Report 2627

nps archaeology

An Archaeological Evaluation on the Anglian Water B1070 Replacement Scheme, East Bergholt, Suffolk

EBG 041

Prepared for
Anglian Water Services Ltd
Thorpe Wood House
Thorpe Wood
Peterborough
Cambridgeshire
PE3 6WT

Peter Eric Crawley BA AIfA, Steve Hickling MA AIfA

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PROJECT CHECKLIST		
Project Manager	David Whitmore	
Draft Completed	Steve Hickling	14/06/2011
Graphics Completed	David Dobson	17/06/2011
Edit Completed	Jayne Bown	20/06/2011
Signed Off	David Whitmore	20/06/2011
Issue 1		

NAU Archaeology
Scandic House
85 Mountergate
Norwich
NR1 1PY

T 01603 756150 **F** 01603 756190 **E** jayne.bown@nps.co.uk www.nau.org.uk

BAU 2627

Contents

Summary *1*
1.0 Introduction 1
2.0 Geology and Topography 3
3.0 Archaeological and Historical Background 3
4.0 Methodology 4
5.0 Results 7
6.0 The Finds 20
6.1 The Prehistoric and Roman Pottery 20
6.2 The Post-Roman Pottery 20
6.3 Ceramic building material 22
6.4 The Metal Finds 23
6.5 The Coin 24
6.6 Flint 24
6.7 The Fired Clay 26
6.8 Animal Bone 26
7.0 The Environmental Evidence 27
7.1 Plant Macrofossils and Other Material 27
8.0 Conclusions 28
Acknowledgements 29
Bibliography and Sources *30*
Appendix 1a: Context Summary 31
Appendix 1b: OASIS Feature Summary 31
Appendix 2a: Finds by Context 32
Appendix 2b: OASIS Finds Summary 34
Appendix 3: Fieldwalking Results 35
Appendix 4a: Prehistoric and Roman Pottery 37
Appendix 4b: Post-Roman Pottery 38
Appendix 5: Ceramic Building Material 39
Appendix 6: Plant Macrofossils and Other Material 40
Appendix 7: Archaeological Brief 41

Figures

Figure 1 Site Location

Figure 2 Trench locations

Figure 3 Trench 1, plan and section

Figure 4 Trench 2, plan and section

Figure 5 Trench 3, plan and sections

Figure 6 Trench 5, plan and section

Tables

Table 1 Post-Roman pottery quantification by fabric

Table 2 Post-Roman pottery types present by trench and feature

Table 3 Total Quantification of Struck Flint

Location:	East Bergholt
District:	Babergh District
Grid Ref.:	TM 0700 3565 to TM 0671 3643
HER No.:	EBG 041
OASIS Ref.:	103231
Client:	Anglian Water Services Limited
Dates of Fieldwork:	24-26 May 2011

Summary

An archaeological evaluation was conducted for Anglian Water Services Limited ahead of the installation of a replacement water mains pipeline in fields adjacent to the B1070 at East Bergholt. The evaluation involved fieldwalking the route to establish potential locations of archaeological sites and the excavation of seven trial trenches along the line of the easement.

Four of the seven archaeological trial trenches (Trenches 1, 2, 3 and 5) contained archaeological features.

Trench 1 contained a group of small pits dating to the Early or Middle Bronze Age. Small pit groups of this date are common throughout East Anglia.

Trench 3 contained a very deep pit of mid to late 13th-century date, containing a significant amount of pottery. The pit may be a short-lasting or unfinished well associated with a medieval settlement of short duration close to the development site.

Trenches 2, 3 and 5 also contained ditches of probable post-medieval date.

The presence of a layer of subsoil beneath the topsoil, which sealed both the prehistoric remains in Trench 1 and the medieval pit in Trench 3, is similar to subsoils of medieval to post-Medieval date which are thought by the author to indicate the presence of 'openfield' type arable agriculture. In East Anglia this subsoil has been observed by the author to frequently post-date the desertion of small hamlets in the 13th century and can be associated with attempts to concentrate the population in fewer, larger villages and impose more regular 'openfield' type arable regimes.

1.0 INTRODUCTION

The development was situated to the north of East Bergholt on agricultural land immediately to the east of the B1070. The new pipeline easement was around 760m long with a 6m wide topsoil strip giving a 'development' area of 0.46 ha.

Anglian Water was advised by Suffolk County Council Archaeological Service Conservation Team (SCCASCT) that the water replacement proposals would require a scheme of archaeological investigation before the works began (Ref. SCCAS_ArchSpecEval_EastBergholt2010, Appendix 7). The work was conducted in accordance with a Project Design and Method Statement prepared by NPS Archaeology (Ref. NPS/BAU2627/DW). This work was commissioned by and funded by Anglian Water Services Limited.

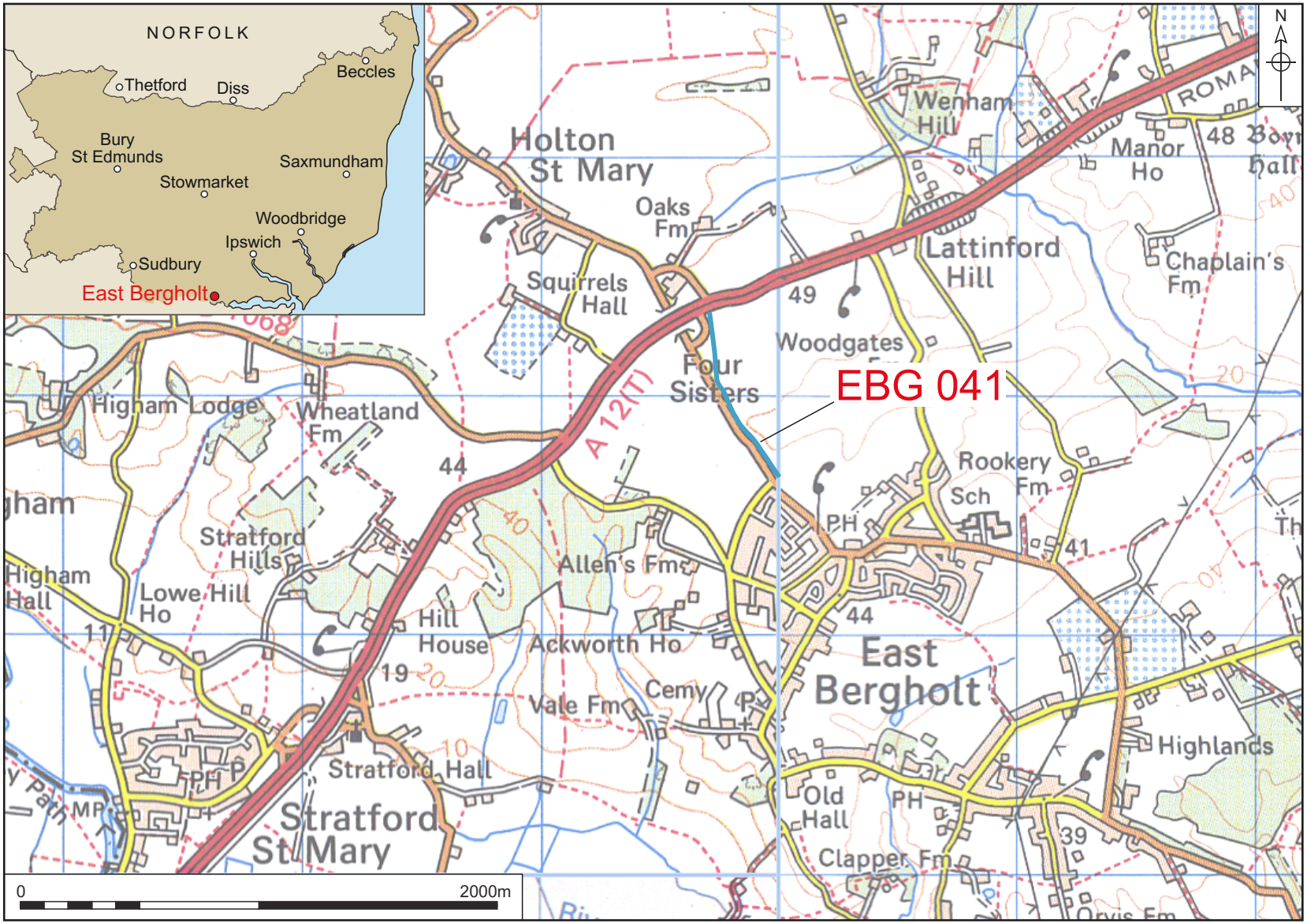

Figure 1. Site location. Scale 1:25,000

This programme of work was designed to assist in defining the character and extent of any archaeological remains within the proposed redevelopment area,

area, following the guidelines set out in *Planning Policy Statement 5: Planning For The Historic Environment (2010)*. The results will enable decisions to be made by the Local Planning Authority about the treatment of any archaeological remains found.

The site archive is currently held by NAU Archaeology and on completion of the project will be deposited with the Suffolk County Council Archaeological Service Conservation Team, following the relevant policies on archiving standards.

2.0 GEOLOGY AND TOPOGRAPHY

The underlying Geology consists of Thames group clay silt sand and gravel capped with sands and gravel (British Geological Survey).

The site was situated amongst gently sloping agricultural land to the north of the large village of East Bergholt at 40mOD to 45mOD.

3.0 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

The Suffolk County Council Sites and Monuments Record (SSMR) and historic mapping were consulted to prepare this summary.

It should be noted that two earlier archaeological projects (watching brief ESF19207 and evaluation ESF20341) both to the south of the present development produced no significant archaeological features or finds.

Prehistoric

A Bronze Age socketed axe was found during metal detecting (EBG026) within a mainly Roman scatter of finds, 940m north-east of the present development.

An Iron Age terret ring was found by metal detecting 575m north-east of the present development site (EBG027).

Roman

The area is rich in Roman finds, possibly associated with the Pye Road, a Roman route which the modern A12 follows and which lies close to the evaluated area.

That part of the modern A12 to the north-east of the development site is thought to reuse the line of the Roman Pye Road (CSM014).

A late 2nd-century Roman coin (EBG002) has been found in the field to the south-west of the present development.

A 1st-century Roman coin (EBG003) has been found 800m east of the development site

Two Roman pits (EBG006) purported to be 1.2m wide and 7m deep were uncovered in the 1960s 1250m north-east of the present development, on the route of the Roman Pye Road.

A Roman coin of Trajan and Roman pottery (EBG007) were found 1000m north-east of the development site.

A Roman cremation cemetery was discovered in 1838 (EBG009) 800m south of the development area.

First and 2nd-century Roman coins (EBG022) have been found by metal detecting 800m east of the development site.

Metal detecting has found Roman coins, a brooch, a spoon and a box (EBG026) 780m north-east of the present development.

Medieval

A medieval mount was found by metal detecting (EBG002) in the field to the south-west of the present development.

The 14th-century church of St Mary (HSM004), the parish church of Holton, lies 1000m to the north-west

Post-Medieval

The Four Sisters Farmhouse (DSF3185), 450m north of the present development, is a late 16th-century timber-framed farmhouse, now divided in two. The associated barn (DSF1988) is of 17th-century date.

The 2nd Edition Ordnance Survey map (*c.*1903) shows the site as agricultural fields. The field in which this site is located is and amalgamation of three smaller fields in 1903.

4.0 METHODOLOGY

The objective of this evaluation was to determine as far as reasonably possible the presence or absence, location, nature, extent, date, quality, condition and significance of any surviving archaeological deposits within the development area.

The Brief required that the route of the easement be fieldwalked to assist in targeting subsequent evaluation trenches which were to allow approximately 5% of the Anglian Water pipeline easement to be sample excavated.

A plan of the findspots along with a table of their identifications was supplied to SCCASCT to provide information to allow the location of the trial trenches to be established. The easement was walked in 10m transects in reasonable conditions. The 30 individual findspots occurred along the length of the easement with a slight concentration in the middle of the route and a small cluster towards the southern end. The finds are listed in Appendix 2a and their locations are shown in Appendix 3.

Machine excavation was carried out with a wheeled JCB-type excavator equipped with a toothless ditching bucket and operated under constant archaeological supervision. The machine and driver was supplied by Balfour Beatty the scheme's principal contractor.

Spoil, exposed surfaces and features were scanned with a metal-detector. All metal-detected and hand-collected finds, other than those which were obviously modern were retained for inspection.

Environmental samples were taken from pits [1], [3], [5], [7] [13] and ditch [19] (Samples <1>, <2>, <3>, <4>, <5> and <6> respectively).

All archaeological features and deposits were recorded using NPS Archaeology pro forma. Trench locations, plans and sections were recorded at appropriate scales. Monochrome and high quality digital photographs were taken of all Trenches, relevant features and deposits where appropriate.

The trenches were located using a GPS RTK Rover device, which also supplied accurate Ordnance Datum heights. Temporary benchmarks were provided at either end of the trench and used during the course of the work.

Site conditions were generally good, though some of the work took place in windy and rainy weather.

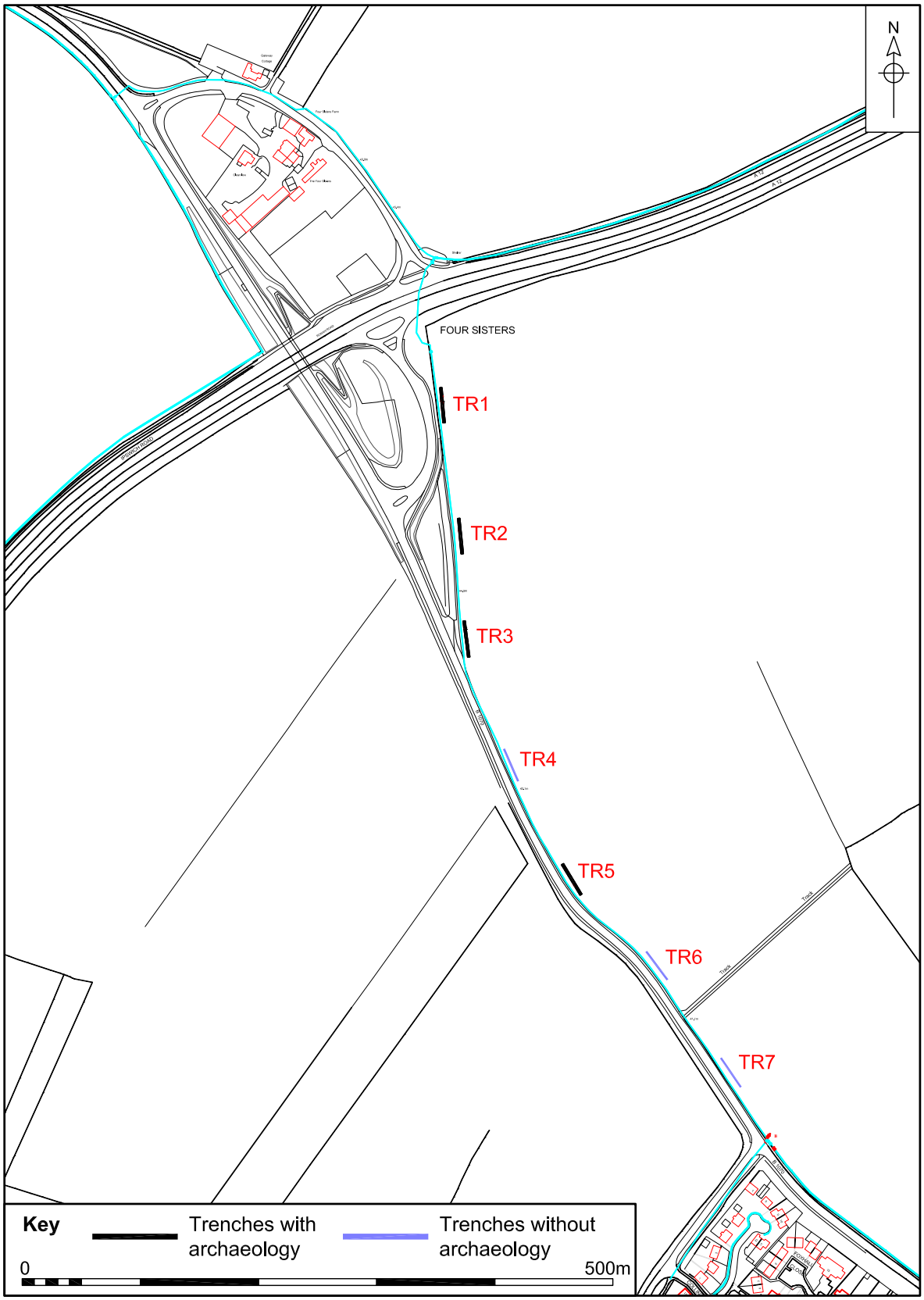

Figure 2. Trench location. Scale 1:5000

5.0 RESULTS

All of the trenches were orientated north to south, measured 30m long and 1.80m wide and were machine-excavated to varying depths dependent on the nature of deposits encountered in each trench. Trench 1 was the most northerly trench and they were each positioned southwards from that point along the easement route.

Trench 1

Plans 2 and 3	
Location	
Orientation	North to south
North End	606722.996,236288.195
South End	606726.001,236258.337
Dimensions	
Length	30m
Width	1.8m
Depth	0.6m
Levels	
North End Top	45.644m OD
South End Top	45.390m OD

Context	Type	Description	Thickness	Depth BGL
27	Topsoil	Mid brown sandy silt	0.5m	0.0–0.5m
28	Subsoil	Pale brown sandy silt with moderate flint gravel	0.1m	0.5-0.6m
1	Pit	Oval, truncated by the edge of excavation, 0.3m deep with an irregular base and steep sides.	0.3m	0.9m
2	Fill of [1]	Dark grey sandy silt with possible charcoal	0.3m	0.9m
3	Pit	Circular, 0.27m diameter; 0.2m deep with a concave base and steep sides	0.2m	0.8m
4	Fill of [3]	Dark grey sandy silt with no inclusions	0.2m	0.8m
5	Pit	Oval, 0.6m long, 0.5m wide and 0.2m deep with a flat base and steep sides	0.2m	0.8m
6	Fill of [5]	Dark greyish brown sandy silt with no inclusions	0.2m	0.8m
7	Pit	Oval, 0.5m long, 0.45m wide and 0.2m deep with a flat base and steep sides	0.2m	0.8m

Trench 1				
8	Fill of [7]	Mid brown sandy silt with no inclusions	0.2m	0.8m

Discussion

Pits [5] and [7] both contained a sherd of Early to Middle Bronze Age pottery. Pit [5] also contained an Early to Middle Bronze Age flint end-scraper and a large amount of burnt clay, perhaps daub.

This group of four pits are all likely to be of Bronze Age date and are typical of a widespread phenomenon of isolated pit groups of this date throughout East Anglia. Their purpose or function remains unknown.

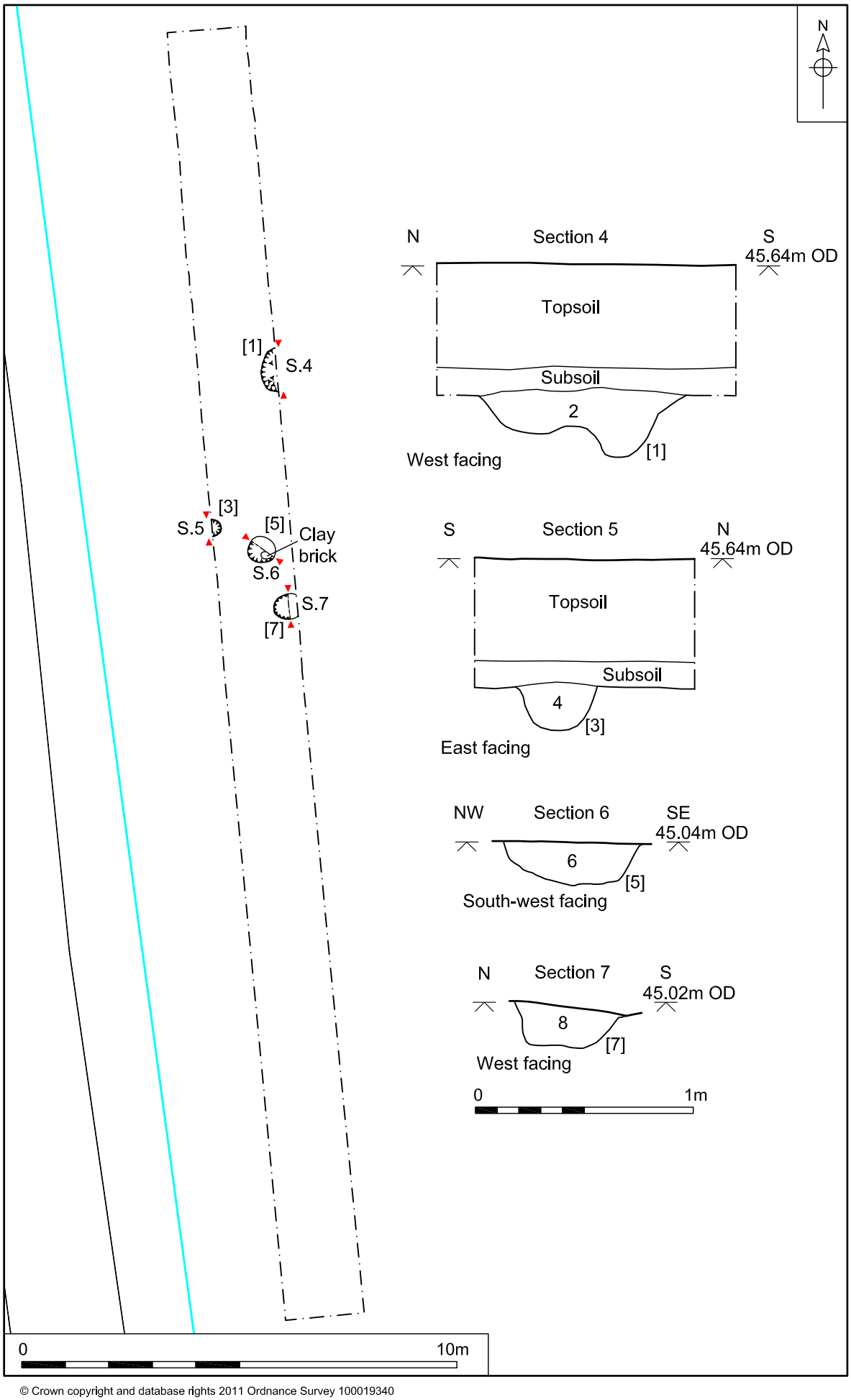

Figure 3. Trench 1, plan and sections. Scale 1:125 and 1:25

Trench 2

Figs 2 and 4	
Location	
Orientation	North to south
North End	606738.109,236177.683
South End	606741.049,236147.832
Dimensions	
Length	30m
Width	1.8m
Depth	0.5m
Levels	
North End Top	44.673m OD
South End Top	44.557m OD

Context	Type	Description	Thickness	Depth BGL
27	Topsoil	Mid brown sandy silt	0.35m	0.0-0.35m
28	Subsoil	Pale brown sandy silt with moderate flint gravel	0.15m	0.35-0.5m
9	Ditch	Linear, 0.85m wide and 0.2m deep with a flat base and steep sides	0.2m	0.7m
10	Fill of [9]	Mid brown sandy silt with no inclusions	0.2m	0.7m

Discussion

Although ditch [9] remains undated, its alignment does not correspond with the alignments of the modern field boundaries surrounding, or the adjacent B1070 or the A12, which follows the route of the Roman Pye Road. This suggests that this ditch may possible be prehistoric in date.

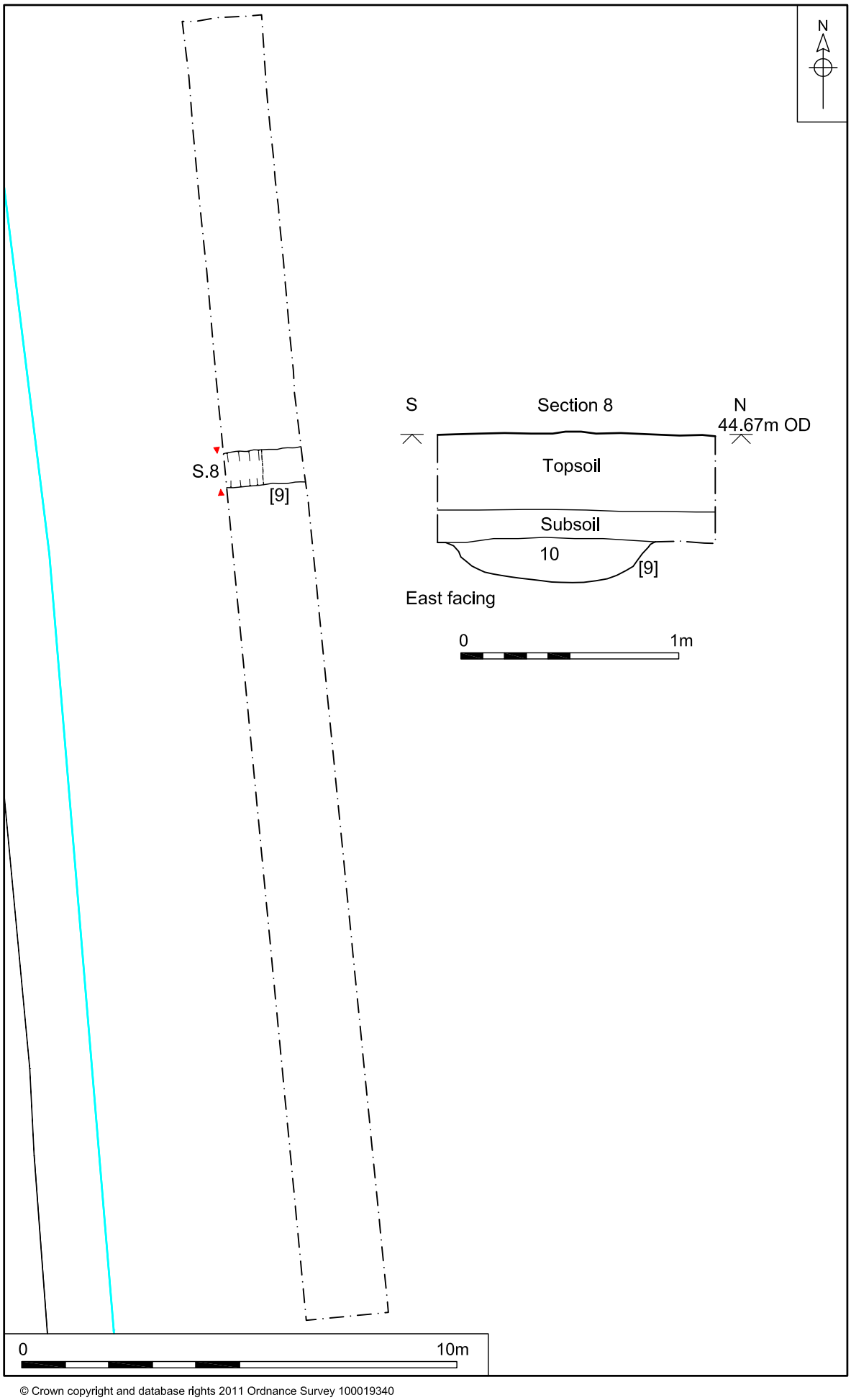

Figure 4. Trench 2, plan and section. Scale 1:125 and 1:25

Trench 3

Figs 2 and 5	
Location	
Orientation	North to south
North End	606742.453,236090.652
South End	606746.583,236060.910
Dimensions	
Length	30m
Width	1.8m
Depth	0.5m
Levels	
North End Top	44.158m OD
South End Top	43.892m OD

Context	Type	Description and Interpretation	Thickness	Depth BGL
27	Topsoil	Mid brown sandy silt	0.3m	0.0–0.3m
28	Subsoil	Pale brown sandy silt with moderate flint gravel	0.2m	0.3-0.5m
13	Pit	Large oval, 1.85m wide and at least 1.10m deep with stepped sides	1.1m+	1.6m+
14	Fill of [13]	Dark greyish brown silty sand with occasional flint gravel, sparse charcoal and redeposited natural blue clay	1.1m+	1.6m+
15	Ditch	Linear, 0.5m wide and 0.2m deep with a concave base and moderately steep sides	0.2m	0.7m
16	Fill of [15]	Pale orangey brown silty sand with occasional flint gravel	0.2m	0.7m
17	Ditch	Linear, 0.5m wide and 0.19m deep with a concave base and moderately sloping sides	0.19m	0.69m
18	Fill of [17]	Pale orange brown silty sand with occasional fine flint gravel	0.19m	0.69m
19	Ditch	Linear, 1.2m wide and 0.48m deep with a concave base and moderately sloping sides	0.48m	0.98m
20	Fill of [19]	Mid orange brown silty sand with occasional flint gravel	0.48m	0.98m
21	Pit	Undefined shape, truncated by ditches [17] and [19]	0.2m	0.7m

Trench 3				
22	Fill of [21]	Pale brownish orange silty sand with rare fine gravel	0.2	0.7m

Discussion

Pit [13] is considered to be medieval – it contained a large amount of medieval pottery dating to the mid to late 13th century. This pit also contained fragments of medieval pegtile and one butchered cattle metatarsal.

Pit [21] contained a small amount of 19th- to 20th-century pottery and it is cut by ditches [17] and [19]. It is therefore considered to be of modern date.

Ditches [17] and [19] were parallel and aligned west to east within 0.50m of each other.

Ditch [15] appeared to converge with ditch [17] on the west side of the trench; it is undated.

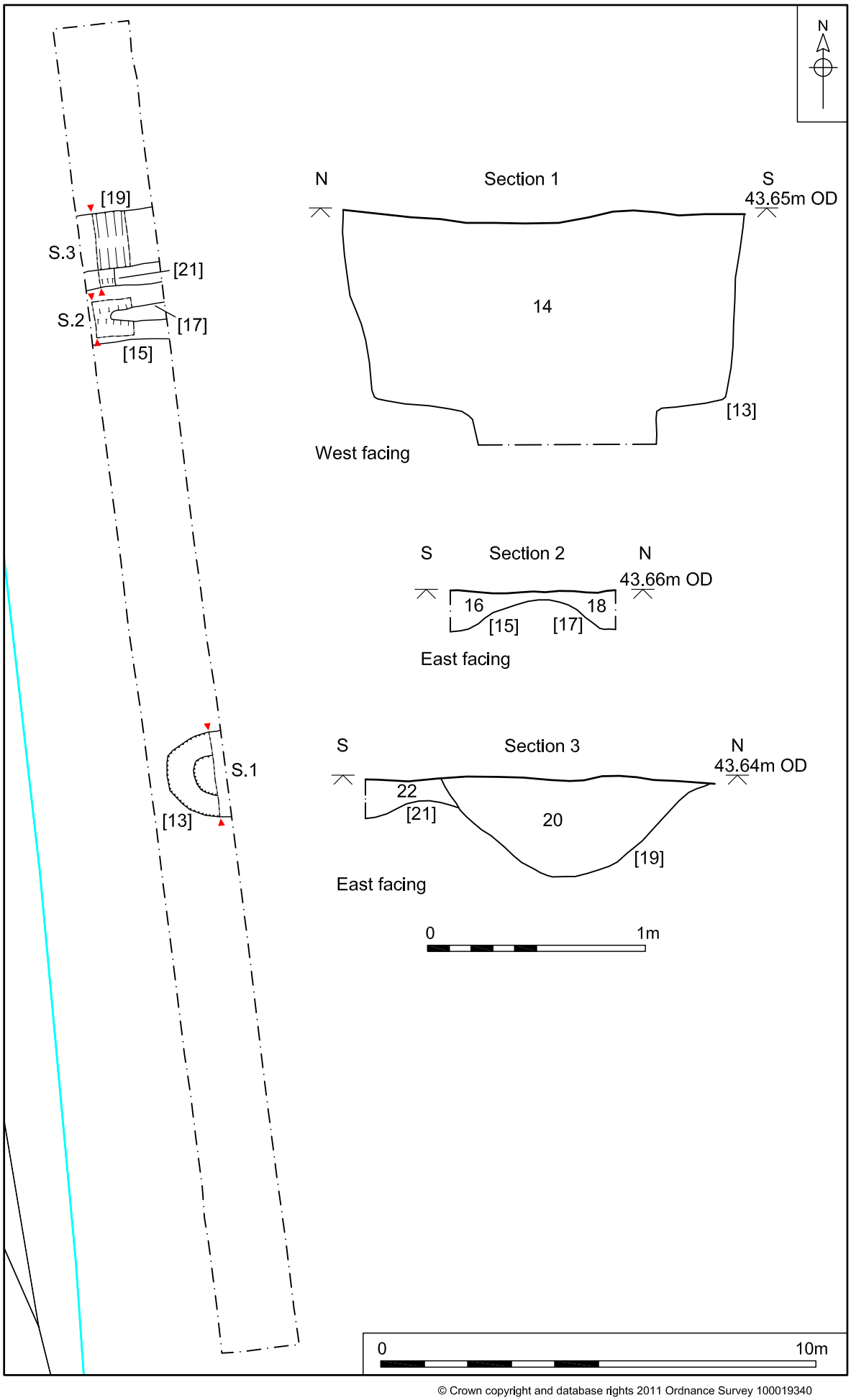

Figure 5. Trench 3, plan and sections. Scale 1:125 and 1:25

Trench 4

Fig. 2	
Location	
Orientation	North to south
North End	606776.406,235982.642
South End	606788.406,235955.149
Dimensions	
Length	30m
Width	1.8m
Depth	0.64m
Levels	
North End Top	43.159m OD
South End Top	42.367m OD

Context	Type	Description	Thickness	Depth BGL
27	Topsoil	Mid brown sandy silt	0.4m	0.0–0.4m
28	Subsoil	Pale brown sandy silt with moderate flint gravel	0.24m	0.4-0.64m

Discussion

No archaeological features or artefacts were present in this trench.

Trench 5

Figs 2 and 6	
Location	
Orientation	North to south
North End	606826.001,235884.886
South End	606841.403,235859.123
Dimensions	
Length	30m
Width	1.8m
Depth	0.85m
Levels	
North End Top	40.322m OD
South End Top	40.167m OD

Context	Type	Description	Thickness	Depth BGL
	Topsoil	Mid brown sandy silt	0.38m	0.0–0.38m
	Subsoil	Pale brown sandy silt with moderate flint gravel	0.47m	0.38-0.85m
11	Cut	Modern land drain. Heavily truncated by the edge of excavation	0.7m+	1.55m+
12	Fill of [11]	Mid brown sandy silt containing a land drain	0.7m+	1.55m+

Discussion

The land drain was aligned west to east.

No significant archaeological features or artefacts were present in this trench

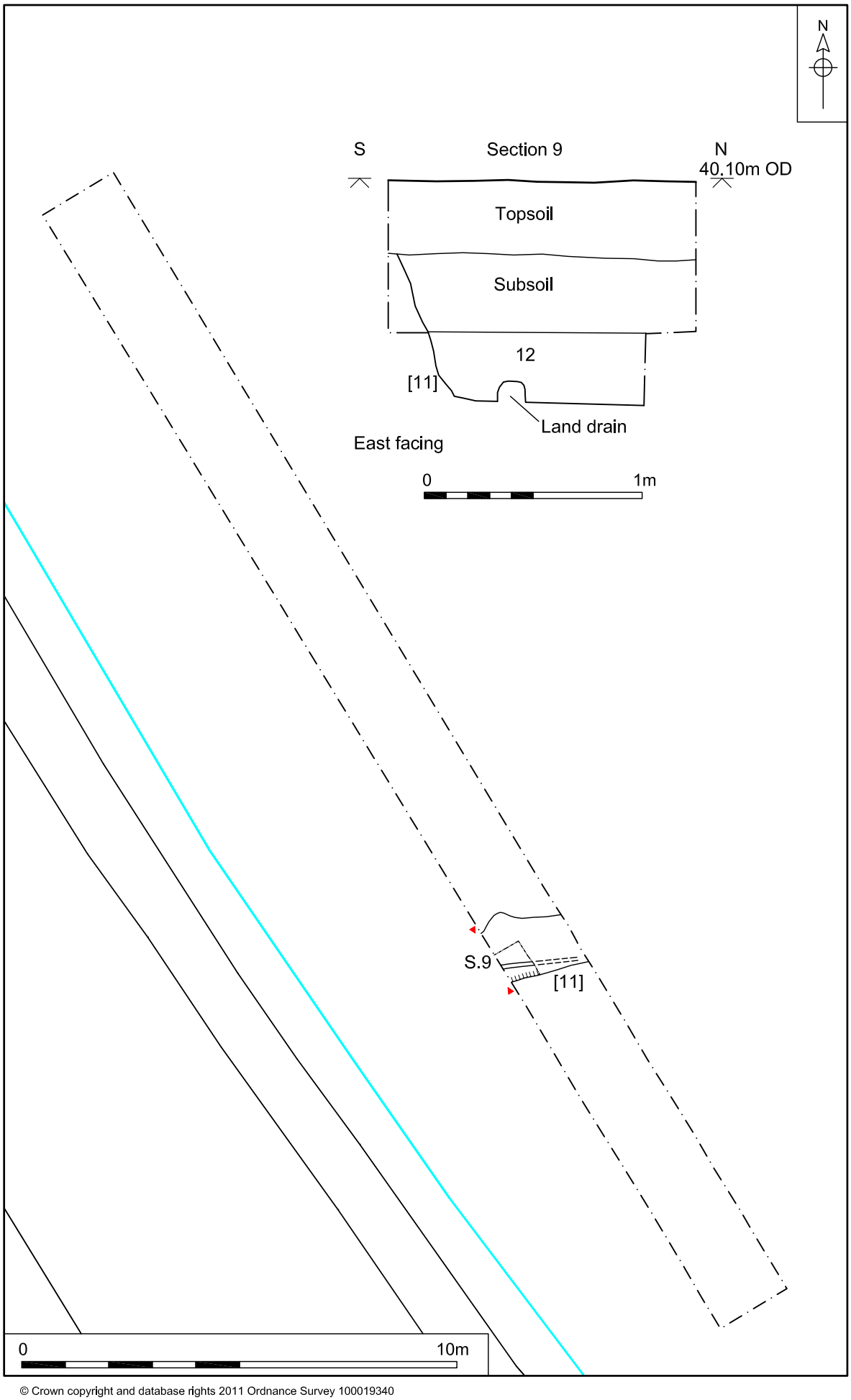

Figure 6. Trench 5, plan and section. Scale 1:125 and 1:25

Trench 6

Fig. 2	
Location	
Orientation	North to south
North End	606896.737,235811.079
South End	606914.770,235787.095
Dimensions	
Length	30m
Width	1.8m
Depth	0.5m
Levels	
North End Top	40.690m OD
South End Top	40.843m OD

Context	Type	Description	Thickness	Depth BGL
27	Topsoil	Mid brown sandy silt	0.3m	0.0–0.3m
28	Subsoil	Pale brown sandy silt with moderate flint gravel	0.2m	0.3-0.5m

Discussion

No significant archaeological features or artefacts were present in this trench.

Trench 7

Fig. 2	
Location	
Orientation	North to south
North End	606959.978,235721.006
South End	606976.936,235696.245
Dimensions	
Length	30m
Width	1.8m
Depth	0.5m
Levels	
North End Top	41.530m OD
South End Top	41.754m OD

Context	Type	Description	Thickness	Depth BGL
27	Topsoil	Mid brown sandy silt	0.3m	0.0–0.3m
28	Subsoil	Pale brown sandy silt with moderate flint gravel	0.2m	0.3-0.5m

Discussion

No significant archaeological features or artefacts present in this trench.

6.0 THE FINDS

6.1 The Prehistoric and Roman Pottery

by Andrew Peachey

6.1.1 Introduction

Trial-trench evaluation excavations recovered a total of seven sherds (36g) of prehistoric pottery, and two sherds (19g) of Roman pottery (Appendix 4a). The prehistoric pottery comprises small, slightly abraded fragments of Ardleigh style pottery dating to the early to middle Bronze Age, while the Roman pottery comprises a rim sherd of a colour-coated vessel and single un-diagnostic body sherd.

6.1.2 Methodology

The pottery was quantified by sherd count, weight and R.EVE in accordance with the guidelines set out by the Prehistoric Ceramics Research Group (PCRG 1995). Fabrics were examined at x20 magnification and assigned an alpha-numeric code. All data was entered into a Microsoft Excel spreadsheet that forms part of the site archive.

6.1.3 The Prehistoric Pottery

The seven sherds (36g) of prehistoric pottery occur entirely in a bonfire-fired, flint-tempered fabric with mottled orange to dark red-brown surfaces that fade to a dark grey core. The inclusions of the fabric comprise common, poorly-sorted, calcined flint (generally 0.5-3mm, occasionally larger).

Pit [5] (6) contained a single rim sherd from an urn with a slightly in-turned rim and small (2.5mm wide) pre-firing perforations 10mm below the rim. This type of vessel belongs to the Ardleigh Group of pottery, a distinctive Early to Middle Bronze Age (2nd millennium BC) ceramic style in north-east Essex and south-east Suffolk (Brown 1999, 78). The vessel in pit [5] (6) is comparable to vessels recorded in the cemetery at Ardleigh, *c*.6km to the south that forms the type-site for the ceramic style (Brown 1999, 97: figs.62.74 and 76). The remaining Early to Middle Bronze Age pottery comprises un-diagnostic body sherds contained in pit [7] (8) and topsoil (27).

6.1.4 The Roman Pottery

A single un-diagnostic body sherd (13g) of sandy greyware was recovered from topsoil (27) and may have been produced between the late 1st to 4th centuries AD. A rim sherd from a red colour-coated vessel was also found in topsoil (27), GPS 019.

6.2 The Post-Roman Pottery

by Sue Anderson

6.2.1 Introduction

Forty-one sherds of pottery weighing 493g were collected from four evaluation trench contexts. Table 1 shows the quantification by fabric; a summary catalogue by context is included as Appendix 4a.

Description	Fabric	Code	No	Wt/g	Eve	MNV
Early medieval ware	EMW	3.10	1	7		1
Medieval coarseware	MCW	3.20	15	70		9
Medieval coarseware gritty	MCWG	3.21	5	21	0.05	3
Hedingham coarseware	HCW	3.43	1	4		1
Colchester-type ware	COLC	4.21	6	101	0.07	6
Mill Green Ware	MGW	4.22	1	1		1
Essex sandy orange wares	ESOW	4.24	10	44	0.10	10
Siegburg Stoneware	GSW1	7.11	1	2		1
Total medieval			***40***	***250***	***0.22***	***32***
Post-medieval redwares	PMRW	6.10	1	84		1
English Stoneware	ESW	8.20	1	159		1
Total post-medieval			***2***	***243***	***0***	***2***

Table 1. Post-Roman pottery quantification by fabric

6.2.2 Methodology

Quantification was carried out using sherd count, weight and estimated vessel equivalent (eve). A full quantification by fabric, context and feature is available in the archive. All fabric codes were assigned from the Suffolk post-Roman fabric series, which includes Norfolk, Essex, Cambridgeshire and Midlands fabrics, as well as imported wares. Imports were identified from Jennings (1981). Form terminology follows MPRG (1998). Recording uses a system of letters for fabric codes together with number codes for ease of sorting in database format. The results were input directly onto an Access 97 database.

6.2.3 Medieval

The majority of sherds were of high medieval date and were types which are common on the Suffolk/Essex border. Most fragments were body sherds in medium sandy grey or orange fabrics. Four rims were present, a flat-topped everted jar (Essex type H1) in (14), a flat-topped everted bowl rim with thumbed decoration in (23), and two jugs in sandy orange ware and Colchester-type ware from (27). Only one glazed ware was present, a tiny sherd of ?Mill Green Ware with slip line decoration under colourless lead glaze. One import was also present, a body sherd of a Siegberg stoneware mug or jug. Although one sherd of early medieval ware was present, it was abraded, and it is likely that most of this group belongs to the 13th-15th centuries.

6.2.4 Post-medieval and Modern

One unglazed red earthenware body sherd was recovered from (22) – it has been recorded as post-medieval as it was found in association with an English stoneware base from a large storage vessel, but it may be earlier.

6.2.5 Pottery by context

A summary of the pottery by feature is provided in Table 2.

Ctxt	Fill Of	GPS	Description	Fabric	Spotdate
14	13		Pit fill	MCW, MCWG, ESOW, MGW, COLC, GSW1	M-L.13th c.
22	21		Pit fill	PMRW, ESW	19th/20th c.
23			Finds Ref Tr 3	MCW, HCW, MCWG	13th c.?
27		003	Topsoil	COLC	L.13th-M.16th c.
27		006	Topsoil	ESOW	L.12th-14th c.
27		008	Topsoil	MCW, ESOW	L.12th-14th c.
27		009	Topsoil	ESOW	L.12th-14th c.
27		011	Topsoil	EMW	11th-12th c.
27		022	Topsoil	MCW	L.12th-14th c.
27		024	Topsoil	COLC	L.13th-M.16th c.
27		027	Topsoil	MCWG	L.11th-13th c?
27		029	Topsoil	MCW	L.12th-14th c.

Table 2. Post-Roman pottery types present by trench and feature

The largest single group was from pit [14], which contained a range of medieval wares. Further medieval pottery was recovered from Trench 3 and topsoil, whilst the only post-medieval material came from pit [21].

6.2.6 Discussion

This small group is largely of medieval date and is typical of the range of fabrics available to the 13th-century inhabitants of south Suffolk. Whilst some of the pottery was almost certainly made in Essex, particularly at Sible Hedingham and in or near Colchester, some of these wares were probably made in Suffolk as well. Unfortunately no pottery production sites have yet been identified south of Ipswich. Only a small number of forms were identifiable and included largely Essex types, but these form a broad continuum with south Cambridgeshire and Suffolk, and it is likely that they were made at several kilns in the region. The assemblage is too small for further interpretation.

6.3 Ceramic building material

by Lucy Talbot

6.3.1 Introduction

A total of twenty-seven pieces of medieval and post medieval brick and roof tile, weighing 2,696g, were recovered from four contexts (Appendix 5). The assemblage was quantified by count and weight.

6.3.2 Medieval

Five fragments of plain medieval roof tile, weighing 106g, were recovered from pit [31] fill (14). Varying in thickness from between 10 to 14m, all of the pieces have course inclusions of crushed and burnt flint and grog. Most fragments show a partially reduced core.

6.3.3 Post medieval

The remainder of the assemblage consists of twenty-two brick and roof tile fragments of 18th- to 19th-century date weighing 2,590g. These include four pieces of orange coloured, medium sandy brick from pits [13] and [21] (fills (14) and (22) respectively) and three fragments of medium sandy roof tile also from fills (14) and (22) and layer (23) in Trench 3.

Fourteen pieces of brick and roof tile were also recovered from topsoil (27) during fieldwalking and given GPS references. These fragments were quantified and recorded prior to being discarded.

6.4 The Metal Finds

by Rebecca Sillwood

6.4.1 Introduction

A total of fifteen metal finds were recovered during the evaluation trenching and metal-detecting, from three contexts. The majority came from topsoil (27), and were allocated GPS numbers.

6.4.2 Medieval

A small oval copper alloy buckle (GPS 007), with integral forked spacer, was recovered from topsoil (27). The buckle frame has a lip on the outer edge, and has very obvious file marks on all visible surfaces. The drawn wire pin is wrapped around the buckle frame. The piece is quite small, being 34mm in overall length, and only 14mm wide. The piece is similar to examples dating to the later part of the 14th century (Egan and Pritchard 2008, p. 75, fig. 45, no.308).

Part of the body of a copper alloy thimble (GPS 026) was found in topsoil (27). It is decorated with hand-punched dots, with a plain border at the base. This piece could be late medieval to early post-medieval in date.

6.4.3 Post-medieval

A complete copper alloy stud (GPS 004), with a domed head and square sectioned shank was found in topsoil (27). This piece is identical to one published in *Norwich Households* (Margeson 1993, p. 83, fig. 48, no. 529) and measures 14mm in height, with the diameter of the dome being 13mm. These studs were probably used for furnishings, especially in the 16th and 17th centuries. A fragment of another copper alloy stud or tack (GPS 013), comprising of just the circular head, domed, with the stub of a shank underneath was also found in topsoil (27).

A copper alloy horse harness mount (GPS 010) dating to the 19th to early 20th centuries, was found in topsoil (27). The piece is cast oval shaped and plain, with four attachment lugs soldered onto the reverse. An identical example can be found in *History Beneath Our Feet* (Read 1995, p. 181, no. 1231).

A square copper alloy double-looped buckle (GPS 016) was recovered from topsoil (27). The piece is plain and undecorated, and is identical in style and dimensions (27mm x 26mm) to one published in Whitehead (1996, p. 75, no. 459), although this example is missing its pin. These buckles apparently date from the latter part of the 16th century through to the 18th century.

A roughly circular lead cloth seal (GPS 020) comprising of one disc measuring 28mm in diameter was recovered from topsoil (27). The disc has the numbers '31706' stamped into its face, with '582' beneath. On the reverse is the remains of the rivet and there are textile impressions from the bag or cloth which it once was used to seal. This piece is certainly not an early example, as the letters are too well executed; and is likely to be of 19th-century date.

6.4.4 Undated

Three iron nails were recovered from deposit (14), the fill of pit [13], and are undatable as they have no distinctive features.

Half a lead disc was recovered from the spoil (25) from Trench 6. This piece may simply be an offcut or waste, and as such remains undated.

A copper alloy ring (GPS 018) without defining features was recovered from the deposit (27); it could be a buckle, a brooch or a drape ring. A folded sheet of copper alloy (GPS 015) was also found in topsoil (27) as was a cast fragment of copper alloy (GPS 021).

6.5 The Coin

by Andrew Barnett

A single silver cut halfpenny of Henry III, 1217-1272, was recovered during metal-detecting. It came from the topsoil (GPS 002) and has been classed as an unstratified find.

This Class III halfpenny was minted by Hugo Le Rus at Ilchester in Somerset during the regional re-coinage of 1248-1250. The coin is a little worn and has been rather inexpertly halved (probably a local cutting for small change). Whole coins were divided into halves and quarters at the mint and in the greater economy to accommodate the ever present need for small change in day to day transactions. This was accomplished by cutting between the lines of the long cross. This particular coin has been cut at a slight angle off the vertical which bisects both arms of the cross. When the flan had been cut or snapped in two it left a 4mm remainder at the 6 o'clock position which still shows the incision/cut mark.

There are also signs that the coin has been clipped at some time. Flat areas can be seen on the flan's edge making the coin appear a little squared off.

Found in topsoil, this coin probably represents a stray loss.

6.6 Flint

by Andrew Peachey

6.6.1 Introduction

Trial-trench excavations and fieldwalking recovered a total of 6 fragments (59g) of struck flint (Table 3), of which only 2 were contained in archaeological features, while the remainder were un-stratified. This small group includes two scrapers and a serrated flake/denticulate that exhibit characteristics suggesting a later Neolithic to Early Bronze Age date of manufacture.

Flint type	No.	Weight (g)
Scrapers	2	50
Denticulate	1	5
Debitage	3	4
Total	*6*	*59*

Table 3: Total Quantification of Struck Flint

6.6.2 Methodology & Terminology

The flint was quantified by fragment count and weight (g), with all data entered into a Microsoft Excel spreadsheet that will be deposited as part of the archive. Flake type (see 'Dorsal cortex,' below) or implement type, patination, colour and condition were also recorded as part of this data set, along with free-text comments.

The term 'cortex' refers to the natural weathered exterior surface of a piece of flint, and the term 'patination' to the colouration of a flaked surface exposed by human or natural agency. Dorsal cortex is categorised after Andrefsky (2005, 104 & 115) with 'primary flake' referring to those with cortex covering 100% of the dorsal face; 'secondary flake' with 50-99%; 'tertiary' with 1-49% and 'un-corticated' to those with no dorsal cortex. A 'blade' is defined as an elongated flake whose length is at least twice as great as it's breadth, often exhibiting parallel dorsal flake scars (a feature that can assist in the identification of broken blades that, by definition, have an indeterminate length/breadth ratio). Terms used to describe implement and core types follow the system adopted by Healy (1988, 48-9).

6.6.3 Commentary

The struck flint occurs in raw material that ranges from mid and dark grey, to near black. Notably the two scrapers in the assemblage occur in the high quality near black raw flint, with one example manufactured in a flake blank and the other on a salvaged (possibly earlier Neolithic) debitage flake. Cortex, where present, is off-white and slightly pitted indicating it was sourced from chalk or secondary clay deposits, probably not from surface gravels. These traits suggest a degree of care was taken in the selection of raw flint for manufacture into implements.

Pit [5] (6) contained a single end scraper, associated with Early/Middle Bronze Age pottery and fired clay. The end scraper had been manufactured on an elongate flake with a triangular cross-section that preserved cortex on one side, patination on another, and was freshly struck on the remaining side and ends. Therefore it appears that this may have been an earlier Neolithic flake of debitage that was salvaged and modified later in prehistory. The bulbar end of the flake had been modified by the striking of flakes and pressure flaking to create a tapering point. The second scraper in the assemblage, recovered as un-stratified material from topsoil (26) of Trench 7, was formed by the application of abrupt retouch to one lateral edge of a sub-circular tertiary flake, probably a flake blank, with the opposing lateral edge backed by cortex. The denticulate, recovered from topsoil (27) (GPS028), is essentially an utilised tertiary flake that had three notched worked into one lateral edge. These types of implement are common throughout the Neolithic and Bronze Age periods, but the method of manufacture of these three implements suggests they were made in the later Neolithic/early Bronze Age. Three very small flakes of debitage, comprising tertiary and un-corticated

flakes were also recovered from pit [13] (14), topsoil (26) and (27) (GPS012), but do not have any diagnostic value.

6.7 The Fired Clay

by Andrew Peachey

Trial-trench evaluation excavations recovered a total 14 fragments (470g) of fired or baked clay, entirely contained in pit [5] (6) in Trench 1. The fragments are substantially abraded, with only very limited areas of original exterior surface extant.

The fabric of the fired clay has pale-mid orange surfaces that fade to a red-orange core, suggesting the object was fired or baked at a relatively low temperature. The fabric has inclusions of common quartz (generally 0.1-0.25mm, sparse grains to 0.5mm), sparse red iron ore or iron rich grains (0.25-2.5mm), and occasional streaks of white clay suggesting the worked clay was poorly mixed.

The form of the object is indicated by the approximately flat extant exterior surfaces on the two largest fragments in the group. One fragment has two surfaces at right angles, while another exhibits two parallel surfaces indicating a thickness of *c*.60mm. These characteristics suggest that the object may have been a clay slab, possibly for use in an oven or as a weight. Several Bronze Age examples, contemporary with the pottery in pit [5] (6) have been recorded at Ardleigh, *c*.6km to the south (Major 1999, 158).

6.8 Animal Bone

by Julie Curl

6.8.1 Methodology

The assessment was carried out following a modified version of guidelines by English Heritage (Davis 1992). All of the bone was examined to determine range of species and elements present. A note was also made of butchering or other modifications. When possible a record was made of age and any other relevant information, such as pathologies. Counts and weights were noted for each context. As this is a very small assemblage, the information was input directly into a table in this report.

6.8.2 The Assemblage

A total of 24g of faunal remains, consisting of two pieces, was recovered from evaluation excavations at East Bergolt. Remains were produced from two contexts, both of which produced a range of finds of prehistoric to post-medieval dates. The remains are in reasonable condition, although fragmentary from butchering and wear. Some weathering has occurred on the bone from (27), which would suggest the remains were exposed for some time before burial.

Context (14), the fill of pit [13], produced a single fragment of butchered cattle metatarsal. A cattle rib, which had been chopped, was produced from topsoil (27).

6.8.3 Conclusions

The remains in this assemblage are derived from the butchering and food waste of cattle.

7.0 THE ENVIRONMENTAL EVIDENCE

7.1 Plant Macrofossils and Other Material

by Val Fryer

7.1.1 Introduction and method statement

Evaluation trenching at East Bergholt recorded evidence of pits and a ditch of probable prehistoric date. Samples for the evaluation of the content and preservation of the plant macrofossil assemblages were taken, and six were submitted for assessment (Samples <1>, <2>, <3>, <4>, <5> and <6> from pits [1], [3], [5], [7] [13] and ditch [19] respectively).

The samples were processed by manual water flotation/washover and the flots were collected in a 300 micron mesh sieve. The dried flots were scanned under a binocular microscope at magnifications up to x16 and the plant macrofossils and other remains noted are listed in Appendix 6 (nomenclature follows Stace (1997)). All plant remains were charred. Modern seeds and fibrous roots were also recorded.

The non-floating residues were collected in a 1mm mesh sieve and will be sorted when dry. Any artefacts/ecofacts will be retained for further specialist analysis.

7.1.2 Results

The recovered assemblages were all small (<0.1 litres in volume), with most containing little other than fragments of charcoal/charred wood. However, cereal grains, including a single specimen of wheat (*Triticum* sp.), were noted within the assemblage from Sample <4> (pit [7], fill (8)) along with a persicaria (*Persicaria maculosa/lapathifolia*) seed. Onion-couch (*Arrhenatherum* sp.) tuber fragments were noted within Sample <1> (pit [1], fill (2)). The charcoal/charred wood fragments were mostly very small and abraded, although some larger pieces were noted within the assemblage from Sample <4>. Other remains were also scarce. Fragments of black porous and tarry material were present throughout at a very low density, and although most pieces were probably derived from the combustion of organic remains at very high temperatures, some fragments were very hard and brittle and were probably derivatives of the combustion of coal, small fragments of which were also present in all six assemblages. Minute pieces of burnt/calcined bone were noted within four samples (Samples <1>, <2>, <4>, <5>) and Sample <2> (pit [3], fill (4)) also contained small flecks of burnt or fired clay.

7.1.3 Conclusions

In summary, as the assemblages are so small and sparse, it would appear very unlikely that any of the remains are derived from the primary deposition of material within the feature fills. It is, therefore, difficult to evaluate the status of the site within the prehistoric landscape. However, all six assemblages do appear to contain anthropogenic remains, and it is suggested that these may be partly or wholly derived from small quantities of scattered or wind-blown domestic refuse or hearth waste, which were accidentally incorporated within the feature fills.

Although the current assemblages are sparse, they do illustrate that reasonably well-preserved plant remains, which may provide valuable data about prehistoric

settlement and land usage within this area of east Suffolk, are present within the archaeological horizon at East Bergholt.

If further interventions are planned, it is recommended that additional plant macrofossil samples of approximately 20–40 litres in volume are taken from all well-sealed and dated contexts recorded during excavation.

8.0 CONCLUSIONS

The most significant archaeological remains were recorded in Trenches 1 and 3, towards the northern end of the easement route.

In Trench 1 was a group of four roughly circular pits, two of which have been assigned an Early to Middle Bronze Age date. Small pit groups of this date are common throughout East Anglia in the prehistoric period. Their purpose or function remains unproven but it is likely that part of their function may be ritual and may be related to structured deposits in the ditches of causewayed enclosures, in Neolithic pit alignments and Iron Age pits.

In Trench 3 a feature which may have been a quarry pit or an aborted well dating to the mid to late 13th century was found. This, and the topsoil finds in the area, including a mid 13th-century coin, suggests a likelihood of settlement in the close vicinity at this period. Any settlement is likely to have been small scale and short-lived as the population reached its peak at this period before declining in the 14th century as the result of famine (*c.*1320) and plague (*c.*1349).

The presence of a layer of subsoil beneath the topsoil which sealed both the prehistoric remains in Trench 1 and the medieval pit in Trench 3 is similar in nature to subsoils of medieval to post-medieval date which are thought by the author to indicate the presence of ‘openfield’ type arable agriculture. In East Anglia this subsoil has been observed by the author to frequently post-date the desertion of small hamlets in the 13th century and can be associated with attempts to concentrate the population in fewer, larger villages and the imposition of more regular ‘openfield’ type arable regimes.

Recommendations for future work based upon this report will be made by Suffolk County Council Archaeological Service Conservation Team.

Acknowledgements

The fieldwork was conducted by Pete Crawley assisted by Stewart Calow.

The finds were processed by Lucy Talbot and recorded by Rebecca Sillwood. The prehistoric and Roman pottery, fired clay and flint were analysed by Andrew Peachey, the post-Roman pottery by Sue Anderson, the animal bone by Julie Curl and the ceramic building material by Lucy Talbot. The metal finds were reported on by Rebecca Sillwood and the coin by Andrew Barnett.

The fieldwork was monitored by Sarah Poppy of the Suffolk County Council Archaeological Service.

The figures were prepared by David Dobson and the report edited by Jayne Bown.

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Appendix 1a: Context Summary

Context	Category	Cut Type	Fill Of	Description	Trench
1	Cut	Pit		Small Pit	1
2	Deposit		1	Fill of [1]	1
3	Cut	Pit		Small Pit	1
4	Deposit		3	Fill of [3]	1
5	Cut	Pit		Small Pit	1
6	Deposit		5	Fill of [5]	1
7	Cut	Pit		Small Pit	1
8	Deposit		7	Fill of [7]	1
9	Cut	Ditch		Linear	2
10	Deposit		9	Fill of [9]	2
11	Cut	Feature		Uncertain	5
12	Deposit		12	Fill of [11]	5
13	Cut	Pit		Pit	3
14	Deposit		13	Fill of [13]	3
15	Cut	Ditch		Ditch	3
16	Deposit		15	Fill of [15]	3
17	Cut	Ditch		Ditch	3
18	Deposit		17	Fill of [17]	3
19	Cut	Ditch		Linear	3
20	Deposit		19	Fill of [19]	3
21	Cut	Pit		Post-med pit	3
22	Deposit		21	Fill of [21]	3
23	Finds Ref	-		Finds from Trench 3	3
24	Finds Ref	-		Finds from Trench 4	4
25	Finds Ref	-		Finds from Trench 5	5
26	Finds Ref	-		Finds from Trench 6	6
27	Deposit			Topsoil	1-7
28	Deposit			Subsoil	1-7
29	Deposit			Natural	1-7

Appendix 1b: OASIS Feature Summary

Period	Feature Type	Quantity
Prehistoric	Pit	4
?Prehistoric	Ditch	1
Medieval	Pit	1
Modern	Pit	1
	Ditch	2
Uncertain	Ditch	2

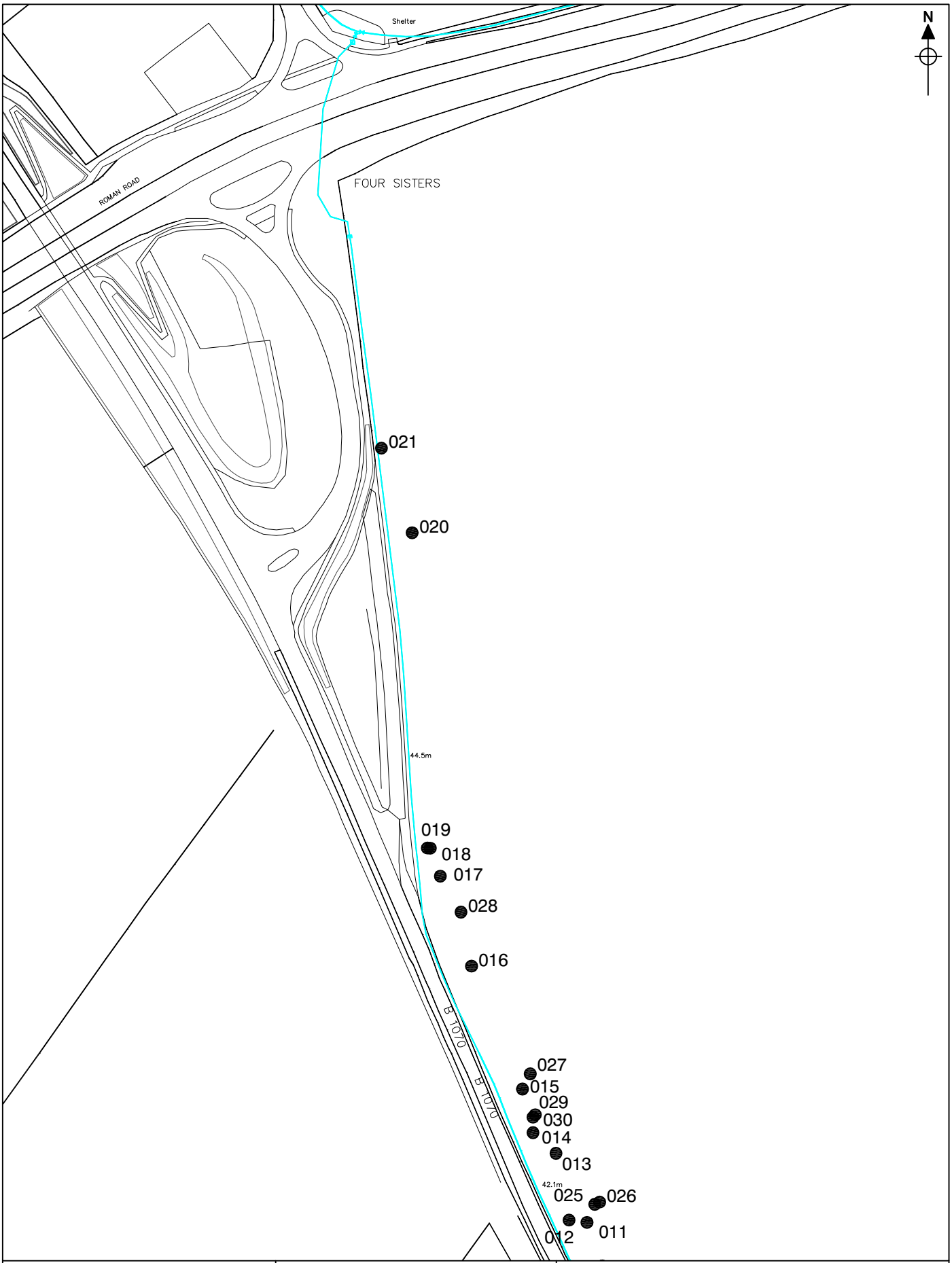
Appendix 2a: Finds by Context

Context	Material	Qty	Wt (g)	Period	Notes	Dimensions	GPS No.
6	Fired Clay	14	470	Unknown			
6	Flint – Struck	1	21	Prehistoric			
6	Pottery	1	6	Early/Middle Bronze Age			
8	Pottery	5	27	Early/Middle Bronze Age			
14	Animal Bone	1	6	Unknown			
14	Ceramic Building Material	5	106	Medieval	Roof tile		
14	Ceramic Building Material	2	43	Post-medieval	Roof tile and brick		
14	Flint – Struck	1	1	Prehistoric			
14	Iron	3	19	Unknown	Nails		
14	Pottery	25	119	Medieval	Mid to late 13th-century		
22	Ceramic Building Material	4	987	Post-medieval	Roof tile and brick		
22	Glass	1	79	Post-medieval	Bottle		
22	Pottery	2	243	Post-medieval	19th - 20th century		
23	Ceramic Building Material	1	27	Post-medieval	Roof tile; glazed		
23	Pottery	5	21	Medieval	13th-century		
24	Pottery	1	13	Roman			
24	Pottery	1	3	Early/Middle Bronze Age			
25	Lead	1	25	Unknown	Disc; cut in half		
26	Flint – Struck	2	31	Prehistoric			
27	Ceramic Building Material	1	237	Post-medieval	Brick; DISCARDED		001
27	Silver	1	1	Medieval	Coin; cut		002
27	Pottery	1	5	Medieval	Late 13th - mid 16th-century		003
27	Copper-Alloy	1	1	Post-medieval	Stud	H14 D13	004
27	Ceramic Building Material	1	18	Post-medieval	Roof tile; DISCARDED		005
27	Pottery	1	7	Medieval	Late 12th - 14th-century		006
27	Copper-Alloy	1	1	Medieval	Buckle; forked spacer	Buckle: L 12, W 14; Spacer L 23	007
27	Pottery	2	12	Medieval	Late 12th - 14th-century		008
27	Ceramic Building Material	2	46	Post-medieval	Roof tile; DISCARDED		009
27	Pottery	1	10	Medieval	Late 12th - 14th-century		009
27	Copper-Alloy	1	10	Post-medieval	Harness mount		010

Context	Material	Qty	Wt (g)	Period	Notes	Dimensions	GPS No.
27	Ceramic Building Material	2	53	Post-medieval	Roof tile; DISCARDED		011
27	Pottery	1	7	Medieval	11th - 12th-century		011
27	Flint – Struck	1	1	Prehistoric			012
27	Copper-Alloy	1	1	Post-medieval	Stud/ tack; head		GPS 013
27	Ceramic Building Material	3	73	Post-medieval	Roof tile; DISCARDED		GPS 014
27	Copper-Alloy	1	3	Unknown	Sheet; folded		GPS 015
27	Copper-Alloy	1	5	Post-medieval	Buckle; square; double-loop	L27 W26	GPS 016
27	Ceramic Building Material	3	34	Post-medieval	Roof tile; DISCARDED		GPS 017
27	Copper-Alloy	1	1	Unknown	Ring/ Buckle	D28	GPS 018
27	Pottery	1	6	Roman			GPS 019
27	Lead	1	8	Post-medieval	Bale seal	D28	GPS 020
27	Copper-Alloy	1	1	Unknown	Cast strip		GPS 021
27	Pottery	1	6	Medieval	Late 12th - 14th-century		GPS 022
27	Animal Bone	1	18	Unknown			GPS 023
27	Pottery	1	58	Medieval	Late 13th - Mid 16th-century		GPS 024
27	Ceramic Building Material	1	34	Post-medieval	Roof tile; DISCARDED		GPS 025
27	Copper-Alloy	1	1	Med./Post-Med.	Thimble; fragment; hand punched	L13 W13	GPS 026
27	Pottery	1	1	Medieval	Late 11th - 13th-century		GPS 027
27	Flint – Struck	1	5	Prehistoric			GPS 028
27	Pottery	1	4	Medieval	Late 12th - 14th-century		GPS 029
27	Ceramic Building Material	1	1,038	Post-medieval	Brick paving; DISCARDED		GPS 030

Appendix 2b: OASIS Finds Summary

Period	Material	Total
Prehistoric	Flint – Struck	6
	pottery	7
Roman	Pottery	2
Medieval	Ceramic Building Material	5
	Copper-Alloy	1
	Pottery	40
	Silver	1
Med./Post-Med.	Copper-Alloy	1
Post-medieval	Ceramic Building Material	21
	Copper-Alloy	4
	Glass	1
	Lead	1
	Pottery	2
Unknown	Animal Bone	2
	Copper-Alloy	3
	Fired Clay	14
	Iron	3
	Lead	1



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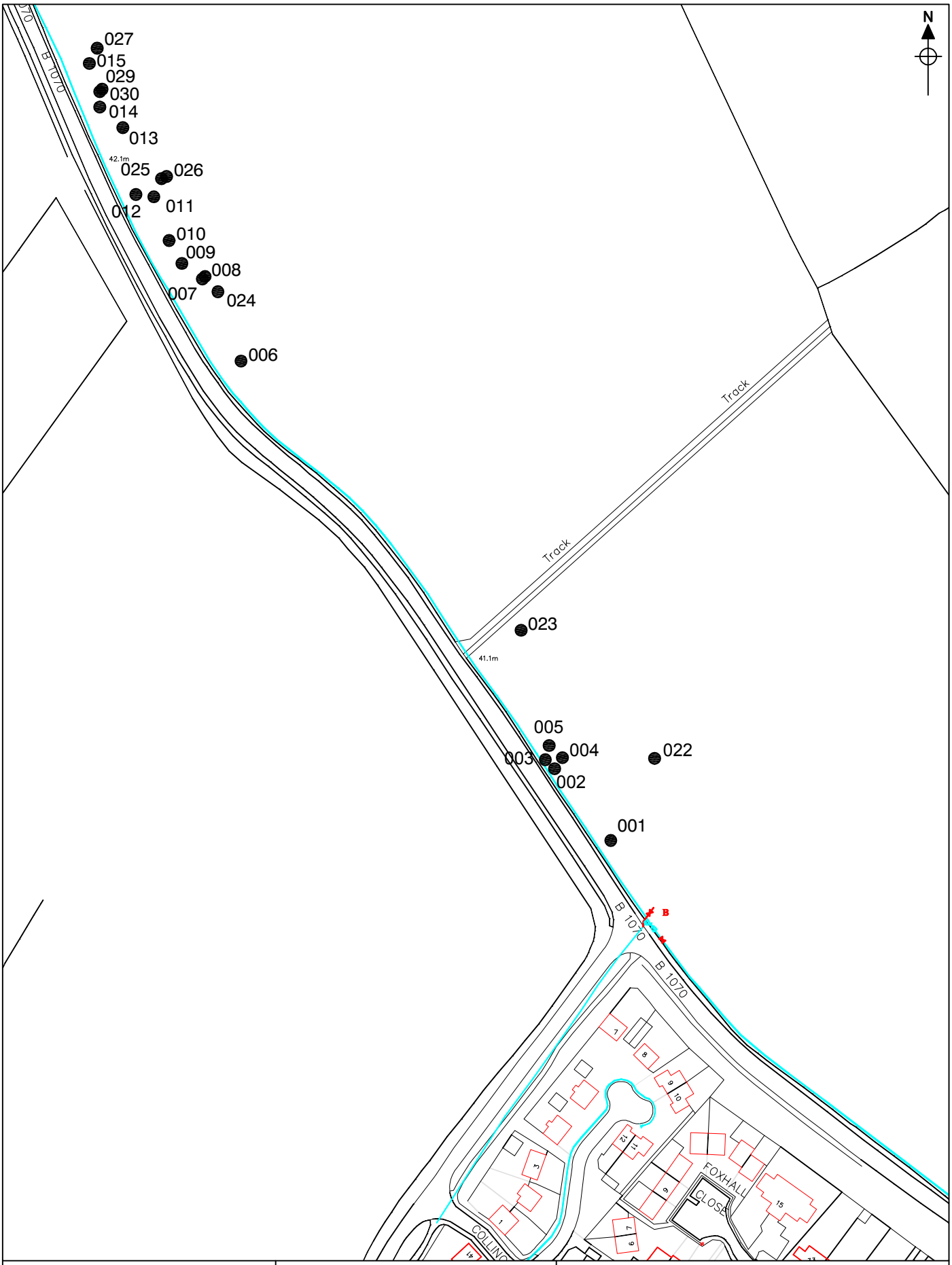
Checked by:DW	Issue:1	NAU Archaeology	Notes:



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Drawn by: AB	Date: 11/05/2011	nps group	Scale: 1:2000
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Appendix 4a: Prehistoric and Roman Pottery

						E/MBA		Roman	
						F1		GRS	
Feature	**Ctxt**	**Description**	**Date**	**Sherds**	**Wt (g)**	**sherds**	**Wt (g)**	**Sherds**	**Wt (g)**
5	6	Pit	E/MBA	*1*	*6*	1	6		
7	8	Pit	E/MBA	*5*	*27*	5	27		
24		Topsoil (Tr.4)	Roman	*2*	*16*	1	3	1	13
			Total	*8*	*49*	7	36	1	13

Prehistoric Fabrics

F1 Flint-tempered ware. Surfaces range from mid orange to dark red-brown, fading to a mid to dark grey core. Inclusions comprise common, poorly-sorted, calcined flint (generally 0.5-3m

Roman Fabrics

GRS Sandy grey ware, ubiquitous quartz sand tempered coarse ware

Appendix 4b: Post-Roman Pottery

Context	Fabric	Form	Rim	No	Wt/g		Spotdate
14	MCW			4	17		L.12th-14th c.
14	MCW			7	24		L.12th-14th c.
14	MCWG	jar	FTEV	1	13		M-L.13th c?
14	ESOW			7	24		L.12th-14th c.
14	MGW			1	1		L.13th-E.14th c.
14	COLC			3	5		L.13th-M.16th c.
14	COLC			1	33		L.13th-M.16th c.
14	GSW1			1	2		E.14th-17th c.
22	PMRW			1	84		16th-18th c.
22	ESW			1	159		17th-19th c.
23	HCW			1	4		L.12th-13th c.
23	MCWG			3	7		L.11th-13th c?
23	MCW	bowl	FTEV	1	10		13th c.?
27	COLC			1	5		L.13th-M.16th c.
27	ESOW			1	7		L.12th-14th c.
27	MCW			1	9		L.12th-14th c.
27	ESOW			1	3		L.12th-14th c.
27	ESOW	jug	UPPL	1	10		L.12th-14th c.
27	EMW			1	7		11th-12th c.
27	RBCC	jar?	BD	1	6		Rom
27	MCW			1	6		L.12th-14th c.
27	COLC	jug	UPPL	1	58		L.13th-M.16th c.
27	MCWG			1	1		L.11th-13th c?
27	MCW			1	4		L.12th-14th c.

Notes:
Rim: UPPL – upright plain; BD – beaded; FTEV – flat-topped everted.

Appendix 5: Ceramic Building Material

Context	Qty	Wt (g)	Period	Form	Notes	GPS No.
14	5	106	Medieval	Roof tile		
14	1	36	Post-medieval	Roof tile		
14	1	7	Post-medieval	Brick		
22	1	87	Post-medieval	Roof tile		
22	3	900	Post-medieval	Brick		
23	1	27	Post-medieval	Roof tile; glazed	Glazed	
27	1	237	Post-medieval	Brick	DISCARDED	001
27	1	18	Post-medieval	Roof tile	DISCARDED	005
27	2	46	Post-medieval	Roof tile	DISCARDED	009
27	2	53	Post-medieval	Roof tile	DISCARDED	011
27	3	73	Post-medieval	Roof tile	DISCARDED	014
27	3	34	Post-medieval	Roof tile	DISCARDED	017
27	1	34	Post-medieval	Roof tile	DISCARDED	025
27	1	1,038	Post-medieval	Brick, paving	DISCARDED	030

Appendix 6: Plant Macrofossils and Other Material

Sample No.	1	2	3	4	5	6
Context No.	**2**	**4**	**6**	**8**	**14**	**20**
Feature type	**Pit**	**Pit**	**Pit**	**Pit**	**Pit**	**Ditch**
Plant macrofossils						
Triticum sp. (grain)						
Cereal indet. (grain)						
Arrhenatherum sp. (tuber)						
Persicaria maculosa/lapathifolia						
Charcoal <2mm	xx	xx	xx	xx	x	x
Charcoal >2mm	xx	x	x	x	x	x
Charcoal >5mm				x		
Charred root/stem	x					
Indet.seed				x		
Other remains						
Black porous 'cokey' material	x	x	x	x	x	x
Black tarry material	x		x	x		
Bone	xb	xb		xb	xb	x
Burnt/fired clay		x				
Burnt/mineral replaced soil concretions		xx	x			
Small coal frags.	x	x	x	x	x	x
Sample volume (litres)	**14**	**14**	**14**	**14**	**28**	**28**
Volume of flot (litres)	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**
% flot sorted	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

x = 1–10 specimens xx = 11–50 specimens b = burnt

Suffolk County Council

The Archaeological Service

9-10 The Churchyard, Shire Hall
Bury St Edmunds
Suffolk
IP33 2AR

Brief and Specification for Archaeological Evaluation

B1070 REPLACEMENT SCHEME, EAST BERGHOLT, SUFFOLK

The commissioning body should be aware that it may have Health & Safety responsibilities.

1. The nature of the development and archaeological requirements

1.1 The installation of replacement water mains pipeline is to be undertaken alongside the B1070 at East Bergholt between TM 0700 3565 and TM 0671 3634, and measuring 760m in length. **Please contact the applicant for an accurate plan of the site.**

1.2 Anglian Water has been advised by Suffolk County Council Archaeological Service/Conservation Team (SCCAS/CT) that this development would require a scheme of archaeological investigation before the groundworks begin.

1.3 The proposed pipeline lies in an area of archaeological interest, recorded in the County Historic Environment Record. The route crosses a cropmark complex comprising a field system and probable Roman road (EBG 002), and in proximity to a known Roman settlement (EBG 027 and EBG 003). There is high potential for archaeological deposits to be disturbed by development in this area, and the proposed works would cause significant ground disturbance with the potential to damage any archaeological deposit that exists

1.4 The pipeline easement is c.760m long with a 6m topsoil strip (0.46 ha. in area), and is located at *c.*40 - 45m OD. The soils are deep loam to clay, and the land use is arable cultivation.

1.5 In order to inform the archaeological mitigation strategy, and as a first part of a staged scheme of archaeological evaluation work, the following fieldwork is required:

- A non-intrusive field-walking and metal-detecting survey for the pipeline easement; and
- A linear trenched evaluation of the area of stripped topsoil.

1.6 The results of this evaluation will enable the archaeological resource, both in quality and extent, to be accurately quantified, informing both development methodologies and mitigation measures. Decisions on the need for, and scope of, any further work should there be any archaeological finds of significance will be based upon the results of the evaluation and will be the subject of an additional brief.

1.7 All arrangements for the field evaluation of the site, the timing of the work, access to the site, the definition of the precise area of landholding and area for proposed development are to be defined and negotiated with the commissioning body.

1.8 Detailed standards, information and advice to supplement this brief are to be found in *Standards for Field Archaeology in the East of England*, East Anglian Archaeology Occasional Papers 14, 2003.

1.9 In accordance with the standards and guidance produced by the Institute for Archaeologists this brief should not be considered sufficient to enable the total execution of the project. A Written Scheme of Investigation (WSI) based upon this brief and the accompanying outline specification of minimum requirements, is an essential requirement. This must be submitted by the developers, or their agent, to the Conservation Team of the Archaeological Service of

Suffolk County Council (9-10 The Churchyard, Shire Hall, Bury St Edmunds IP33 2AR; telephone/fax: 01284 352443) for approval. The work must not commence until this office has approved both the archaeological contractor as suitable to undertake the work, and the WSI as satisfactory. The WSI will provide the basis for measurable standards and will be used to satisfy the requirements of the planning condition.

1.10 Before any archaeological site work can commence it is the responsibility of the developer to provide the archaeological contractor with either the contaminated land report for the site or a written statement that there is no contamination. The developer should be aware that investigative sampling to test for contamination is likely to have an impact on any archaeological deposit which exists; proposals for sampling should be discussed with the Conservation Team of the Archaeological Service of SCC (SCCAS/CT) before execution.

1.11 The responsibility for identifying any constraints on field-work, e.g. Scheduled Monument status, Listed Building status, public utilities or other services, tree preservation orders, SSSIs, wildlife sites &c., ecological considerations rests with the commissioning body and its archaeological contractor. The existence and content of the archaeological brief does not over-ride such constraints or imply that the target area is freely available.

1.12 Any changes to the specifications that the project archaeologist may wish to make after approval by this office should be communicated directly to SCCAS/CT and the client for approval.

1.13 All arrangements for the excavation of the site, the timing of the work, access to the site, the definition of the precise area of landholding and area for proposed development are to be defined and negotiated by the archaeological contractor with the commissioning body.

2. Brief for the Archaeological Evaluation

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

2.2 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.

2.3 Evaluate the likely impact of past land uses, and the possible presence of masking colluvial/alluvial deposits.

2.4 Establish the potential for the survival of environmental evidence.

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

2.6 This project will be carried through in a manner broadly consistent with English Heritage's *Management of Archaeological Projects,* 1991 (*MAP2*), all stages will follow a process of assessment and justification before proceeding to the next phase of the project. Field evaluation is to be followed by the preparation of a full archive, and an assessment of potential. Any further excavation required as mitigation is to be followed by the preparation of a full archive, and an assessment of potential, analysis and final report preparation may follow. Each stage will be the subject of a further brief and updated project design; this document covers only the evaluation stage.

2.7 The developer or his archaeologist will give SCCAS/CT (address as above) five working days notice of the commencement of ground works on the site, in order that the work of the archaeological contractor may be monitored.

2.8 If the approved evaluation design is not carried through in its entirety (particularly in the instance of trenching being incomplete) the evaluation report may be rejected. Alternatively the presence of an archaeological deposit may be presumed, and untested areas included on this basis when defining the final mitigation strategy.

2.9 An outline specification, which defines certain minimum criteria, is set out below.

3. Specification: Field-walking and metal-detecting survey

3.1 A systematic field-walking and non-ferrous metal-detecting survey is to be undertaken along the entire working corridor, 20.00m in width. The strategy for assessing the artefact content of the topsoil must be presented in the WSI.

4. Specification: Trenched Evaluation

4.1 Trial trenches are to be excavated to cover 5% by area, which is *c.*228m^2. These shall be positioned to sample all parts of the easement route. Trenches are to be a minimum of 1.80m wide unless special circumstances can be demonstrated; this will result in *c.*127.00m of trenching at 1.80m in width.

4.2 If excavation is mechanised a toothless 'ditching bucket' 1.80m wide must be used. A scale plan showing the proposed locations of the trial trenches should be included in the WSI and the detailed trench design must be approved by SCCAS/CT before field work begins.

4.3 The topsoil may be mechanically removed using an appropriate machine with a back-acting arm and fitted with a toothless bucket, down to the interface layer between topsoil and subsoil or other visible archaeological surface. All machine excavation is to be under the direct control and supervision of an archaeologist. The topsoil should be examined for archaeological material.

4.4 The top of the first archaeological deposit may be cleared by machine, but must then be cleaned off by hand. There is a presumption that excavation of all archaeological deposits will be done by hand unless it can be shown there will not be a loss of evidence by using a machine. The decision as to the proper method of excavation will be made by the senior project archaeologist with regard to the nature of the deposit.

4.5 In all evaluation excavation there is a presumption of the need to cause the minimum disturbance to the site consistent with adequate evaluation; that significant archaeological features, e.g. solid or bonded structural remains, building slots or post-holes, should be preserved intact even if fills are sampled. For guidance:

For linear features, 1.00m wide slots (min.) should be excavated across their width;

For discrete features, such as pits, 50% of their fills should be sampled (in some instances 100% may be requested).

4.6 There must be sufficient excavation to give clear evidence for the period, depth and nature of any archaeological deposit. The depth and nature of colluvial or other masking deposits must be established across the site.

4.7 Archaeological contexts should, where possible, be sampled for palaeoenvironmental remains. Best practice should allow for sampling of interpretable and datable archaeological deposits and provision should be made for this. The contractor shall show what provision has been made for environmental assessment of the site and must provide details of the sampling strategies for retrieving artefacts, biological remains (for palaeoenvironmental and palaeoeconomic investigations), and samples of sediments and/or soils (for micromorphological and other pedological/sedimentological analyses. Advice on the appropriateness of the proposed strategies will be sought from Dr Helen Chappell, English

Heritage Regional Adviser for Archaeological Science (East of England). A guide to sampling archaeological deposits (Murphy, P.L. and Wiltshire, P.E.J., 1994, *A guide to sampling archaeological deposits for environmental analysis*) is available for viewing from SCCAS.

4.8 Any natural subsoil surface revealed should be hand cleaned and examined for archaeological deposits and artefacts. Sample excavation of any archaeological features revealed may be necessary in order to gauge their date and character.

4.9 Metal detector searches must take place at all stages of the excavation by an experienced metal detector user.

4.10 All finds will be collected and processed (unless variations in this principle are agreed SCCAS/CT during the course of the evaluation).

4.11 Human remains must be left *in situ* except in those cases where damage or desecration are to be expected, or in the event that analysis of the remains is shown to be a requirement of satisfactory evaluation of the site. However, the excavator should be aware of, and comply with, the provisions of Section 25 of the Burial Act 1857.

4.12 Plans of any archaeological features on the site are to be drawn at 1:20 or 1:50, depending on the complexity of the data to be recorded. Sections should be drawn at 1:10 or 1:20 again depending on the complexity to be recorded. All levels should relate to Ordnance Datum. Any variations from this must be agreed with SCCAS/CT.

4.13 A photographic record of the work is to be made, consisting of both monochrome photographs and colour transparencies and/or high resolution digital images.

4.14 Topsoil, subsoil and archaeological deposit to be kept separate during excavation to allow sequential backfilling of excavations.

4.15 Trenches should not be backfilled without the approval of SCCAS/CT.

5. General Management

5.1 A timetable for all stages of the project must be agreed before the first stage of work commences, including monitoring by SCCAS/CT. The archaeological contractor will give not less than five days written notice of the commencement of the work so that arrangements for monitoring the project can be made.

5.2 The composition of the archaeology contractor staff must be detailed and agreed by this office, including any subcontractors/specialists. For the site director and other staff likely to have a major responsibility for the post-excavation processing of this evaluation there must also be a statement of their responsibilities or a CV for post-excavation work on other archaeological sites and publication record. Ceramic specialists, in particular, must have relevant experience from this region, including knowledge of local ceramic sequences.

5.3 It is the archaeological contractor's responsibility to ensure that adequate resources are available to fulfil the Brief.

5.4 A detailed risk assessment must be provided for this particular site.

5.5 No initial survey to detect public utility or other services has taken place. The responsibility for this rests with the archaeological contractor.

5.6 The Institute for Archaeologists' *Standard and Guidance for archaeological field evaluation* (revised 2001) should be used for additional guidance in the execution of the project and in drawing up the report.

6. Report Requirements

6.1 An archive of all records and finds must be prepared consistent with the principles of English Heritage's *Management of Archaeological Projects*, 1991 (particularly Appendix 3.1 and Appendix 4.1).

6.2 The report should reflect the aims of the WSI.

6.3 The objective account of the archaeological evidence must be clearly distinguished from its archaeological interpretation.

6.4 An opinion as to the necessity for further evaluation and its scope may be given. No further site work should be embarked upon until the primary fieldwork results are assessed and the need for further work is established.

6.5 Reports on specific areas of specialist study must include sufficient detail to permit assessment of potential for analysis, including tabulation of data by context, and must include non-technical summaries.

6.6 The Report must include a discussion and an assessment of the archaeological evidence, including an assessment of palaeoenvironmental remains recovered from palaeosols and cut features. Its conclusions must include a clear statement of the archaeological potential of the site, and the significance of that potential in the context of the Regional Research Framework (*East Anglian Archaeology*, Occasional Papers 3 & 8, 1997 and 2000).

6.7 The results of the surveys should be related to the relevant known archaeological information held in the County Historic Environment Record (HER).

6.8 A copy of the Specification should be included as an appendix to the report.

6.9 The project manager must consult the County HER Officer (Dr Colin Pendleton) to obtain an HER number for the work. This number will be unique for each project or site and must be clearly marked on any documentation relating to the work.

6.10 Finds must be appropriately conserved and stored in accordance with *UK Institute of Conservators Guidelines*.

6.11 Every effort must be made to get the agreement of the landowner/developer to the deposition of the full site archive, and transfer of title, with the intended archive repository before the fieldwork commences. If this is not achievable for all or parts of the finds archive then provision must be made for additional recording (e.g. photography, illustration, scientific analysis) as appropriate.

6.12 The project manager should consult the intended archive repository before the archive is prepared regarding the specific requirements for the archive deposition and curation, and regarding any specific cost implications of deposition.

6.13 If the County Store is the intended location of the archive, the project manager should consult the SCCAS Archive Guidelines 2010 and also the County Historic Environment Record Officer regarding the requirements for the deposition of the archive (conservation, ordering, organisation, labelling, marking and storage) of excavated material and the archive. A clear statement of the form, intended content, and standards of the archive is to be submitted for approval as an essential requirement of the WSI.

6.14 The WSI should state proposals for the deposition of the digital archive relating to this project with the Archaeology Data Service (ADS), and allowance should be made for costs incurred to ensure the proper deposition (http://ads.ahds.ac.uk/project/policy.html).

6.15 Where positive conclusions are drawn from a project (whether it be evaluation or excavation) a summary report, in the established format, suitable for inclusion in the annual 'Archaeology in Suffolk' section of the *Proceedings of the Suffolk Institute for Archaeology*, must be prepared. It should be included in the project report, or submitted to SCCAS/CT, by the end of the calendar year in which the evaluation work takes place, whichever is the sooner.

6.17 County HER sheets must be completed, as per the County HER manual, for all sites where archaeological finds and/or features are located.

6.18 An unbound copy of the evaluation report, clearly marked DRAFT, must be presented to SCCAS/CT for approval within six months of the completion of fieldwork unless other arrangements are negotiated with the project sponsor and SCCAS/CT.

Following acceptance, two copies of the report should be submitted to SCCAS/CT together with a digital .pdf version.

6.19 Where appropriate, a digital vector trench plan should be included with the report, which must be compatible with MapInfo GIS software, for integration in the County HER. AutoCAD files should be also exported and saved into a format that can be can be imported into MapInfo (for example, as a Drawing Interchange File or .dxf) or already transferred to .TAB files.

6.20 At the start of work (immediately before fieldwork commences) an OASIS online record http://ads.ahds.ac.uk/project/oasis/ must be initiated and key fields completed on Details, Location and Creators forms.

6.21 All parts of the OASIS online form must be completed for submission to the County HER. This should include an uploaded .pdf version of the entire report (a paper copy should also be included with the archive).

Specification by: Sarah Poppy

Suffolk County Council
Archaeological Service Conservation Team
9-10 The Churchyard, Shire Hall
Bury St Edmunds
Suffolk IP33 2AR
Tel: 01284 352199
Email: sarah.poppy@suffolk.gov.uk

Date: 10 December 2010 Ref: EastBergholt_B1070replacementscheme_2010

This brief and specification remains valid for six months from the above date. If work is not carried out in full within that time this document will lapse; the authority should be notified and a revised brief and specification may be issued.

If the work defined by this brief forms a part of a programme of archaeological work required by a Planning Condition, the results must be considered by the Conservation Team of the Archaeological Service of Suffolk County Council, who have the responsibility for advising the appropriate Planning Authority.