

Land West of
Waterbeach Cemetery,
Waterbeach Barracks
& Airfield,
Waterbeach,
Cambridgeshire

Archaeological Evaluation Report



October 2016

Client: Urban & Civic PLC

OA East Report No: 1982 OASIS No: oxfordar3-266577

NGR: TL 4933 6625



Land West of Waterbeach Cemetery, Waterbeach Barracks & Airfield, Waterbeach, Cambridgeshire

Archaeological Evaluation

By Andrew Greef BA

With contributions by Carole Fletcher HND BA (Hons) ACIfA and Rachel Fosberry ACIfA

Editor: Stephen Macaulay BA MPhil MCIfA

Illustrator: Charlotte Walton BA MPhil MCIfA

Report Date: October 2016

© Oxford Archaeology East Page 1 of 18 Report Number 1982



Report Number: 1982

Site Name:

HER Event No: CHER 4525

Date of Works: September 2016

Client Name: Urban & Civic PLC

Client Ref: 19830

Planning Ref: Pre-application

Grid Ref: TL 4933 6625

Site Code: WATBAR16

Finance Code: ECB4790

Receiving Body: CCC Stores

Accession No:

Prepared by: Andrew Greef Position: Supervisor Date: 17/10/16

Checked by: Stephen Macaulay
Position: Senior Project Manager

Date: 17/10/16

Signed:

Disclaimer

This document has been prepared for the titled project or named part thereof and should not be relied upon or used for any other project without an independent check being carried out as to its suitability and prior written authority of Oxford Archaeology being obtained. Oxford Archaeology accepts no responsibility or liability for the consequences of this document being used for a purpose other than the purposes for which it was commissioned. Any person/party using or relying on the document for such other purposes agrees and will by such use or reliance be taken to confirm their agreement to indemnify Oxford Archaeology for all loss or damage resulting therefrom. Oxford Archaeology accepts no responsibility or liability for this document to any party other than the person/party by whom it was commissioned.

Stoler Hacaulay

Oxford Archaeology East,

15 Trafalgar Way, Bar Hill, Cambridge, CB23 8SQ

t: 01223 850500 f: 01223 850599

e: oaeast@thehumanjourney.net w: http://thehumanjourney.net/oaeast

© Oxford Archaeology East 2011

Oxford Archaeology Limited is a Registered Charity No: 285627



Table of Contents

Table of Contents

Su	mmary		5
1	Introduc	tion	6
	1.1	Location and scope of work	6
	1.2	Geology and topography	6
	1.3	Archaeological and historical background	6
	1.4	Acknowledgements	7
2	Aims an	d Methodology	8
	2.1	Aims	8
	2.2	Methodology	8
3	Results.		9
	3.1	Introduction	9
	3.2	Trench 132	9
	3.3	Trench 133	9
	3.4	Finds Summary	9
	3.5	Environmental Summary	9
4	Discussi	ion and Conclusions	10
	4.1	Discussion	10
	4.2	Recommendations	10
А р	pendix A	A. Trench Descriptions and Context Inventory	11
А р	pendix I	B. Finds Reports	12
	B.1	Pottery	12
	B.2	Environmental samples	13
А р	pendix (C. Bibliography	15
Αp	pendix I	D. OASIS Report Form	16



List of Figures

- Fig. 1 Site location showing cemetery extension area (red) with evaluation trenches (black) and selected CHER entires (blue)
- Fig. 2 Trench layout plan
- Fig. 3 Sections



Summary

In September 2016 an archaeological evaluation was carried out on land, proposed for a cemetery extension, within Waterbeach Barracks and Airfield, to the west of the existing cemetery. Three trenches were excavated across the site and these revealed that a large part of the site, perhaps 1/3, has been disturbed by modern intrusions. Additionally three furrows and a possible single post hole were identified.



1 Introduction

1.1 Location and scope of work

- 1.1.1 An archaeological evaluation was conducted at Land West of Waterbeach Cemetery, Waterbeach Barracks & Airfield, Waterbeach, Cambridgeshire (TL 4933 6625; Fig. 1). The site comprised an area to be considered for the extension of the modern cemetery.
- 1.1.2 This archaeological evaluation was undertaken in accordance with a Written Scheme of Investigation (WSI) prepared by OA East (Macaulay 2016).
- 1.1.3 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 *National Planning Policy Framework* (Department for Communities and Local Government March 2012). The results will enable decisions to be made by CCC, on behalf of the Local Planning Authority, with regard to the treatment of any archaeological remains found.
- 1.1.4 The site archive is currently held by OA East and will be deposited with the appropriate county stores in due course.

1.2 Geology and topography

- 1.2.1 The site lies at the northern end of the historic town of Waterbeach, on a parcel of land immediately to the west of Waterbeach cemetery, within the former site of the airfield and barracks. The site lies at approximately 10m above Ordnance Datum (OD) and is approximately 0.4 hectares in an open space scrubland.
- 1.2.2 The underlying geology of the proposed development site comprises Gault Clay Formation Mudstone Bedrock. Superficial deposits are described as River Terrace Gravels -. Sand and Gravel
 - (http://www.bgs.ac.uk/discoveringGeology/geologyOfBritain/viewer.html accessed 10th September 2016).

1.3 Archaeological and historical background

- 1.3.1 Archaeological assessment work in relation to the archaeological potential of the wider Waterbeach Barracks and Airfield site is ongoing. This work includes a search of the Cambridge HER; a study of historical aerial photographs of the Site; a cartographic search; LIDAR survey interpretation; and geophysical survey.
- 1.3.2 Waterbeach is a Parish originally part of the Northstowe hundred, which was most probably created during the 10th century and is first recorded in the Domesday book of 1086 (Wright & Lewis 1989). A search was carried out of the Cambridgeshire County Council Historic Environment Record (CHER).

Heritage Records in the vicinity of the Site

Prehistoric

1.3.3 Earlier Prehistoric remains are confined to two Palaeolithic polished stone axeheads (05358 and 05473) found approximately 1km to the northwest of the site. Later Prehistoric remains are limited to a findspot of Neolithic flint axeheads (00343; Fig. 1) found 450m to the south of Site.



Roman

1.3.4 A number of Roman findspots are recorded, namely: a 2nd century AD Disc Brooch found (09702; Fig. 1) found 350m to the southeast of the site; and pottery (05349; Fig. 1) found 800m to the west of the site. Further to this, a large assemblage of finds was recovered from within the airfield, 600m to the northwest of the site, whilst digging a cable trench in the mid 1980s (11331; Fig. 1). The assemblage consisted of pottery, hypocaust tiles, four coins, four nails, a bone comb, animal bone and a fragment of human skull. Also in the wider landscape of Waterbeach are two Roman monuments. The Car Dyke Roman Canal (09823) is located 700m to the west of the site and the Roman road known as Akeman Street (05725, 05766), constructed in the mid 2nd century AD, lies farther to the west in the Parish.

Post-Roman

- 1.3.5 No Anglo-Saxon or medieval remains or findspots have been recorded within the vicinity of the site.
- 1.3.6 A search of past Ordnance Survey maps of the site at http://old-maps.co.uk was carried out to determine the more recent use of the site. It was determined that the site was agricultural farmland prior to its incorporation into Waterbeach Barracks and Airfield from at least AD1888. The cemetery immediately to the east of the site was also noted to have been present at this date.
- 1.3.7 Modern activity in the vicinity of the site is dominated by Waterbeach barracks and airfield (CB 15155).

Previous archaeological work near the Site

1.3.8 In 2004 an evaluation on land adjacent to the entrance of Waterbeach barracks (ECB 2325; Fig. 1), 200m to the southeast of the site, identified two west-northwest to east-southeast aligned parallel ditches of probable Roman origin.

1.4 Acknowledgements

1.4.1 The author would like to extend thanks to Richard Hepworth of Urban and Civic PLC for commissioning the archaeological works. The fieldwork was undertaken by the author with the assistance of Graeme Clarke, Lindsey Kemp and Neus Esparsa Nogues. The site survey was carried out by Charlotte Walton. Machine excavation was undertaken by Anthill Plant Hire. The project was managed by Stephen Macaulay, while Andy Thomas monitored the evaluation of behalf of CCC HET.



2 AIMS AND METHODOLOGY

2.1 Aims

2.1.1 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.

2.2 Methodology

- 2.2.1 The WSI required that three trenches: two measuring 30 x2m, and the third measuring 40 x2m be excavated across the site. These trenches were evenly spaced and amounted to 5% of the 0.4 hectare proposed development area.
- 2.2.2 Machine excavation was carried out under constant archaeological supervision with a 20-tonne 360 excavator using a toothless ditching bucket.
- 2.2.3 The site survey was carried out using a Leica GS08 GPS with SmartNET.
- 2.2.4 Spoil, exposed surfaces and features were scanned with a metal detector. All metaldetected and hand-collected finds were retained for inspection, other than those which were obviously modern.
- 2.2.5 All archaeological features and deposits were recorded using OA East'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.
- 2.2.6 A total of three bulk environmental soil samples were taken in order to investigate the possible survival of micro- and macro-botanical remains.
- 2.2.7 Site conditions were clear and dry.



3 Results

3.1 Introduction

- 3.1.1 The three trenches (Trenches 132, 133 & 134) excavated will be described below, along with a description of the finds and the environmental remains recovered.
- 3.1.2 Topsoil (1) across the site consisted of a dark brown-grey clay silt, which measured 0.23m to 0.65m in thickness, Subsoil (2) consisted of a mid brown grey clay silt, measuring between 0.14m and 0.25m in thickness.
- 3.1.3 The results of the archaeological works are presented below by trench. Full details of context and trench descriptions can be found in Appendix A.

3.2 Trench 132

3.2.1 A single post hole and an East-West aligned furrow were identified in trench 132. Post hole **4** measured 0.33m wide and 0.34m deep with steeply sloping sides. It was filled with a light brown grey sandy silt (5). Furrow **6** measured 1m wide and 0.12m deep with gently sloping sides. It was filled with a mid brown grey sandy silt (7)

3.3 Trench 133

3.3.1 Two parallel East-West aligned furrows were identified in Trench 133. Furrow 8 measured 0.72m wide and 0.07m deep with gently sloping sides. It was filled with a mid brown grey sandy silt (9). Furrow 12 measured 1m wide and 0.09m deep with gently sloping sides. It was filled with a mid brown grey sandy silt (13)

3.3.2 Trench 134

3.3.3 Trench 134 was entirely truncated by a large Modern disturbance **10**. The trench was excavated to 1.5m by machine and then immediately backfilled. Modern services ran across the base of the trench however no archaeology was present.

3.4 Finds Summary

3.4.1 A modern fragment of Cu alloy was recovered from the topsoil and a Late medieval sherd of pottery was recovered from the subsoil (see Appendix B). No finds were recovered from features.

3.5 Environmental Summary

3.5.1 A total of three bulk soil samples were taken from the post hole, and two of the furrows. Environmental remains were poor with only a single charred wheat grain recovered (see Appendix C)



4 Discussion and Conclusions

4.1 Discussion

4.1.1 The evaluation at the proposed cemetery expansion site on Land West of Waterbeach Cemetery revealed that the area to be considered has to a significant extent been truncated and disturbed by modern activity (c.30%). The archaeology present in the undisturbed part of the site amounts to a series of shallow undated linear features on an east-west alignment. These are considered to represent cultivation furrows associated with medieval 'ridge and furrow' agriculture. The single post hole was not entirely convincing and due to the level of modern seeds and rooting within the feature, could even be classed as root disturbance.

4.2 Recommendations

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

© Oxford Archaeology East Page 10 of 18 Report Number 1982



APPENDIX A. TRENCH DESCRIPTIONS AND CONTEXT INVENTORY

Trench 132						
General des	cription				Orientation	NW-SE
			Avg. depth (m)	0.65		
Trench conta consisted of			furrow and	a possible post hole. Geology	Width (m)	2.10
consisted of	ourido aria	gravoio			Length (m)	30
Contexts						
context no	type	Width (m)	Depth (m)	comment	finds	date
1	Layer	-	0.28	Topsoil	Cu alloy	Modern
2	Layer	-	0.22	Subsoil	Pottery	Late Medieval
4	Cut	0.33	0.34	Post hole	-	-
5	Fill	0.33	0.34	Post hole fill	-	-
6	Cut	1	0.12	Furrow	-	-
7	Fill	1	0.12	Furrow fill	-	-
Trench 133						
General des	cription				Orientation	SW-NE
					Avg. depth (m)	0.87
Trench conta gravels	ained two E	-W aligned	I furrows. C	Geology consisted of sands and	Width (m)	2.10
graveis					Length (m)	40
Contexts						
context no	type	Width (m)	Depth (m)	comment	finds	date
1		-	0.65	Topsoil	-	-
2		-	0.22	Subsoil	-	-
8		0.72	0.07	Furrow	-	-
9		0.72	0.07	Furrow fill	-	-
12		1	0.09	Furrow	-	-
13		1	0.09	Furrow fill	-	-
Trench 134						
General des	cription				Orientation	NW-SE
					Avg. depth (m)	1.4
		ncated by	modern inti	rusions. Geology consisted of	Width (m)	2.1
sands and g	aveis				Length (m)	30
Contexts					1	
OULICATO	4	Width (m)	Depth (m)	comment	finds	date
context no	type	(111)				
context no	Layer	(111)	0.3	Subsoil	-	-
		(III)	+	Subsoil Modern disturbance	-	-



APPENDIX B. FINDS REPORTS

B.1 Pottery

By Carole Fletcher

Introduction

B.1.1 A rim sherd from a Late Medieval Reduced ware bowl (Mid 14th-end 15th century) was recovered from context 2. The sherd is moderately abraded to abraded and is too small to establish the diameter of the bowl. Its presence may be due to manuring with the material derived from nearby occupation.

Context	Fabric	Vessel Form	Sherd Count	Sherd weight (kg)	Date Range
2	Late Medieval Reduced ware	Bowl rim sherd	1		Mid 14th-end 15th century

Table 1: Pottery catalogue



B.2 Environmental samples

By Rachel Fosberry

Introduction

B.2.1 Three bulk samples were taken from features within the evaluated area in order to assess the quality of preservation of plant remains and their potential to provide useful data as part of further archaeological investigations.

Methodology

B.2.2 The total volume (up to 17 litres) of each bulk sample was then processed by water flotation (using a modified Siraff three-tank system) for the recovery of charred plant remains, dating evidence and any other artefactual evidence that might be present. The floating component (flot) of the samples was collected in a 0.3mm nylon mesh and the residue was washed through 10mm, 5mm, 2mm and a 0.5mm sieve. Both flot and residues were allowed to air dry. The dried flots were subsequently sorted using a binocular microscope at magnifications up to x 60 and an abbreviated list of the recorded remains are presented in Table 1. Identification of plant remains is with reference to the Digital Seed Atlas of the Netherlands (Cappers et al. 2006) and the authors' own reference collection. Nomenclature is according to Zohary and Hopf (2000) for cereals and Stace (1997) for other plants. Carbonized seeds and grains, by the process of burning and burial, become blackened and often distort and fragment leading to difficulty in identification. Plant remains have been identified to species where possible. The identification of cereals has been based on the characteristic morphology of the grains and chaff as described by Jacomet (2006).

Quantification

B.2.3 For the purpose of this initial assessment, items such as cereal grains have been scanned and recorded qualitatively according to the following categories

```
# = 1-5, ## = 6-25, ### = 26-100, #### = 100+ specimens
```

Items that cannot be easily quantified such as charcoal have been scored for abundance

+ = rare, ++ = moderate, +++ = abundant

Results

B.2.4 There was a considerable amount of rooting and intrusive modern seeds within all of the samples. A single charred wheat (*Triticum* sp.) grain is present in Sample 1, fill 5 of post hole **4** and this sample also contains occasional small fragments (<0.5cm) of degraded pottery. The samples from ditch **8** and furrow **6** are devoid of preserved plant remains.



Trench No.	Sample No.		Cut No.	Feature Type		% cxt sampled	Cereals	Charcoal	Pottery
132	1	5	4	Posthol e	4	<20	#	+	0
133	2	9	8	Ditch	15	<10	0	0	0
134	3	7	6	Furrow	17	<10	0	0	0

Table 2: Environmental samples from ECB4790

Discussion

B.2.5 The environmental samples taken from this area have shown that there is limited potential for the recovery of preserved remains.

© Oxford Archaeology East Page 14 of 18 Report Number 1982



APPENDIX C. BIBLIOGRAPHY

Cappers, R.T.J, Bekker R.M, and Jans, J.E.A. 2006 Digital Seed Atlas of the Netherlands Groningen Archaeological Studies 4, Barkhuis Publishing, Eelde, The Netherlands. www.seedatlas.nl

Jacomet, S. 2006 Identification of cereal remains from archaeological sites. (2nd edition, 2006) IPNA, Universität Basel / Published by the IPAS, Basel University.

Macaulay, S.P., 1997b, Akeman Street Roman Road and Romano-British Settlement at Landbeach, Car Dyke, CCC AFU Report 141. Unpublished

Stace, C., 1997 New Flora of the British Isles. Second edition. Cambridge University Press

Zohary, D., Hopf, M. 2000 Domestication of Plants in the Old World – The origin and spread of cultivated plants in West Asia, Europe, and the. Nile Valley. 3rd edition. Oxford University Press

© Oxford Archaeology East Page 15 of 18 Report Number 1982



APPENDIX D. OASIS REPORT FORM

All fields are required unless they are not applicable.

Project D	etails								
OASIS Number		oxfordar3-266577							
Project Nan	ne L	and west of Wate	erbeach Cemet	ery, Waterbe	each Barracks & A	ifield, Wa	terbeach, Cambridgeshire		
Project Dates (fieldwork) Start			05-09-2016		Finish	06-09-20	16		
Previous W	ork (by 0	OA East)	Yes		Future	Future Work No			
Project Refe	erence (Codes							
Site Code	ECB4790)		Planning	App. No.				
HER No.	ECB4790)		Related	HER/OASIS N	O. ECB	4525		
Type of Pro	iect/Tec	hniques Use	d	•					
Prompt		Voluntary/self-							
Developmer	nt Type	Other							
Please sel	ect all	techniques	used:						
Aerial Photo	ography - i	interpretation	Grab-Sampling			Remote Operated Vehicle Survey			
Aerial Photo	ography - ı	new	Gravity-Core			X Sam	X Sample Trenches		
Annotated S	Sketch		Laser Scanning			Survey/Recording Of Fabric/Structure			
Augering			Measured Survey			Targeted Trenches			
Dendrochro	nological	Survey	Metal Detectors			☐ Test Pits			
Documenta	ry Search		Phosphate Survey			☐ Topographic Survey			
	ntal Sampl	ing	Photogrammetric Survey			☐ Vibro-core			
Fieldwalkin	g		☐ Photographic Survey			☐ Visual Inspection (Initial Site Visit)			
Geophysica	al Survey		Rectified Photography						
List feature typ	es using tl		ument Type	e Thesau	rus and significar		ing the MDA Object type "none".	ре	
Monument		Period		C	Object		Period		
furrows		Medieva	al 1066 to 154	1 0	metalwork, pottery		Medieval 1066 to 1540		
		None					None		
		None					None		



Project Lo	cation									
County	Cambridgeshir	·e				Site Address (including postcode if possible)				
District	South Cambs.		Waterbeach Barracks and Cambridgeshire, CB25 9Q				ield, W	Vaterbeach,		
Parish	Waterbeach									
HER	Cambridgeshir	re								
Study Area	0.4ha				National Grid Reference centred on TL 4933 6625					
Project Or	iginators				J					
Organisation	Γ							$\overline{\top}$		
Project Brief	Originator	Andy Tho	omas (CCC	:/HET)						
Project Desig	gn Originato	r Stephen	Macaulay (OA East)						
Project Mana	ager	Stephen	Macaulay (OA East)						
Supervisor		Graeme	Clarke (OA	East)						
Project Ar	chives									
Physical Arch	nive		Digital A	Archive		Paper Archive		ve		
Cambs. County	Stores		OA East	OA East			Cambs. County Stores			
ECB4790			WATBA	WATBAR16			ECB4790			
Archive Con	tents/Media	a	J L							
	Physical Contents		Paper Contents			Digital Me	edia		Paper Media	
Animal Bones						□ Database			Aerial Photos	
Ceramics	\boxtimes					GIS			X Context Sheet	
Environmental						Geophysi	cs		Correspondence	
Glass]					Diary	
Human Bones						Illustrations			Drawing	
Industrial						☐ Moving In	nage		Manuscript	
Leather							Spreadsheets		Мар	
Metal	\times			☐ X Surv			Survey		Matrices	
Stratigraphic		X	\boxtimes		☐ Text			Microfilm		
Survey					☐ Virtual Re	ality		Misc.		
Textiles									Research/Notes	
Wood									∠ Photos	
Worked Bone									X Plans	
Worked Stone/L	ithic									
None									⊠ Sections	
Other									Survey	



Notes:		

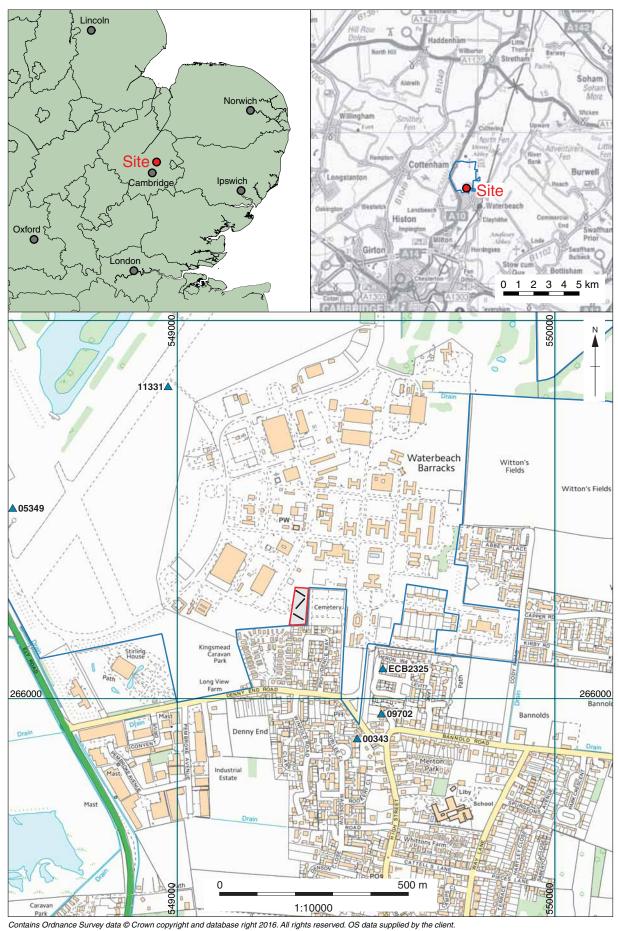


Figure 1: Site location showing cemetery extension area (red) with evaluation trenches (black) and selected CHER entries (blue)



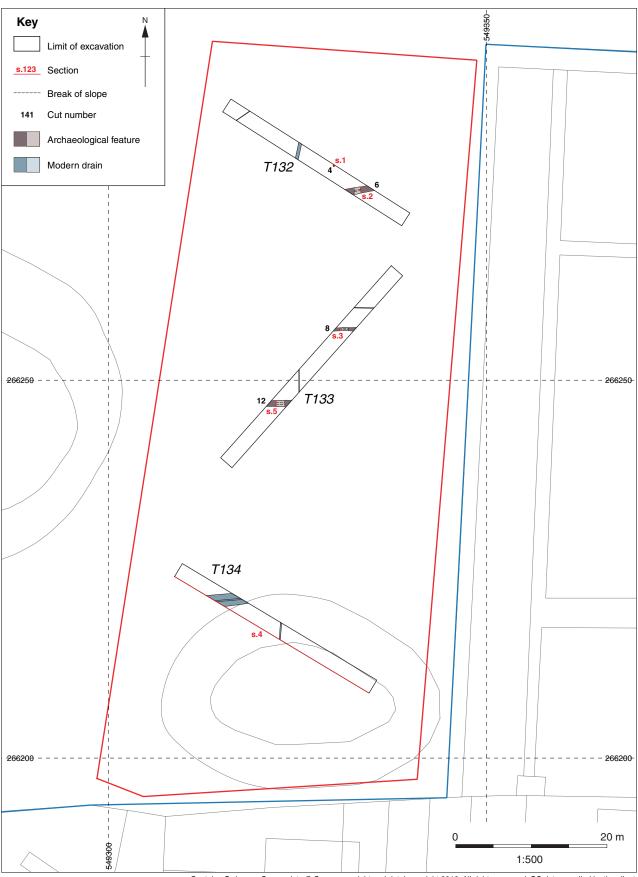


Figure 2: Trench location plan

Contains Ordnance Survey data © Crown copyright and database right 2016. All rights reserved. OS data supplied by the client.

© Oxford Archaeology East Report Number 1982

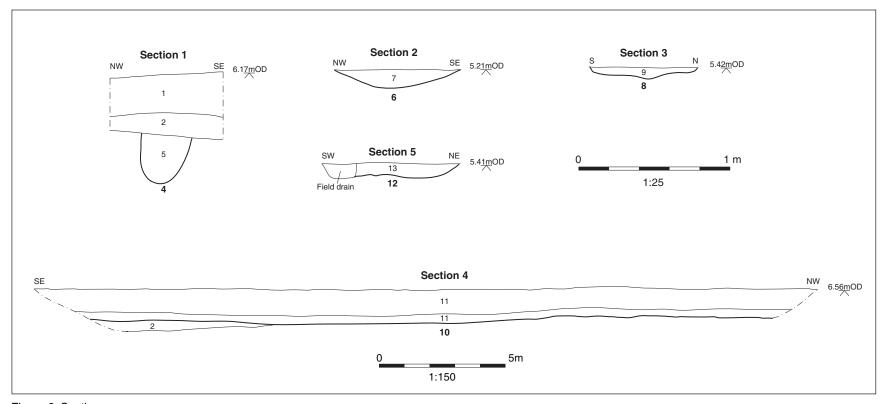


Figure 3: Sections







Head Office/Registered Office/ OA South

Janus House Osney Mead Oxford OX20ES

t: +44(0)1865 263800 f: +44(0)1865 793496

e:info@oxfordarchaeology.com w:http://oxfordarchaeology.com

OA North

Mill3 MoorLane LancasterLA11QD

t:+44(0)1524 541000 f:+44(0)1524 848606 e:oanorth@oxfordarchaeology.com w:http://oxfordarchaeology.com

OA East

15 Trafalgar Way Bar Hill Cambridgeshire CB23 8SQ

t:+44(0)1223 850500 e:oaeast@oxfordarchaeology.com w:http://oxfordarchaeology.com