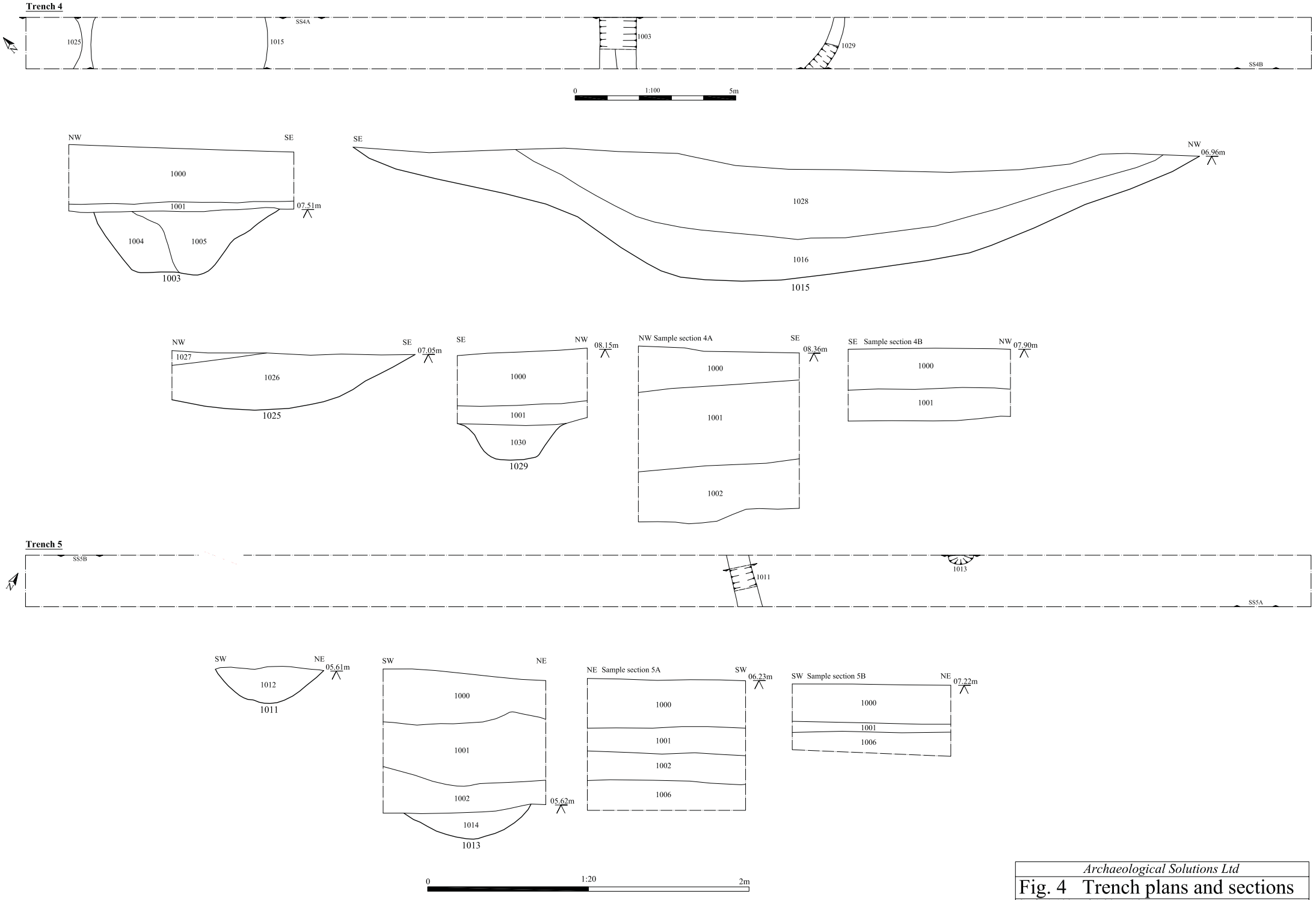

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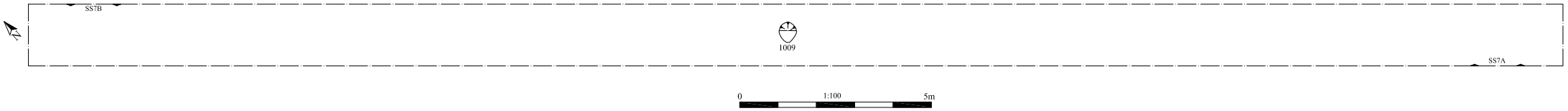
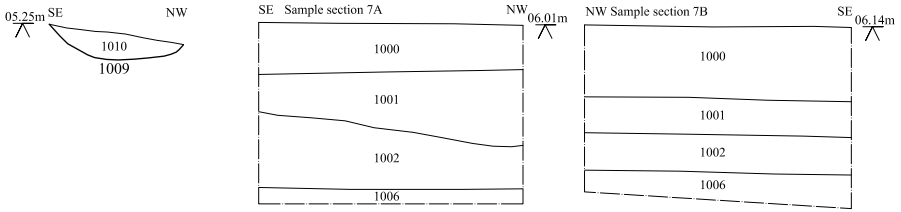
Fig. 4 Trench plans and sections

Scale 1:100 and 1:20 at A3

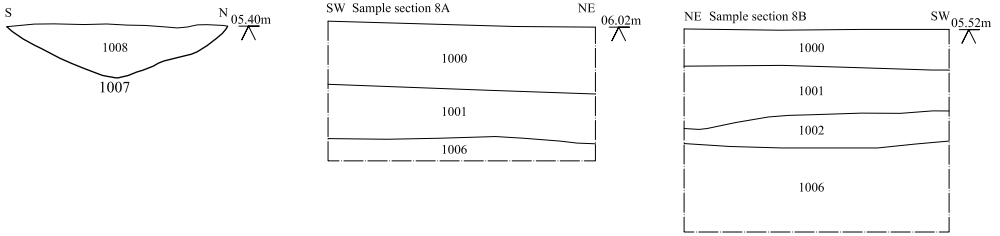
Trench 7



0 1:100 5m



Trench 8



0 1:20 2m

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Fig. 5 Trench plans and sections
Scale 1:100 and 1:20 at A3

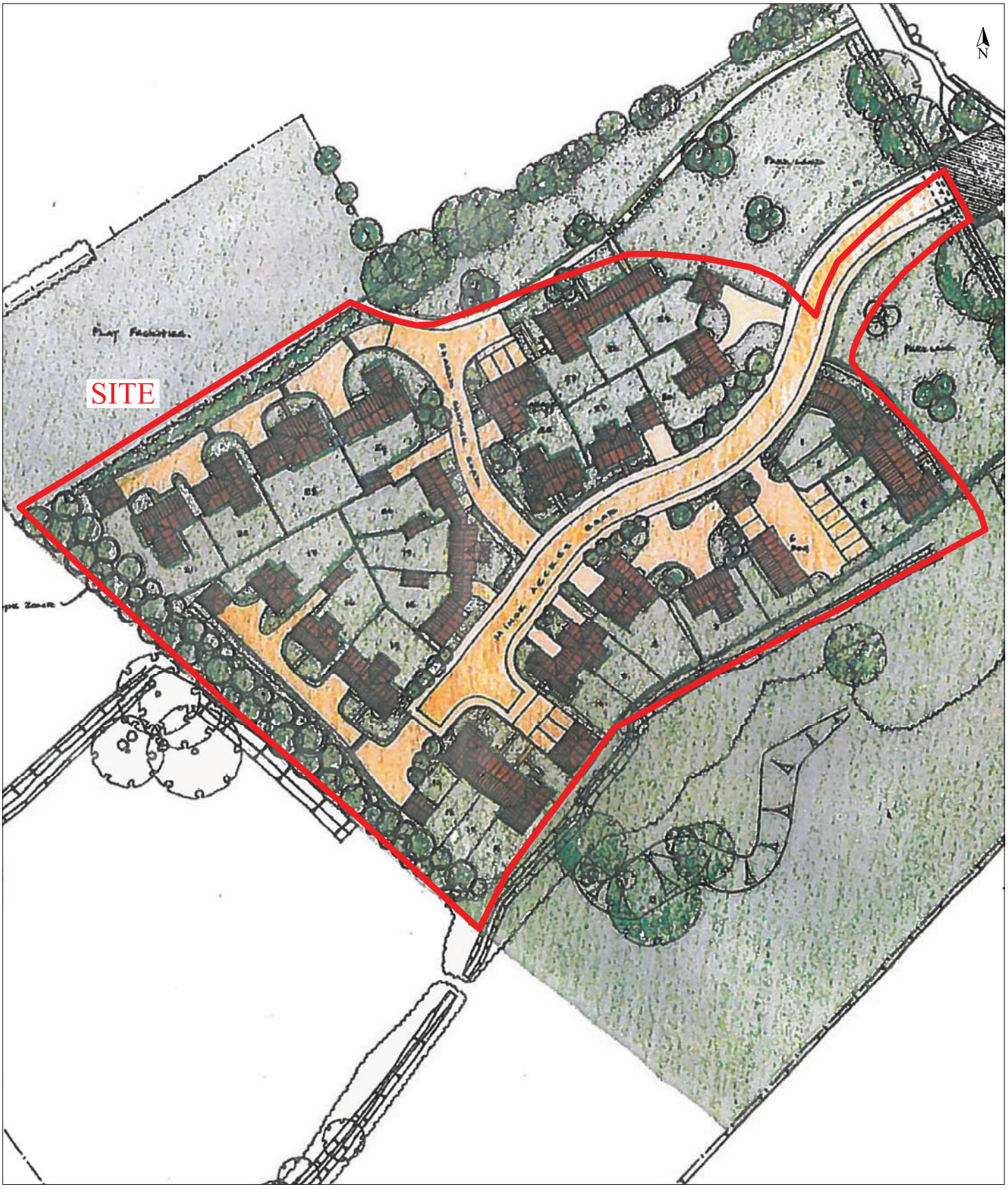

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Fig. 6 Proposed development
Scale 1:1000 at A4

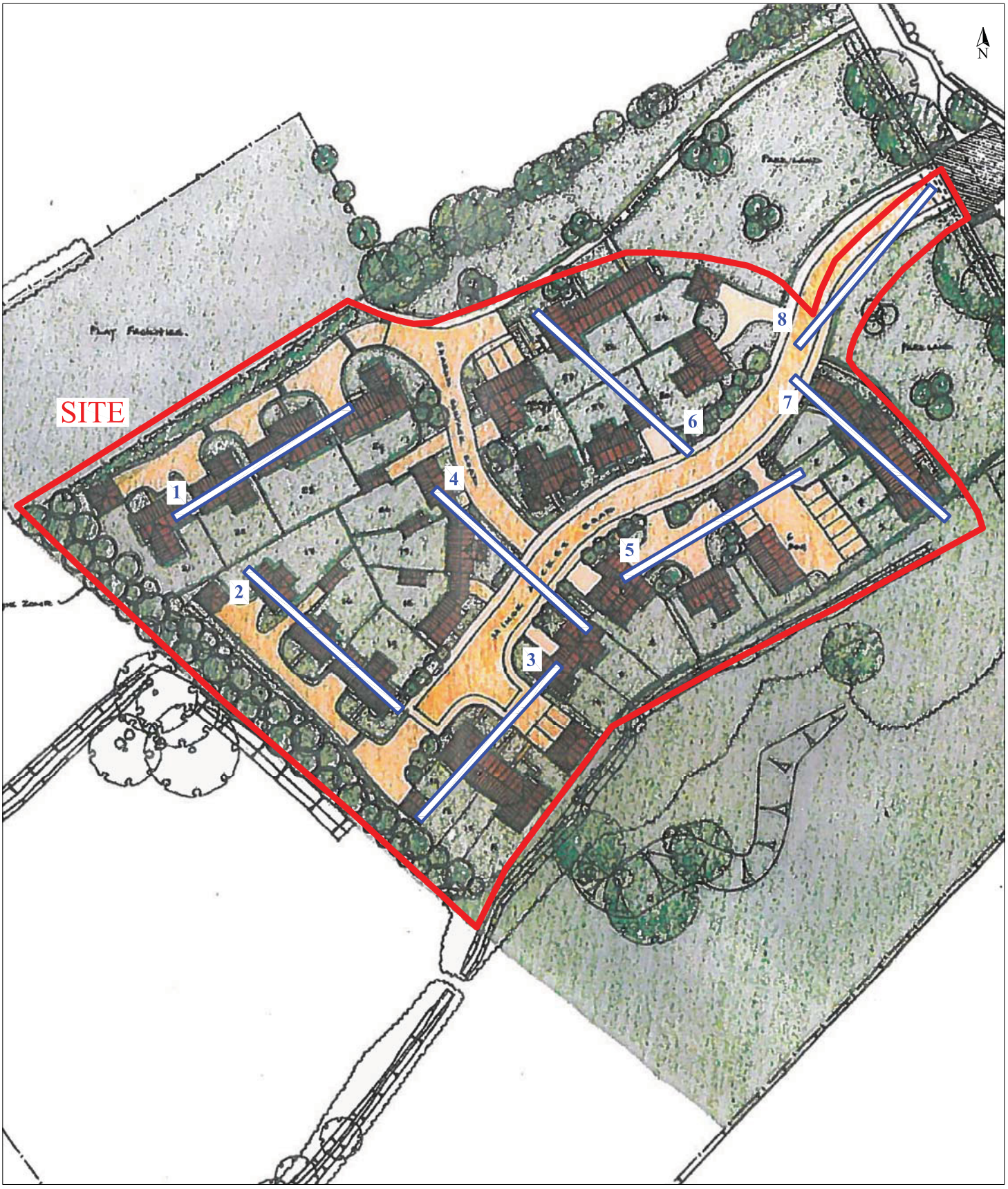

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Fig. 7 Proposed development with trench overlays

Scale 1:1000 at A4

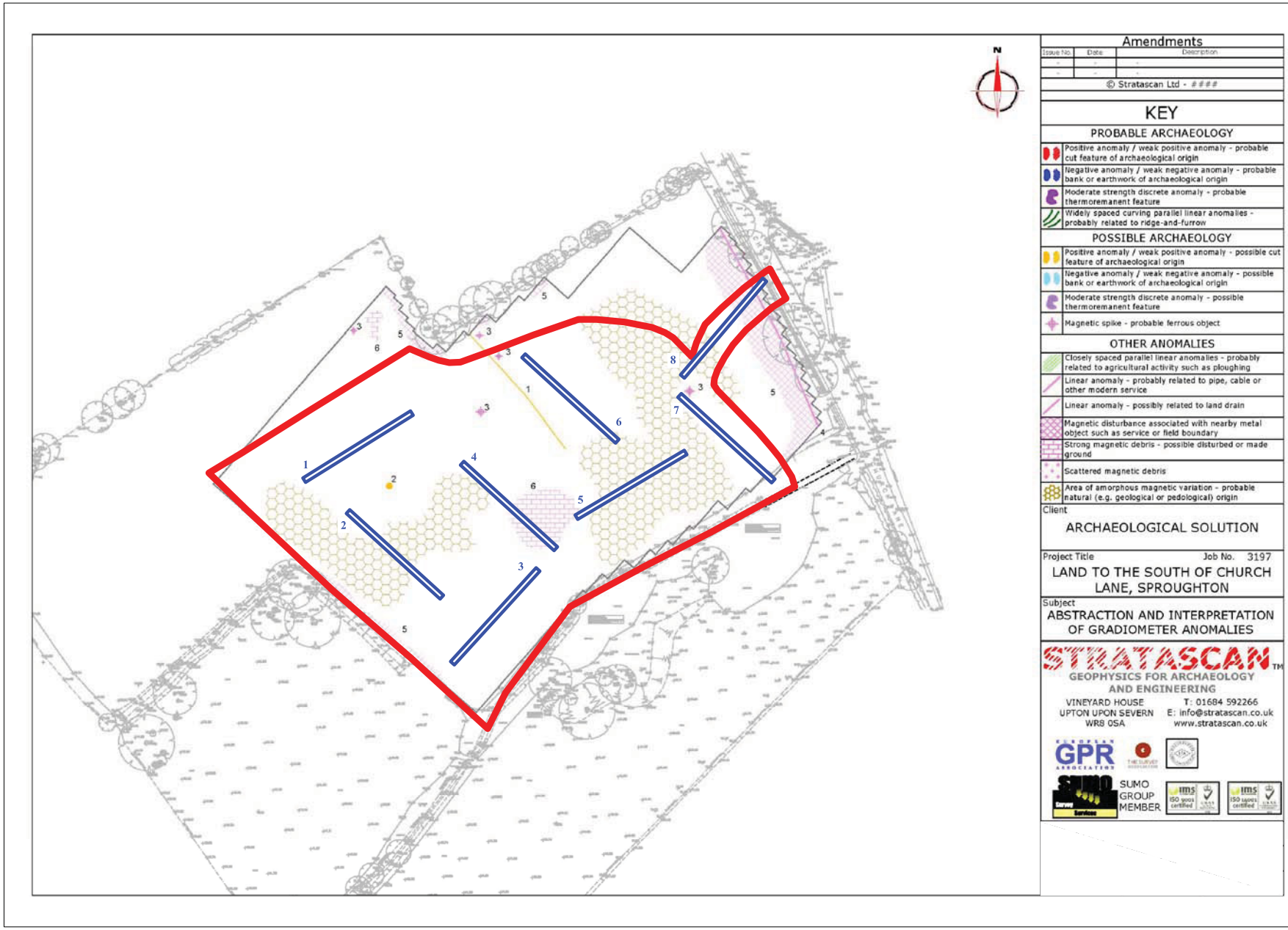

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Fig. 8 Trial trench locations in relation to gradiometer anomalies

Scale 1:1750 at A4