

HERITAGE NETWORK

Celebrating 20 years of independent professional service in the historic environment



**LAND OFF NORTHUMBRIA CLOSE,
Haddenham, Cambs.**

HN1130

***ARCHAEOLOGICAL
EVALUATION REPORT***

THE HERITAGE NETWORK LTD

Registered with the Institute of Field Archaeologists as an Archaeological Organisation

Archaeological Director: David Hillelson, BA MIFA

Land off NORTHUMBRIA CLOSE Haddenham, Cambridgeshire

Project ref.: HN1130
LPA ref.: 12/00429/FUM
Event No: ECB4164

Archaeological Evaluation

Prepared on behalf of Sanctuary Group

by

Helen Ashworth, BA (Hons) AIfA

Report no.885

September 2014

© The Heritage Network Ltd

11 FURMSTON COURT, ICKNIELD WAY, LETCHWORTH SG6 1UJ
TEL: (01462) 685991 FAX: (01462) 685998

Contents

	Summary	Page i
Section 1	Introduction	Page 1
Section 2	Fieldwork	Page 2
Section 3	Discussion	Page 11
Section 4	Sources Consulted	Page 14
Section 5	Illustrations	following Page 15
Appendix	OASIS summary sheet	Page 17

The cover illustration shows an extract from the rendered LiDAR data for the site and its vicinity (courtesy of the Environment Agency)

Acknowledgements

The fieldwork for this project was carried out by Greg Jones, Jan Janulewicz and Jenny Heinzelmann. The report text and illustrations were compiled by Greg Jones & Helen Ashworth and edited by David Hillelson.

The Heritage Network would like to express its thanks to Mark Osborne of Sanctuary Group, Steve Ewers of Evers Building Contractors, and Kasia Gdaniec of the Cambridgeshire Historic Environment Team, for their co-operation and assistance in the execution of this project.

Summary

Site name and address:	Land at Northumbria Close, Haddenham, CB6 3HT		
County:	Cambridgeshire	District:	East Cambridgeshire
Village/town:	Haddenham	Parish:	Haddenham
Planning reference:	12/00429/FUL	NGR:	TL 4654 7620
Client name and address:	Sanctuary Group, PO Box 815, Chamber Court, Castle Street, Worcester, WR1 9BG		
Nature of work:	Residential	Current land use:	Agricultural
Site Status:	None	Reason for investigation:	Direction of local planning authority (NPPF)
Position in planning process:	As a condition	Project brief originator:	Local authority
Size of affected area:	9200m ²	Size of area investigated:	460m ²
Site code:	HN1130	Event no.:	ECB4164
Organisation:	Heritage Network	Site Director:	David Hillelson
Project type, methods etc.:	Earthwork survey, trial trenching	Archive Recipient:	Cambridgeshire County Archaeology Store
Start of work:	28/07/2014	Finish of work:	13/08/2014
Related HER nos:	HER 09869	Periods represented	None
OASIS UID:	heritage1-175880	Significant finds:	None
Monument types:	Pit, post-medieval		
Physical archive:	None		
Previous summaries/reports:	n/a		

Synopsis:

In order to characterise the archaeological potential of the site of a proposed new residential development at Northumbria Close, Haddenham, Cambridgeshire, the Heritage Network was commissioned by the developers to undertake an archaeological field evaluation.

Ridge and furrow earthworks had been identified across the site from aerial photography and the first stage of the present project took the form of a topographical survey to clarify their extent. This showed pronounced ridge and furrow earthworks in the south-eastern corner of the site, which extended northwards along the eastern boundary, reducing in clarity as they did

so. Any earthworks crossing the centre of the site appear to have been completely degraded, although faint traces were noted on the western side of the site on LiDAR data obtained from the Environment Agency.

Eleven trial trenches were laid out across the areas likely to be most highly impacted by the development groundworks, after a vegetation strip of the site had been carried out as part of the ecological requirements of the planning consent. The trenches revealed a layer of topsoil with an average depth of around 0.25m, over a subsoil layer of up to 0.30m in depth. This subsoil, which largely sealed the natural clay, had been truncated in the centre of the site.

Slight traces of ridge and furrow earthworks were noted in the sections of the east – west aligned trenches in the south-eastern corner. They were not observed elsewhere on the site. Only one cut feature was encountered, in Trench 5 located in the centre of the site. This was a possible pit, which contained a late post-medieval brick fragment.

On the basis of the results of the evaluation, the risk that the proposed development might disturb archaeological remains of any significance may be considered to be Low for all periods.

1 Introduction

1.1 This report has been prepared at the request of Sanctuary Group, as part of a programme of archaeological work carried out in advance of the determination of a planning application for proposed development of land off Northumbria Close, Haddenham, Cambridgeshire.

1.2 The planning consent for the proposed development (ref: 12/00429/FUM) has been granted on appeal (13/00004/REFAPP) by East Cambridgeshire District Council (ECDC) subject to a standard archaeological condition issued under the provisions set out in the Department of Communities and Local Government's *National Planning Policy Framework* (NPPF). The extent of the work required was set out in a *Brief for Archaeological Evaluation* prepared by the Historic Environment Team (HET) of Cambridgeshire County Council, acting as archaeological adviser to ECDC (Gdaniec 2013), and in subsequent correspondence. This defined the need for an earthwork survey and trial trenching within the proposed development area. A full specification for the evaluation is contained in the Heritage Network's approved *Project Design*, dated March 2014 (Turner 2014).

1.3 The village of Haddenham is situated on relatively high ground in the fenland, c.36m AOD, and lies on the ancient western 'shore' of the Isle of Ely. The site is located at the north end of the village on lower agricultural land, c14m AOD, immediately to the north of 9-11 Northumbria Close, and with Station Road to the east. The site is centred on TL 4654 7620 (Figure 1).

1.4 The HET Brief notes that Iron Age, Roman and Saxon remains have been discovered throughout the village and, in addition, ridge and furrow earthworks survive within the development site. During the 19th and 20th centuries, the underlying Kimmeridge Clay in the area was exploited for brick and tile manufacture and a brickworks was situated to the east of the site.

1.5 The proposed development entails the construction of 24 dwellings with associated access and services.

1.6 The present report is intended to provide the planning authority with sufficient information about the archaeological potential of the site to allow it to decide what further measures may be required, if any, to mitigate those impacts before the development is permitted to proceed.

2 Fieldwork

TOPOGRAPHY AND GEOLOGY

2.1 The site is located in former agricultural land to the north of Haddenham village. The ground slopes gently south-west to north-east, from approximately 13.13.90mOD in the south-western corner to approximately 12.90mOD in the north-eastern corner.

2.2 The soils across the site are formed of Jurassic and Cretaceous clays of the Evesham 3 Association (411c), described as: *Slowly permeable calcareous clayey soils, and fine loamy over clayey soils. Some slowly permeable seasonally waterlogged non-calcareous clayey soils* (SSEW 1983).

2.3 The underlying solid geology comprises mudstone of the Kimmeridge Clay Formation, a sedimentary rock formed approximately 151-156 million years ago in the Jurassic period (www.bgs.ac.uk/opengeoscience).

METHODOLOGY

2.4 All fieldwork was carried out in accordance with the approved Project Design, current health and safety legislation, and the appropriate IfA and ALGAO guidance documents.

2.5 The first stage of the project involved an earthwork survey which consisted of a site walkover and a topographic survey intended to identify any surviving features and the remains of ridge and furrow cultivation in particular. Any significant variations in level across the study area were plotted using survey grade GPS, with general readings taken at sufficient intervals to identify potential features.

2.6 Trial trenches for the second stage of the project were located by triangulation from known points using fibreglass tape measures. Within each trench, topsoil and overburden were removed using a JCB 3CX machine fitted with a 1.6m wide toothless ditching bucket. The trenches were machined to the first significant archaeological horizon, or to the natural geological horizon, as appropriate, and spoil from the machining was inspected visually and using a metal detector to locate unstratified archaeological artefacts and ferrous finds.

2.7 The open trenches were cleaned by hand, and inspected for any potential archaeological features and deposits.

2.8 The stratigraphy within the trenches was photographed and recorded using the appropriate pro-forma. Plans of potential features and deposits were drawn on drafting film at a scale of 1:20, and sections at a scale of 1:10.

EARTHWORK SURVEY

2.9 The present site is known to contain evidence of ridge and furrow cultivation. Examination of aerial photographs for an archaeological desk-based assessment of the proposed route of a water main, running between Chatteris and Haddenham, identified ridge and furrow earthworks across the present site (Trimble & Trimble 2008). These were identified in general terms as present across the entire study area, running on a slightly curving NNW – SSE alignment (ibid, Figure 3).

2.10 The presence of ridge and furrow within the present site was confirmed by the client's topographic survey, which showed evidence of linear earthworks in the south-eastern corner, extending northwards along the eastern boundary with reducing clarity.

2.11 A site inspection was undertaken in advance of the vegetation strip that concluded an ecological reptile survey of the site. This confirmed the presence of ridge and furrow in the south-eastern corner and along the eastern boundary, but could not identify any clear evidence for such earthworks across the rest of the field.

2.12 A further topographic survey was carried out, at a higher resolution than that provided by the client, and this also recorded pronounced linear earthworks in the south-eastern corner and along the eastern edge of the site, but showed no indication of a clear pattern of linear earthworks on the western side (Figure 2).

2.13 As a further measure, LiDAR data, at 1m resolution, was obtained from the Environment Agency (Figure 3). Again, this shows clearly defined ridge and furrow earthworks on the extreme eastern side of the site, together with evidence for less well defined linear activity on the western side, which reduces in definition towards the middle of the site (Figures 4 - 5).

TRIAL TRENCHING

2.14 Eleven trenches, representing a 5% sample of the site, were laid out to investigate areas affected by the proposed development (Figure 6).

2.15 The general stratigraphy was uniform across the site and consisted of a layer of very dark grey (5Y 3/1) or grey (5Y 5/1) clay silt topsoil, which varied in depth between 0.13m and 0.65m. Below this, across most of the site, was a layer of dark grey (5Y 4/1) or greyish brown (5Y 5/2) silty clay subsoil, between 0.01m and 0.3m in depth. The subsoil was not present in Trenches 2, 6 and 10 in the centre of the site towards the northern end. The lack of subsoil suggests disturbance in this area, which may account for the observed lack of ridge and furrow earthworks in the centre of the site. The natural clay was encountered directly below the subsoil, where present, or below the topsoil in Trenches 2, 6 and 10.

Trench 1

2.16 Trench 1 was located in the north-western corner of the site across the footprints of proposed dwellings and their access (Figure 6). The trench was oriented NNW to SSW, measured 30m in length, 1.6m in width, and was excavated to a maximum depth of c.0.42m (Plate 1).

Trench data:

Length (m):	30	Width (m):	1.6	Maximum Depth (m):	0.75	Orientation	NNE-SSW
Level at N End of Trench (mOD)		Top	13.51	Level at S End of Trench (mOD)		Top	13.88
		Base	13.08			Base	13.35
Context	Type	Description	Dimensions (m)				
			Length	Width	Depth		
-	Layer	Very dark grey (5Y 3/1) clay silt topsoil.	>30	>1.60	0.21		
-	Layer	Dark grey (5Y 4/1) silty clay subsoil.	>30	>1.60	0.07		
-	Layer	Yellow (5Y 7/6) clay natural	>30	>1.60	>0.14		

2.17 No evidence for ridge and furrow earthworks were observed in Trench 1 and no other archaeological features, deposits or finds were encountered.

Trench 2

2.18 Trench 2 was located to the east of Trench 1 at the northern end of the site, across the footprints of proposed dwellings (Figure 6). It was oriented ESE-WNW and measured 30m in length, 1.6m in width and 0.41m in depth (Plate 2).

Trench data:

Length (m):	30	Width (m):	1.6	Maximum Depth (m):	0.41	Orientation	ESE-WNW
Level at E End of Trench (mOD)		Top	13.24	Level at W End of Trench (mOD)		Top	13.44
		Base	12.96			Base	13.04
Context	Type	Description	Dimensions (m)				
			Length	Width	Depth		
-	Layer	Very dark grey (5Y 3/1) clay silt topsoil.	>30	>1.60	0.24		
-	Layer	Yellow (5Y 7/6) natural clay with flints	>30	>1.60	>0.17		

2.19 No evidence for ridge and furrow earthworks were observed in Trench 2 and no other archaeological features, deposits or finds were encountered.

Trench 3

2.20 Trench 3 was located to the east of Trench 2, in the north-eastern corner of the site, across the footprints of proposed dwellings (Figure 6). It was oriented approximately north-west to south-east and measured 30m in length and 1.6m in width, with a maximum depth of 0.65m (Plate 3).

Trench data:

Length (m):	30	Width (m):	1.6	Maximum Depth (m):	0.65	Orientation	NW-SE
Level at NW End of Trench (mOD)		Top	13.05	Level at SE End of Trench (mOD)		Top	13.11
		Base	12.63			Base	12.88
Context	Type	Description	Dimensions (m)				
			Length	Width	Depth		
-	Layer	Very dark grey (5Y 3/1) clay silt topsoil.	>30	>1.60	0.13		
-	Layer	Dark grey (5Y 4/1) silty clay subsoil, with moderate chalk inclusions.	>30	>1.60	0.22		
-	Layer	Pale olive (5Y 6/3) natural chalky clay	>30	>1.60	>0.30		

2.21 No evidence for ridge and furrow earthworks were observed in Trench 3 and no other archaeological features, deposits or finds were encountered.

Trench 4

2.22 Trench 4 was located on the eastern side of the site, to the south of Trench 3, across the footprints of proposed dwellings (Figure 6). It was oriented approximately east to west and measured 30m in length, 1.6m in width, with a depth of 0.46m (Plate 4).

Trench data:

Length (m):	30	Width (m):	1.6	Maximum Depth (m):	0.71	Orientation	E-W
Level at W End of Trench (mOD)		Top	13.55	Level at E End of Trench (mOD)		Top	13.31
		Base	13.12			Base	12.82
Context	Type	Description	Dimensions (m)				
			Length	Width	Depth		
-	Layer	Very dark grey (5Y 3/1) clay silt topsoil.	>30	>1.60	0.65 (max)		
-	Layer	Dark grey (5Y 4/1) silty clay subsoil	>30	>1.60	0.49 (max)		
-	Layer	Patchy mid grey brown / orange clay natural	>30	>1.60	> 0.08		
401	Cut	NNE-SSW aligned furrow at E end of trench, only W side exposed, containing topsoil & subsoil	>1.60	>3.01	>0.27		
402	Cut	NNE-SSW aligned furrow to W of [401], containing topsoil & subsoil	>1.60	4.94	>0.39		
403	Cut	NNE-SSW aligned furrow to W of [402], containing subsoil	>1.60	3.24	>0.29		
404	Cut	NNE-SSW aligned furrow at W end of trench, containing subsoil	>1.60	3.19	>0.26		

2.23 No cut features were present in the trench, but traces of ridge and furrow cultivation were observed below the topsoil in both sections (Figure 7; Plates 5-6). Four furrows (contexts [401] – [404]) and three ridges were noted in both sections. The furrows, which extended into the natural clay below the limit of excavation, contained the recorded subsoil. They varied in width between 3.24m and 4.94m. The exposed part of the ridges, which varied in height between 0.25m and 0.37m, were also composed of subsoil.

2.24 No other archaeological features, deposits or finds were encountered in Trench 4.

Trench 5

2.25 Trench 5 was located in the centre of the site, to the west of Trench 4 and crossed the proposed line of the access road (Figure 6). It was oriented NNE - SSW and measured 30m in length, 1.6m in width, with a maximum depth of 0.36m (Plate 7).

Trench data:

Length (m):	30	Width (m):	1.6	Maximum Depth (m):	0.36	Orientation	NNE-SSW		
Level at N End of Trench (mOD)			Top	13.60	Level at S End of Trench (mOD)			Top	13.82
			Base	13.32				Base	13.50
Context	Type	Description	Dimensions (m)						
			Length	Width	Depth				
-	Layer	Very dark grey (5Y 3/1) clay silt topsoil.	>30	>1.60	0.19				
-	Layer	Grey (5Y 6/1) silty clay subsoil with very occasional small stones	>30	>1.60	0.10				
501	Cut	Sub-circular feature, with irregular sides & concave base. Extended under E baulk & cut the subsoil & natural clay. Interpreted as a modern pit. Contained fill (502).	1.00	0.50	0.25				
502	Fill	Grey (5Y 5/1) friable, but slightly sticky, silty clay, with very occasional small flints & charcoal smudges. Contained late post-medieval brick fragment. Fill of [501].	1.00	0.50	0.25				
-	Layer	Pale yellow (5Y 7/3) natural clay with moderate flints and chalk flecks.	>30	>1.60	> 0.07				

2.26 A single pit, cut [501], was observed extending from the east baulk at 7.20m from the north end of the trench. The exposed area was sub-circular in plan, with irregular sides and a concave base measuring (Figure 8, Plate 8). It measured 1m in length, 0.50m in width and 0.25m in depth and contained fill (502), a slightly sticky grey (5Y 5/1) silty clay which contained a single late post-medieval brick fragment.

2.27 A single modern plough scar was also observed crossing the trench on a north-west to south-east alignment. Fragments of post-medieval tile were recovered as unstratified finds from the topsoil.

2.28 No other archaeological features, deposits or finds were revealed in Trench 5.

Trench 6

2.29 Trench 6 was located on the western side of the site, to the west of Trench 5, across the footprints of proposed dwellings (Figure 6). It was aligned north-east to south-west and measured 30m in length, 1.60m in width with a maximum depth of 0.37m (Plate 9).

Length (m):	30	Width (m):	1.6	Maximum Depth (m):	0.37	Orientation	ESE-WNW		
Level at E End of Trench (mOD)			Top	13.74	Level at W End of Trench (mOD)			Top	14.01
			Base	13.44				Base	13.60
Context	Type	Description	Dimensions (m)						
			Length	Width	Depth				
-	Layer	Very dark grey (5Y 3/1) clay silt topsoil.	>30	>1.60	0.29				
-	Layer	Pale yellow (5Y 7/3) natural clay with moderate chalk flecks.	>30	>1.60	>0.08				

Trench data:

2.30 At the request of the planning archaeologist an extension was excavated on the eastern side of the trench in order to investigate a possible feature. The extended area was located at 7m from the north-eastern end of the trench and measured 1.6m by 1.5m (Plate 10). Nothing

was observed in this area, and it appears that differential drying of the natural clay may have indicated the presence of a cut feature.

2.31 No evidence for ridge and furrow earthworks were observed in Trench 6 and no other archaeological features, deposits or finds were encountered.

Trench 7

2.32 This was originally intended to be one trench, aligned approximately east – west and located at the southern end of the site, to the south of Trench 5. With the agreement of the HET, the trench was relocated and split into two halves, numbered 7A and 7B, in order to avoid a site cabin.

Trench 7A

2.33 Trench 7A was located close to the southern boundary (Figure 6). It was aligned approximately east – west, measured 14m in length, 1.6m in width with a maximum depth of 0.57m (Plate 11).

Trench data:

Length (m):	14	Width (m):	1.6	Maximum Depth (m):	0.67	Orientation	E-W
Level at E End of Trench (mOD)		Top	13.78	Level at W End of Trench (mOD)		Top	13.85
		Base	13.21			Base	13.31
Context	Type	Description	Dimensions (m)				
			Length	Width	Depth		
-	Layer	Grey (5Y 5/1) clay silt topsoil.	>14	>1.60	0.22		
-	Layer	Greyish brown (5Y 5/2) silty clay subsoil	>14	>1.60	0.30		
-	Layer	Light brown (5Y 6/4) clay natural	>14	>1.60	> 0.15		
701	Cut	NNW-SSE aligned furrow towards the W end of the trench, contains subsoil	>1.60	3.78	>0.12		
702	Cut	NNW-SSE aligned furrow in the centre of the trench, contains subsoil	>1.60	1.80	>0.12		
703	Cut	NNW-SSE aligned furrow towards the W end of the trench, only W side exposed, contains subsoil	>1.60	1.36	>0.14		

2.34 No cut features were present in the trench, but traces of ridge and furrow cultivation were observed below the subsoil in both sections (Figure 7; Plate 12). Three furrows (contexts [701] – [703]) and three ridges were noted in both sections. The furrows, which extended into the natural clay below the limit of excavation, contained the recorded subsoil. They varied in width between 1.80m and 3.78m. The exposed part of the ridges, which measured between 0.12m and 0.17m in height, were also composed of subsoil.

2.35 No other archaeological features, deposits or finds were encountered in the trench.

Trench 7B

2.36 Trench 7B was located 10m to the north of Trench 7A, across the footprint of proposed dwellings. It was aligned approximately east – west, measured 15.2m in length, 1.60m in width, with a maximum depth of 0.45m (Plate 13).

Trench data:

Length (m):	15.20	Width (m):	1.6	Maximum Depth (m):	0.45	Orientation	E-W
Level at E End of Trench (mOD)		Top	13.51	Level at W End of Trench (mOD)		Top	13.74
		Base	13.18			Base	13.23
Context	Type	Description	Dimensions (m)				
			Length	Width	Depth		
-	Layer	Grey (5Y 5/1) clay silt topsoil.	>15.20	>1.60	0.20		
-	Layer	Greyish brown (5Y 5/2) silty clay subsoil	>15.20	>1.60	0.01		
-	Layer	Light brown (5Y 6/4) clay natural	>15.20	>1.60	>0.24		
704	Cut	NNW-SSE aligned furrow at W end of trench, contains natural clay	>1.60	1.49	>0.22		
705	Cut	NNW-SSE aligned furrow to E of [704], contains natural clay	>1.60	1.78	>0.22		
706	Cut	NNW-SSE aligned furrow at E end of trench, contains natural clay	>1.60	5.28	>0.24		

2.37 No cut features were present in the trench, but traces of ridge and furrow cultivation were observed in the natural in both sections (Figure 9). Four ridges and three furrows were noted in both sections, at irregular intervals. Unlike the other trenches that contained the remnants of ridge and furrow cultivation the features were identified within the natural clay below the subsoil. The exposed area of the furrows varied in width between 1.49m and 5.28m while the ridges measured approximately 0.22m in height.

2.38 No other archaeological features, deposits or finds were encountered in the trench.

Trench 8

2.39 Trench 8 was located in the south-eastern corner of the site, to the east of Trenches 7A and 7B, across the footprint of proposed dwellings. It was aligned NNE – SSW, and measured 30m in length, 1.60m in width, with a maximum depth of 0.44m (Plate 14).

Trench data:

Length (m):	30	Width (m):	1.6	Maximum Depth (m):	0.44	Orientation	NNE-SSW
Level at N End of Trench (mOD)		Top	13.55	Level at S End of Trench (mOD)		Top	13.75
		Base	13.14			Base	13.20
Context	Type	Description	Dimensions (m)				
			Length	Width	Depth		
-	Layer	Grey (5Y 5/1) clay silt topsoil.	>14	>1.60	0.11		
-	Layer	Greyish brown (5Y 5/2) silty clay subsoil	>14	>1.60	0.15		
-	Layer	Light brown (5Y 6/4) clay natural	>14	>1.60	>0.18		

2.40 Ridge and furrow earthworks were visible on the ground surface but were not encountered within the trench, which followed the line of a ridge.

2.41 No other archaeological features, deposits or finds were encountered in the trench.

Trench 9

2.42 Trench 9 was located in the south-eastern corner of the site, to the east of Trench 8, across the footprint of proposed dwellings. It was aligned north-west to south-east and measured 18.40m in length, 1.60m in width, with a maximum depth of 0.44m (Plate 15).

Trench data:

Length (m):	18.40	Width (m):	1.60	Maximum Depth (m):	0.44	Orientation	NW-SE	
Level at NW End of Trench (mOD)			Top	13.42	Level at SE End of Trench (mOD)		Top	13.52
			Base	13.11			Base	12.97
Context	Type	Description	Dimensions (m)					
			Length	Width	Depth			
-	Layer	Grey (5Y 5/1) clay silt topsoil.	>18.40	>1.60	0.21			
-	Layer	Greyish brown (5Y 5/2) silty clay subsoil	>18.40	>1.60	0.14			
-	Layer	Light brown (5Y 6/4) clay natural	>18.40	>1.60	> 0.09			
901	Cut	NNW-SSE aligned furrow at NW end of the trench, only E side exposed, contains topsoil	>1.60	>2.04	>0.32			
902	Cut	NNW-SSE aligned furrow to SE of [901], cut into the natural clay	>1.60	5.46	>0.25			
903	Cut	NNW-SSE aligned furrow at SE end of the trench, only W side exposed, cut into the natural clay	>1.60	>2.43	>0.30			

2.43 No cut features were present in the trench, but traces of ridge and furrow cultivation were observed within the subsoil in both sections (Figure 9; Plates 16-17). Three furrows and two ridges were noted in both sections. The furrows extended into the natural clay below the limit of excavation. The subsoil survived only on the tops of the ridges, which measured between 0.25m and 0.32m in height below the topsoil.

2.44 No other features, deposits or finds were encountered in the trench.

Trench 10

2.45 Trench 10 was located towards the northern end of the site, between Trenches 2 and 5, across the footprints of proposed dwellings and their access. It was aligned WNW-ESE and measured 30m in length, 1.60m in width, with a maximum depth of 0.29m.

Trench data:

Length (m):	30	Width (m):	1.6	Maximum Depth (m):	0.29	Orientation	ESE-WNW	
Level at E End of Trench (mOD)			Top	13.24	Level at W End of Trench (mOD)		Top	13.44
			Base	12.96			Base	13.04
Context	Type	Description	Dimensions (m)					
			Length	Width	Depth			
-	Layer	Very dark grey (5Y 3/1) clay silt topsoil.	>30	>1.60	0.21			
-	Layer	Yellow (5Y 7/6) natural clay with flints	>30	>1.60	>0.08			

2.46 No evidence for ridge and furrow earthworks were observed in Trench 10 and no other archaeological features, deposits or finds were encountered.

FINDS ASSESSMENT

Context	Pottery		Brick		Tile	
	No	Wt (g)	No	Wt (g)	No	Wt (g)
u/s	6	85	2	300	4	85
502			1	355		
Totals	6	85	3	655	4	85

Pottery

2.47 Six pottery sherds, weighing 85g, were recovered as unstratified finds from the topsoil across the present site. The bulk of the assemblage comprised abraded and largely undiagnostic sherds of late medieval and post-medieval date. None were in their primary place of deposition and they may have been used as field manuring.

2.48 The largest pieces were of post-medieval date, including a fragment from a brown glazed earthenware vessel and part of the rim and handle of an earthenware jug of probable 18th / 19th century date, which accounted for over half the assemblage by weight (50g). The remainder (4 sherds, weighing 15g) comprised small sherds of unsourced medieval greyware.

Recommendations

2.49 The presence of the medieval sherds could indicate activity of this date in the vicinity of the site, however, the state of the sherds suggests they may have been imported on to the site as field manuring. On this basis, no further work is recommended on this material and it is proposed for discard.

Ceramic building material

2.50 Three brick fragments, weighing 655g, and 4 tile fragments, weighing 85g, were recovered from as unstratified finds from the topsoil and from pit [501]. All are post-medieval in date and the bulk of the assemblage has apparently been used as field manuring.

Recommendations

2.51 The material is of late date and is largely unstratified. No complete examples were present and it appears to have been spread as field manuring. On this basis, no further work is recommended on this material and it is proposed for discard.

3 Discussion

Archaeological Background

3.1 The proposed development lies c700m north of the historic core of Haddenham, outside of the conservation area, but within a known archaeological landscape. An examination of the Cambridgeshire Historic Environment Record for a 500m radius of the site has demonstrated the presence of archaeological assets from the medieval period, with assets from the prehistoric period onwards in the wider region.

3.2 During the prehistoric period, the higher ground occupied by the village was surrounded by fenland, consisting of a complex sequence of peat, marine deposits and riverine alluvium.

3.3 The earliest evidence for activity around the village of Haddenham is concentrated in the gravel terraces following the course of the River Ouse (7km to the east and 4km to the south of the site), at the Upper and Lower Delphs area to the west, and at Foulmire to the north-west. In these areas, prehistoric monuments have been recognised, including a Neolithic causewayed enclosure and Bronze Age round barrows. A build-up of alluvium, due to climatic fluctuations, occurred in the region during the middle Iron Age and, to a greater degree, in the post-Roman period (Hall 1996).

3.4 Currently most of the evidence for Iron Age, Roman and Anglo-Saxon activity lies in the core of the village on higher ground to the south.

3.5 Medieval ridge and furrow has been observed within the development area running north-south in good condition (CHER 09869), and has also been identified in fields c.350m to the south east of the site (MCB05718).

3.6 The local clay has been exploited from at least the post medieval period. The Old Brick and Tile works at Haddenham, with associated quarry pits, is shown on the 1st edition OS map of 1886, 230m to the east of the site (MCB20040). The former 'New Brickworks' at Haddenham End Field, 300m north of the site, is also shown on the 1886 map and on early 20th century maps. Ponds lie in areas of former clay extraction (MCB19484).

3.7 There are three post-medieval grade II listed buildings, nos. 25, 40 and 36-38 Station Road, c 350m to the south of the site.

Research aims

3.8 The aims of the investigation have been to establish the location, depth, extent, date, character and condition of any remains that could be threatened by the development, to consider the local and regional archaeological and historical context of such remains, and their significance and quality, in relation to the current published regional research agenda (Brown and Glazebrook 2000, Medleycott and Brown 2008, Medleycott 2011), and to provide sufficient information to ensure that an appropriate strategy for the mitigation of damage or destruction of such remains by the development could be adopted if the development should be allowed to proceed.

3.9 On the basis of the known archaeological potential of the site, as extrapolated from the HER, it was considered that archaeological investigation of the site had the potential to contribute to a greater understanding of:

- settlement patterns during the prehistoric periods;
- economy and settlement during the Roman period;
- economy and settlement during the Anglo-Saxon period;
- field systems and agricultural practices from the Medieval period onwards; and,
- the extent of the brick and tile industry during the post medieval period.

Collected Data

3.10 The earthwork survey, undertaken in advance of the trial trenching, identified an area of pronounced ridge and furrow in the south-eastern corner of the site, which extended northwards along the eastern boundary, reducing in clarity as it did so.

3.11 Slight evidence for possible linear earthworks on the western side of the site was noted on LiDAR data at 1m resolution, obtained from the Environment Agency. No evidence for ridge and furrow cultivation in the centre of the site was observed on any of the sources consulted for the present project, suggesting that this area has been subject to later disturbance.

3.12 The trial trenches revealed a layer of topsoil between 0.13m and 0.65m in depth. This overlay a layer of subsoil, between 0.01m and 0.30m in depth, across most of the site. The subsoil, which sealed the natural clay, was not present in the centre of the site, indicating significant later truncation.

3.13 One cut feature was identified in Trench 5. This was interpreted by the excavator as a late post-medieval pit on the basis that part of a 19th century brick was recovered from its fill. No evidence for activity on the site from the late 1880s onwards is shown on the OS mapping (www.old-maps.co.uk). It is likely that this feature had a very short lifespan.

3.14 Evidence for ridge and furrow earthworks was identified in the sections of the east – west aligned trenches in the south-eastern corner of the site. The ridges were very slight and widely spaced, again suggestive of later disturbance, possibly from modern ploughing.

3.15 The finds collected in the course of the fieldwork are much abraded and largely undiagnostic. Their size, together with their worn state, suggests that they were used as field manuring.

Conclusions

3.16 Although the site lies in an area of archaeological potential defined by entries on the county HER, no evidence of prehistoric, Roman, Saxon or medieval activity was revealed during the investigation, with the exception of the previously identified ridge and furrow earthworks.

3.17 On the basis of the results of the evaluation, the risk that the proposed development might disturb archaeological remains of any significance may be considered to be *Low* for all periods.

Confidence Rating

3.18 Several documentary sources were consulted for the present project, including an archaeological desk-based assessment of the proposed route of a water main, running between

Chatteris and Haddenham, and LiDAR data from the Environment Agency. Two topographic surveys were also carried out across the site, including the client's topographical survey and a higher resolution survey focused on identifying low level earthworks. On this basis there are no circumstances that would lead to a confidence rating for earthwork survey stage of the project that was less than *High*.

3.19 In the course of the trial trenching programme, the weather, ground and light conditions were acceptable for the identification of potential features and deposits, and for their investigation. On this basis, there are no circumstances that would lead to a confidence rating for the trial trenching stage of the project that was less than *High*.

4 Sources Consulted

British Geological Survey: www.bgs.ac.uk/opengeoscience

Brown, N. & Glazebrook, J., 2000, *Research and Archaeology: a framework for the eastern counties, 2. Research agenda and strategy*. East Anglian Archaeology

Dept. of Communities and Local Government, 2012, *National Planning Policy Framework*. (TSO)

English Heritage, 1991, *Management of Archaeological Projects*. (HBMC)

English Heritage, 2006, *Management of Field Projects in the Historic Environment: The MoRPHE Project Managers' Guide*. (HBMC)

English Heritage, 2010, *Historic Environment Planning Practice Guide*. (HBMC)

English Heritage, 2011, *Environmental Archaeology: A Guide to the Theory and Practice of Methods, from Sampling and Recovery to Post-excavation (second edition)*. (HBMC)

Gdaniec, K. 2013 *Brief for Archaeological Evaluation* (CHET)

Gurney, D. et al, 2003, *Standards for Field Archaeology in the East of England*. ALGAO (EER)

Historic mapping evidence: www.old-maps.co.uk

Institute for Archaeologists, 2008, *Standard and Guidance for Field Evaluation*. (IfA)

Medlycott, M. (ed.), 2011, *Research and Archaeology Revisited: A Revised Framework for the East of England*. East Anglian Archaeology Occasional Paper no.24

Soil Survey of England and Wales (SSEW), 1983, 1:250,000 *Soil Map of England & Wales, Sheet 4, Eastern England*. SSEW

Trimble, R. & Trimble, D. 2008 *Archaeological Desk-based Assessment of the Proposed Anglian Water Sutton to March Rezone Scheme: Chatteris to Haddenham Section, Cambridgeshire*. Archaeological Project Services, Report no.2008/08

Turner, C. 2014 *Land off Northumbria Close, Haddenham, Cambridgeshire: Archaeological Project Design*. Heritage Network

5 Illustrations

Figure 1	Site location
Figure 2	Topographical survey
Figure 3	Rendered LiDAR data
Figure 4	Filtered LiDAR data
Figure 5	Interpreted LiDAR data
Figure 6	Trench layout
Figure 7	Trenches 4 & 7A – plan & section
Figure 8	Trench 5 plan & feature [501] plan & section
Figure 9	Trenches 7B & 9 – plan & section

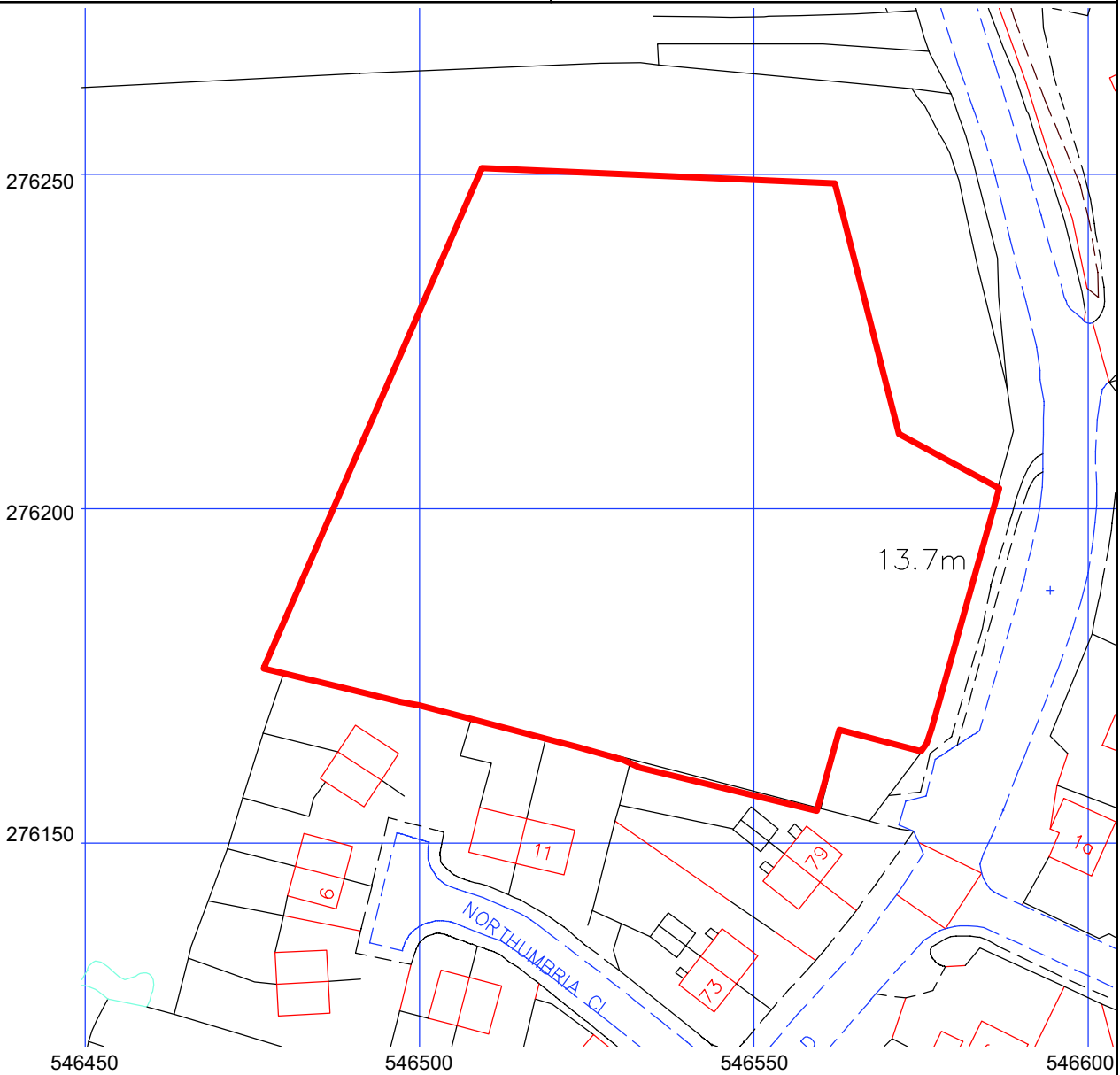
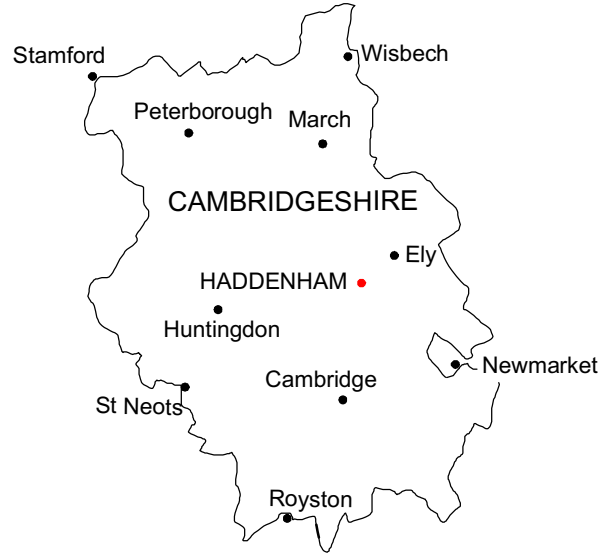
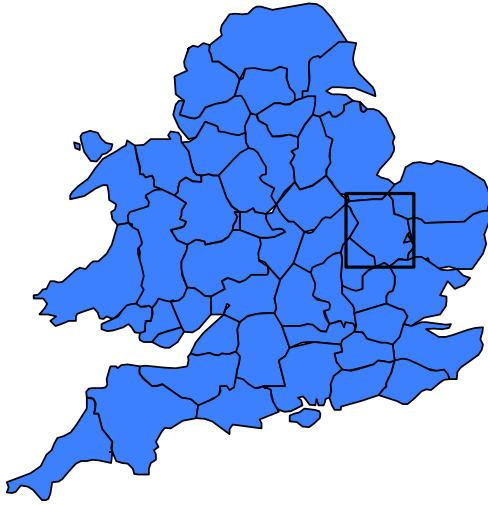
Plate 1	Trench 1, looking S
Plate 2	Trench 2, looking W
Plate 3	Trench 3, looking SW
Plate 4	Trench 4, looking E
Plate 5	Trench 4, part of N section showing ridge & furrow
Plate 6	Trench 4, part of N facing section looking SSW
Plate 7	Trench 5, looking NNE
Plate 8	Feature [501], looking E
Plate 9	Trench 6, looking SW
Plate 10	Trench 6 extension, looking NE
Plate 11	Trench 7A, looking E
Plate 12	Trench 7A, part of N facing section, looking S
Plate 13	Trench 7B, looking SE
Plate 14	Trench 8, looking NNE
Plate 15	Trench 9, looking W
Plate 16	Trench 9, NE facing section at NW end of trench
Plate 17	Trench 9, part of NE facing section, looking SW
Plate 18	Trench 10, looking WNW

Page Left Blank

THE HERITAGE NETWORK LTD

Land off Northumbria Close,
Haddenham, Cambs.

HN1130



Site Location

Ordnance Survey (c). Crown copyright 2014. All rights reserved. Licence no. 100022432

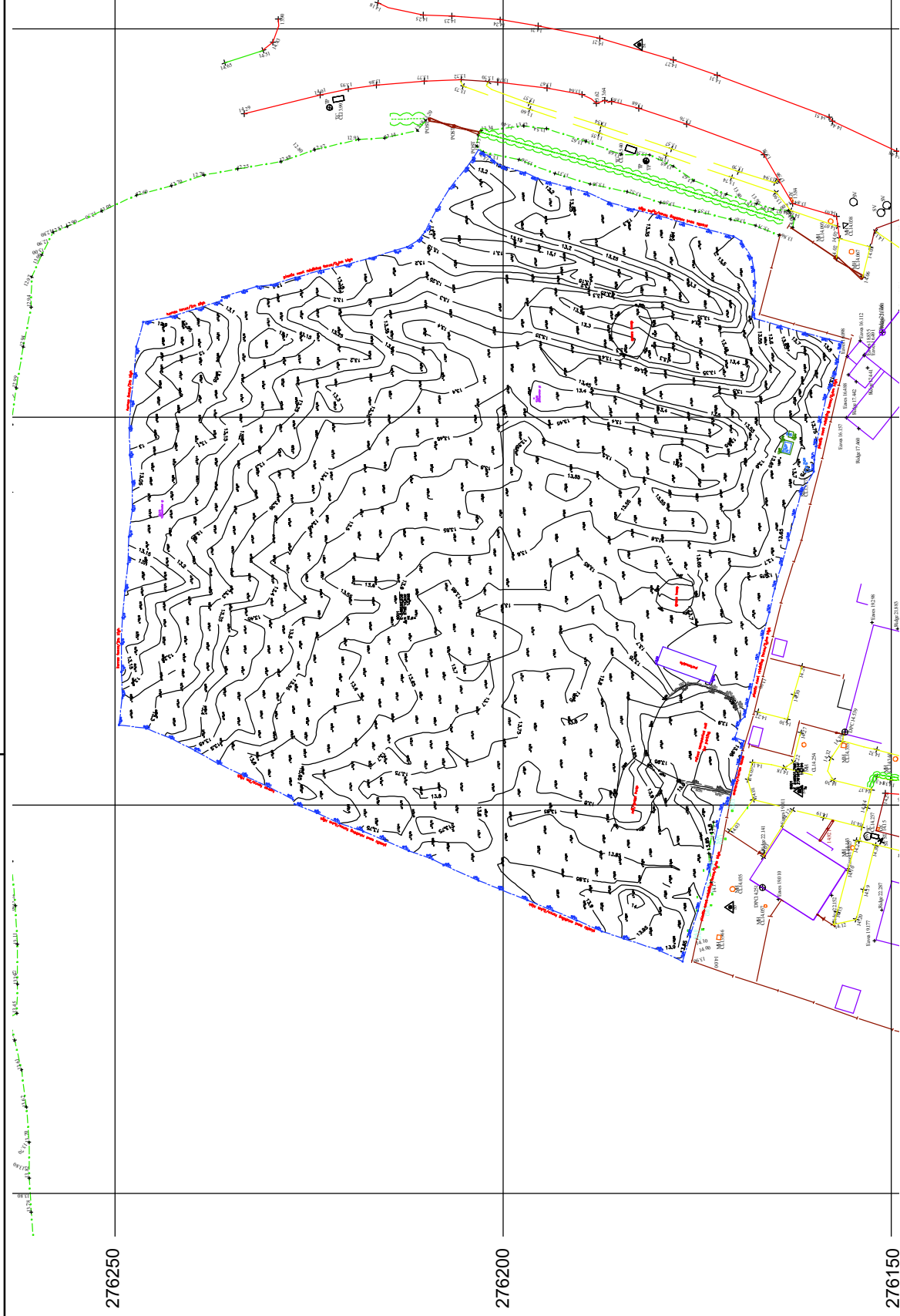
Scale 1:1000

Figure 1

THE HERITAGE NETWORK LTD

Land off Northumbria Close, Haddenham, Cambs.

HN1130



Topographical survey

Scale 1:750

Figure 2

THE HERITAGE NETWORK LTD

Land off Northumbria Close, Haddenham, Cambs.

HN1 130



Rendered LiDAR data, courtesy of the Environment Agency

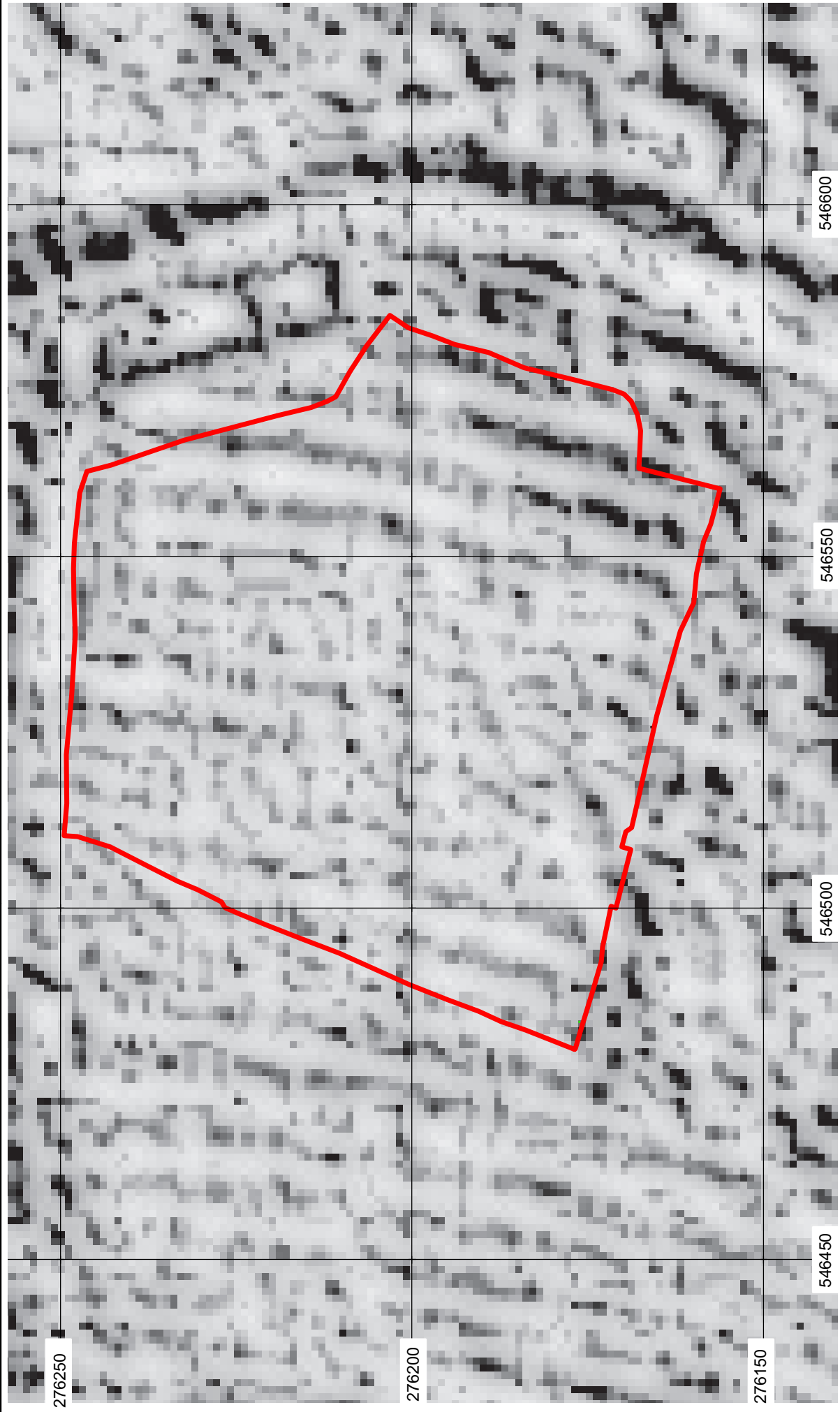
Scale 1:1000

Figure 3

THE HERITAGE NETWORK LTD

Land off Northumbria Close, Haddenham, Cambs.

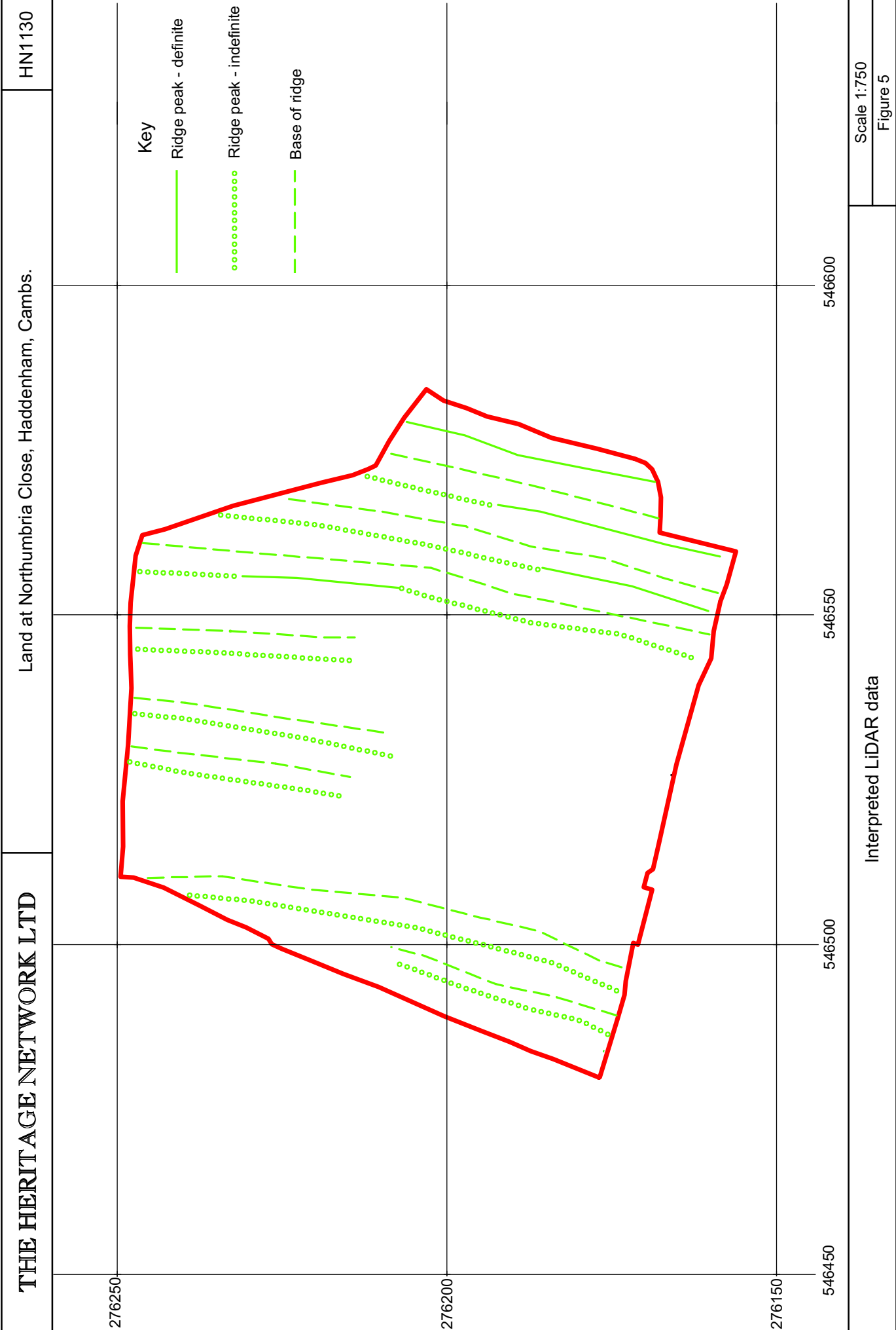
HN1130



Rendered and filtered LiDAR data

Scale 1:750

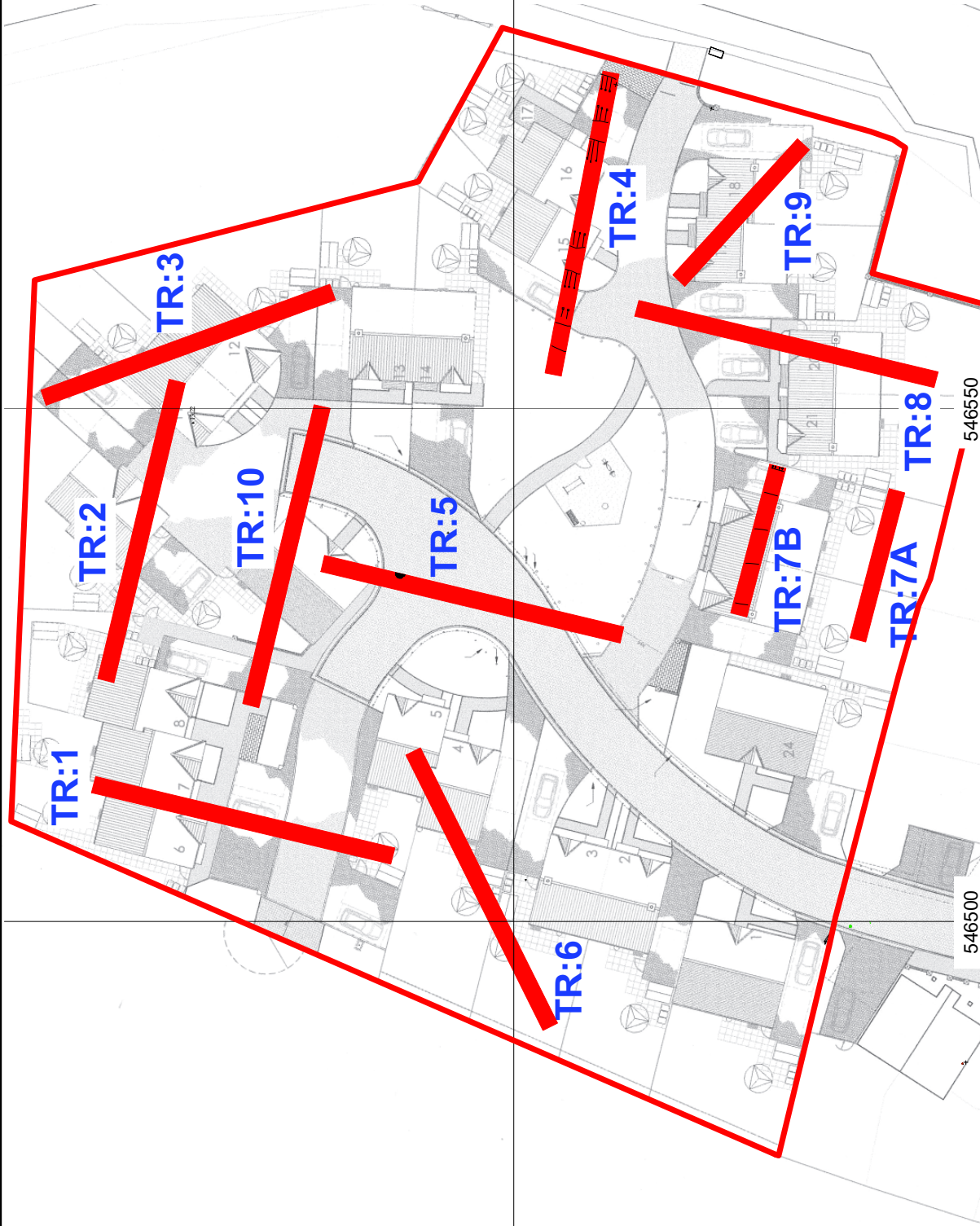
Figure 4



THE HERITAGE NETWORK LTD

Land at Northumbria Close, Haddenham, Cambs.

HN1 130

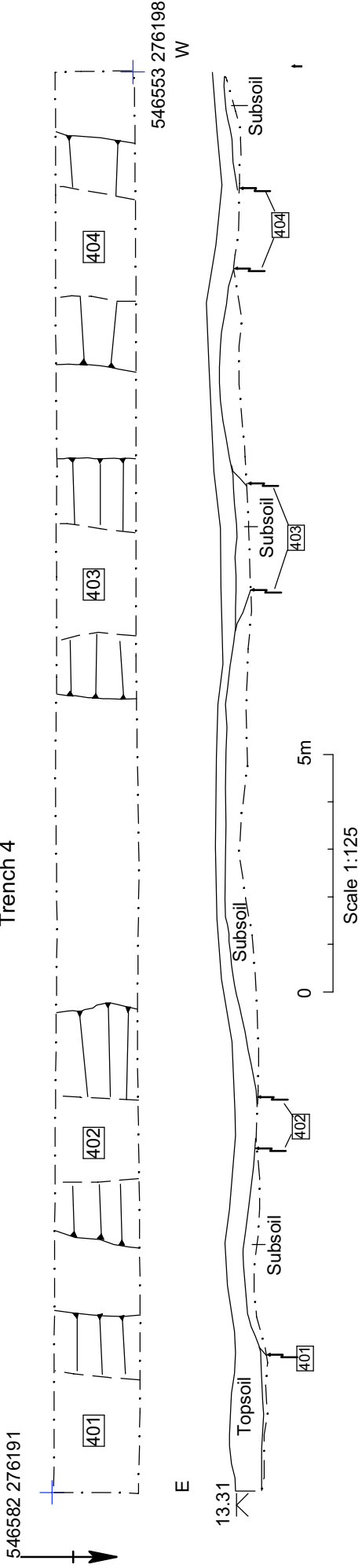


Trench location

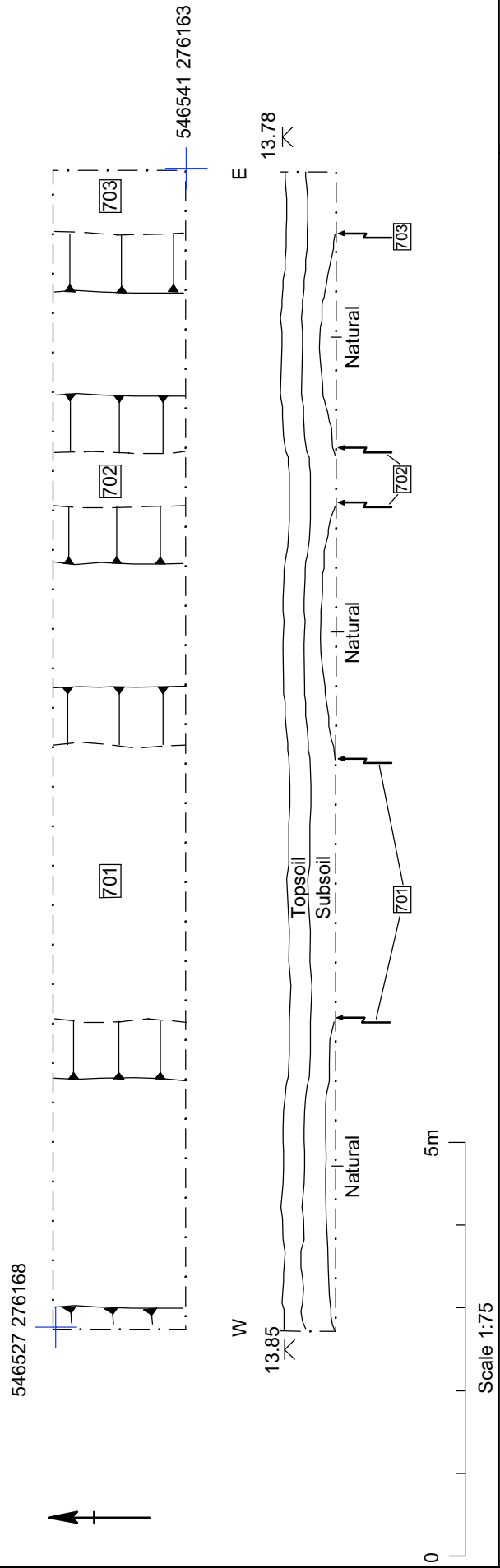
Scale 1:600

Figure 6

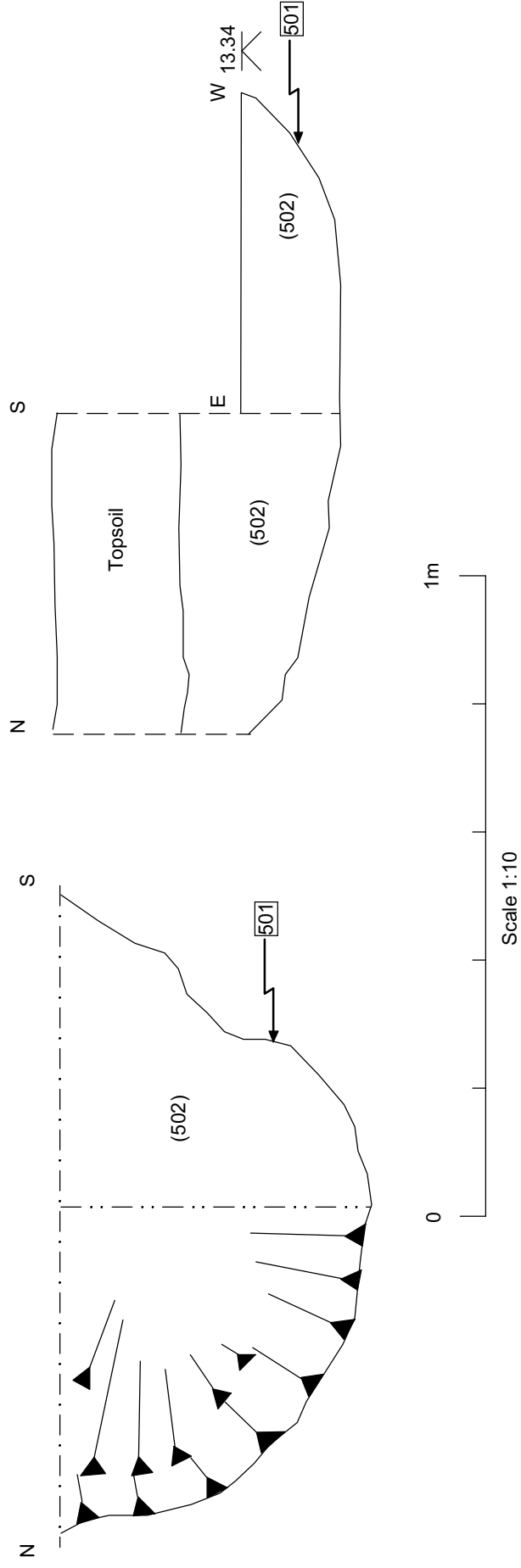
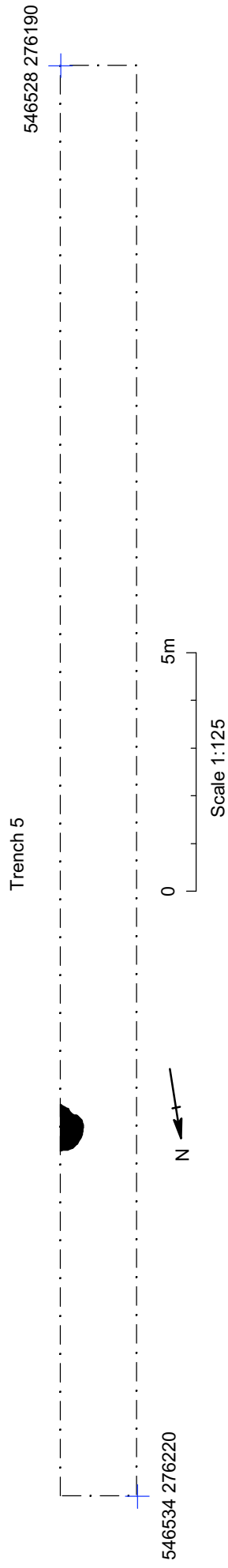
Trench 4



Trench 7A



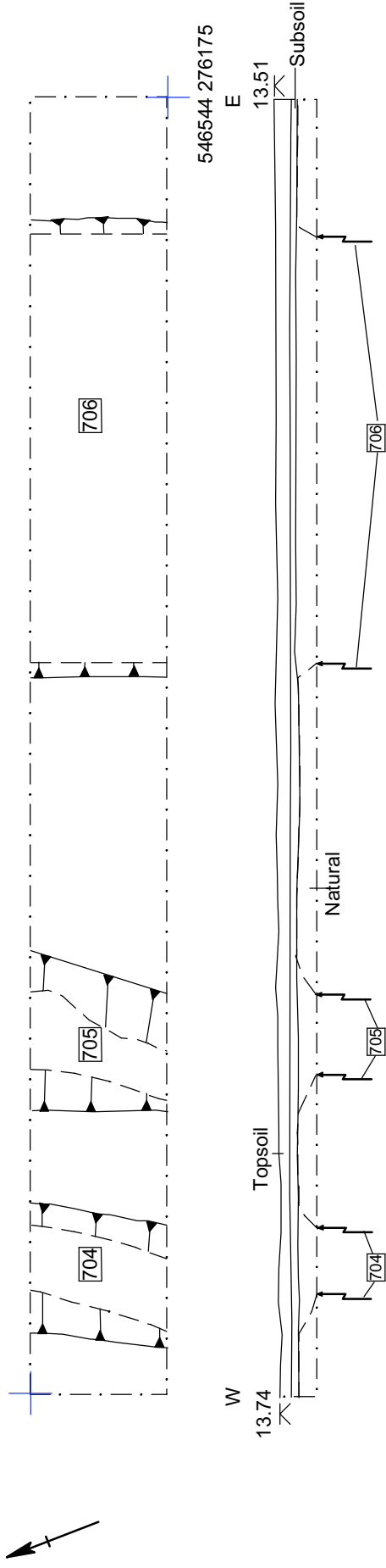
Trenches 4 and 7A - plans and sections



Trench 5 plan & Feature [501] plan and section

Trench 7B

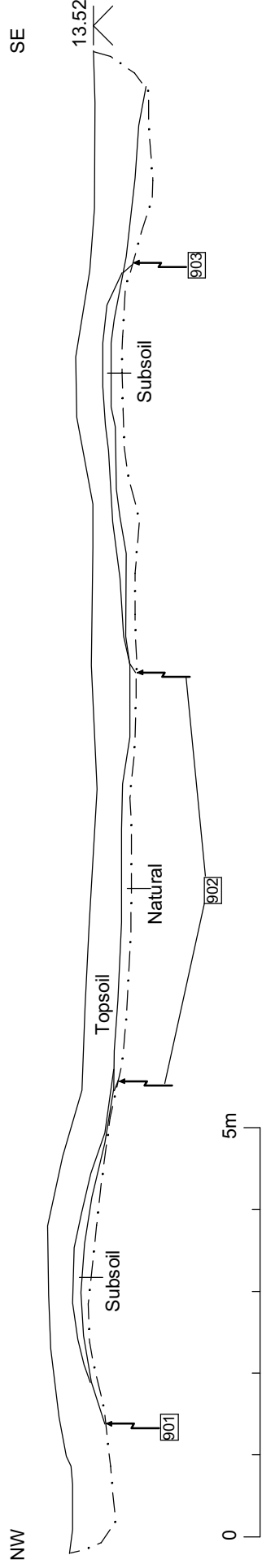
546530 276180



546563 276186

Trench 9

546575 276172



Trenches 7B & 9 - plan & section

Scale 1:75

Figure 9



Plate 1: Trench 1, looking S



Plate 2: Trench 2, looking W



Plate 3: Trench 3, looking SW



Plate 4: Trench 4, looking E



Plate 5: Trench 4, indicative section showing ridge and furrow, looking SSW



Plate 6: Trench 4, indicative section showing ridge & furrow, looking SSW



Plate 7: Trench 5, looking NNE



Plate 8: Feature [501], looking E



Plate 9: Trench 6, looking SW



Plate 10: Trench 6 extension, looking NE



Plate 11: Trench 7A, looking E



Plate 12: Trench 7A, indicative section showing ridge & furrow, looking S



Plate 13: Trench 7B, looking SE



Plate 14: Trench 8, looking NNE



Plate 15: Trench 9, looking W



Plate 16: Trench 9, NE facing section at NW end of trench, looking SW



Plate 17: Trench 9, part of NE facing section, looking SW



Plate 18: Trench 10, looking WNW

Appendix

Oasis Summary Sheet

OASIS ID: heritage1-175880	
Project details	
Project name	Haddenham, land off Northumbria Close
Short description of the project	<p>In order to characterise the archaeological potential of the site of a proposed new residential development at Northumbria Close, Haddenham, Cambridgeshire, the Heritage Network was commissioned by the developers to undertake an archaeological field evaluation.</p> <p>Ridge and furrow earthworks had been identified across the site from aerial photography and the first stage of the present project took the form of a topographical survey to clarify their extent. This showed pronounced ridge and furrow earthworks in the south-eastern corner of the site, which extended northwards along the eastern boundary, reducing in clarity as they did so. Any earthworks crossing the centre of the site appear to have been completely degraded, although faint traces were noted on the western side of the site on LiDAR data obtained from the Environment Agency.</p> <p>Eleven trial trenches were laid out across the areas likely to be most highly impacted by the development groundworks, after a vegetation strip of the site had been carried out as part of the ecological requirements of the planning consent. The trenches revealed a layer of topsoil with an average depth of around 0.25m, over a subsoil layer of up to 0.30m in depth. This subsoil, which largely sealed the natural clay, had been truncated in the centre of the site.</p> <p>Slight traces of ridge and furrow earthworks were noted in the sections of the east – west aligned trenches in the south-eastern corner. They were not observed elsewhere on the site. Only one cut feature was encountered, in Trench 5 located in the centre of the site. This was a possible pit, which contained a late post-medieval brick fragment.</p> <p>On the basis of the results of the evaluation, the risk that the proposed development might disturb archaeological remains of any significance may be considered to be Low for all periods.</p>
Project dates	Start: 28-07-2014 End: 13-08-2014
Previous/future work	No / No
Associated project reference codes	ECB4164 - HER event no.
Associated project reference codes	HN1130 - Contracting Unit No.
Type of project	Field evaluation
Site status	None
Current Land use	Cultivated Land 3 - Operations to a depth more than 0.25m
Monument type	RIDGE AND FURROW Medieval
Significant Finds	NONE None
Methods/techniques	"Targeted Trenches"
Development type	Rural residential
Prompt	National Planning Policy Framework - NPPF
Position in the planning process	After full determination (eg. As a condition)

Project location	
Country	England
Site location	CAMBRIDGESHIRE EAST CAMBRIDGESHIRE HADDENHAM Land off Northumbria Close
Postcode	CB6 3HT
Study area	9200.00 Square metres
Site coordinates	TL 4654 7620 52.3638234047 0.152406335004 52 21 49 N 000 09 08 E Point
Project creators	
Name of Organisation	Heritage Network
Project brief originator	Local Authority Archaeologist and/or Planning Authority/advisory body
Project design originator	Chris Turner
Project director/manager	David Hillelson
Project supervisor	Greg Jones
Type of sponsor/funding body	Developer
Project archives	
Physical Archive Exists?	No
Digital Archive recipient	Cambridgeshire County Archaeological Store
Digital Archive ID	ECB4164
Digital Contents	"none"
Digital Media available	"Images raster / digital photography","Text"
Paper Archive recipient	Cambridgeshire County Archaeological Store
Paper Archive ID	ECB4164
Paper Contents	"none"
Paper Media available	"Context sheet","Diary","Plan","Report","Section"
Project bibliography 1	
Publication type	Grey literature (unpublished document/manuscript)
Title	Land off Northumbria Close, Haddenham, cambridgeshire: archaeological evaluation
Author(s)/Editor(s)	Ashworth, H.
Other bibliographic details	Report no.885
Date	2014
Issuer or publisher	Heritage Network
Place of issue or publication	Letchworth, Herts.
Description	A4 booklet, comb bound, green cover, 18 pages, 9 figures, 18 plates