



Land north of Baldock Road, Royston, Hertfordshire

Archaeological Evaluation Report

February 2018

Client: CgMs Heritage

Issue No: 1

OAE Report No: 2282

NGR: TL 3414 4070



Client Name: CgMs Heritage
Client Ref No: MF/25092/01
Document Title: Land north of Baldock Road, Royston, Hertfordshire
Document Type: Evaluation Report
Report No: 2282
Grid Reference: TL3414 4070
Planning Reference: 16/00387/1
Site Code: XHTBKR18
Invoice Code: XHTBKR18
Receiving Body: North Hertfordshire District Council
Accession No:
OASIS No: Oxfordar3-339255
OA Document File Location: X:\Active Projects_Use KT\Hertfordshire\XHTBKR18_Baldock Road\Project Reports
OA Graphics File Location: X:\Active Projects_Use KT\Hertfordshire\XHTBKR18_Baldock Road\Project Data\Graphics

Issue No: 1
Date:
Prepared by: David Browne (Project Supervisor)
Checked by: Liz Muldowney (Senior Project Manager)
Edited by: Lawrence Billington (Post-excavation Project Officer)
Approved for Issue by: Paul Spoerry (Regional Manager)
Signature:

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.

OA South

Janus House
Osney Mead
Oxford
OX2 0ES

t. +44 (0)1865 263 800

OA East

15 Trafalgar Way
Bar Hill
Cambridge
CB23 8SG

t. +44 (0)1223 850 500

OA North

Mill 3
Moor Lane Mills
Moor Lane
Lancaster
LA1 1QD

t. +44 (0)1524 880 250

e. info@oxfordarch.co.uk
w. oxfordarchaeology.com

Oxford Archaeology is a registered Charity: No. 285627



Land north of Baldock Road, Royston, Hertfordshire

Archaeological Evaluation Report

Written by David Browne BSc MA

*With contributions from Carole Fletcher HND BA (Hons) ACIfA
and Martha Craven BA, PCIfA*

*Illustrations by Gillian Greer BSc MCIfA and Charlotte Walton
BA MPhil MCIfA*

Contents

List of Figures	v
List of Plates	v
Summary	vii
Acknowledgements	viii
1 INTRODUCTION.....	1
1.1 Scope of work	1
1.2 Location, topography and geology	1
1.3 Archaeological and historical background	1
2 EVALUATION AIMS AND METHODOLOGY	3
2.1 Aims.....	3
2.2 Methodology	3
3 RESULTS	5
3.1 Introduction and presentation of results.....	5
3.2 General soils and ground conditions	6
3.3 General distribution of archaeological deposits.....	6
3.4 Trench 4 (Fig. 4)	6
3.5 Trench 5 & 6 (Figs 4 and 5).....	6
3.6 Trench 9 (Fig. 3)	7
3.7 Trench 12 & 14 (Fig. 3).....	7
3.8 Trench 18 (Fig. 3)	8
3.9 Finds and environmental summary	8
4 DISCUSSION	9
4.1 Reliability of field investigation.....	9
4.2 Evaluation objectives and results	9

4.3	Interpretation	10
4.4	Significance	11
TRENCH DESCRIPTIONS AND CONTEXT INVENTORY		12
APPENDIX A FINDS REPORTS.....		17
A.1	Finds	17
APPENDIX B ENVIRONMENTAL REPORTS.....		18
B.1	Environmental Remains	18
APPENDIX C BIBLIOGRAPHY		20
APPENDIX D OASIS REPORT FORM		21

List of Figures

- Fig.1 Site location showing OAE archaeological trenches (black), in development area (red), Headland Archaeology trenches shown in green; after Goacher 2016)
- Fig. 2 Trench layout incorporating results of geophysical survey (Stratascan 2016) and previous trial trenching (Goacher 2016)
- Fig. 3 Detail plan of Trenches 9, 12, 14 and 18
- Fig. 4 Detail plan of Trenches 4, 5 and 6
- Fig. 5 Detail plan of Trenches 5 and 6 with selected sections

List of Plates

- Plate 1 Overview of western entrance of the enclosure in Trench 6, looking east.
- Plate 2 East facing section of enclosure ditch **8** in Trench 5
- Plate 3 Pits **11** and **29** and feature **16** within Trench 5, looking south.

Summary

Between the 7th and 10th of January 2019 Oxford Archaeology carried out an archaeological evaluation on land north of Baldock Road, Royston (TL3414 4070). Twenty-two trenches were opened over an area of 15.4 ha, which had been subject to a previous phase of trial trenching by Headland Archaeology. This confirmed the presence of a rectangular ditched enclosure previously known from aerial photographs and geophysics. No dating evidence was recovered from this enclosure. Other trenches confirmed the presence of a post-medieval field system and the absence of any significant archaeological remains across the rest of the site.

Acknowledgements

Oxford Archaeology would like to thank CgMs Heritage and Redrow Homes Ltd for commissioning this project. Thank you to Simon Wood who monitored the work on behalf of North Hertfordshire District Council.

The project was managed for Oxford Archaeology by Liz Muldowney. The fieldwork was directed by David Browne assisted by Jamie Hirst and Eben Cooper. Survey and digitizing was carried out by Sarita Louzolo, Gareth Rees, Emily Abrehart, Gillian Greer and Charlotte Walton. Thanks are also extended to the teams of OA staff that cleaned and packaged the finds under the management of Natasha Dodwell, processed the environmental remains under the management of Rachel Fosberry and prepared the archive under the supervision of Katherine Hamilton.

1 INTRODUCTION

1.1 Scope of work

- 1.1.1 Oxford Archaeology (OA) was commissioned by CgMs Heritage to undertake a trial trench evaluation at the site of a proposed residential development of approximately 300 houses on land west of Royston, North of Baldock Road.
- 1.1.2 The work was undertaken as a condition of Planning Permission (planning ref. 16/00387/1). Following initial scoping discussions with Hertfordshire County Council, a written scheme of investigation was produced by CgMs Heritage detailing the approach and methods for the trial trenching programme (Flitcroft 2018).

1.2 Location, topography and geology

- 1.2.1 The site lies on the western side of Royston, to the north of Baldock Road and south of the Cambridge to Hitchin railway line. It is bound by the A505 to the east and to the west by recent residential development. The site gently slopes down from the south to the north running from 69.0m OD to the south to 60.0m OD in the north. It is at National Grid Reference (TL 3414 4070).
- 1.2.2 The area of proposed development consists of 15.4 hectares of agricultural land currently left as scrubland.
- 1.2.3 The geology of the area is mapped as Holywell Nodular Chalk Formation and consists of a thin sandy topsoil directly overlying chalk bedrock (<http://mapapps.bgs.ac.uk/geologyofbritain/home.html>, accessed 14/1/2019).

1.3 Archaeological and historical background

- 1.3.1 The full details of the archaeological background were discussed in a desk based assessment and the written scheme of investigation (Whiteley 2016, Flitcroft 2018), and is briefly summarised here.
- 1.3.2 The site lies directly south of Therfield Heath, where there is a nationally important group of prehistoric funerary monuments comprising a Late Neolithic Long Barrow (HER 40) and a Bronze Age round barrow cemetery (HER 6355). There are also a variety of other prehistoric monuments associated with this heath including a stockade enclosure (HER 4446) and a bank and ditch system known as “The Mile Ditches” which are found 400m to the south-west of the site (HER 2207) (Flitcroft 2018).
- 1.3.3 A rectangular enclosure, measuring approximately 25m across, was identified in aerial photographic imagery in 2007 on the southern edge of the site (Flitcroft 2018) and was targeted by Trenches 5 and 6 during the evaluation work described in this report.
- 1.3.4 An early 18th century account mentions a possible “Roman camp”, “a ¼ of a mile from Royston on the road to Baldock”. The location, interpretation and existence of this monument is uncertain. No obvious candidates are currently known (Flitcroft 2018).
- 1.3.5 The site was geophysically surveyed by Stratascan in 2015 and then evaluated by Headland Archaeology in November 2016, with the excavation of 42 trial trenches (Fig.

2). This produced evidence of a post-medieval field system (Flitcroft 2018. Stratascan 2016, Goacher 2016)

2 EVALUATION AIMS AND METHODOLOGY

2.1 Aims

2.1.1 The project aims and objectives were as follows:

- To confirm, as far as reasonably practicable, the location, extent, date, character, condition, significance and quality of any surviving archaeological remains.
- To assess the vulnerability/sensitivity of any exposed remains.
- To establish the ecofactual and environmental potential of archaeological deposits and features encountered.
- To establish the presence/absence, extent, date and character of any remains associated with the Prehistoric ritual landscape on Therfield Heath.
- To establish the potential for significant environmental deposits.
- To establish the potential for previously unsuspected archaeological evidence and to validate the results of the geophysical survey.
- To inform formulation of a strategy (if necessary) to avoid or mitigate impacts of the proposed development on surviving archaeological remains
- To produce a site archive for deposition with an appropriate Museum and to provide information for accessions to the Hertfordshire HER.

2.2 Methodology

2.2.1 Service plans were consulted before any work was undertaken and all trenches were scanned by a qualified operator using a CAT and Genny with a valid calibration certificate

2.2.2 Twenty-two trenches were opened up using a 20 tonne 360° type excavator using a 1.8m wide toothless ditching bucket. These trenches were planned to be 40m long by 1.8m wide, with one exception, Trench 6, which was to be 20m long and 4.5m wide. This was plan was changed during excavation as the enclosure ditch was only partly visible within Trench 6 and the width of the southern part of the trench was increased to 6.5m to fully expose a length of the enclosure ditch. The trenching provided an approximately 1% sample of the site which when combined with the Headland Evaluation provided a 3.5% sample of the site (Flitcroft 2018).

2.2.3 All machine excavation was supervised by a suitably qualified and experienced archaeologist.

2.2.4 Spoil was stored to the sides of the trenches with topsoil and subsoil stored separately to enable sequential backfilling post excavation.

2.2.5 Surveying was done using a survey-grade differential GPS (Leica GS08) fitted with “smartnet” technology with an accuracy of 5mm horizontal and 10mm vertical.

2.2.6 All archaeological features were hand-excavated.

2.2.7 All archaeological features and deposits as well as trenches were recorded using OA’s pro-forma sheets. Trench locations, plans and sections were recorded at appropriate scales and digital photographs were taken of all relevant features and deposits

- 2.2.8 All finds were retained for inspection.
- 2.2.9 A total of eight environmental samples were taken for processing at OA's environmental facility at Bourn.
- 2.2.10 Site conditions were exceptional for the time of year, with dry weather and clear bright skies.

3 RESULTS

3.1 Introduction and presentation of results

3.1.1 Table 1, below, includes dimensions and orientation of all trenches regardless of presence or absence of archaeological features. Trenches with archaeological remains present are discussed in further detail below. Unusually, subsoil was only present in a few of the trenches and its presence is also recorded in the table below.

Trench Number	Approximate orientation	Length	Width	Average depth of Topsoil	Average depth of subsoil	Average total depth
1	NE-SW	40m	1.8m	0.25m	0.05m	0.30m
2	NE-SW	40m	1.8m	0.3m	0.2m	0.5m
3	NW-SE	40m	1.8m	0.25m	0.15m	0.4m
4	NE-SW	40m	1.8m	0.35m	-	0.35m
5	N-S	35m	1.8m	0.35m	-	0.35m
6	NNE-SSW	20m	N half 4.5m, S half 6.7m	0.3m	-	0.3m
7	N-S	40m	1.8m	0.35m	-	0.35m
8	E-W	40m	1.8m	0.35m	-	0.35m
9	NW-SE	40m	1.8m	0.25m	0.1m	0.35m
10	NW-SE	40m	1.8m	0.35m	-	0.35m
11	NE-SW	40m	1.8m	0.35m	-	0.35m
12	NW-SE	40m	1.8m	0.35m	-	0.35m
13	NE-SW	40m	1.8m	0.35m	-	0.35m
14	NW-SE	40m	1.8m	0.35m	-	0.35m
15	NE-SW	40m	1.8m	0.35m	-	0.35m
16	NE-SW	40m	1.8m	0.35m	-	0.35m
17	E-W	40m	1.8m	0.35m	-	0.35m
18	NW-SE	40m	1.8m	0.35m	-	0.35m
19	NE-SW	40m	1.8m	0.3m	-	0.35m
20	NW-SE	40m	1.8m	0.25m	-	0.3m
21	NW-SE	40m	1.8m	0.3m	-	0.35m
22	NE-SW	40m	1.8m	0.25m	-	0.3m

Table 1 Trench dimensions and orientation

3.1.2 Context numbers were assigned in a continuous sequence from 1 upwards (contexts 1-39). They can be distinguished from numbers assigned during the Headland evaluation, where all contexts were allocated a four-digit number (prefixed by the trench number). A full inventory of all excavated contexts is appended to this report.

3.2 General soils and ground conditions

- 3.2.1 The deposit sequence for most of the trenches comprised a topsoil of grey-brown silty sand directly overlying natural chalk bedrock, although in Trenches 1, 2 and 3 a pale reddish-brown silty sand subsoil between the topsoil and the chalk bedrock.
- 3.2.2 Ground conditions throughout the evaluation were generally good, and the trenches remained dry throughout. Archaeological features, where present, were easy to identify against the underlying natural geology.

3.3 General distribution of archaeological deposits

- 3.3.1 The enclosure was located in Trenches 5 and 6 which had been targeted on it. There were also discrete features in both trenches.
- 3.3.2 Trench 4 contained a small post-medieval ditch.
- 3.3.3 Trench 9 contained two gullies/narrow ditches and similar features were also recorded in Trenches 12 and 14.
- 3.3.4 Trench 18 contained a substantial isolated post hole.
- 3.3.5 Trenches 1-3, 7-8, 10-11, 13, 15-17 and 19-22 were all devoid of archaeological features.

3.4 Trench 4 (Fig. 4)

- 3.4.1 This trench contained a north to south aligned linear ditch (**27**) approximately 0.75m wide and 0.3m deep. It contained a light reddish brown silty fill (26) with similar characteristics to the subsoil present in trenches 1-3. It produced one sherd of roof tile and post-mediaeval pottery identified as honey glazed post-medieval redware dating between AD 1550-1800. This is similar to the ditches previously described by Headland Archaeology as belonging to their Phase 1 (0104, 0604, 0606, 1004, 1010, 1104, 3104 & 3204) (Goacher 2016)

3.5 Trench 5 & 6 (Figs 4 and 5)

- 3.5.1 These two trenches exposed ditches forming the north-western corner of a rectilinear enclosure previously identified by aerial photographs. The northern arm of this enclosure was formed by a substantial ditch (**8**) which was exposed in Trench 5, approximately 8m from the northern end of the trench (Fig. 5, Section 3, Plate 2). This east to west aligned ditch had a V-shaped profile and was approximately 1.4m wide and 0.8m deep. Its lower fill (9) was made up mostly of fragments of chalk, within a mid-greyish-brown silt matrix, and was 0.5m thick. This was sealed by an upper fill (10) which was less stony and was also a mid greyish-brown silt with frequent chalk fragments. This upper fill (10) produced several abraded long bone fragments belonging to a medium sized mammal and environmental sampling yielded only sparse charcoal.
- 3.5.2 Trench 6 exposed the western side of the enclosure. The north to south aligned continuation of ditch **8** was exposed running south for a length of 11.5m before terminating, leaving a 2m wide entrance beyond which the ditch continued and was exposed for a further 5m within the trench. The southern terminus (**13**) was excavated,

revealing a regular rounded terminus to a ditch of similar proportions and profile to ditch **8** (Fig. 5, Section 5). As with ditch **8**, the enclosure ditch contained a simple fill sequence with a lower fill made up predominantly of chalk fragments (14), overlain by a mid greyish brown silt (15). No finds were recovered from the excavation of this part of the ditch.

- 3.5.3 Within the 2m wide entranceway on the western side of the enclosure was a substantial oval-shaped pit (**18**), aligned east-west and measuring 1.05m long, 0.88m wide and 0.68m deep with very steeply sloping sides and a flat base (Fig 5, Section 7, Plate 1). This had a lower fill of dark greyish brown stony silt (19) and an upper mid greyish brown silt (20). No finds were recovered from this feature and sampling recovered only small quantities of charcoal.
- 3.5.4 Approximately 1.5m west of the entrance was a cluster of three small pits or postholes (**21, 23** and **28**). All were small and shallow, up to 0.75m in diameter and 0.3m deep, and were filled by mid greyish brown silts; none produced finds.
- 3.5.5 In Trench 5, within the enclosure itself, were a group of three features, located approximately 7.5m from the southern end of the trench (**11**, **16** and **29**; Plate 4). These comprised two sub-square post holes with vertical sides (**11** and **29**; 0.44m wide by 0.32m deep and 0.43m wide by 0.45m deep respectively) and a sub-circular feature (**16**) which was partially exposed on the eastern edge of the trench. This latter feature had a broad U-shaped profile and was 1.02m wide by 0.28m deep. All of these features were filled by a very dark grey brown silty sand with abundant charcoal. Small quantities of roof tile and slag were recovered from the fill of **29** (31), whilst environmental sampling of this fill and of the fill of pit **11** (12) produced hammer scale, implying light scale industrial activity associated with these features. It is unlikely they are contemporary with the enclosure. Pits **1006** and **1008**, excavated by Headland in their Trench 10, were similar in shape but without the charcoal rich fill and were not located within the enclosure (Goacher 2016). Neither produced dating evidence.

3.6 Trench 9 (Fig. 3)

- 3.6.1 In Trench 9, two shallow gullies (**31** and **33**) were exposed. Both were shallow features with U-shaped profiles filled by mid brownish-grey silt. Gully **31** ran north-south, whilst **33** was aligned northeast to southwest; neither feature produced any finds.

3.7 Trench 12 & 14 (Fig. 3)

- 3.7.1 Trench 14 contained a possible gully terminus or pit (**4**). It was a broad shallow feature 1.05m long by 0.54m wide by 0.08m deep filled by a mid brownish-grey silt.
- 3.7.2 Trench 14 also contained a north-south oriented gully (**6**) which probably corresponds to a feature on the same alignment exposed in Trench 12 to the north (**38**). This feature was up to 0.44m wide and 0.09m deep and produced a single fragment of roof tile from its single mid brownish grey silt fill (7). These features seem to comprise elements of Headland Archaeology's Phase 1 post-medieval strip field system (Goacher 2016).

3.8 Trench 18 (Fig. 3)

- 3.8.1 Trench 18 contained a substantial pit or post-hole (37), 0.7m in diameter and 0.6m deep. It was circular with near vertical sides and a rounded concave base. It was filled with two deposits (35 and 36), a lower dark brown silty sand and an upper light grey sandy silt.

3.9 Finds and environmental summary

- 3.9.1 The enclosure ditch itself produced only fragments of undiagnostic large mammal bone. Several other features produced post-medieval roof tile while one sherd of post-mediaeval redware was produced from a deposit (27) within ditch **28**. Pit **30** (Trench 5) produced a small amount of slag (undiagnostic clinker).
- 3.9.2 Processing of eight environmental samples taken during the trenching showed that preservation of plant remains was generally very poor, with most samples, including those from the enclosure ditch, yielding only very small quantities of charcoal. The richest samples came from the fills of pits 11 and 29 (Trench 5), which contained large quantities of charcoal, occasional slag and hammerscale, indicative of metalworking activity.

4 DISCUSSION

4.1 Reliability of field investigation

- 4.1.1 The fact all features were cut in clear, chalk natural and that the evaluation fieldwork took place during bright sunny winter conditions made the archaeological features exceptionally clear. However, the lack of artefactual evidence makes dating problematic.

4.2 Evaluation objectives and results

- 4.2.1 The project aims and objectives were as follows:

- *To confirm, as far as reasonably practicable, the location, extent, date, character, condition, significance and quality of any surviving archaeological remains.*

It was confirmed that the key area of archaeological interest within the site area was the enclosure exposed in Trenches 5 and 6.

- *To assess the vulnerability/sensitivity of any exposed remains*

There are no especially vulnerable archaeological deposits which will require unusual methodology in later excavation. However, the shallow topsoil directly over the archaeological/geological horizon does mean that any further construction work or earth moving activity will damage archaeological remains.

- *To establish the ecofactual and environmental potential of archaeological deposits and features encountered.*

The chalk natural should produce good bone preservation, where it is present, however, very little has been recovered from any of the excavated features. There is little potential for the preservation of plant remains from this site.

- *To establish the presence/absence, extent, date and character of any remains associated with the prehistoric ritual landscape on Therfield Heath.*

The undated nature of the enclosure found in Trenches 5 and 6 mean it is possibly related to this landscape. However, this is not yet proven. All other features encountered can be assigned to the previously known post-medieval field system with reasonable certainty.

- *To establish the potential for significant environmental deposits.*

No obviously significant environmental deposits were encountered. The preservation of the plant remains was generally poor. The richest samples, containing charcoal, slag and hammerscale, came from the fills of two pits likely to be of post-medieval/modern date.

- *To establish the potential for previously unsuspected archaeological evidence and to validate the results of the geophysical survey.*
- The isolated pit/post hole in Trench 18 was the only unsuspected feature encountered, it is more likely to be post-medieval planting rather than a post hole. The evidence for metal working from several pits in Trench 5 (within the enclosure, but not thought to be related to it) was also unexpected.
- *To inform formulation of a strategy (if necessary) to avoid or mitigate impacts of the proposed development on surviving archaeological remains*

The evaluation has proven that the only area of significant archaeological remains is within the immediate environs of the enclosure and that the rest of the area is devoid of significant remains.

- *To produce a site archive for deposition with an appropriate Museum and to provide information for accessions to the Hertfordshire HER.*

The site archive has been prepared and is stored by Oxford Archaeology it will be deposited with the appropriate county store in due course

4.3 Interpretation

The Enclosure

- 4.3.1 Within the Trenches 5 and 6, the enclosure was defined by a substantial regular V-shape ditch approximately 1.4m wide and 0.8m deep. The presence of a western entrance with a large pit within the centre of it confirms the earlier aerial photographic interpretation (Flitcroft 2018). The presence of possible internal features is interesting but the similarity of pits 11 and 29 with Headlands pits 1006 and 1008 suggests these features are not restricted to the area within the enclosure and are very unlikely to be directly associated with it. The evidence for possible metal working confirmed by the presence of hammer scale in the samples cannot currently be associated with the enclosure. The lack of dating evidence is interesting as it implies an earlier date than would usually be associated with this form of enclosure (it would be expected that Roman, mediaeval or post-mediaeval features would contain finds when exposed on this scale). It is also rather isolated from other archaeological remains, being only associated with those on Therfield Heath and the wider post-medieval field system (Flitcroft 2018, Goacher 2016). Combined with the lack of finds this also suggests a lack of domestic activity within the enclosure.

The Field System

- 4.3.2 The presence of this field system was confirmed and there is no reason to contradict Headland's interpretation of it as a series of small shallow post-medieval strip fields (Goacher 2016)

4.4 Significance

- 4.4.1 The post-medieval field system is of limited significance and could be expected in almost any field in the region. However, the enclosure is of unknown significance, as there is no dating evidence to categorise it. Its association with Therfield Heath and its possible prehistoric date does mean more work should be required and a later assessment of its significance made once it is dated. The possible evidence of metal working in the internal features is intriguing but is most likely due to intrusive post-medieval activity.

TRENCH DESCRIPTIONS AND CONTEXT INVENTORY

Context	Trench	Category	Feature Type	Function	Cut No	Width	Depth	Colour	Fine comp.	Coarse comp.	Other Comments	Shape in Plan	Side	Base	Orientation	Profile
1		layer	top soil	natural				Dark Grey-Brown	Sand	Occasional chalk						
2		layer	subsoil	natural	0			Orangey Brown	Silty Sand		Occasional Chalk					
3		layer	natural	natural	0			White	Chalk		Chalk bed rock natural					
4	14	cut	pit	Tree?	4	0.54	0.08				Small pit/possible gully terminus	sub-circular	gentle	concave	n-s	u
5	14	fill	pit	silting	4	0.54	0.08	mid brownish-grey	silty loam	occasional chalk pieces	Silting fill of pit					
6	14	cut	gully	agricultural	6	0.3	0.07				small gully	linear	steep	concave	n-s	u
7	14	fill	gully	agricultural	6	0.3	0.07	mid brownish-grey	silty loam	occasional chalk pieces	silting fill of gully					
8	5	cut	ditch	enclosure	8	1.4	0.79				enclosure boundary ditch	linear	steep	concave	e-w	v
9	5	fill	ditch	boundary	8	0.9	0.53	mid greyish brown	silty loam	abundant chalk	basal fill, mainly redep chalk slumping.					
10	5	fill	ditch	enclosure boundary	8	1.4	0.27	mid greyish brown	silty loam	abundant chalk	upper fill silting					
11	5	cut	post hole	structural	11	0.44	0.32				small squarish pit one of pair with 29	square	vertical	flat		square

12	5	fill	post hole	structural	11	0.44	0.32	dark blackish brown	silty sand	frequent chalk abundant charcoal	possible refuse burnt material dump possibly industrial					
13	6	cut	ditch	enclosure entrance	13	1.4	0.68				ditch terminus no finds rounded shape terminus	linear	steep	concave	n-s	v
14	6	fill	ditch	enclosure	13	1.2	0.4	dark brownish grey	silty loam	very frequent chalk pieces	fill of enclosure entrance large quantities of chalk backfill in this and 9 imply a chalk bank to the enclosure.					
15	6	fill	ditch	enclosure	13	1.4	0.28	mid greyish brown	silty loam	moderate chalk pieces	silting fill of ditch terminus 13 not sampled due to contamination by evaluation					
16	5	cut	ditch	boundary	16	1.02	0.28				possible linear terminus may be pit not fully visible in trench	circular	steep	concave	e-w	wide u
17	5	fill	ditch	boundary	16	1.02	0.28	dark blackish brown	silty loam	frequent chalk abundant charcoal	very similar fill to 30 & 12 implies same time and formation process					
18	6	cut	pit		18	0.88	0.68				steep deep pit right in the middle of enclosure entrance	sub-circular	vertical	flat	e-w	u shape
19	6	fill	pit	unknown	18	0.64	0.52	dark brownish grey	silty loam	very frequent chalk	lower fill of pit					

20	6	fill	pit	unknown	18	0.88	0.24	mid greyish brown	silty loam	moderate chalk	upper fill of pit in the middle of the entrance					
21	6	cut	post hole	structural	21	0.46	0.19				One of small cluster of post holes to the east of the enclosure entrance	circular	vertical	flat		u shape
22	6	fill	post hole	structural	21	0.46	0.19	mid brownish grey	silty loam	moderate chalk	silting fill of post hole					
23	6	cut	post hole	structural	23	0.35	0.09				One of small cluster of post holes to the east of the enclosure entrance	circular	steep	flat		u shape
24	6	fill	post hole	structural	23	0.35	0.09	mid brownish grey	silty loam	moderate chalk	silting fill of post hole					
25	6	cut	post hole	structural	25	0.36	0.05				One of small cluster of post holes to the east of the enclosure entrance	circular	steep	flat		u shape
26	6	fill	post hole	structural	25	0.36	0.05	mid brownish grey	silty loam	moderate chalk	silting fill of post hole					
27	4	fill	ditch	boundary	28	0.75	0.3	light reddish brown	silty sand	moderate chalk	silting fill					

28	4	cut	ditch	boundary	28	0.75	0.3				n-s post mediaeval boundary ditch	linear	irregular gentle w vertical e	flat	n-s	scalene triangular
29	5	cut	post hole	structural	29	0.43	0.45				small square pit one of pair with 11.	square	vertical	concave		u
30	5	fill	post hole	structural	29	0.43	0.45	dark blackish brown	silty sand	frequent chalk, abundant charcoal	Very similar to fills 12 & 17 contained slag and roof tile.					
31	9	cut	gully	boundary	31	0.7	0.05				very shallow truncated gully	linear	gentle	irregular	n-s	u
32	9	fill	gully	boundary	31	0.7	0.05	mid brownish grey	silty loam	moderate chalk	silting fill					
33	9	cut	gully	boundary	33	0.9	0.12				possible gully	linear	steep	irregular	ne-sw	u
34	9	fill	gully	boundary	33	0.9	0.12	mid brownish grey	silty loam	moderate chalk	silting fill of gully					
35	18	fill	post hole	structural	37	0.16	0.3	light grey	sandy silt	moderate chalk	possible packing material in post/tree hole 37					
36	18	fill	post hole	structural	0	0.8	0.6	dark brown	silty sand	occasional orangey brown sand occasional chalk	underlies 35 implies rooting rather than post pipe					
37	18	cut	post hole	structural	37	0.7	0.6				Either large post-hole or artificial hole for tree.	circular	vertical	concave		u
38	12	cut	gully	boundary	38	0.44	0.09				small shallow gully	linear	gentle	concave	n-s	u
39	12	fill	gully	boundary	38	0.44	0.09	mid brownish grey	silty loam	moderate chalk	silting fill of gully					

APPENDIX A FINDS REPORTS

A.1 Finds

By Carole Fletcher with animal bone identification by Hayley Foster

Introduction and Methodology

A.1.1 Archaeological works produced a small assemblage of finds recovered from features in Trenches 4, 5 and 14. The finds were weighed and rapidly recorded, with description and weight recorded in the table below. The assemblage and archive are curated by Oxford Archaeology East until formal deposition or dispersal.

Trench	Context	Cut	Feature	Material and description	Count	Weight (kg)	Date
4	27	28	Ditch	Post-medieval Redware, moderately abraded jar body sherd, external and internal clear honey-coloured glaze with occasional iron mottles	1	0.007	1550-1800
				Sub-rectangular fragment of flat tile (roof tile), part of edge survives. Dull red, quartz and grog-tempered with occasional calcareous inclusions. 13.5-14.5mm thick	1	0.023	Post-Medieval
5	10	8	Ditch	Very abraded long bone fragments from a medium-size mammal	4	0.002	Not closely datable
	30	29	Post hole	Small sub-rounded fragment of ceramic building material in a dull red sandy fabric	1	0.002	Not closely datable
				Formless fragments of vitrified coal ash (clinker)	2	0.005	Not closely datable
				Sub-rectangular fragment of slag, probably hearth lining-type material. One surface is slightly glassy, the other rough and coated with vitrified clay. Most likely a fragment of vitrified fuel ash and clay	1	0.016	Not closely datable
14	7	6	Gully	Irregular fragment of flat tile (roof tile), part of edge survives. Dull red, quartz and grog-tempered with occasional calcareous inclusion. 12.5-14mm thick	1	0.018	Post-Medieval

Table 2. Finds quantification

Retention, dispersal or display

A.1.2 The total assemblage is fragmentary, and no trench or feature appears to be worthy of further examination. Overall, the assemblage produced post-medieval roof tile and undiagnostic bone and slag-like material. This statement acts as a full record and the finds may be dispersed prior to archive deposition.

APPENDIX B ENVIRONMENTAL REPORTS

B.1 Environmental Remains

By Martha Craven

Introduction

- B.1.1 Eight bulk samples were taken from features within the evaluated area at Baldock Road, Royston in order to assess the quality of preservation of plant remains and their potential to provide useful data as part of further archaeological investigations. Samples were taken from features encountered within trenches 5 and 6 from undated deposits.

Methodology

- B.1.2 The total volume (up to 18L) of each of the samples was processed by tank flotation using modified Siraff-type equipment for the recovery of preserved 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.
- B.1.3 The dried flots were scanned 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. 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.1.4 For the purpose of this initial assessment, items such as seeds and cereal grains have been scanned and recorded qualitatively according to the following categories:

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

- B.1.5 Items that cannot be easily quantified such as charcoal and molluscs have been scored for abundance

+ = occasional, ++ = moderate, +++ = frequent, ++++ = abundant

Key to tables:

f=fragmented

Results

- B.1.6 Preservation of plant remains is by carbonisation and is very poor. All of the flots contain rootlets and molluscs which may have caused movement of material between contexts. The only preserved plant remain was a single charred cereal grain fragment from Sample 6, fill 22 of post-hole **21** (Trench 6).
- B.1.7 Sample 2, fill 12 of pit **11** (Trench 5), and Sample 3, fill 30 of pit **29** (Trench 5), contained large quantities of charcoal, occasional slag and hammerscale. This is indicative of metalworking activity.
- B.1.8 All of the samples contained relatively well preserved molluscs in moderate quantities.

Sample No.	Context No.	Trench /area no.	Cut no.	Feature type	Volume processed (L)	Flot Volume (ml)	Cereals	Snails from flot	Charcoal Volume (ml)	Pottery	Metal Fe	Slag	Hammerscale
1	10	5	8	Ditch	17	40	0	+++	<1	0	0	0	0
2	12	5	11	Pit	16	80	0	+++	70	0	0	#	++
3	30	5	29	Pit	19	400	0	++	300	0	0	#	+
4	19	6	18	Pit	18	40	0	++	5	#	0	0	0
5	20	6	18	Pit	18	60	0	+++	1	0	#	0	0
6	22	6	21	Post-hole	9	20	#f	++	<1	#	0	0	0
7	24	6	23	Post-hole	2	5	0	++	<1	0	0	0	0
8	26	6	25	Post-hole	2	5	0	++	<1	0	0	0	0

Table 3. Environmental samples from Baldock Road, Royston

Discussion

- B.1.9 The recovery of sparse charred grain, chaff, weed seeds and charcoal indicates that there is little potential for the preservation of plant remains at this site. However, future excavation has the potential to recover larger, more meaningful assemblages that would contribute to the evidence of diet and economy at this site.
- B.1.10 If further excavation is planned for this area, it is recommended that environmental sampling is carried out in accordance with Historic England guidelines (2011).

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

Flitcroft, M. 2018 "A Written scheme of investigation for an archaeological programme of works. Land West of Royston and North of Baldock Road Royston." CgMs Heritage.

Goacher, H. 2016 "Land North of Baldock Road, West of Royston.Archaeological Evaluation". Headland Archaeology.

Historic England 2011 *Environmental Archaeology. A Guide to the Theory and Practice of Methods, from Sampling and Recovery to Post-excavation (2nd edition)*, Centre for Archaeology Guidelines

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

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

Stratascan 2016, "Land West of Ivy House Farm, Royston, Hertfordshire – Geophysical Survey Report. Stratascan Ltd.

Whiteley, S. 2016, "Heritage Statement for Land west of Royston and north of Baldock Road, Royston. CgMs Consulting.

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

Electronic Sources

Geology of Britain Viewer British Geological Survey

<http://mapapps.bgs.ac.uk/geologyofbritain/home.html>, consulted 14/1/2019

APPENDIX D

OASIS REPORT FORM

Project Details

OASIS Number	oxfordar3-339255		
Project Name	Land north of Baldock Road, Royston, Hertfordshire Archaeological Evaluation Report		
Start of Fieldwork	7/1/19	End of Fieldwork	10/1/19
Previous Work	Yes	Future Work	Yes

Project Reference Codes

Site Code	XHTBKR18	Planning App. No.	16/00387/1
HER Number	EHT8620	Related Numbers	
Prompt	NPPF		
Development Type	Housing		
Place in Planning Process	After outline determination (eg. A a reserved matter)		

Techniques used (tick all that apply)

<input type="checkbox"/> Aerial Photography – interpretation	<input type="checkbox"/> Grab-sampling	<input type="checkbox"/> Remote Operated Vehicle Survey
<input type="checkbox"/> Aerial Photography - new	<input type="checkbox"/> Gravity-core	<input checked="" type="checkbox"/> Sample Trenches
<input type="checkbox"/> Annotated Sketch	<input type="checkbox"/> Laser Scanning	<input type="checkbox"/> Survey/Recording of Fabric/Structure
<input type="checkbox"/> Augering	<input type="checkbox"/> Measured Survey	<input checked="" type="checkbox"/> Targeted Trenches
<input type="checkbox"/> Dendrochronological Survey	<input type="checkbox"/> Metal Detectors	<input type="checkbox"/> Test Pits
<input type="checkbox"/> Documentary Search	<input type="checkbox"/> Phosphate Survey	<input type="checkbox"/> Topographic Survey
<input checked="" type="checkbox"/> Environmental Sampling	<input type="checkbox"/> Photogrammetric Survey	<input type="checkbox"/> Vibro-core
<input type="checkbox"/> Fieldwalking	<input type="checkbox"/> Photographic Survey	<input type="checkbox"/> Visual Inspection (Initial Site Visit)
<input type="checkbox"/> Geophysical Survey	<input type="checkbox"/> Rectified Photography	

Monument	Period	Object	Period
Enclosure	Uncertain	Slag & Animal Bone	Uncertain
Field System	Post Medieval (1540 to 1901)	Pottery & CBM	Post Medieval (1540 to 1901)
	Choose an item.		Choose an item.

Insert more lines as appropriate.

Project Location

County	Hertfordshire	Address (including Postcode) Land North of Baldock Road Royston Hertfordshire SG8 9FL
District	North Hertfordshire	
Parish	Royston	
HER office	Hertfordshire	
Size of Study Area	15.4 ha	
National Grid Ref	TL3403 4063	

Project Originators

Organisation	Oxford Archaeology East
Project Brief Originator	Simon Wood (North Hertfordshire District Council)
Project Design Originator	Myk Flitcroft (CgMs Heritage)
Project Manager	Liz Muldowney
Project Supervisor	David Browne

Project Archives

	Location	ID
Physical Archive (Finds)	NHDCMS	XHTBKR18
Digital Archive	OA East	XHTBKR18
Paper Archive	NHDCMS	XHTBKR18

Physical Contents	Present?	Digital files associated with Finds	Paperwork associated with Finds
Animal Bones	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Ceramics	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Environmental	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Glass	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Human Remains	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Industrial	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Leather	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Metal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Stratigraphic		<input type="checkbox"/>	<input type="checkbox"/>
Survey		<input type="checkbox"/>	<input type="checkbox"/>
Textiles	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wood	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Worked Bone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Worked Stone/Lithic	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
None	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

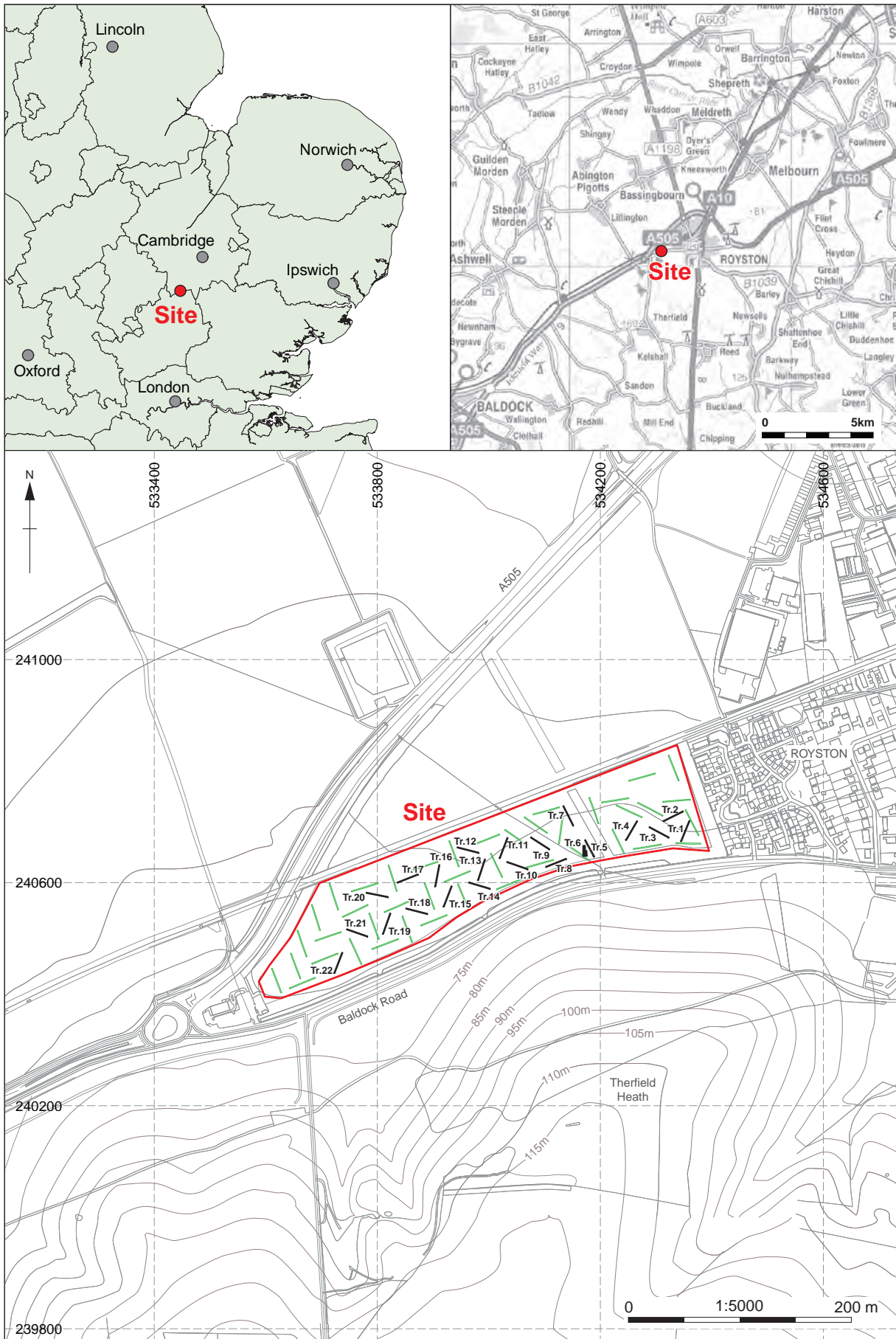
Digital Media

Database	<input checked="" type="checkbox"/>
GIS	<input checked="" type="checkbox"/>
Geophysics	<input type="checkbox"/>
Images (Digital photos)	<input checked="" type="checkbox"/>
Illustrations (Figures/Plates)	<input checked="" type="checkbox"/>
Moving Image	<input type="checkbox"/>
Spreadsheets	<input type="checkbox"/>
Survey	<input checked="" type="checkbox"/>
Text	<input checked="" type="checkbox"/>
Virtual Reality	<input type="checkbox"/>

Paper Media

Aerial Photos	<input type="checkbox"/>
Context Sheets	<input checked="" type="checkbox"/>
Correspondence	<input type="checkbox"/>
Diary	<input type="checkbox"/>
Drawing	<input type="checkbox"/>
Manuscript	<input type="checkbox"/>
Map	<input type="checkbox"/>
Matrices	<input type="checkbox"/>
Microfiche	<input type="checkbox"/>
Miscellaneous	<input checked="" type="checkbox"/>
Research/Notes	<input type="checkbox"/>
Photos (negatives/prints/slides)	<input type="checkbox"/>
Plans	<input checked="" type="checkbox"/>
Report	<input checked="" type="checkbox"/>
Sections	<input checked="" type="checkbox"/>
Survey	<input checked="" type="checkbox"/>

Further Comments



Contains Ordnance Survey data © Crown copyright and database right 2019. CM 909300-19679- 170119. All rights reserved.

Figure 1: Site location showing OAE archaeological trenches (black) in development area (red) (Headland Archaeology trenches shown in green; after Goacher 2016)

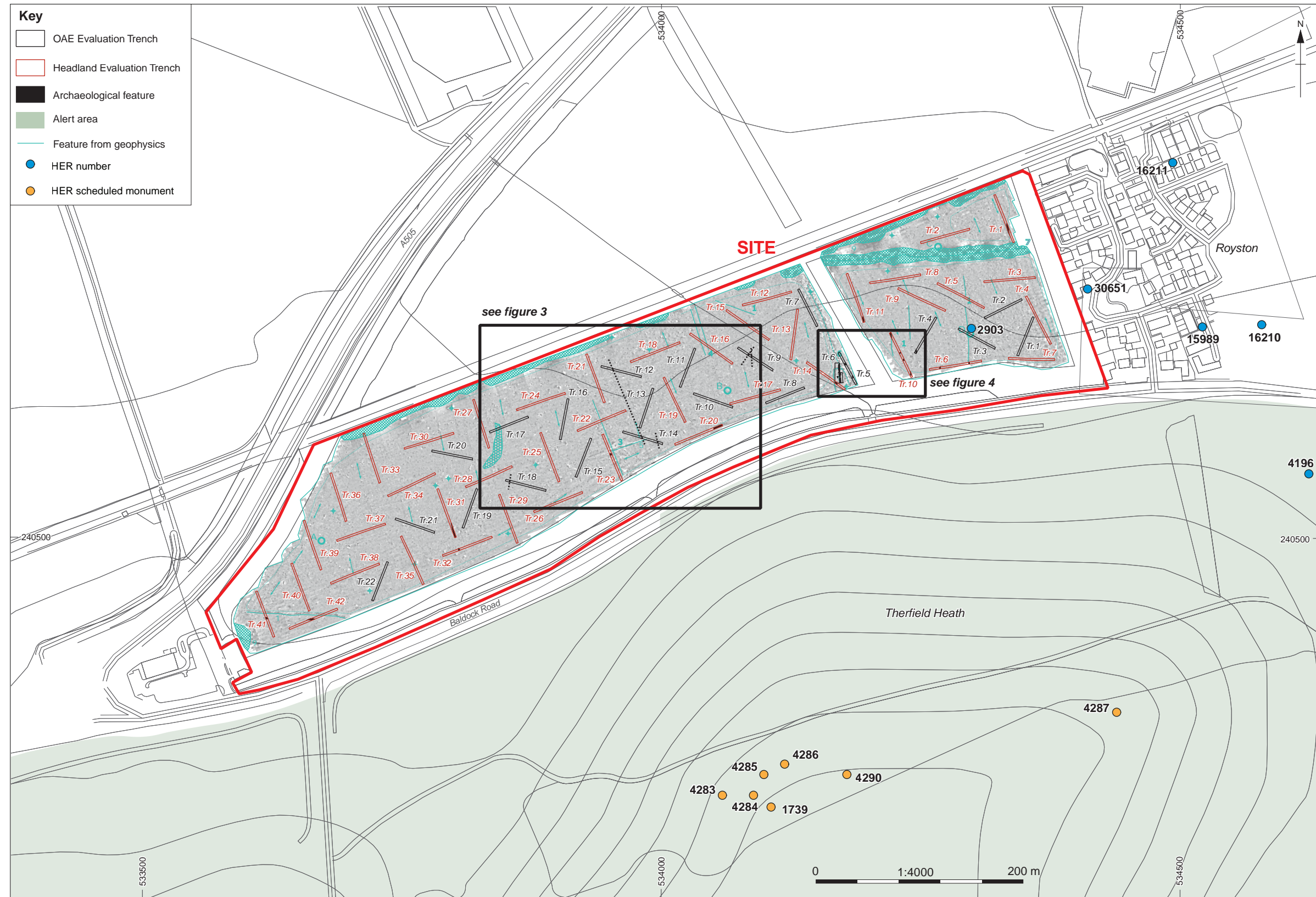


Figure 2: Trench layout incorporating results of geophysical survey (Stratascan 2016), and previous trial trenching (Goacher 2016) and Historic Environment Records

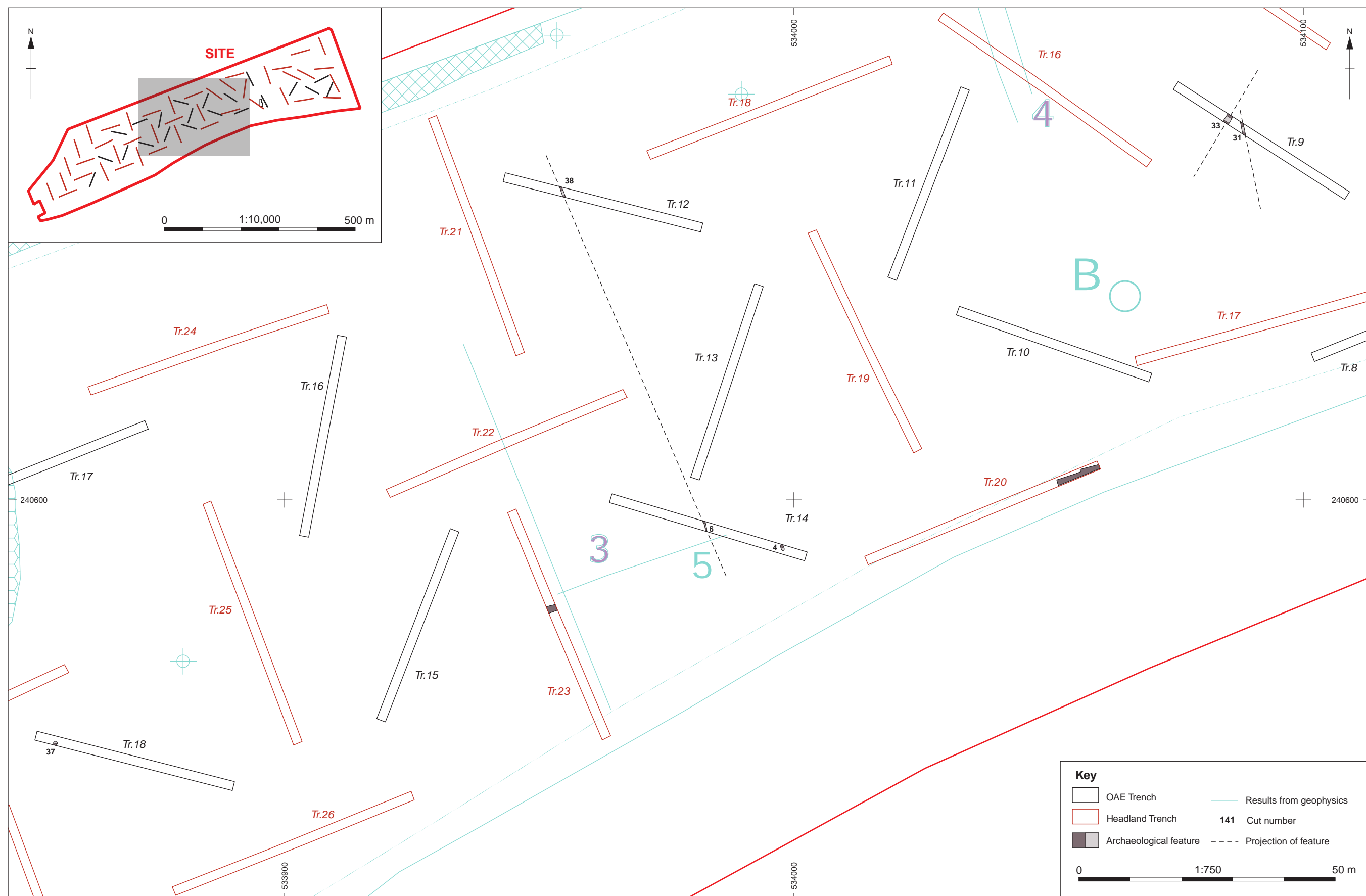


Figure 3: Detail plan of trenches 9, 12, 14 and 18 incorporating results of geophysical survey (Stratascan 2016), and previous trial trenching (Goacher 2016)

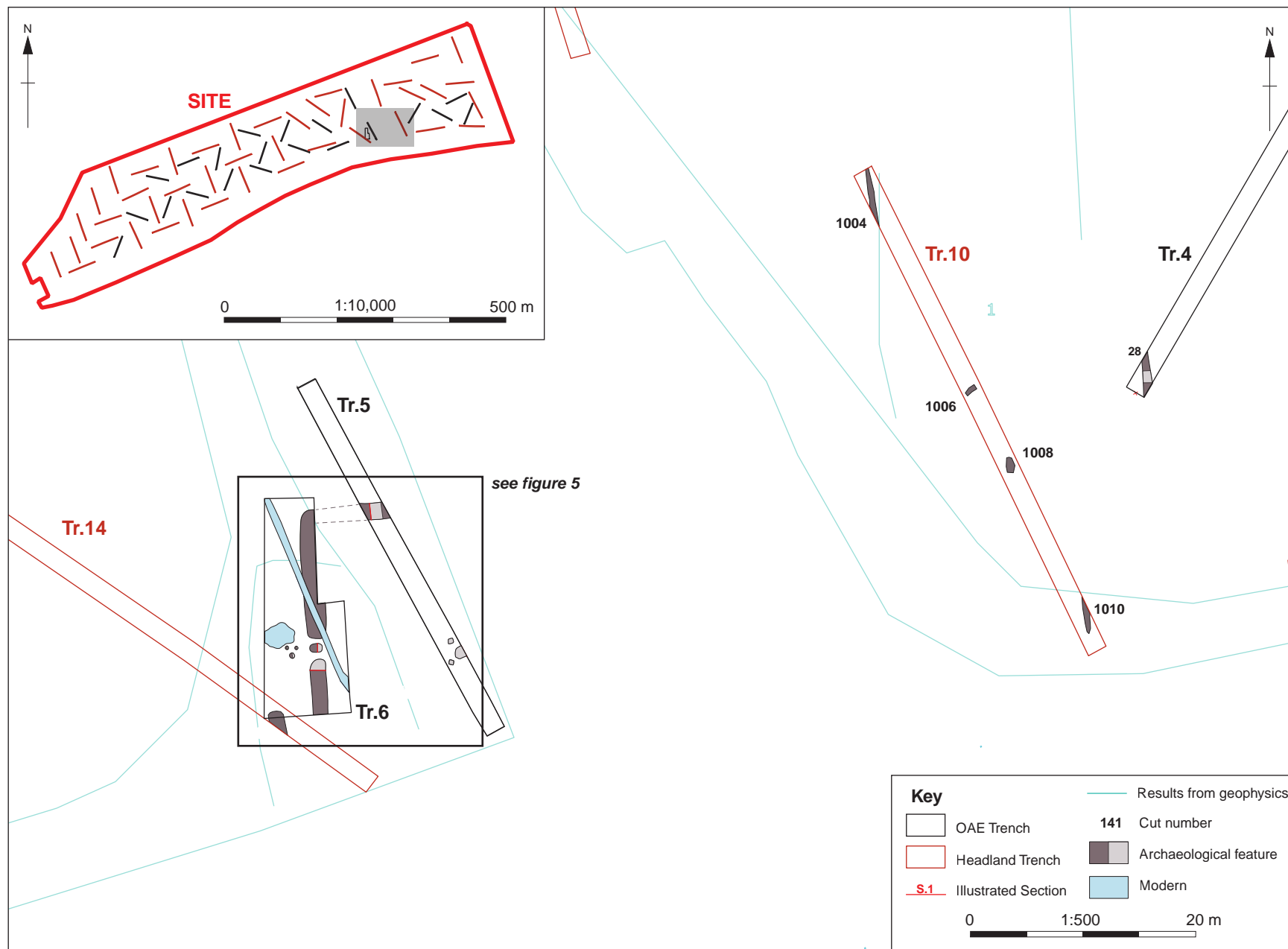


Figure 4: Plan of Enclosure within Trenches 5 & 6 with results of previous trenching (Goacher 2016) and geophysical survey.

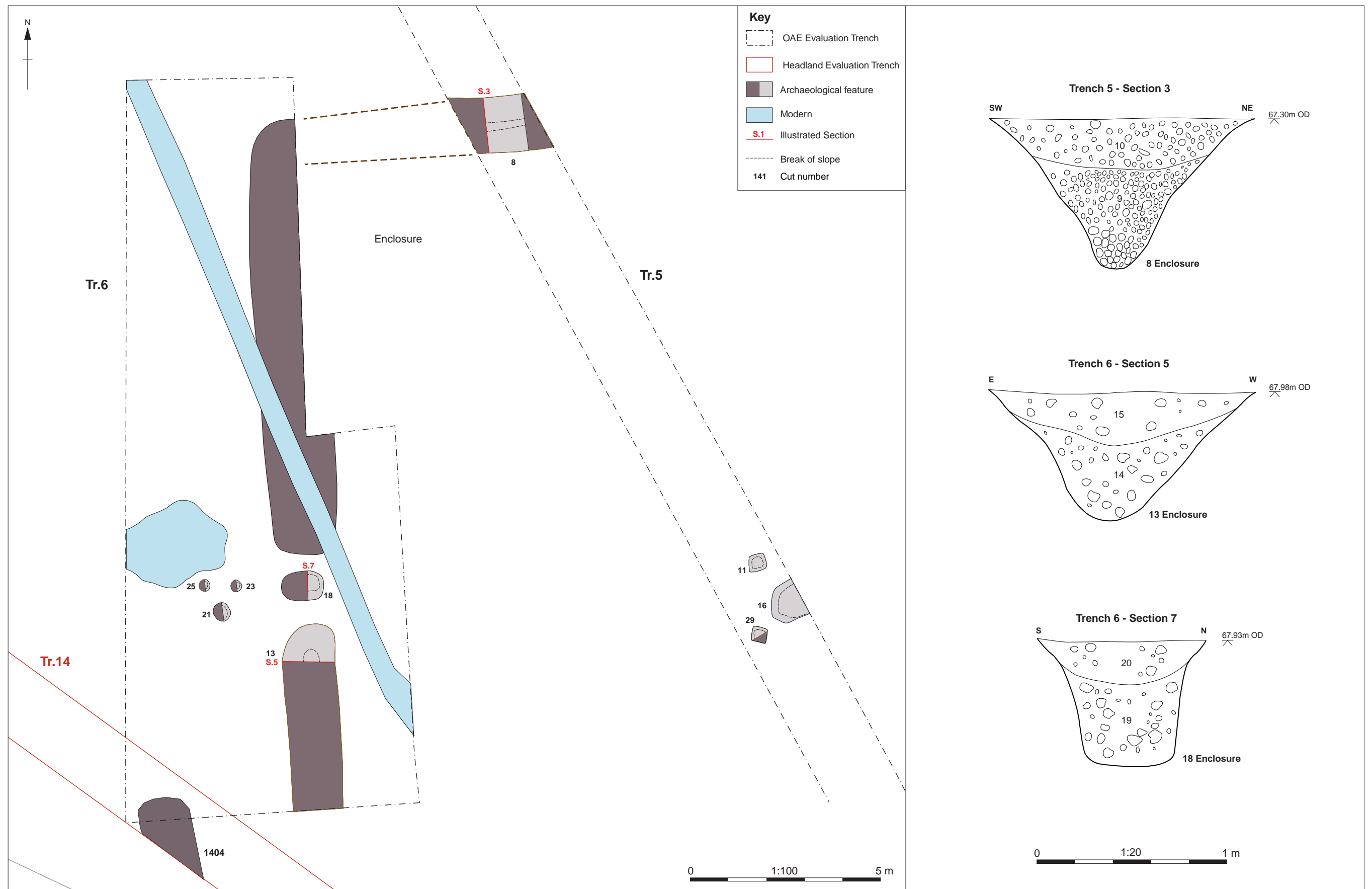


Figure 5: Detail plan of trenches 5 and 6 with selected sections



Plate 1: Overview of western entrance of the enclosure in Trench 6, looking east



Plate 2: East facing section of enclosure ditch 8 in Trench 5



Plate 3: Pits 11 and 29 and feature 16 in Trench 5, looking south-east



**Head Office/Registered Office/
OA South**

Janus House
Osney Mead
Oxford OX2 0ES

t: +44 (0) 1865 263 800
f: +44 (0) 1865 793 496
e: info@oxfordarchaeology.com
w: <http://oxfordarchaeology.com>

OA North

Mill 3
Moor Lane
Lancaster LA1 1QD

t: +44 (0) 1524 541 000
f: +44 (0) 1524 848 606
e: [oanorth@oxfordarchaeology.com](mailto: oanorth@oxfordarchaeology.com)
w: <http://oxfordarchaeology.com>

OA East

15 Trafalgar Way
Bar Hill
Cambridgeshire
CB23 8SQ

t: +44 (0) 1223 850 500
e: [oaeast@oxfordarchaeology.com](mailto: oaeast@oxfordarchaeology.com)
w: <http://oxfordarchaeology.com>



Director: Gill Hey, BA PhD FSA MCIfA
*Oxford Archaeology Ltd is a
Private Limited Company, N^o: 1618597
and a Registered Charity, N^o: 285627*