



**CCC AFU Report Number 916**

**Early Medieval Remains on  
Land South of Isaacson Road,  
Burwell, Cambridgeshire**

---

**An Archaeological Evaluation**

Mo Muldowney BA PIFA

With contributions by Carole Fletcher BA  
Rachel Fosberry HNC (Cert Ed) AEA  
Tom Eley BSc MSc

Site Code: BUR ISR 06  
CHER Event Number: ECB 2414  
Date of works: 6th to 14th November 2006  
Grid Ref: TL 9910 6587

Status	Draft		
Author	Mo Muldowney		
Checked By	Aileen Connor		
Authorised By			

Editor: Aileen Connor  
Illustrator: Crane Begg B.Sc.(Hons)

## **Summary**

Cambridgeshire County Council Archaeological Field Unit was commissioned by Upware Marinas Limited to undertake an archaeological evaluation on land south of Isaacson Road, Burwell. The work took place from 7th to 14th November 2006.

Archaeological features were identified in all seven trenches and consisted of pits, ditches, postholes and possible ploughscars. The pottery assemblage suggests that the site dates to the medieval period - although many features were undated. No evidence for domestic occupation was identified but there may be evidence for clunch extraction, water extraction (via wells) and iron smithing.

## Contents

<b>1</b>	<b>Introduction</b>	<b>1</b>
<b>2</b>	<b>Geology and Topography</b>	<b>1</b>
<b>3</b>	<b>Archaeological and Historical Background</b>	<b>1</b>
	3.1 Prehistoric	1
	3.2 Iron Age and Roman	1
	3.3 Anglo-Saxon	3
	3.4 Late Anglo-Saxon/Medieval	3
<b>4</b>	<b>Methodology</b>	<b>3</b>
<b>5</b>	<b>Results</b>	<b>4</b>
	5.1 Trench 1	5
	5.2 Trench 2	8
	5.3 Trench 3	9
	5.4 Trench 4	9
	5.5 Trench 5	13
	5.6 Trench 6	14
	5.7 Trench 7	15
<b>6</b>	<b>Discussion</b>	<b>18</b>
<b>7</b>	<b>Conclusions</b>	<b>21</b>
	<b>Acknowledgements</b>	<b>22</b>
	<b>Bibliography</b>	<b>22</b>
	<b>List of Figures</b>	
	Figure 1: The development area (red), showing the trench locations (black)	2
	Figure 2: Trench plans	6
	Figure 3: Section drawings	7
	Figure 4: Geophysical survey overlain with evaluation trenches	18
<b>8</b>	<b>List of Appendices</b>	
	Appendix 1: Context Summary	23
	Appendix 2: Pottery Assemblage by Carole Fletcher	28
	Appendix 3: Animal Bone by Mo Muldowney	31
	Appendix 4: Slag Assemblage by Tom Eley and Mo Muldowney	32
	Appendix 5: Environmental Remains by Rachel Fosberry	34

<b>Appendix 6: Other Finds by Mo Muldowney</b>	<b>36</b>
<b>Appendix 7: Gradiometer Survey by Peter Masters</b>	<b>38</b>

# Drawing Conventions

## Sections

Limit of Excavation	- - - - -
Cut	—————
Cut-Conjectured	- - - - -
Deposit Horizon	—————
Deposit Horizon - Conjectured	- - - - -
Intrusion/Truncation	- - - - -
Top Surface/Top of Natural	—————
Break in Section/ Limit of Section Drawing	- - - - -
Cut Number	118
Deposit Number	117
Ordnance Datum	18.45m OD ⌘
Inclusions	Ⓞ

## Plans

Limit of Excavation	—————
Deposit - Conjectured	- - - - -
Natural Features	—————
Sondages/Machine Strip	- - - - -
Intrusion/Truncation	- - - - -
Illustrated Section	————— S.14
Archaeological Deposit	<span style="display: inline-block; width: 20px; height: 10px; background-color: #f4a460; border: 1px solid black;"></span>
Excavated Slot	<span style="display: inline-block; width: 20px; height: 10px; background-color: #d3d3d3; border: 1px solid black;"></span>
Modern Deposit	<span style="display: inline-block; width: 20px; height: 10px; background-color: #add8e6; border: 1px solid black;"></span>
Cut Number	118

## **1 Introduction**

This archaeological evaluation was undertaken in accordance with a Brief issued by Kasia Gdaniec of the Cambridgeshire Archaeology, Planning and Countryside Advice team (CAPCA; Planning Application E/05/01403/OUT), supplemented by a Specification prepared by Cambridgeshire County Council Archaeological Field Unit (CCC AFU).

The work was designed to assist in defining the character and extent of any archaeological remains within the proposed redevelopment area, in accordance with the guidelines set out in *Planning and Policy Guidance 16 - Archaeology and Planning* (Department of the Environment 1990). The results will enable decisions to be made by CAPCA, on behalf of the Local Planning Authority, with regard to the treatment of any archaeological remains found.

The site archive is currently held by CCC AFU and will be deposited with the appropriate county stores in due course.

## **2 Geology and Topography**

The site overlies lower chalk deposits (British Geological Survey 1981), and is located on an area of high ground at the south of Burwell village. The land itself slopes slightly from the north (just below 18m OD) to the south (16m OD).

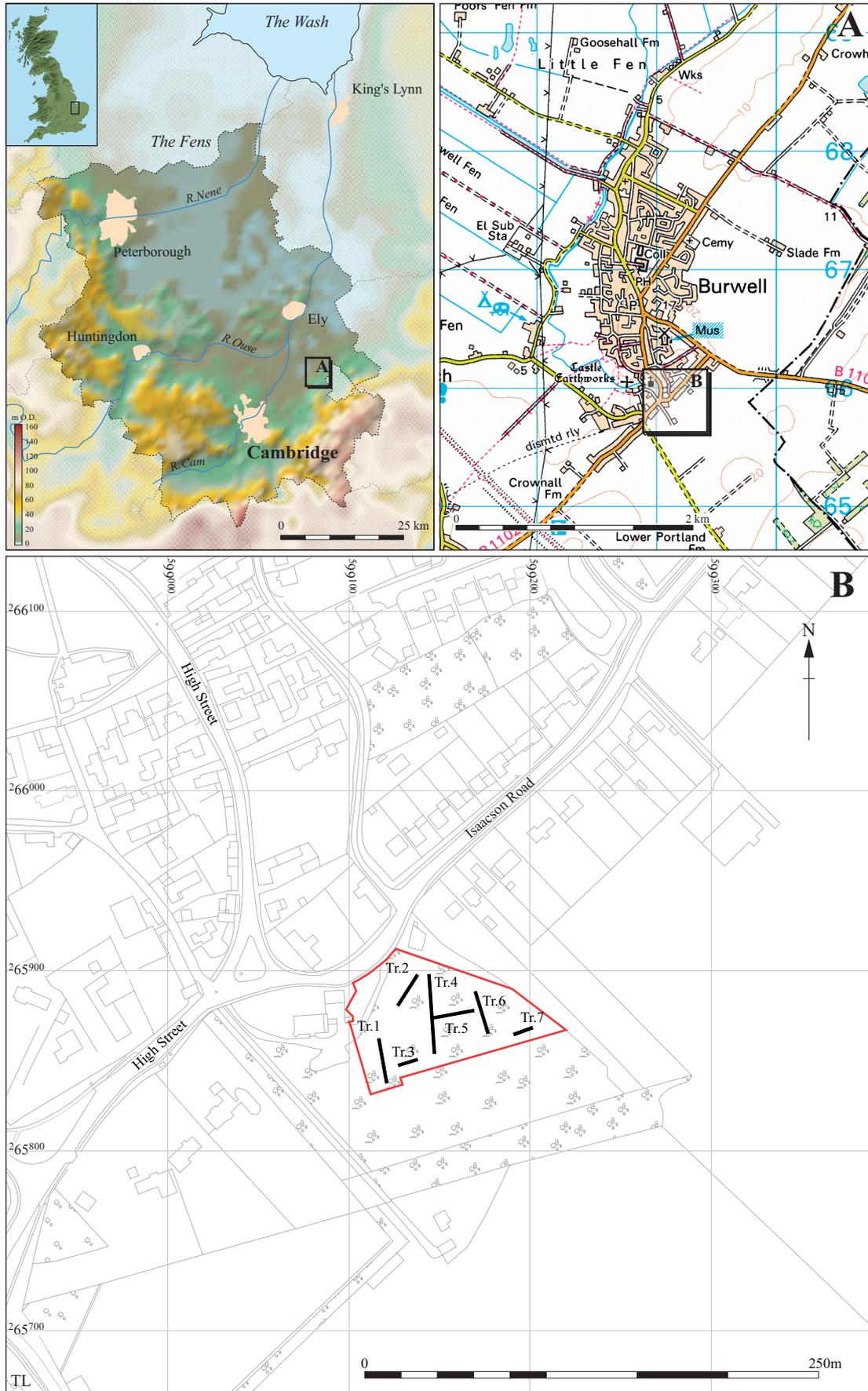
## **3 Archaeological and Historical Background**

### **3.1 Prehistoric**

A Bronze Age hoard of bronze spear heads, chisels, and other implements (MCB7848) has been found in St Mary's church yard to the north of the subject site. Excavations at Station Gate, 300m to the west, uncovered a single severely truncated crouched burial likely to be prehistoric in date.

### **3.2 Iron Age and Roman**

Roman settlement is known to have been located beneath Burwell Castle (SAM29382). Excavations to the west of the development site in 2001 and 2002 at Station Gate/Railway Close found the remains of ditches, a possible corn drying oven and a single burial all dating to the Roman period (CCC AFU BUR RR 02).



© Crown Copyright. All rights reserved Cambridgeshire County Council 100023205 2006

Figure 1 Location of trenches (black) with the development area outlined (red)

### 3.3 Anglo-Saxon

Remains of possible Saxon post-built structures and a possible Sunken-featured Building (SFB) have been found in recent excavations at Station Gate/Railway Close (CCC AFU BUR RR02). In addition, an early to mid Saxon inhumation cemetery (CHER 06764) was excavated in the early 20th century between what is currently Newmarket Road and Mill Lane.

### 3.4 Late Anglo-Saxon/Medieval

The remains of a nationally important Conquest period castle are located to the north of the development area (SAM29382). At Station Gate excavations uncovered 11th – 15th century settlement remains including the remains of a later medieval Lime Kiln and a lode channel. Closer to the development area is an early 14th century manor house (MCB8213, LB003493). Another manor house (17th century) is located further along the High Street to the north.

## 4 Methodology

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

A geophysical (Gradiometer) survey was undertaken in the areas of the proposed house plots in advance of trial trenching as it was thought that the geology (lower chalk) would be responsive, particularly with respect to potential prehistoric features that may be present. The geophysical survey was undertaken by a specialist sub-contractor (Peter Masters).

The Brief required that 5% of the 0.52ha development area would be evaluated. Seven trenches were excavated measuring 1.5m wide with a total length of approximately 160m. Four of these trenches (4, 5, 6 and 7) were located to test possible anomalies identified during the geophysical survey.

Machine excavation was carried out under constant archaeological supervision with a tracked 360 excavator using a flat-bladed, toothless ditching bucket.

All archaeological features and deposits were recorded using CCC AFU's *pro-forma* sheets. Trench locations, plans and sections were recorded at appropriate scales and colour and monochrome photographs were taken of all relevant features and deposits.

Three environmental samples, at no more than 10 litres per sample were taken. As organic material is not well preserved in chalk, it was decided to limit the number of samples taken to those deposits that were seen to contain visible material, such as possible coprolites, slag, or organic material.

The development area is currently a garden containing and surrounded by mature trees set in lawn. Prior to the evaluation, some of the trees not under a Tree Protection Order (TPO) were felled; the remainder were protected by securely fastened Heras fencing panels. All trenches were located away from both the canopy and designated root protection areas.

Conditions were good for the season, with clear dry, warm weather. Mechanical excavation was quickly achieved through the loose topsoil, except in Trench 7, where all deposits were extremely compact and stripping took longer. Hand excavation also proved more strenuous and time-consuming than usual as many of the fills encountered were in a concreted state or comprised of loose, angular chalk blocks. In addition, the degree of confidence regarding clarity of the archaeological features was variable. In Trench 1 and 3 the natural chalk was heavily affected by root disturbance from a row of Lawson Cypress (Hayden's, 2005) causing uncertainty as to the clarity and extent of archaeological features. In order to resolve this, Trench 3, which had the densest rooting disturbance, was thoroughly hoed to improve clarity. In Trench 6 an area thought to be the natural chalk was revealed as a compacted chalk fill. No problems were encountered in the remaining trenches.

## **5 Results**

Archaeological features were identified in all seven trenches (Fig. 1) and comprised ditches, pits, postholes and plough scars. These features are described below, on a trench-by-trench basis.

A table summarising depths and Ordnance Datum heights follows the results section for each trench. A context summary is included in Appendix 1.

All trenches contained the expected lower chalk geology. It was predominantly white in colour with isolated patches of whitish pink and whitish yellow chalk in trenches 5 and 6. In the south-west corner of the development area the chalk was severely damaged by root activity, primarily from a row of Lawson Cypress (Hayden's, 2005) that previously stood parallel to the site's western boundary.

Subsoil (3) was encountered in trenches 4, 6 and 7 only and is described as pale greyish brown chalky clay. It varied in thickness from

0.1m to 0.44m. The topsoil, dark greyish brown silty clay (1) was ubiquitous and varied in thickness from 0.08m to 0.53m.

## 5.1 Trench 1

Trench 1 (Fig. 2) was located in the south-west corner of the development area on a north-north-west to south-south-east alignment. It was 25m long and contained four ditches, three pits and one posthole. All features had been greatly disturbed by root intrusion. No subsoil was encountered in this trench. Topsoil depths are included in Table 1, below.

Location of level in trench	Height (m OD)	Depth (m)
South-south east end top	16.54	0.53
South-south east end base	16.01	
North-north-west end top	16.66	0.26
North-north-west end base	16.40	

Table 1: Trench 1 (and topsoil) depths with corresponding Ordnance Datum heights

### 5.1.1 Ditches

Ditch **61** was aligned north-east to south-west and was +1.75m long by 0.5m wide and 0.1m deep. It had a shallow, U-shaped profile and contained dark greyish brown silty clay (60). A single sherd of glazed pottery dating to the early 16th to the end of the 18th century was recovered. Ditch **42** lay on a similar alignment to **61** and was +1.9m long by 0.5m wide and 0.03m deep. It had a shallow, U-shape profile with an uneven base and contained mid brownish grey silt (41). Neither ditch continued into other trenches. No finds were recovered.

Two further ditches, **134** and **135**, were identified in this trench but not excavated. Ditch **134** was aligned approximately east to west and was 1.15m wide, whilst ditch **135**, oriented north-east to south-west, was 1.4m wide. Both contained similar fills comprising light brownish white silty chalk.

### 5.1.2 Pit/posthole

Pit/posthole **63** was located 2.5m from the north end of the trench and was 0.55m in diameter and 0.13m deep. It had a shallow, asymmetrical U-shape profile and was filled by single fill mid greyish brown silty clay (62). No finds were recovered. Pit **59** lay partially under the west edge of the trench, 1.5m south of pit **57** (see below). One quarter was excavated measuring 0.45m wide by 0.05m deep. It had a similar profile to pit **63**, and contained light whitish grey silty chalk (58). No finds were recovered. Pit **57** was located 2m south of ditch **61** and also lay partially beyond the eastern limit of excavation. It was over-

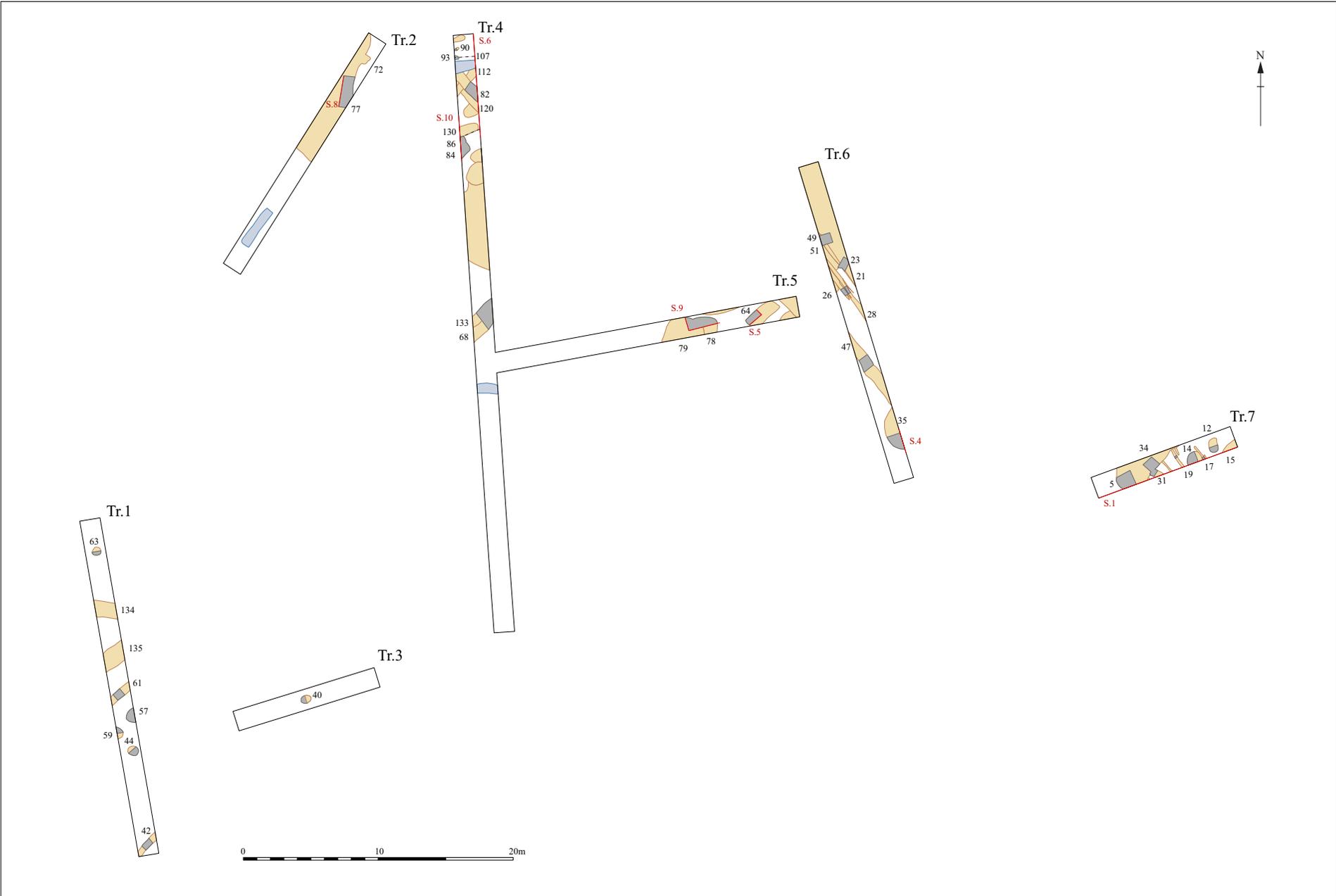


Figure 2: Trench Plans

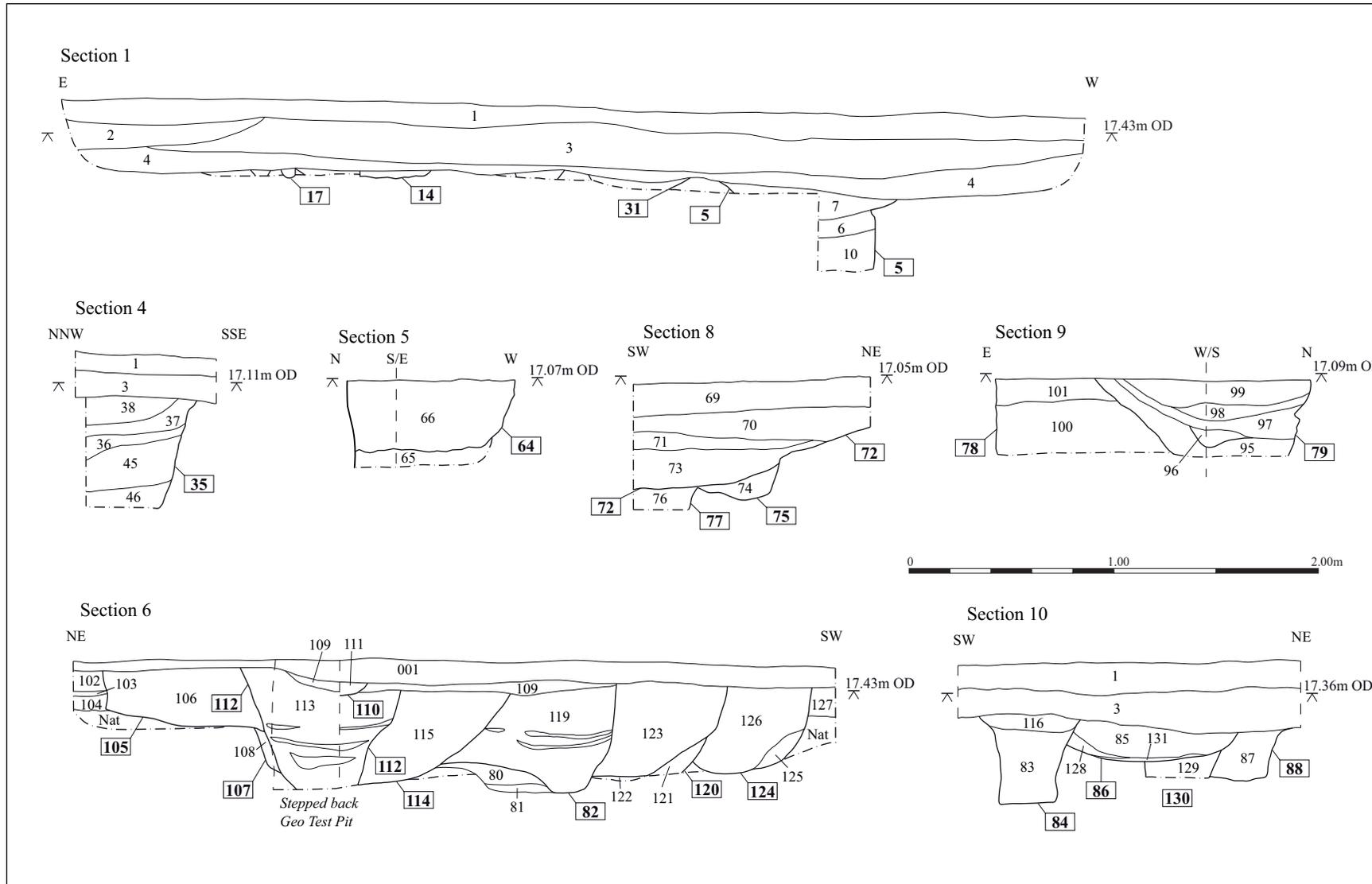


Figure 3: Section drawings

excavated into the natural chalk and recorded as measuring 1m long by 0.35m deep. It had a shallow, U-shape profile and was filled by 56, similar to 58 (see above). A single sherd of glazed pottery was recovered.

### 5.1.3 Posthole

Posthole **44** was located approximately 7.5m from the south end of the trench and 2.5m south-west of pit **57**. It was 0.6m in diameter and 0.23m deep and was filled by pale greyish brown chalky silt (43). No finds were recovered. The very uneven profile of this feature strongly suggests that it may have contained a postpipe.

## 5.2 Trench 2

Trench 2 (Fig. 2) was oriented ENE to WSW and was 20m in length. It was located in the north of the development area, approximately parallel with the current access road. Two ditches and one pit were identified at the northern end of the trench and at the southern end there was a 3m long by 0.75m wide (max) Geotechnical pit. Examination of the Phase II Geoenvironmental Assessment Report suggests this may have been TP10. No subsoil was encountered in this trench. Topsoil depth is included in Table 2, below.

All three archaeological features were excavated in a large slot (2.25m long by 0.9m wide) across part of a large amorphous area and were identifiable in section only. Due to severe space limitations, ditch **77** was not fully excavated.

Location of level in trench	Height (m OD)	Depth (m)
West-south-west end top	17.28	0.47
West-south-west end base	16.81	
East-north-east end top	17.63	0.46
East-north-east end base	17.17	

Table 2: Trench 2 (and topsoil) depths with corresponding Ordnance Datum heights

### 5.2.1 Ditches

Ditch **72** (Fig. 3, S8) was at least 4.6m long (in plan) by 0.9m wide and its excavated depth was 1.02m. It was aligned north-east to south-west. A full profile was not visible. It contained four fills (69 to 71 and 73). The primary fill was light greyish brown silty clay (73). It was 0.4m thick and contained no finds. Overlying it was mid brownish grey silty clay (71) that was 0.16m thick. 12th to 14th century pottery, animal bone and a seed were recovered. Fill 70 was compact mid brownish grey silty clay with frequent chalk fragments. It contained pottery,

animal bone and shell and was 0.34m thick. The final fill was also mid brownish grey silty clay (69), but contained little chalk. It was 0.32m thick and contained animal bone, shell and slag.

Possible ditch **77** (Fig. 3, S8) was aligned approximately NNW to SSE and was seen at the base of the excavated slot. It was at least 0.64m wide and at least 0.22m deep and contained mid greyish brown silty clay (76). A full profile was not visible, but the exposed west edge was steep, breaking to near vertical. This feature was truncated by large, north-east to south-west aligned ditch **72**.

### 5.2.2 Pit

Pit **75** (Fig. 3, S8) lay immediately adjacent to ditch **77** and was also truncated by ditch **72**. It survived at 0.33m deep and approximately 0.8m wide and had an uneven, U-shape profile. It was filled by mid greyish brown silty clay (74). No finds were recovered.

## 5.3 Trench 3

Trench 3 (Fig. 2) was located near the south-west corner of the development area, east of Trench 1 and lay on an approximate east to west alignment. It was 11m long and contained one pit. No subsoil was encountered in this trench. Topsoil depth is included in Table 3, below.

Location of level in trench	Height (m OD)	Depth (m)
West end top	16.66	0.49
West end base	16.17	
East end top	16.65	0.34
East end base	16.31	

Table 3: Trench 3 depths with corresponding Ordnance Datum heights

### 5.3.1 Pit

Pit **40** lay in the centre of the trench and was 0.6m in diameter and 0.09m deep. It had a shallow, U-shape profile and was filled by dark brown silt (39). No finds were recovered.

## 5.4 Trench 4

Trench 4 (Fig. 2) lay centrally in the development area and was oriented north-east to south-west. It formed an approximate 'T' shape with Trench 5 and was 44m long. The archaeological features identified comprise: five ditches, three ditches/pits, five pits, two

postholes and five layers. In addition, there were also a number of unexcavated features including: three possible ditches and two pits. All were located within a 23m stretch from the north-east end of the trench. Two Geotechnical pits were also identified. Both lay at right-angles across the trench.

A large slot measuring almost 6m long and approximately 1.2m deep was machine excavated to the full width of the trench at its northern end. At least six ditches/pits were revealed in section (Fig. 3, Section 6).

Subsoil (3) was encountered in this trench and recorded as measuring 0.44m thick (max). Topsoil (1) measured between 0.08m and 0.32m thick.

Location of level in trench	Height (m OD)	Depth (m)
North-east end top	17.70	0.68
North-east end base	17.02	
South-west end top	16.81	0.37
South-west end base	16.44	

Table 4: Trench 4 depths with corresponding Ordnance Datum heights

#### 5.4.1 Ditches

Ditch **68** was oriented east to west, approximately 2m north of the junction with Trench 5 (see below). It was the southernmost feature in Trench 4 and lay parallel with and truncated ditch **133**. Ditch **68** was 1.9m long by 0.85 wide and 0.1m deep with a shallow, U-shape profile. It was filled by mid brownish grey clay silt (67) and contained no finds. Ditch **133** was similar to **68**, differing in depth only, measuring 0.04m deep.

Ditch **120** lay towards the south-west end of the machine excavated slot and was seen in plan and section. It was aligned approximately north to south and was at least 2.6m long and 0.96m deep. It had a probable U-shape profile and contained three fills (121 to 123). Probable primary fill (121) was not fully excavated but comprised dark greyish brown silty clay. It was +0.33m thick. Overlying this was light brownish white crushed chalk and silt (122), also not fully excavated. It was +0.04m thick. The final fill, mid brownish grey silty clay (123), was +1.32m wide and 0.92m thick. No finds were recovered.

Ditch **112** was seen in plan and section and was the latest ditch in this sequence. It was +2.1m long, 1.48m wide and +1.14m deep and had a probable asymmetrical U-shape profile (base not seen). It was oriented east to west. Only one fill was observed to the limit of excavation, light whitish grey silty clay (113), which contained three lenses of fine light yellowish white crushed chalk measuring between 0.02m and 0.1m

thick. Near the base of this fill a small quantity of smithing slag was recovered.

Ditch **82** was oriented approximately north to south and truncated by ditch/pit **114** and ditch **112**. It was +1.8m wide and 1.15m deep with an asymmetrical flat-based U-shape profile. A 1.25m wide slot was excavated in the base of the trench revealing the full depth of the ditch and three fills. Its primary fill, light brownish grey sandy silt (81) was 0.66m wide by 0.08m thick and contained no finds. It was overlain by a 0.18m thick mid greyish brown sandy silt (80) and contained slag only. Upper fill 119 was similar to fill 113 (ditch **112**), with two crushed chalk lenses (up to 0.03m thick).

Ditch **107** was truncated by pit **105** and ditch **112** and had a north-west to south-east alignment. Only a small part of this feature remained, measuring 0.22m wide and 0.4m deep. It was filled by mid greyish brown silty clay (108) and contained no finds.

#### **5.4.2 Ditches/Pits**

Ditch/pit **124** lay at the southern end of the machine excavated slot and was truncated by ditch **120**. It was 0.86m deep and +1.16m wide and had a U-shape profile. Two fills were observed: 125 and 126. Primary fill 125 lay on the south edge of the cut and comprised light brownish white crushed chalk and silt. It was overlain by dark brown silty clay (126). Pottery (dating to the 12th to 14th century) and animal bone were recovered.

Ditch/pit **114** appeared in section only and was truncated by ditch **112** (see above). It was +1.5m wide and 0.84m deep and had a wide, U-shape profile. Only one fill was observed, light brownish grey silty clay (115). No finds were recovered.

Ditch/pit **130** (Fig. 3, S10) truncated pit **88** and was itself truncated by **86** (see below). It was located at the southern end of the machine excavated slot and was not fully excavated. A full profile was not visible but its shape in plan was oval. It was filled by light whitish grey silty chalk (129). No finds were recovered.

#### **5.4.3 Pits**

Pit **105** lay at the northern end of Trench 4, truncated by ditch **112**. It had a possible square profile and was +1.56m wide by 0.36m deep. One fill was visible, mid brownish grey silty clay (106). No finds were recovered.

Pit **88** (Fig. 3, S10) lay near the southern end of the machine excavated slot and was seen in section only. It was 0.75m wide by

0.5m deep and had a square profile. The single fill, light brownish grey clay silt (87) contained no finds.

Pit **86** (Fig. 3, S10) extended beyond the western limit of excavation and was 1.68m wide by 0.38m deep. It had a wide, U-shape profile and contained three fills: 131, 128 and 85. Primary fill 131 was a thin (0.08m thick) deposit consisting of chalk with a light whitish grey silty clay matrix. It was overlain by dark greyish brown silty clay (128). The upper fill was mid brownish grey silty clay (85) with large, angular chalk blocks. 13th century pottery was recovered from this final deposit.

Pit **84** (Fig. 3, S10) truncated pit **86** and had convex sides with a flat base. It was 1m wide by 0.85m deep and contained two fills. The main fill consisted of large blocks of angular chalk with very little soil matrix (83) and formed the primary backfill deposit. It contained pottery fragments dating to the 13th to 14th century. Fill 116 was similar to 85 (pit **86**) but contained no finds.

Pit **110** truncated layer 109 and pit **112** and is stratigraphically one of the latest features in Trench 4. It was +0.3m wide and 0.16m deep and had a U-shape profile. It was filled by mid yellowish grey silty clay (111) from which no finds were recovered. This pit, ditches **112** and **107** and layer **109** were all truncated by a geotechnical pit (TP6).

#### **5.4.4 Postholes**

Posthole **90** was located approximately 1m from the north-east end of the trench and had an oval shape in plan and a flat-based U-shape profile. It was 0.3m long by 0.15m wide and 0.1m thick and was filled by mid greyish brown sandy silt (89). No finds were recovered.

Posthole **93** lay 0.5m to the south of posthole **90** and was severely truncated by ditch **107**. It was +0.25m in diameter and 0.18m thick and was filled by mid brownish yellow sandy silt (92) and pale brownish grey clay silt (91). No finds were recovered from either fill.

#### **5.4.5 Layers (Fig. 3, S10)**

Layer 104, mid brownish-grey silty clay, was located at the extreme north-east end of Trench 4. It was probably the same as 127, 6.8m to the south. It was 0.16m thick.

Layer 103 lay above 104. It was a light yellowish white crushed chalk deposit 0.03m thick and similar to the lenses previously identified in ditches **112** and **82**.

Layer 102 was stratigraphically later than both 104 and 103 but was very similar to 104 (and 127). It was 0.2m thick.

Layer 109 overlies ditches **112** and **82** and ditch/pit **114**. It consists of light yellowish white crushed chalk approximately 0.12m thick. No finds were recovered from any of these layers.

## 5.5 Trench 5

Trench 5 was aligned north-west to south-east and formed a 'T' shape with Trench 4 (Fig. 2). It was 22.3m long and contained five pits and one ditch. Due to the large size of these features only three pits were excavated: **64**, **78** and **79**. Two other pits lay too close to the edge of the trench to allow excavation and the ditch was excavated in Trench 6, where it was seen to continue.

Location of level in trench	Height (m OD)	Depth (m)
North-west end top	17.19	0.36
North-west end base	16.83	
South-east end top	17.47	0.37
South-east end base	17.10	

Table 5: Trench 5 depths with corresponding Ordnance Datum heights

### 5.5.1 Pits

Pit **64** (Fig. 3, S5) was located approximately 2.5m from the east end of the trench and was sub-rectangular in plan. It was 2.48m long by 1.1m wide and was excavated to a depth of 0.84m. It contained at least two fills, the lower of which was light brownish grey silty clay (65) with medium to large angular chalk blocks and no finds. The upper fill was light whitish grey silty clay (66) measuring 0.7m thick. No pottery was recovered, but daub, animal bone, flint (SF 3) (Appendix 6) a possible smithing hearth bottom (SF 2) (Appendix 4) and a nail (SF 4) were.

Pit **78** (Fig. 3, S9) was located approximately 4.5m west of pit **64** and was probably oval in plan. It was +1.3m wide and excavated to a depth of 0.78m. The earliest fill recorded was light brownish grey clay silt (100) with abundant small, medium and large angular chalk pieces. It was excavated to a depth of 0.5m and contained no finds. Upper fill mid brownish grey silty clay (101) was 0.28m thick and contained 13th to 15th century pottery only.

Truncating pit **78** was a third pit, **79**. Pit **79** (Fig. 3, S9) was circular in plan and 3m wide by +0.78m deep. One quarter was excavated and seen to contain five fills: 95 to 99. Fill 95 was the earliest deposit and not fully excavated. It was light brownish grey clay silt and +0.32m thick. Fill 96 was concreted light greyish brown clay silt and 0.16m

thick. Fill 97 was mid brownish grey silty clay with frequent small to medium chalk fragments and was 0.24m thick. Fill 98 was mid greyish brown silty clay and was 0.16m thick. Upper fill 99 was similar to 98, but was 0.24m thick and the only fill from which pottery (dating to the 12th to 14th century) was recovered.

## 5.6 Trench 6

Trench 6 (Fig. 2) was located immediately east of Trench 5 on a north-north-east to south-south-west alignment, near the south-east corner of the development area. It was 24.3m long and contained two ditches, one pit, one posthole and four possible plough scars (one unexcavated). Subsoil (3) was observed in the southern half of the trench only and was 0.26m thick.

Location of level in trench	Height (m OD)	Depth (m)
North-north-east end top	17.53	0.30
North-north-east end base	17.23	
South-south-west end top	17.26	0.35
South-south-west end base	16.91	

Table 6: Trench 6 depths with corresponding Ordnance Datum heights

### 5.6.1 Ditches

Ditch **47** was located running obliquely across the centre of the trench on an approximate north to south alignment. It had a shallow, irregular profile and was 0.48m wide by 0.08m deep. The single fill, 48, was light greyish brown silty clay and contained no finds.

Ditch **23=51** was approximately parallel with ditch **47** at the north end of Trench 6. Its full width was unknown as it extended beyond the limit of excavation to the north, west and east. Its full depth was also unknown due to the very compact nature of the fills, but it was thought to have been +5m wide and +0.5m deep. Excavation was limited to two small slots because of the oblique angle the ditch ran across the trench and because it was initially thought that it contained a single fill. During excavation it was realised that this fill was overlain by concreted chalk fill 25=54 that extended northwards beyond the limit of excavation. As a result and due to time constraints, more extensive excavation to determine a depth (and function) was not possible. Three fills, 52, 24=53 and 25=54 were identified. All were very compact. Fill 52 was light whitish brown silty chalk and was 0.1m thick; fill 24=53 was light brownish grey to mid greyish brown silty clay and was 0.06m to 0.38m thick and upper fill 25=54 was light whitish brown chalk with a mid brownish grey silty clay matrix. Pottery was recovered from fill 24=53 only and dates to the 13th to 15th century.

### 5.6.2 Pit

Pit **35** (Fig. 3, S4) was located approximately 3.5m from the south end of the trench and extended beyond the eastern limit of excavation for an unknown distance. It was probably circular and was 3.2m in diameter and +1.09m deep. Five fills were recorded to the point at which excavation ceased. The earliest fill was mid greyish brown silty clay (46) from which animal bone was recovered. It was +0.19m thick. Overlying this was 45; very light whitish brown clay silt with abundant chalk fragments. It was 0.44m thick and contained no finds. Mid fill 36 was light greyish brown silty clay and also contained bone. It was 0.17m thick. Mid fill 37 was light brownish grey silty clay with occasional lenses of organic material. It was 0.16m thick. Upper fill 38 was similar to 36 and also contained lenses of organic material. It was 0.28m thick.

### 5.6.3 Posthole

Posthole **49** was located 6m from the north end of the trench and truncated ditch **23=51**. It was circular in plan and was 0.35m in diameter and 0.06m deep. It contained one fill, light brownish grey silty clay (50) from which no finds were recovered. It was, however, later than ditch **23=51**, which is dated to the 13th to mid 14th century.

### 5.6.4 Ploughscars

Possible ploughscar **21** was located truncating (and aligned with) the south-west edge of ditch **23=51**. It was +4m long by 0.1m wide and was 0.15m deep with a U-shape profile. Single fill 22 was similar to 25=54 and contained a single sherd of 13th to mid 14th century pottery. This ploughscar probably also appears in the base of **51**.

Possible ploughscars **26** and **28** lay on a similar alignment to **21** and are filled by the same material. Both have U-shape profiles and measure 0.2m wide by 0.06m deep (**26**) and 0.15m wide by 0.1m deep (**28**).

## 5.7 Trench 7

Trench 7 (Fig. 2; Fig. 3, S1) was located in the south-east corner of the development area and was oriented approximately east to west. It was 10.1m long and contained one ditch, four pits (one unexcavated), six ploughscars (four unexcavated) and two layers. The topsoil (1) is recorded at up to 0.2m thick.

Location of level in trench	Height (m OD)	Depth (m)
East end top	17.79	0.72
East end base	17.07	
West end top	17.52	0.66
West end base	16.86	

Table 7: Trench 7 depths with corresponding Ordnance Datum heights

### 5.7.1 Ditch

Ditch **31** was located 4.5m from the west end of the trench and was oriented north-west to south-east. It was 0.5m wide and 0.23m deep and was filled by dark orange-brown compacted silt (30). No finds were recovered. It was truncated by pit **5=31**.

### 5.7.2 Pits

Pit **5=34**, a large, sub-rectangular feature that extended beyond both trench edges, truncated ditch **31**. It was +1.5m long by +1.6m wide and +0.45m deep, had vertical sides and contained at least three fills. The earliest fill was light brownish grey clay with frequent chalk (10). It was +0.32m thick and was overlain by mid greyish brown silty clay (6). Fill 6 contained Iron Age pottery and flint (debitage) (SF 1) and was +0.2m thick. This was overlain by mid greyish brown silty clay (7) which was +0.26m thick. 13th to mid 14th century pottery, animal bone and minute fragments of lava quern were recovered from this fill. Overlying fill 7 was light greyish brown silty clay (8), comprising a tip of compact chalky material up to 0.18m thick. It contained no finds. The final fill of pit 35 was mid yellowish brown silty clay (9). It was also compact and contained pottery dating to the 13th to mid 14th century. Fills 8 and 9 are not represented in section.

Pit **14** was located 3m from the east end of the trench and had a circular shape in plan. It extended beyond the southern limit of excavation and was 1.05m in diameter by 0.08m deep. It was filled by light grey chalky silt (13). No finds were recovered.

Pit **12** lay 1.5m to the north-east of pit **14** and was sub-circular in plan. It was 0.8m long by 0.5m wide and was 0.02m deep. It was filled by light grey chalky silt (11). No finds were recovered.

Pit **15** lay in the south-east corner of the trench and extended beyond the limit of excavation. It was not excavated. Fill 16 was light greyish brown silty clay and contained no finds.

### 5.7.3 Ploughscars

Ploughscars **17** and **19** were both aligned approximately north to south – the same as ditch **35** and ditch **23=51** in Trench 6 - and was 0.1m wide by 0.1m deep. They were filled with similar light brownish grey silty clays and contained no finds.

### 5.7.4 Layers

Layer 4 directly overlay all features in trench 4 and was described as light purplish grey silty clay. It was 0.1m to 0.24m thick and contained no finds. Above this layer was subsoil (0.44m thick) (see 5: Results) and layer 2, light brownish yellow clay silt. This layer was 0.3m thick and contained a relatively large quantity of post-medieval pottery, brick/tile and daub.

## 6 Discussion

Three of the most striking aspects of this evaluation are: the number of large (deep) pits; the dearth of postholes and the small quantity of finds. Other interesting elements include the marked variation in the dimensions of ditches across the site, the increased depth of Trench 7 and the presence of probable ploughscars (Trench 6 and 7).

Approximately twenty-five pits and possible pits were identified across the evaluation area, with the smaller of these located in Trench 1, 3 and 7. All the larger pits were located in a slightly curving band across the site from pit **75** in Trench 2 to pit **5** in Trench 7 (Fig. 2). Many of these pits were filled either wholly or partially with medium to large sized loose chalk rubble that proved awkward and time-consuming to excavate (Pit **78** and **84**, for example). Much of this was upcast material, but whether from the same pit or another nearby is indeterminable. Other pits, for example, **5** and **35**, were also extremely difficult to excavate. Both these pits had concreted fills and vertical sides and the limited space within a trial trench further hampered excavation. As a result, neither feature was fully excavated (for example, excavation stopped in pit **35** 1.58m from the ground surface), leading to the conclusion that they may have been shafts or wells.

The function of all the pits is uncertain as very little diagnostic material was recovered from their fills. They do not appear to have been used to dispose of domestic waste material but may have been used to deposit waste slag material (Appendix 4). Although the quantities are relatively high, the amount of slag recovered from each pit suggests that deliberate backfilling was unlikely and that the material was derived from elsewhere, perhaps a nearby smithy (as yet unlocated).



Figure 4: Geophysical survey overlain with evaluation trenches

One possible function is chalk (or clunch) extraction, as this activity would be unlikely to generate large quantities of (domestic) waste material. If extraction was occurring, the size and density of the pits suggest that it took place on a piecemeal basis, as and when chalk was required for local use, for example in the construction of the 14th century house across the road from the development area. In some cases though, loose chalk blocks have been backfilled into the pits, suggesting the material was not used elsewhere and that the pits had a different function. Alternatively, the loose chalk blocks may have been waste from the process of dressing for building material.

Four postholes were encountered, spread across the site, with only two in close association (**90** and **93**, Trench 4). These are unlikely to have formed part of the same structure, however, as they differed in shape and size and were only 0.5m apart. In contrast, the characteristics of posthole **44** (Trench 1) were more indicative of structural remains as the shape of the cut suggested the presence of a post-pipe. Although lacking a postpipe, pits **43** and **66** (Trench 3) may also be postholes. They were similar in size to posthole 44 and form an approximate 'L'-shape. It is possible that they represent the corners, or part of, a large structure approximately 13m wide. No dateable material was recovered from these features.

Other structural elements may include ditches **42** and **61**. Both were shallow and narrow and did not continue into either Trench 3 or 4. It is possible that they may have been beamslots forming a structure approximately 12m wide but their differing alignments suggests that this may not be the case.

Only twenty contexts produced sherds of pottery, with the majority coming from layer 2, a probable dump of CBM and pottery spot-dated to the late 18th century. Elsewhere, the small and partly abraded pottery sherds (despite the types present, see Appendix 2) and animal bone assemblage in conjunction with an absence of features indicative of domestic occupation, and high number of pits, is a strong indication that the site is likely to have been peripheral to the settlement core and perhaps used for industrial purposes. Some slag was recovered including a smithing hearth bottom and smithing slag. A thin deposit of ash observed on the slag retrieved (Appendix 4) may suggest ironworking was occurring nearby, if not on site. At present, however, no other evidence for such activity has been located. The charcoal and fuel ash identified (Appendix 5), whilst indicators of industrial activity, were probably derived from steam trains on the former Cambridge to Mildenhall railway line, which ran less than 100m south of the development area (Fig. 1).

All the ditches encountered in the development area were either less than 0.1m deep or over 1m deep, with the exception of ditch **35** (Trench 7) (see 5.7 above) and ditch **23=51**. The latter was very wide, measuring a minimum of 5m. There was also a general trend in

alignment, as they ran either south-west to north-east or *vice versa*, this alignment is consistent with that observed on the modern Ordnance Survey for property boundaries to the south of Isaacson's Road. None appeared to form coherent boundaries or enclosures, however, with the exception perhaps, of ditch **72/77** (Trench 2) and the large unexcavated feature of similar orientation and size (Trench 4) which may bound the area of pits and ditches at the north-east of trench 4. Another possible boundary comprised ditch **47** and an unexcavated ditch at the east end of Trench 5. Alternatively, these very large ditches may be strip quarries, as ditch **23=51** in particular does not appear in any other trench, for example Trench 7, which is located on its projected alignment southwards. Another possible boundary may comprise ditches **135** and **68** in Trench 1 and Trench 4, although they are not that closely aligned. All but three of the ditches contained no dating material and few had evidence of function. Where dating was possible, both **72** and **23=51** appeared to be no later than 1500 and ditch **61** was late or post-medieval.

As can be seen in the trench depth tables above (5: Results), Trench 7 was approximately 0.4m deeper than any other trench. Interestingly, the ordnance datum heights show that it is not the base of the trench that is significantly deeper (than Trench 6, for example, at 16.91m OD compared to 16.86m OD), but that the ground level is higher. The south-south-west end of Trench 6 lies at 17.26m OD and the west end of Trench 7 lies at 17.52m OD. This increase in ground level may have derived from past activity in the area represented by layer 4. Layer 4 (Fig. 3, S1) lay at the base of Trench 7, immediately overlying the natural chalk geology and overlain by subsoil (3). It was, like all other deposits in this trench concreted, and contained no dateable material. It is possible that layer 4 was buried subsoil and suggests that the ground level at that time may have been at approximately 17.23m OD. Later it was overlain by subsoil (3), perhaps derived in the later medieval, or post-medieval period. Layer 2, also in Trench 7, was unlikely to have greatly affected the ground level here. It contained a discrete dump of waste building materials dating to the late 18th century, which, with ditch **61** and pit **57**, probably represented the last activity here before the construction of Harlech House in the early 20th century.

All the ploughscars identified during the evaluation appeared in Trench 6 and 7 and were oriented north to south. A sherd of pottery recovered from ploughscar **21** (Trench 6) was dated to the 13th to mid 14th century, suggesting it was medieval in origin, but as it truncated ditch **23=51** the sherd may have actually derived from its fills. The ploughscars are therefore later than ditch **23=51**. By association this suggests that the buried soil layer (4), through which the ploughscars (in Trench 7) cut, could also be 13th to mid 14th century and may be contemporary with ditch **23=51**. Unfortunately, no pottery was recovered from layer 4.

## 7 Conclusions

Prior to the commencement of this evaluation, background research strongly suggested that the likelihood of encountering archaeological remains in this location was low. Three previous evaluations (6 High Street (CCC AFU Report B105), 9 Mandeville (CCC AFU Report A225) and Pembroke Farm (CCC AFU 1996)) to the north revealed only clunch quarrying and 19th century deposits and landscaping. In this instance however, the background research proved misleading as archaeological features were present across the development area, with the highest density in the north and east. The majority of features were pits and ditches with minor potential structural evidence in the form of postholes. Also present were ploughscars, which were confined to the east of the area in Trenches 6 and 7.

The presence of these features strongly suggest that this was not an area of domestic occupation but rather an industrial area that may have seen such activities as iron smithing, clunch extraction and water extraction. Features of a similar date were identified during excavations at Reach Road, 300m to the west, during 2001/2002. Although the site was very different in character, with for example, trackways, an oven and occupation structures, it also contained five very deep circular pits, probably used as wells. Whilst the function of many pits in the evaluation is uncertain, the possibility of some being wells, such as pits **5**, **35** and **79**, is reasonable. If any further work is undertaken, these pits should be fully excavated in order to ascertain a function and also to appropriately sample the sequence of deposits.

Other aspects to be fully examined are the ditches, for which there is currently little understanding of their place in the landscape at the southern end of Burwell. Historical sources state that there was an early nucleus on relatively higher ground at the south end [of the village] (Wareham and Wright, 2002 p336) and it may be that the features revealed here are located at Burwell's southern extent in the early medieval period. Further excavation would increase our understanding of the types of activity taking place here at this time and perhaps even identify a limit to the early medieval settlement.

Recommendations for any future work based upon this report will be made by the County Archaeology Office.

## Acknowledgements

The author would like to thank Upware Marina Ltd who commissioned and funded the archaeological work. The project was managed by Aileen Connor. Thanks also go to Nick Gilmour, Ian Hogg, Clair Martin and Liz Muldowney for their assistance with excavation of various large and very compact features.

The brief for archaeological works was written by Kasia Gdaneic, who visited the site and monitored the evaluation.

## Bibliography

British Geological Survey	198 1	<i>Solid and Drift Geology, Sheet 188</i>
Connor, A	200 6	<i>Specification for Archaeological Evaluation at Isaacson Road, Burwell</i>
Gdaneic, K	200 6	<i>Brief for Archaeological Evaluation at Isaacson Road, Burwell</i>
Hayden's Tree and Woodland Management Services	200 5	<i>Tree Survey, Harlech House, Isaacson Road, Burwell, Cambridgeshire</i>
Masters, P	200 6	<i>Gradiometer Survey of Land at 2 Isaacson Road, Burwell, Cambridgeshire</i> Cranfield Forensic Institute Report No. 004
Wareham, A F and Wright, A P M	200 2	<i>A History of the County of Cambridge and the Isle of Ely Volume X North-Eastern Cambridgeshire</i> OUP
Warth, J	200 6	<i>The Executors of Mr Elliot Land at Harlech House, Burwell Phase II Geoenvironmental Assessment Report</i> MLM Environmental Ltd

## Appendix 1: Context Summary

Context Number	Cut	Same as	Trench	Category	Feature Type	Function	Date
1			7	layer		topsoil	early 16th-end of 18th century
2			7	layer	surface (external)	dump	late 18th century
3			7	layer		subsoil	
4			7	layer	accumulation	agricultural	
5	5	34	7	cut	pit	quarry pit	
6	5		7	fill	pit	quarry pit	Iron Age
7	5		7	fill	pit	quarry pit	13th to end of 14th century
8	5		7	fill	pit	quarry pit	
9	5		7	fill	pit	quarry pit	13th – mid 14th century
10	5		7	fill	pit	quarry pit	
11	12		7	fill	pit	disuse	
12	12		7	cut	pit	quarry pit	
13	14		7	fill	pit	disuse	
14	14		7	cut	pit	quarry pit	
15	15		7	cut	pit	quarry pit	
16	15		7	fill	pit	backfill	
17	17		7	cut	plough scar	agricultural	
18	17		7	fill	plough scar	agricultural	
19	19		7	cut	plough scar	agricultural	
20	19		7	fill	plough scar	agricultural	
21	21		6	cut	plough scar	agricultural	
22	21		6	fill	plough scar	agricultural	13th – mid 14th century
23	23	51	6	cut	ditch	boundary	
24	23	53	6	fill	ditch	disuse	13th to end of 14th century
25	23	54	6	fill	ditch	disuse	
26	26		6	cut	plough scar	agricultural	
27	26		6	fill	plough scar	agricultural	
28	28		6	cut	plough scar	agricultural	

29	28		6	fill	plough scar	agricultural	
30	31		7	fill	ditch	disuse	
31	31		7	cut	ditch	boundary	
32	34		7	fill	pit	disuse	13th to end of 14th century
33	34		7	fill	pit	quarry	
34	34		7	cut	pit	quarry	
35			6	cut	pit	quarry pit	
36	35		6	fill	pit	disuse	
37	35		6	fill	pit	disuse	
38			6	fill	pit	disuse	
39	40		3	fill	pit	disuse	
40	40		3	cut	pit	quarry pit	
41	42		1	fill	ditch	disuse	
42	42		1	cut	ditch	boundary	
43	44		1	fill	post hole	disuse	
44	44		1	cut	post hole	structure	
45	35		6	fill	pit	disuse	
46			6	fill	pit	disuse	
47	47		6	cut	plough furrow/ditch	agricultural	
48	47		6	fill	ditch	agricultural	
49	49		6	cut	post hole	use - structural	
50	49		6	fill	post hole	backfill	
51	51	23	6	cut	ditch	boundary	
52	51		6	fill	ditch	backfill	
53	51	24	6	fill	ditch	disuse	
54		25	6	fill	ditch	disuse	
56	57		1	fill	pit	disuse	early 16th – end of 18th century
57	57		1	cut	pit	quarry pit	
58	59		1	fill	pit	disuse	
59	59		1	cut	pit	quarry pit	
60	61		1	fill	ditch	disuse	early 16th – end of 18th century
61	61		1	cut	ditch	boundary	
62	63		1	fill	post hole	disuse	
63	63		1	cut	post hole	structure	

64	64		5	cut	pit	quarry pit	
65	64		5	fill	pit	backfill	
66	64		5	fill	pit	disuse	
67	68		4	fill	ditch	disuse	
68	68		4	cut	ditch	boundary	
69	72		2	fill	ditch	disuse	
70	72		2	fill	ditch	disuse	12th to mid 13th century
71	72		2	fill	ditch	disuse	
72	72		2	cut	ditch	boundary	
73	72		2	fill	pit	disuse	
74	75		2	fill	pit	disuse	
75	75		2	cut	pit	quarry pit	
76	77		2	fill	pit	disuse	
77	77		2	cut	pit	quarry pit	
78	78		5	cut	pit	quarry pit	
79	79		5	cut	pit	quarry pit	
80	82		4	fill	ditch	disuse	
81	82		4	fill	ditch	backfill	
82	82		4	cut	ditch	boundary	
83	84		4	fill	pit	disuse	13th to end of 14th century
84	84		4	cut	pit	quarry pit	
85	86		4	fill	pit	disuse	13th century
86	86		4	cut	pit	quarry pit	
87	88		4	fill	pit	disuse	12th to mid 13th century
88	88		4	cut	pit	quarry pit	
89	90		4	fill	post hole	disuse	
90	90		4	cut	post hole	structural	
91	93		4	fill	post hole	disuse	
92	93		4	fill	post hole	packing	
93	93		4	cut	post hole	structure	
94			4	surface finds			13th century
95	79		5	fill	pit	disuse	
96	79		5	fill	pit	disuse	
97	79		5	fill	pit	disuse	

98	79		5	fill	pit	disuse	
99	79		5	fill	pit	disuse	12th to mid 13th century
100	78		5	fill	pit	disuse	
101	78		5	fill	pit	disuse	13th to end of 14th century
102			4	layer	accumulation	unknown	
103			4	layer	accumulation	unknown	
104		127	4	layer	accumulation	unknown	
105	105		4	cut	pit	quarry pit	
106	105		4	fill	pit	disuse	
107	107	114	4	cut	pit/ditch	unknown	
108	107		4	fill	pit/ditch	disuse	
109			4	layer	levelling	surface	
110	110		4	cut	pit	quarry pit	
111	110		4	fill	pit	disuse	
112	113		4	cut	ditch	boundary	
113	112		4	fill	ditch	disuse	
114	114	107	4	cut	ditch/pit	unknown	
115	114		4	fill	ditch/pit	disuse	
116	84		4	fill	pit	disuse	
119	82		4	fill	ditch	disuse	
120	120		4	cut	ditch	boundary	
121	120		4	fill	ditch	disuse	
122	120		4	fill	ditch	disuse	
123	120		4	fill	ditch	disuse	
124	124		4	cut	pit/ditch	unknown	
125	124		4	fill	pit/ditch	disuse	
126	124		4	fill	pit/ditch	disuse	13th to end of 14th century
127		104	4	layer	accumulation	unknown	
128	86		4	fill	pit	disuse	
129	130		4	fill	pit	disuse	
130	130		4	cut	pit	grave	
131	86		4	fill	pit	disuse	
132	133		4	fill	ditch	disuse	
133	133		4	cut	ditch	boundary	

---

134	134		1	cut	ditch	boundary	
135	135		1	cut	ditch	boundary	
136	134		1	fill	ditch	disuse	
137	135		1	fill	ditch	disuse	

## Appendix 2: Pottery Assemblage

By Carole Fletcher

### 1 Methodology

The basic guidance in MAP2 has been adhered to (English Heritage 1991) In addition the MPRG documents *Guidance for the processing and publication of medieval pottery from excavations* (Blake and Davey, 1983) and *A guide to the classification of medieval ceramic forms* (MPRG, 1998) act as a standard.

Spot dating was carried out using the Cambridgeshire County Council Archaeological Field Units (CCC AFU) in-house system based on that used at the Museum of London. Fabric classification has been carried out for all previously described types. All sherds have been counted classified, and weighed.

All the pottery has been spot dated on a context by context basis; this information was entered directly onto a quantification database (Access 2000), which allows for the appending of further data.

CCC AFU curates the pottery and archive until formal deposition.

### 2 The Assemblage

The fieldwork generated a small pottery assemblage of 67 sherds (0.458kg) from 19 contexts, including unstratified material.

Ceramic fabric abbreviations used in the following text are:

Cream ware	CREA
Early Medieval Essex Micaceous Sandy ware	EMEMS
Sible Hedingham ware	HEDI
Medieval Ely / Medieval Ely Type ware	MEL/MELT
Medieval Essex Micaceous Sandy ware	MEMS
Post medieval Red ware	PMR

This assemblage consists of mainly medieval material, along side some early medieval and Post-medieval sherds. The earliest material recovered from the site consists of two small flint tempered Iron Age sherds from context 6. The small early medieval component of the assemblage consists of 12 moderately abraded and abraded sherds of EMEMS. These were sometimes associated with MEMS, the dates of which overlap to some degree as the medieval ware gradually replaced the earlier fabric. These contexts can be more closely dated to the

13th century rather than the more general 13th to 14th century date of most of the medieval contexts.

Several contexts produced sherds of HDEI a medieval glazed ware that alongside the EMEMS and MEMS originates in Essex. The presence of medieval and Post-medieval fabrics from Essex is not unusual in Burwell as they have been previously recognised in the ceramic assemblage from Reach Road, Burwell (Authors own observations) The other significant medieval fabric type present in the assemblage is MEL/MELT, pottery produced in and around Ely in Cambridgeshire. The post-medieval element of the assemblage consists of PMR and a single sherd of CREA.

Few conclusions can be drawn from such a small assemblage. The small and abraded nature of many of the sherds (average sherd weight 0.007kg) suggests reworking of the site after the materials initial deposition. The character of the assemblage suggests it derived from a broadly domestic context.

No preservation bias has been recognised and no long-term storage problems are likely. Due to the small size of the assemblage and its unsuitability for statistical analysis it offers little potential for further study.

## Bibliography

- |                                 |      |  |
|---------------------------------|------|--|
| Blake, H., and Davey, P.        | 1983 | <i>Guidelines for the Processing and Publications of Medieval Pottery from Excavations</i> , Directorate of Ancient Monuments and Historic Buildings Occas. Pap. 5 |
| English Heritage                | 1991 | <i>Management of Archaeological Projects (MAP2)</i>  |
| Medieval Pottery Research Group | 1998 | <i>A Guide to the Classification of Medieval Ceramic Forms</i> , Medieval Pottery Research Group Occas. Pap. 1   |

## Spot Dating

Con- text	Fabric	Sherd Count	Weigh t (kg)	Vessel Forms	Rim/Base/Body Sherds	Spot dating Date Range for the context
1	PMR	2	0.02	Bowl	Rim & Body Sherd	early 16th-end of 18th century
	MELT	1	0.01		Body Sherd	
	MEMS	1	0.00		Body Sherd	
2	PMR	3	0.09	Bowl	Rim & Body Sherd	late 18th century
	CREA	1	0.02	Bowl	Base	
6	Hand- made Flint Temp	2	0.00		Body Sherd	IA
7	MELT	11	0.03	Jar	rim/ Body Sherd	13th to end of 14th century
9	HEDI	3	0.00	Jug	Body Sherd	13th-mid 14th century
22	HEDI	1	0.00	Jug	Body Sherd	13th-mid 14th century
24	MELT	6	0.00		Body Sherd	13th to end of 14th century
32	MEL	2	0.01		Body Sherd	13th to end of 14th century
	MELT	4	0.01	Jar	Body Sherd	
56	PMR	1	0.00	Bowl	Body Sherd	early 16th-end of 18th century
60	PMR	1	0.00	Jug	Body Sherd	early 16th-end of 18th century
70	EMEMS	1	0.00	Jar	Body Sherd	12th to mid 13th century
71	EMEMS	2	0.02	Jar	Base & Body Sherd	12th to mid 13th century
83	MEMS	3	0.02	Jar	Base & Body Sherd	13th to end of 14th century
	MELT	2	0.05		Body Sherd	
	EMWT	1	0.01	Jar	Rim	
85	EMEMS	2	0.01	Jar	Body Sherd	13th century
	MEMS	2	0.01	Jar	Body Sherd	
87	EMEMS	1	0.01	Jar	Body Sherd	12th to mid 13th century
94	EMEMS	2	0.02	Jar	Body Sherd	13th century
	MEMS	1	0.01	Jar	Body Sherd	
99	EMEMS	4	0.00		Body Sherd	12th to mid 13th century
101	MELT	6	0.10	Jar	Rim & Body Sherd	13th to end of 14th century
126	MEMS	1	0.01		Body Sherd	13th to end of 14th century

### Appendix 3: Animal Bone

By Mo Muldowney

Context number	Cut	Trench	Weight (kg)	Quantity
1	-	3	0.002	1
2	-	7	0.035	4
7	5	7	0.08	11
36	35	6	0.004	1
46	35	6	0.002	2
66	64	5	0.005	2
69	72	2	0.004	1
70	72	2	0.001	1
71	72	2	0.002	1
87	88	4	0.001	1
126	124	4	0.007	2
<b>Total</b>			0.143	27

Table 8: Animal bone

Twenty-seven fragments of animal bone were recovered by hand from eleven contexts. This represents a very small quantity of bone in comparison with the number of features.

In general, the bone is in good condition, though fragmentary, with approximately 50% of the assemblage showing signs of surface erosion. This may be due to the alkaline conditions in chalk. The only fragment of interest is a possible vertebra (context 2), which appears to have been roughly cut in half on the vertical plane.

No taxonomy or bone identification has been undertaken at this stage.

## Appendix 4: Slag Assemblage

By Tom Eley and Mo Muldowney

### 1 Introduction and Methods

A small quantity of slag was recovered during the evaluation at Burwell and assessed in order to identify which process created it and to establish whether there is potential for further work.

### 2 Results

Context	Cut	Trench	Type	Weight (kg)	Magnetic?	Comments
69	72	2	undiagnostic	0.019	no	ash coated
66	64	5	Smithing Hearth Bottom	0.238	yes	ash coated
66	64	5	Smithing Hearth Bottom fragments	0.18	no	two ash covered pieces
66	64	5	undiagnostic	0.12	no	multiple ash coated fragments
113	112	4	slagged lining	0.39	no	two ash covered pieces
113	112	4	smithing slag	0.431	yes	multiple ash coated fragments
<b>Total</b>				1.378		

Table 9: Slag analysis

### 3 Discussion

A small quantity of iron smithing slag was found during the evaluation at Burwell. Small amounts of slag commonly occur during excavation and do not necessarily indicate that iron smithing was being practised in the locality. The slag from Burwell, however is unusual, due to an outer coating of grey ash accumulated during the smithing process. This ashy coating is fragile and does not usually survive for any length of time after smithing has finished, indicating that the slag was buried soon after creation and may have been deposited in the vicinity of the smithy.

The identification and excavation of smithies is rare and requires specific sampling strategies to be used for the identification of hammerscale (Keys, 240-42, 2002).

#### **4 Recommendations**

Although the quantity of slag recovered is relatively small, many of the pieces are diagnostic and have an ash coating. As this suggests that iron smithing could be located nearby, there is potential for finding more iron smithing slag and related materials. If further work is planned, pits and postholes should be sampled for hammerscale. A high concentration of smithing debris may identify the location of a smithy structure.

#### **Bibliography**

Keys, L. 2002. Iron smithing. In J. Drummond-Murray, P. Thompson, C. Cowan. *Settlement in Roman Southwark: Archaeological excavations (1991-8) for the London Underground Limited Jubilee Line Extension Project*. MoLAS Monograph 12 Museum of London Archaeology Service.

## Appendix 5: Environmental Remains

By Rachel Fosberry

### 1 Introduction and Methods

Three bulk samples were taken from features within the evaluated areas of the site in order to assess the quality of preservation of plant remains and their potential to provide useful data as part of further archaeological investigations.

Up to ten litres of each sample were processed by tank flotation for the recovery of charred plant remains, dating evidence and any other artefactual evidence that might be present. The flot was collected in a 0.5mm nylon mesh and the residue was washed through a 1mm sieve. Both flot and residue were allowed to air dry. The dried residue was passed through 5mm and 2mm sieves and a magnet was dragged through each resulting fraction prior to sorting for artefacts. Any artefacts present were noted and reintegrated with the hand-excavated finds. The flot was examined under a binocular microscope at x16 magnification and the presence of any plant remains or other artefacts is noted in Table 12.

### 2 Results

Sample Number	Context Number	Cut Number	Context Type	Charred cereal grains	Charred seeds	Charcoal
1	7	5	Pit fill	-	-	+
2	38	35	Pit fill	-	+	+
3	46	35	Pit fill	-	-	+

+ = 1 – 10 specimens    ++ = 10 – 100 specimens    +++ = 100+ specimens

Table 12: Environmental samples from BUR ISR 06

Preservation is by charring and vitrified charcoal fragments are present in each of the samples in sparse quantities. Modern contaminants in the form of rootlets are present in all of the samples.

Sample 2, context 38 contains a single charred nutlet of *Cladium mariscus* (saw-sedge). No other plant macrofossils are present in any of these samples.

### 3 Conclusions and Recommendations

The samples examined from this evaluation produced a low abundance of charred material making conclusions tentative. The vitrified nature of the charcoal is consistent with high temperature

and/or repeated burning which, together with the fuel ash recovered from Sample 1, may be indicative of industrial activity. Saw sedge was one of the major vegetation types of the Fen and was commonly used as fuel.

If further work is planned in this area, environmental sampling should still be considered as these results show that there is potential for the recovery of plant macrofossils.

## Appendix 6: Other Finds

By Mo Muldowney

### 1 Shell

Context number	Cut	Trench	Species	Quantity
69	72	2	Ostrea Edulis	3
69	72	2	Mytilus Edulis	58
70	72	2	Mytilus Edulis	13
71	72	2	Mytilus Edulis	1
99	79	5	Mytilus Edulis	1
<b>Total</b>				76

Table 9: Oyster and mussel shell

A total of three oyster shells and seventy-six mussel shells were recovered by hand from two early medieval features. The quantity of shell recovered is not comparable with the numbers observed on site as recovery was biased by the excavator and also because not all features were sampled or excavated.

Little can be said about the presence of these marine shells. They are most likely to have been imported from a coastal/intertidal area, perhaps upstream from The Wash, into which the River Cam and its tributaries flow. Discoveries of this kind are indicators of trade and dietary preferences and are common finds in medieval contexts associated with domestic occupation.

### 2 Flint

Context number	Cut	Trench	Small find number	Quantity
6	5	7	1	1
10	5	7	-	2
66	64	5	3	1
66	64	5	-	1
<b>Total</b>				5

Table 10: Flint

Five pieces of flint were recovered from three features. Three of these pieces (from context 10 and 66) are burnt but show no evidence of working. The piece from context 6 (SF1) has been struck from a larger core and has a clear bulb of percussion. There are also many smaller striking platforms, some of which may have been deliberate; others are probably derived from accidental knocks. A second piece from context 66 (SF3) is worked, possibly from rejuvenation of the core, and is broken. Both SF1 and SF3 may be earlier Neolithic; the other pieces are unprovenanced (Richard Mortimer pers. comm.).

### 3 Lava Quernstone

Context number	Cut	Trench	Weight (kg)	Quantity
7	5	7	0.032	11
32	34	6	0.002	4
53	51	6	0.001	1
69	72	2	0.01	6
<b>Total</b>			0.045	22

Table 11: Lava quernstone fragments

Twenty-two fragments of lava quernstone were recovered from four features. None of the fragments are larger than 26mm by 22mm by 7mm and none have any surfaces remaining. It is likely that these fragments all derive from the same quernstone and that it was deposited nearby and damaged by later activity, scattering it across the site.

**Appendix 7: Gradiometer Survey**

By Peter Masters

**GRADIOMETER SURVEY OF  
LAND AT 2 ISAACSON ROAD, BURWELL,  
CAMBRIDGESHIRE**

**TL5910 6587**

**Cranfield Forensic Institute Report No. 004**

**Peter Masters**

**October 2006**

## CONTENTS

<i>ABSTRACT</i>	1
<b>1.0</b> INTRODUCTION	1
<b>2.0</b> LOCATION AND DESCRIPTION	1
<b>3.0</b> ARCHAEOLOGICAL AND HISTORICAL BACKGROUND	1
<b>4.0</b> METHODOLOGY	2
<b>5.0</b> ANALYSIS AND INTERPRETATION OF RESULTS	3
<b>6.0</b> CONCLUSIONS	3
<b>7.0</b> ACKNOWLEDGEMENTS	3
<b>8.0</b> BIBLIOGRAPHY	4

## ILLUSTRATIONS

**FIG. 1:** Location plan.

**FIG. 2:** First Edition Ordnance Survey map dated 1889, not to scale

**FIG. 3:** Gradiometer Survey – Grey scale and trace plots of raw and enhanced data with interpretive plan, scale – 1:1000

## PLATES

Plate 1 – General view looking south-east

Plate 2 – General view looking south

Plate 3 – General view of western end of application area looking south

## **ABSTRACT**

*A fluxgate gradiometer survey was undertaken on c.0.5 hectares of land at 2 Isaacson Road, Burwell, Cambridgeshire. The survey identified a wide range of magnetic variation, the strongest of which reflects known features such as deposits of modern ferrous/ceramic material associated with the garden.*

*Two ephemeral curvilinear anomalies were detected indicating possible ditch-like features although it is more likely that these represent natural features within the lower chalk geology. Limited archaeological potential was recorded at this site considering its location within the historic core of the village.*

### **1.0 INTRODUCTION**

Cambridgeshire County Council Archaeological Field Unit commissioned Centre for Archaeological and Forensic Analysis, Cranfield University to undertake a fluxgate gradiometer survey on land adjacent to Harlech House, 2 Isaacson Road, Burwell, Cambridgeshire. This work was carried out in advance of a planning application for the erection of 4 new dwellings, access road, landscaping and services (Planning App. no. E/05/0/403/OUT). The work was undertaken on the 17<sup>th</sup> October 2006.

The survey methodology described in this report was based upon guidelines set out in the English Heritage document ‘*Geophysical Survey in Archaeological Field Evaluation*’ (David, 1995).

### **2.0 LOCATION AND DESCRIPTION**

Sections 2 and 3 include information contained within a specification for an archaeological evaluation of the site (Connor, 2006).

The site is located within the medieval core of the historic village of Burwell. The area of survey is located adjacent to Harlech House, 2 Isaacson Road, Burwell, Cambridgeshire (Fig 1: TL 5910 6587).

The site is currently under grass containing a number of trees and shrubs (Plates 1-3). To the south of the application area is an orchard. The geology of the area is comprised of Lower Chalk (British Geological Survey sheet 188, published 1974).

### **3.0 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND**

The Historic Environment Record (HER) for Cambridgeshire indicates no known archaeological remains within the site. However, in the immediate vicinity a number of archaeological sites have been recorded.

The earliest Prehistoric remains recovered in the vicinity of site consist of a Palaeolithic handaxe, which was found when postholes were dug for a new fence around the castle site in 1992 (HER 01775B).

A Bronze Age hoard containing a bronze axe, spear heads, chisels, and other implements (MCB7848) were found in St Mary's church yard. Excavations at Station Gate uncovered a single severely truncated crouched burial likely to be prehistoric in date.

Roman settlement is known to have been located beneath Burwell Castle (SAM29382). Excavations to the west of the development site in 2001 and 2002 at Station Gate/Railway Close found the remains of ditches, a possible corn drying oven and a single burial all dating to the Roman period (CCC AFU BUR RR 02)

Remains of possible Saxon post built structures and a possible SFB have been found in recent excavations at Station Gate/Railway Close (CCC AFU BUR RR02).

To the north of the area of investigation, an Anglo-Saxon burial ground was excavated during the latter half of the 1920's (HER 06764-MCB8158). The Anglo-Saxon cemetery was first discovered in 1884 during the working of Victoria Lime Pits. The cemetery was excavated between 1925 and 1929 when 150 inhumations were uncovered and all date from the 6<sup>th</sup> century A.D. The cemetery lies about 500 yards north of the church, on the crest of a low chalk ridge.

The remains of a nationally important Conquest period castle are located to the north of the development area (SAM29382). At Station Gate excavations uncovered 11th – 15th century settlement remains including the remains of a later medieval Lime Kiln and a lode channel. Closer to the development area is an early 14th century manor house (MCB8213, LB003493). Another manor house (17th century) is located further along the High Street to the north.

The 1889 First Edition Ordnance Survey map depicts the area of investigation as a large plot land running down to the Great North-Eastern railway line (Fig. 2).

#### **4.0 METHODOLOGY**

Gradiometry is a non-intrusive scientific prospecting technique used to determine the presence/absence of some classes of sub-surface archaeological features (eg pits, ditches, kilns, and occasionally stone walls). By scanning the soil surface, geophysicists identify areas of varying magnetic susceptibility and can interpret such variation by presenting data in various graphical formats and identifying images that share morphological affinities with diagnostic archaeological remains.

The use of gradiometry is used to establish the presence/absence of buried magnetic anomalies, which may reflect sub-surface archaeological features.

The area survey was conducted using a Bartington Grad 601 dual fluxgate gradiometer with DL601 data logger set to take 4 readings per metre (a sample interval of 0.25m). The zigzag traverse method of survey was used, with 1m wide traverses across 30m x 30m grids. The sensitivity of the machine was set to detect magnetic variation in the order of 0.1 nanoTesla.

The data was processed using *Archeosurveyor v.1.3.2.8*. It was clipped to reduce the distorting effect of extremely high or low readings caused by discrete pieces of ferrous metal on the site. The results are plotted as greyscale and trace plot images (Fig. 3).

## **5.0 RESULTS (Fig. 3)**

A limited gradiometer survey was carried out over the area of an existing garden, which produced few significant anomalies.

Two curvilinear anomalies (solid/dashed red lines) possibly indicate ditch-like features of unknown origin. It is feasible that these could reflect the remains of ephemeral ditches or are more likely to represent modern garden features/natural features within the lower chalk.

Other anomalies detected in the survey area (circled pink) indicate modern ferrous-like remains such as modern debris relating to domestic garden activities.

A series of positive anomalies (outlined in blue) may represent the backfill of geotechnical test pits or could even indicate garden features such as planting beds or tree boles.

## **6.0 CONCLUSIONS**

The survey has identified only limited evidence of significant archaeological remains; most of the definitive magnetic variation appears to reflect relatively modern features such as backfilled geotechnical pits and modern buried garden features.

The survey may have identified ephemeral traces of two curvilinear features, such as ditches of unknown origin but is more likely to be related to garden features.

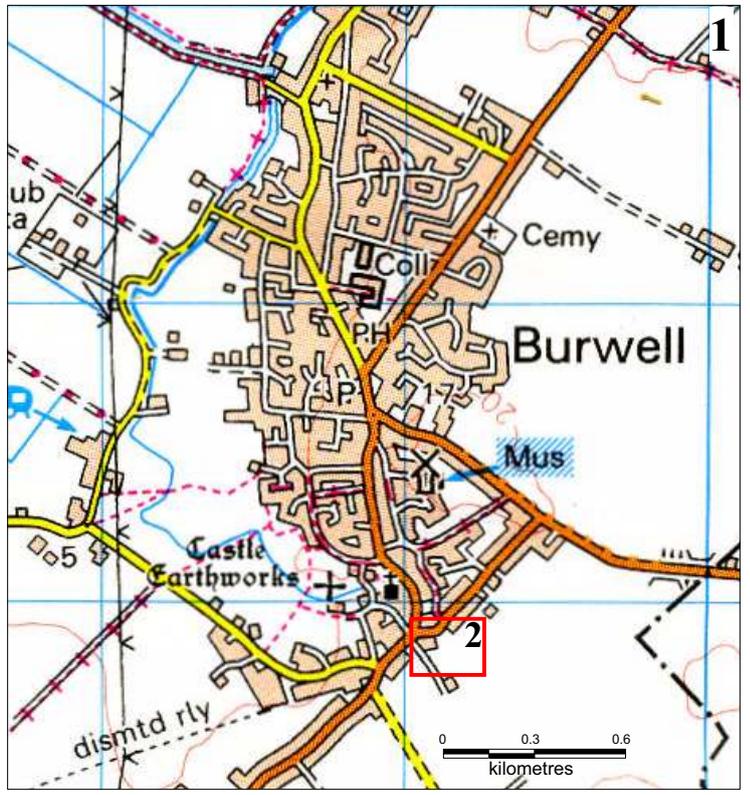
Based on the survey results, it is concluded that the site possesses limited archaeological potential even though it is in close proximity to known archaeological sites of importance that lie to the immediate north of the site such as the castle remains.

## **7.0 ACKNOWLEDGEMENTS**

Cranfield University, Centre for Archaeological and forensic analysis would like to thank the Archaeological Field, Cambridgeshire County Council for this commission.

## 8.0 BIBLIOGRAPHY

- B.G.S. 1974, *Geological Maps of England and Wales* Solid and Drift Edition Sheet 188. 1:50,000 Series, Keyworth. British Geological Survey.
- Clark, A. J. 1990 *Seeing Beneath the Soil* London, Batsford
- Conner, A. 2006 *Specification for the Archaeological Evaluation of land at Harlech House, 2 Isaacson Road, Burwell, Cambridgeshire*, Cambridgeshire County Council Archaeological Field Unit.
- David, A. 1995 *Geophysical Survey in Archaeological Field Evaluation*. London, English Heritage: Research & Professional Guidelines No.1.



**Fig. 1 - Location plan.**

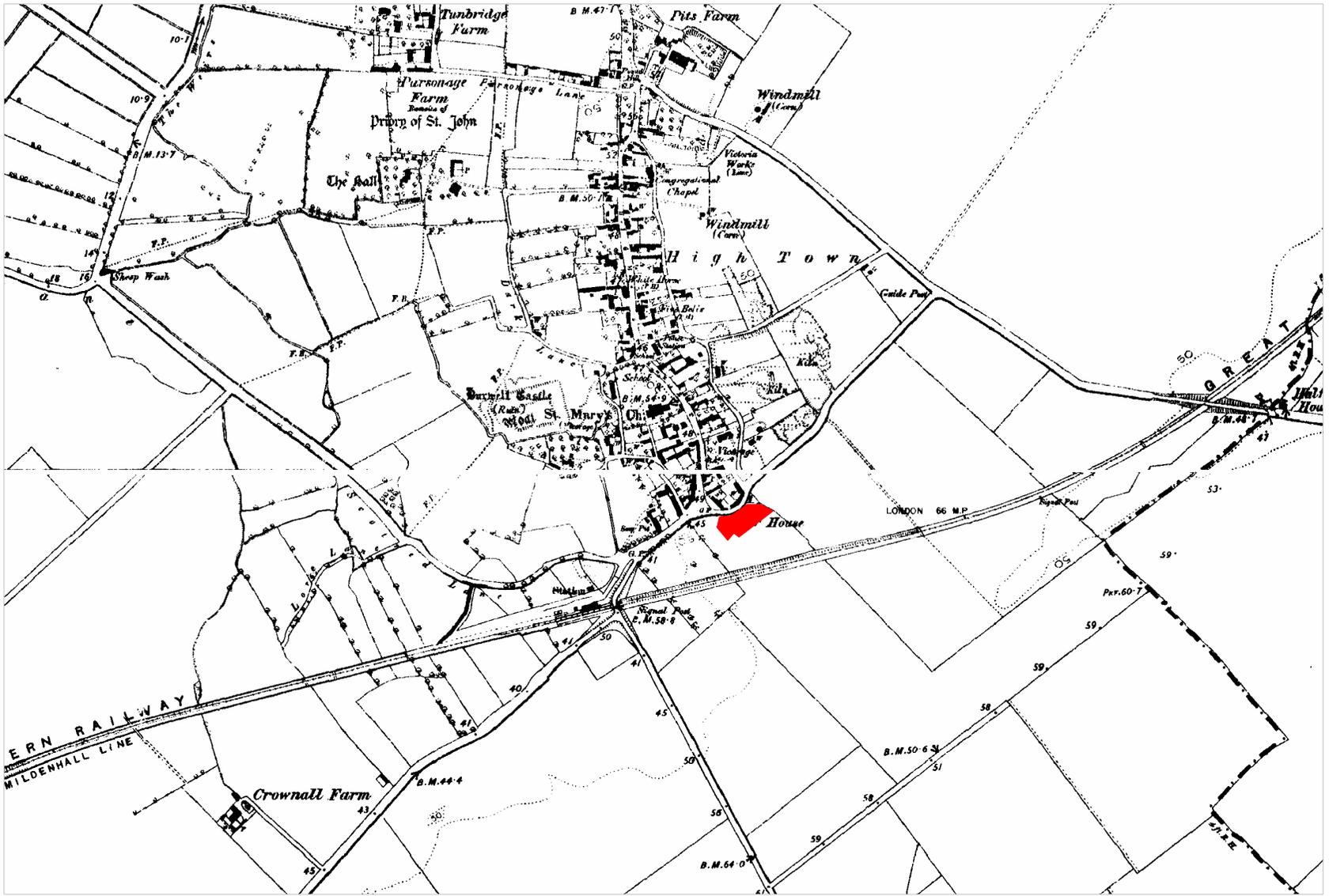


Fig. 2 – First Edition Ordnance Survey map of 1890 showing the location of the site (red), not to scale.

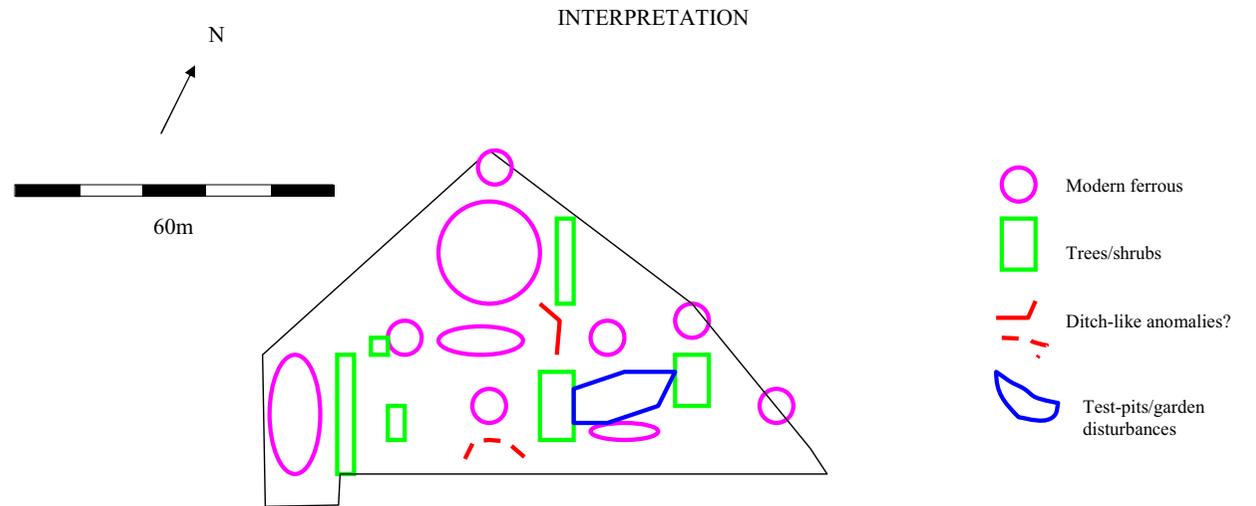
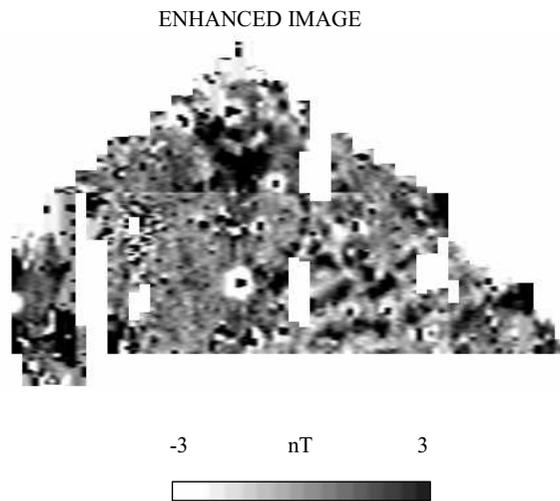
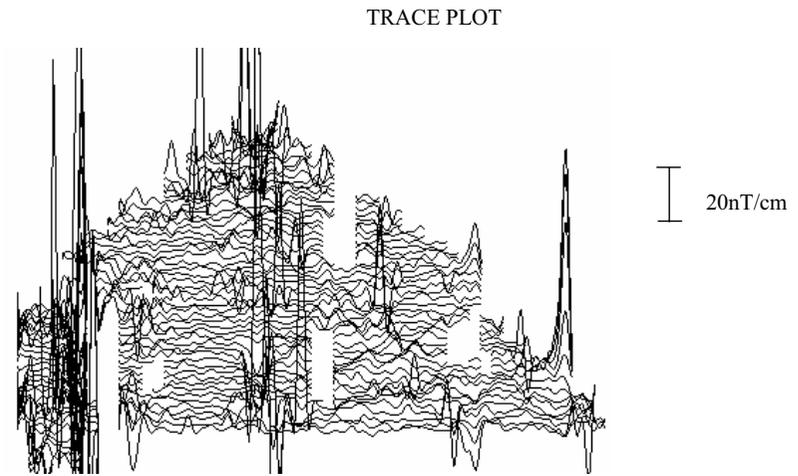
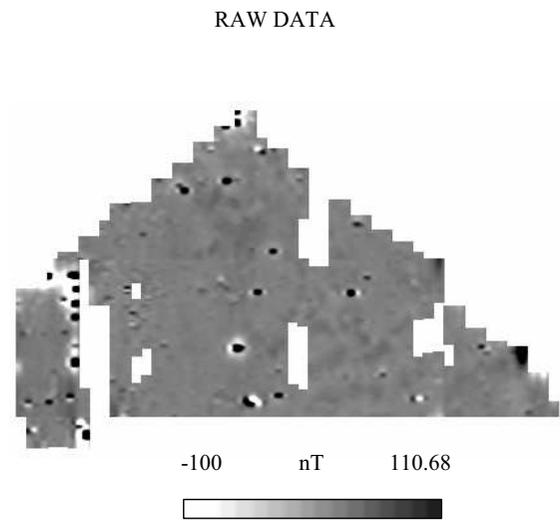


Fig. 3 – Geophysical survey results with interpretation, scale – 1:1000



PLATE 1 – General view looking south-east



PLATE 2 – General view looking south



PLATE 3 – General view of western end of application area looking south



INVESTOR IN PEOPLE



2004-2005  
Better Local Public Transport  
2005-2006  
Asset Management

Cambridgeshire County Council's **Archaeological Field Unit** undertakes a wide range of work throughout the county and across the eastern region.

Our key purpose is to increase understanding of the rich heritage of the region.

We are keenly competitive, working to the highest professional standards in a broad range of service areas. We work in partnership with contractors and local communities.

We undertake or provide:

- surveys, assessments, evaluations and excavations
- popular and academic publications
- illustration and design services
- heritage and conservation management
- education and outreach services
- volunteer, training and work experience opportunities
- partnership projects with community groups and research bodies

# contact

• **cambridgeshire**archaeology  
• **archaeological field unit**

Fulbourn Community Centre Site  
Haggis Gap  
Fulbourn  
Cambridge  
CB1 5HD

Tel : 01223 576201  
Fax: 01223 880946  
email: [arch.field.unit@cambridgeshire.gov.uk](mailto:arch.field.unit@cambridgeshire.gov.uk)  
web: [www.cambridgeshire.gov.uk/archaeology](http://www.cambridgeshire.gov.uk/archaeology)



Printed on recycled paper