ANAEROBIC DIGESTION PLANT
ROYSTON ROAD
BALDOCK
HERTFORDSHIRE

ARCHAEOLOGICAL FIELD EVALUATION AND MONITORING OF GEOTECHNICAL TEST-PITTING

Project: BAL1528

Document: 2010/58

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Produced for:
BiogenGreenfinch

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Preface

Every effort has been made in the preparation of this document to provide as complete an assessment as possible, within the terms of the specification. All statements and opinions in this document are offered in good faith. Albion Archaeology cannot accept responsibility for errors of fact or opinion resulting from data supplied by a third party, or for any loss or other consequence arising from decisions or actions made upon the basis of facts or opinions expressed in this document.

The project was commissioned by BiogenGreenfinch and was monitored on behalf of the Local Planning Authority by Andy Instone, County Planning Officer (CPA), Hertfordshire County Council.

The fieldwork was undertaken by Christiane Meckseper (Project Officer) and Wiebke Starke (Assistant Archaeological Supervisor). This report has been prepared by Christiane Meckseper and James Newboult (Project Officer). It was edited by Joe Abrams (Project Manager) with figures by Joan Lightning (CAD Technician). All Albion projects are under the overall management of Drew Shotliff (Operations Manager).

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Version History

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1.0	9th August 2010	n/a

Structure of this Report

Section 1 serves as an introduction to the site, describing its location, archaeological background and the aims of the project. Section 2 describes the methodologies employed and Section 3 presents the results. Section 4 is a bibliography.

Appendix 1 contains trench summary information and detailed contextual data.

Key Terms

Throughout this document the following terms or abbreviations are used:

CPA	Hertfordshire County Council's County Planning Archaeologist
Client	BiogenGreenfinch
HER	Hertfordshire's Historic Environment Record
IfA	Institute for Archaeologists
LPA	Local Planning Authority
Procedures Manual	*Procedures Manual Volume 1 Fieldwork*, 2nd ed, 2001 Albion Archaeology

Non-Technical Summary

BiogenGreenfinch are preparing a planning application for the construction of an anaerobic digestion plant on land adjacent to Royston Road, in Wallington parish, to the north-east of Baldock, Hertfordshire. As a result, they are gathering baseline information on the Development Area (DA).

An archaeological desk-based assessment (DBA) carried out by Albion Archaeology (2009) demonstrated that the DA had the potential to contain sub-surface archaeological remains. The assessment identified a need for non-intrusive (geophysical survey) and intrusive (trial trenching) evaluation prior to development.

Following approval of a written scheme of investigation for these works (Albion Archaeology 2010a) a geophysical survey was carried out (Stratascan 2010). This identified a single anomaly considered worthy of specific targeting during trial trenching. Following the geophysical survey, a series of geo-technical test-pits were opened and observed by Albion; these did not reveal significant archaeological remains. A trial trench plan was agreed with the CPA. It was designed to target the square anomaly identified by geophysical survey and to target other, apparently blank, parts of the DA.

These evaluative techniques showed that the DA was largely blank of archaeological features. Two seemingly unrelated ditches were excavated 200m apart in Trenches 1 and 5. The date and function of the ditches is unclear. They may be part of a prehistoric/Roman or medieval field system. The remains of a palaeochannel were recorded in Trenches 4, 5, 9, 11 and 12. In Trenches 11 and 12 the underlying chalk at the base of the palaeochannel contained several compact flint deposits; these may account for the geophysical anomaly highlighted within the survey. The anomaly was not caused by human activity.

The paucity of archaeological remains revealed during trenching supports the findings of the geophysical survey. In contrast, the DBA had demonstrated that land around the DA, particularly to the north of the Icknield Way, was rich in archaeological remains. To have a largely blank area in a relatively busy landscape is, in itself, of archaeological interest as it suggests this land was put to a different use. It lay to the south of the ancient Icknield Way and may have been used as pasture or arable fields, rather than for settlement or funerary purposes. The two undated ditches recorded during trenching support this suggestion.

1. INTRODUCTION

1.1 Project Background

BiogenGreenfinch are preparing a planning application for the construction of an anaerobic digestion plant on land adjacent to Royston Road, in Wallington parish, to the north-east of Baldock, Hertfordshire. As a result, they are gathering baseline information on the Development Area (DA).

An archaeological desk-based assessment (DBA) carried out by Albion Archaeology (2009) demonstrated that the DA (Figure 1) had the potential to contain sub-surface archaeological remains. The assessment identified a need for non-intrusive (geophysical survey) and intrusive (trial trenching) evaluation prior to development. These proposals were discussed with Hertfordshire County Council's County Planning Archaeologist (CPA) and an agreement was reached on the size and location of the evaluation areas.

Following approval of a written scheme of investigation (Albion Archaeology 2010a) a geophysical survey was carried out (Stratascan 2010). This covered the original application area (Figure 1). The bulk of this area was subsequently dropped from the proposals and within the DA this survey identified a single anomaly that was considered worthy of specific targeting by trial trenching (Figure 2). Following the geophysical survey, a series of geo-technical test-pits were opened and observed by Albion (Albion Archaeology 2010b); these did not reveal significant archaeological remains. A trial trench plan was then agreed with the CPA. It was designed to target the square anomaly identified by geophysical survey and also targeted other, apparently blank, parts of the DA.

1.2 Site Location and Description

The DA comprises a parcel of land located to the north-east of Baldock, in the parish of Wallington (Figure 1). It is *c*.4.7ha in size, lies at a height of *c*.76m OD and is centred on (NGR) TL 2758 3556. Its northern boundary is defined by Royston Road, whilst to the east it is bounded by a public bridleway leading to Bygrave Lodge Farm. To the south and west the landscape is undivided and comprises fields under cultivation. The underlying geology is chalk.

1.3 Archaeological Background

The archaeological potential of the DA is presented in detail in Albion's desk-based assessment (Albion Archaeology 2009).

The assessment showed that the wider surrounds of the DA are rich in the sub-surface remains of prehistoric to modern activity and contain the extant remains of the post-medieval and modern landscapes.

The Icknield Way dissects the landscape immediately north of the DA. It is an ancient routeway that was in continuous use from prehistoric to modern times. Indeed, the current Royston Road was formerly named the Icknield Way. Apart

from being a routeway, the Icknield Way also served as a boundary between the Wallington and Bygrave parishes.

Most of the archaeological evidence in the vicinity of the DA is located to the north of the Icknield Way — a landscape rich in prehistoric funerary monuments, settlements and field systems. Prehistoric ring ditches with secondary Roman activity were also recorded to the south-east, near Bygrave Farm. To the south-east of the DA (Figure 1), two circular cropmarks are visible in association with an E-W aligned linear cropmark. It is possible these cropmarks represent the remains of barrows.

Some of the prehistoric monuments were re-used as burial grounds in Roman times and the Roman settlement of Baldock shows its influence in the evidence for Roman field systems and agriculture in the vicinity of the DA. No remains from the Anglo-Saxon or medieval period survive within the DA. Maps dating from 1877 onwards show that the area was used for agriculture.

The DBA showed a high potential for the discovery of archaeological remains within the DA. However, geophysical survey carried out as part of the evaluation (Stratascan 2010) suggested low potential for surviving, sub-surface archaeological features. Only a small square anomaly was picked up immediately west of the beetle bund running across the eastern part of the DA.

1.4 Project Objectives

The layout of the trenches was discussed with and approved by the CPA. The trenches were arranged to maximise their ability to test the archaeological potential of the DA. The overall objectives of the work were to gain information on:

- the location, extent, nature and date of any archaeological features or deposits that might be present;
- the integrity and state of preservation of any archaeological features or deposits that might be present; and to
- recover artefacts to assist in the development of a type series within the region; recover palaeo-environmental remains to determine local environmental conditions.

2. METHODOLOGY

2.1 Geo-technical Test-pitting

Monitoring of geo-technical test-pitting was undertaken on 12th-13th April 2010. Ten test pits, approximately 0.65m by 2.5m in size, were excavated (Figure 4). The test-pit layout was designed to avoid possible archaeological/geological anomalies identified by the geophysical survey.

The methods employed during the project complied with the Institute for Archaeologists' *Code of Conduct and Standards and Guidance for an Archaeological Watching Brief* (1999).

2.2 Trial Trenching

Trial trenching took place on 21st-23rd July 2010, comprising the excavation of twelve trenches ranging in length from 20m to 90m.

Throughout the project the standards set out in the following documents were adhered to:

- IfA's *Code of Conduct (2010)*
- IfA's *Standards and Guidance for Field Evaluation (2008)*
- Albion Archaeology's *Procedures Manual for Archaeological Fieldwork and the Analysis of Fieldwork Records* (2001)
- English Heritage's *Management of Archaeological Projects* (1991)

The locations of the trenches were marked out on the ground in advance of machine excavation. Overburden was removed using a mechanical excavator, fitted with a toothless ditching bucket and operating under close archaeological supervision. The deposits were removed down to either the top of archaeological deposits or undisturbed geological deposits, whichever was encountered first.

The bases and sections of all trenches were cleaned by hand in order to clarify the nature of potential archaeological remains. The deposits and any potential remains were noted, cleaned, excavated by hand and recorded using Albion Archaeology's *pro forma* sheets. The trenches were subsequently drawn, and photographed as appropriate. All deposits were recorded using a unique recording number sequence commencing at 100 for Trench 1, 200 for Trench 2 *etc*.

Trenches were backfilled following the agreement of the CPA.

3. RESULTS

3.1 Introduction

Deposits revealed during evaluative works are summarised below. Monitoring of geotechnical test pits revealed no archaeological remains (Figure 4). Only two of the trial trenches (Trenches 1 and 5) contained remains.

Allocated context numbers are prefixed with the trench number from which they were recorded, *i.e.* contexts (400) and (401) are from Trench 4. More detailed information on the deposits revealed by the trial trenching can be found in Appendix 1.

The project archive will be deposited with North Hertfordshire District Council Museum.

3.2 Overburden and Undisturbed Geological Deposits

Overburden consisted of a mid greyish brown silty topsoil *c.* 0.25–0.35m deep that directly overlay the underlying chalk geology.

3.3 Palaeochannel (Figure 2)

The remains of a N-S aligned palaeochannel were identified in Trenches 4, 5, 9, 11 and 12. In Trenches 4, 5 and 9 the channel formed a distinctive depression in the ground surface that was 17m to >25m wide and up to 0.54m deep. It was filled with a mid reddish brown sandy silt with moderate small flint and chalk pebbles (401, 503, 903). A compact mid greyish brown sandy silt deposit with frequent chalk pebbles (502) was recorded in the base of the channel in Trench 5.

Trenches 11 and 12 also lay within the course of the palaeochannel as it curved slightly SSW-NNE near the southern edge of the DA. Here, no "cut" for the channel as such was observed but the base of each trench was characterised by the same reddish sandy silt layer (111, 121), up to 0.20m thick. The underlying geological deposit in both trenches was characterised by pockets of dense flint gravel within the chalk.

3.4 Ditches (Figure 3)

A ditch on a NE-SW alignment [102] was excavated in the NW end of Trench 1. It had steeply sloping sides and a flattish base and was 0.92m wide and 0.45m deep. It contained a friable mid greyish brown sandy silt with frequent chalk pebbles (103).

A second ditch [505] was excavated in Trench 5. Its terminus fell within the trench and it continued beyond the limit of excavation to the south-west. Its full extent is unclear and it was not revealed in any of the other evaluation trenches. It was 1.25m wide and 0.34m deep with eroded and naturally infilled lower chalky deposits (506, 507 and 508) and a darker, silty upper deposit (509).

No datable artefactual material was recovered.

3.5 Discussion

The trial trenching corroborated the results of the geophysical survey and the test-pit monitoring by showing the DA to be largely devoid of archaeological remains. Flint pebble deposits recorded during trenching, within the underlying subsoil in Trenches 11 and 12, may have caused the only anomaly revealed by geophysical survey.

Two ditches were revealed within Trenches 1 and 5. They were situated *c.* 200m apart and contained similar deposits (Section 3.4). Their date and function are unclear. No boundaries are shown within the DA on maps dating from 1877, making it unlikely that the ditches are modern field boundaries. They may be part of a prehistoric/Roman/medieval field system.

The paucity of archaeological remains revealed during the trial trenching supports the findings of the geophysical survey. In contrast, the DBA had demonstrated that land around the DA, particularly to the north of the Icknield Way, was rich in archaeological remains. To have a largely blank area in a relatively busy landscape is, in itself, of archaeological interest as it suggests this land was put to a different use. It lay to the south of the ancient Icknield Way and may have been used as pasture or arable fields, rather than for settlement or funerary purposes. The two undated ditches recorded during trenching support this suggestion.
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4. BIBLIOGRAPHY

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5. APPENDIX 1 – TRENCH SUMMARIES

Trench: 1

Max Dimensions: **Length: 60.00 m. Width: 1.60 m. Depth to Archaeology Min: 0.4 m. Max: 0.4 m.**

Co-ordinates: **OS Grid Ref.: TL** *(Easting: 27619: Northing: 35735)*

OS Grid Ref.: TL *(Easting: 27658: Northing: 35705)*

Reason: **To evaluate apparently blank parts of the DA using an arrayed pattern of trenches**

Context:	Type:	Description:	Excavated:	Finds Present:
100	**Topsoil**	**Friable mid grey brown sandy silt frequent medium chalk, moderate medium stones**	☑	☐
101	**Natural**	**Compact chalk**	☐	☐
102	**Ditch**	**Linear NE-SW sides: near vertical base: flat dimensions: max breadth 0.92m, max depth 0.45m**	☑	☐
103	Fill	Friable mid red brown sandy silt frequent medium chalk	☑	☐
104	Fill	Friable mid grey brown sandy silt moderate medium chalk	☑	☐

Trench: 2

Max Dimensions: Length: 60.00 m. Width: 1.60 m. Depth to Archaeology Min: 0.3 m. Max: 0.38 m.

Co-ordinates: OS Grid Ref.: TL *(Easting: 27610: Northing: 35696)*

OS Grid Ref.: TL *(Easting: 27593: Northing: 35649)*

Reason: To evaluate apparently blank parts of the DA using an arrayed pattern of trenches

Context:	Type:	Description:	Excavated:	Finds Present:
200	Topsoil	As (100).	☑	☐
201	Natural	As (101).	☐	☐

Trench: 3

Max Dimensions: **Length: 85.00 m.** **Width: 1.60 m.** **Depth to Archaeology Min: 0.3 m.** **Max: 0.35 m.**

Co-ordinates: **OS Grid Ref.: TL** *(Easting: 27615: Northing: 35622)*

OS Grid Ref.: TL *(Easting: 27653: Northing: 35557)*

Reason: **To evaluate apparently blank parts of the DA using an arrayed pattern of trenches**

Context:	Type:	Description:	Excavated:	Finds Present:
300	Topsoil	As (100).	☑	☐
301	Natural	As (101).	☐	☐

Trench: **4**

Max Dimensions: **Length: 60.00 m. Width: 1.60 m. Depth to Archaeology Min: 0.35 m. Max: 0.35 m.**

Co-ordinates: **OS Grid Ref.: TL** *(Easting: 27549: Northing: 35614)*

OS Grid Ref.: TL *(Easting: 27599: Northing: 35616)*

Reason: **To evaluate apparently blank parts of the DA using an arrayed pattern of trenches**

Context:	Type:	Description:	Excavated:	Finds Present:
400	**Topsoil**	**As (100).**	☑	☐
402	**Natural**	**As (101).**	☐	☐
403	**Palaeochannel**	**Linear N-S sides: irregular base: concave dimensions: max breadth 17.m, max depth 0.4m**	☑	☐
401	Palaeochannel	Friable mid red brown sandy silt occasional medium chalk	☑	☐

Trench: 5

Max Dimensions: **Length: 90.00 m. Width: 1.60 m. Depth to Archaeology Min: 0.3 m. Max: 0.3 m.**

Co-ordinates: **OS Grid Ref.: TL** *(Easting: 27558: Northing: 35564)*

OS Grid Ref.: TL *(Easting: 27629: Northing: 35540)*

Reason: **To evaluate apparently blank parts of the DA using an arrayed pattern of trenches**

Context:	Type:	Description:	Excavated:	Finds Present:
500	**Topsoil**	**As (100).**	☑	☐
502	**Palaeochannel**	**Linear N-S sides: irregular base: concave dimensions: min breadth 25.m, max depth 0.54m**	☑	☐
501	Fill	Friable mid red brown sandy silt moderate small chalk, moderate small stones Fill of Paleochannel.	☑	☐
503	Fill	Compact light green brown chalky silt frequent small chalk Moderate large patches of brown grey sandy silt.	☑	☐
504	**Natural**	**As (101).**	☐	☐
505	**Ditch**	**Linear E-W sides: near vertical base: flat dimensions: max breadth 1.25m, max depth 0.34m**	☑	☐
506	Fill	Friable light grey brown chalky silt frequent small chalk Primary fill of ditch. Eroded feature edges, redeposited natural.	☑	☐
507	Fill	AS (506). Primary fill of ditch. Eroded feature edges, redeposited natural.	☑	☐
508	Fill	Friable light grey brown sandy silt frequent small chalk Main fill of ditch. Redeposited natural.	☑	☐
509	Fill	Friable mid red brown sandy silt frequent medium chalk Top fill of ditch, natural silting.	☑	☐
510	**Treethrow**	**Irregular sides: irregular base: uneven dimensions: max breadth 1.2m, max depth 0.38m**	☑	☐
511	Fill	Friable light brown white chalky silt moderate small chalk	☑	☐
512	Fill	Friable light grey brown sandy silt frequent small chalk	☑	☐
513	Fill	Friable mid grey brown sandy silt moderate small chalk	☑	☐
514	Fill	Friable dark grey brown sandy silt moderate small chalk	☑	☐

Trench: 6

Max Dimensions: **Length: 60.00 m.** **Width: 1.60 m.** **Depth to Archaeology Min: 0.3 m.** **Max: 0.4 m.**

Co-ordinates: **OS Grid Ref.: TL** *(Easting: 27659: Northing: 35507)*

OS Grid Ref.: TL *(Easting: 27629: Northing: 35540)*

Reason: **To evaluate apparently blank parts of the DA using an arrayed pattern of trenches**

Context:	Type:	Description:	Excavated:	Finds Present:
600	Topsoil	As (100).	☑	☐
601	Natural	As (101).	☐	☐

Trench: 7

Max Dimensions: **Length: 60.00 m.** **Width: 1.60 m.** **Depth to Archaeology Min: 0.3 m.** **Max: 0.3 m.**

Co-ordinates: **OS Grid Ref.: TL** *(Easting: 27658: Northing: 35472)*

OS Grid Ref.: TL *(Easting: 27616: Northing: 35445)*

Reason: **To evaluate apparently blank parts of the DA using an arrayed pattern of trenches**

Context:	Type:	Description:	Excavated:	Finds Present:
700	Topsoil	As (100).	☑	☐
701	Natural	As (101).	☐	☐

Trench: 8

Max Dimensions: **Length: 60.00 m.** **Width: 1.60 m.** **Depth to Archaeology Min: 0.3 m.** **Max: 0.35 m.**

Co-ordinates: **OS Grid Ref.: TL** *(Easting: 27605: Northing: 35513)*

OS Grid Ref.: TL *(Easting: 27596: Northing: 35464)*

Reason: **To evaluate apparently blank parts of the DA using an arrayed pattern of trenches**

Context:	Type:	Description:	Excavated:	Finds Present:
800	Topsoil	As (100).	☑	☐
801	Natural	As (101).	☐	☐

Trench: 9

Max Dimensions: **Length: 60.00 m. Width: 1.60 m. Depth to Archaeology Min: 0.25 m. Max: 0.25 m.**

Co-ordinates: **OS Grid Ref.: TL** *(Easting: 27563: Northing: 35495)*

OS Grid Ref.: TL *(Easting: 27539: Northing: 35538)*

Reason: **To evaluate apparently blank parts of the DA using an arrayed pattern of trenches**

Context:	Type:	Description:	Excavated:	Finds Present:
900	**Topsoil**	**As (100).**	☑	☐
901	**Natural**	**As (101)**	☐	☐
902	**Palaeochannel**	**Linear N-S sides: irregular base: concave dimensions: min breadth 25.m, max depth 0.4m**	☑	☐
903	Fill	As (401).	☑	☐

Trench: 10

Max Dimensions: Length: 50.00 m. Width: 1.60 m. Depth to Archaeology Min: 0.24 m. Max: 0.35 m.

Co-ordinates: OS Grid Ref.: TL *(Easting: 27497: Northing: 35533)*

OS Grid Ref.: TL *(Easting: 27519: Northing: 35488)*

Reason: To evaluate apparently blank parts of the DA using an arrayed pattern of trenches

Context:	Type:	Description:	Excavated:	Finds Present:
105	Topsoil	As (100).	☑	☐
106	Natural	As (101).	☐	☐

Trench: 11

Max Dimensions: Length: 20.00 m. Width: 1.60 m. Depth to Archaeology Min: 0.5 m. Max: 0.6 m.

Co-ordinates: OS Grid Ref.: TL *(Easting: 27563: Northing: 35446)*

OS Grid Ref.: TL *(Easting: 27543: Northing: 35446)*

Reason: To investigate geophysical survey anomaly.

Context:	Type:	Description:	Excavated:	Finds Present:
110	Topsoil	As (100).	☑	☐
111	Palaeochannel	As (401).	☑	☐
112	Natural	Compact light grey white chalk frequent medium stones Natural in this trench is characterised by pockets of dense flint gravel.	☐	☐

Trench: 12

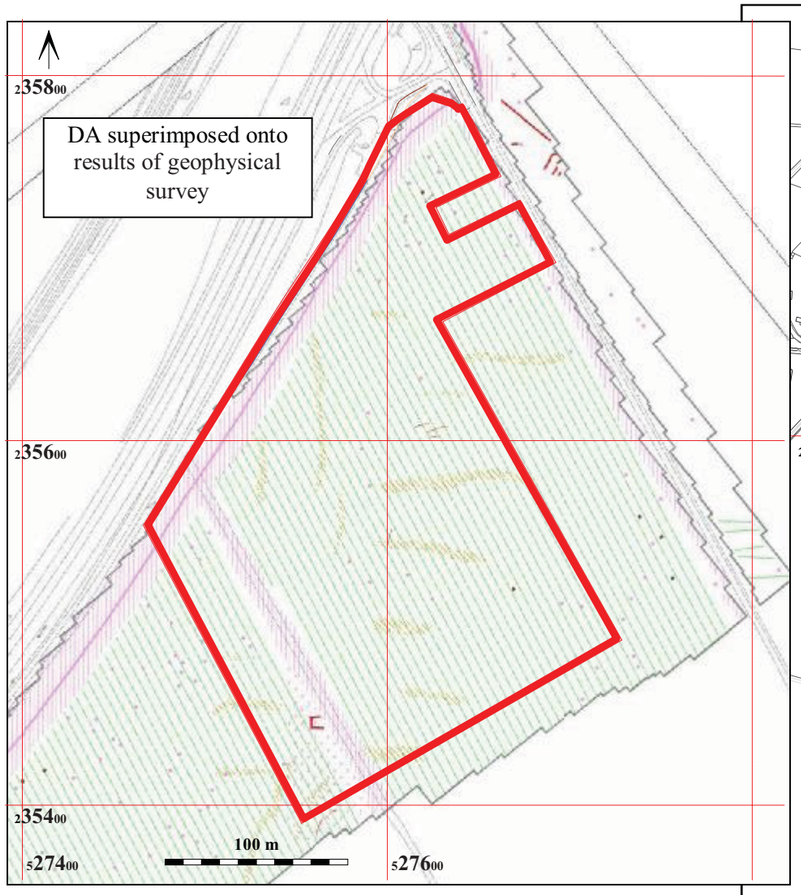
Max Dimensions: Length: 30.00 m. Width: 1.60 m. Depth to Archaeology Min: 0.5 m. Max: 0.5 m.

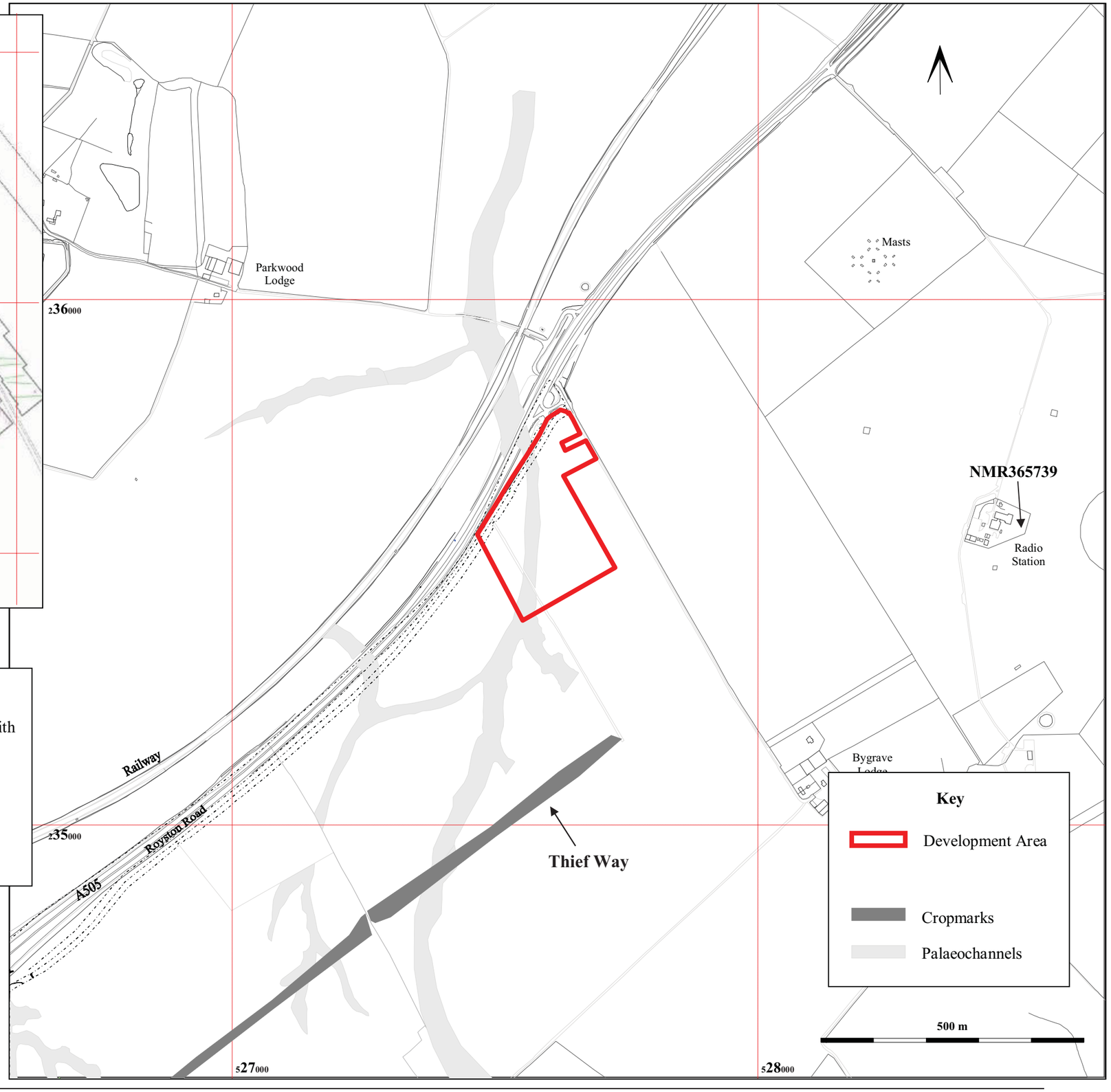
Co-ordinates: OS Grid Ref.: TL *(Easting: 27562: Northing: 35447)*

OS Grid Ref.: TL *(Easting: 27561: Northing: 35417)*

Reason: To investigate geophysical survey anomaly.

Context:	Type:	Description:	Excavated:	Finds Present:
120	Topsoil	As (100).	☑	☐
121	Palaeochannel	As (401).	☑	☐
122	Natural	As (112). Natural in this trench is characterised by pockets of dense flint gravel.	☐	☐





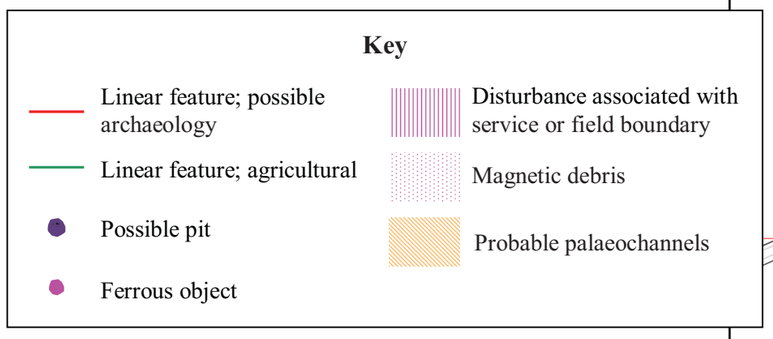


Figure 1: Site Location Plan

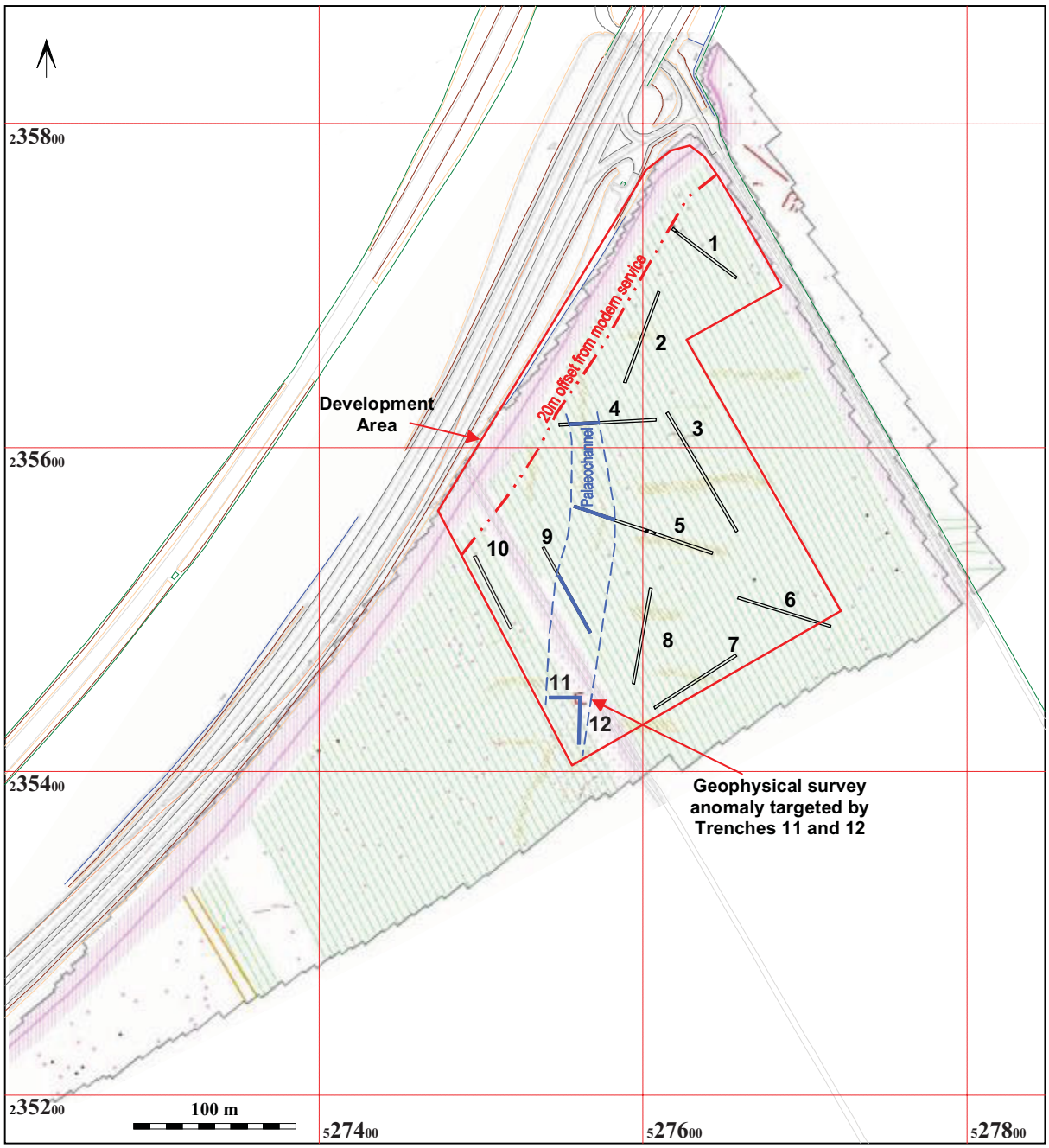
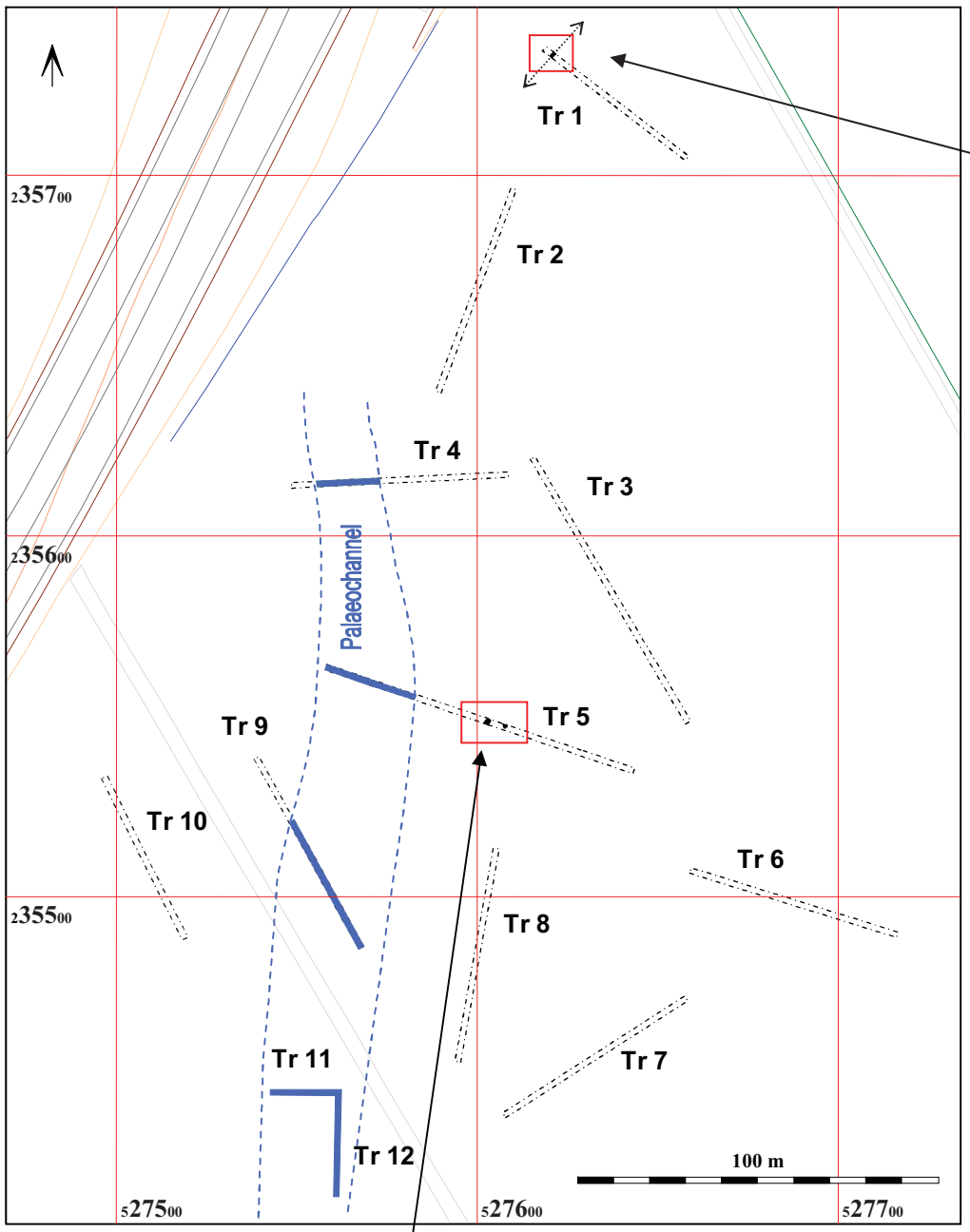
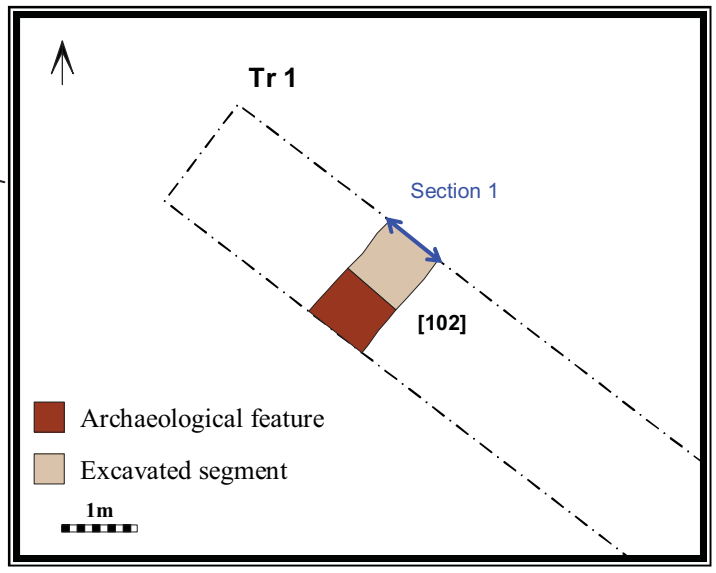
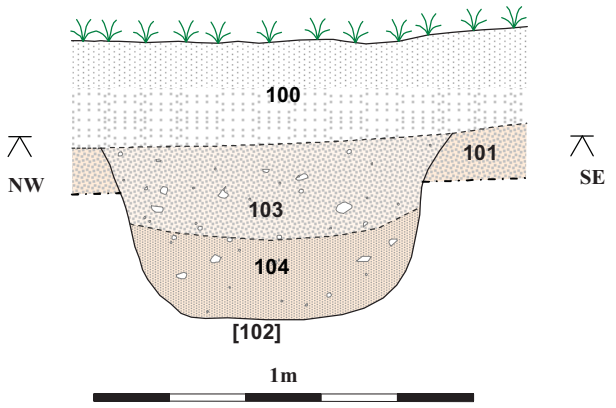


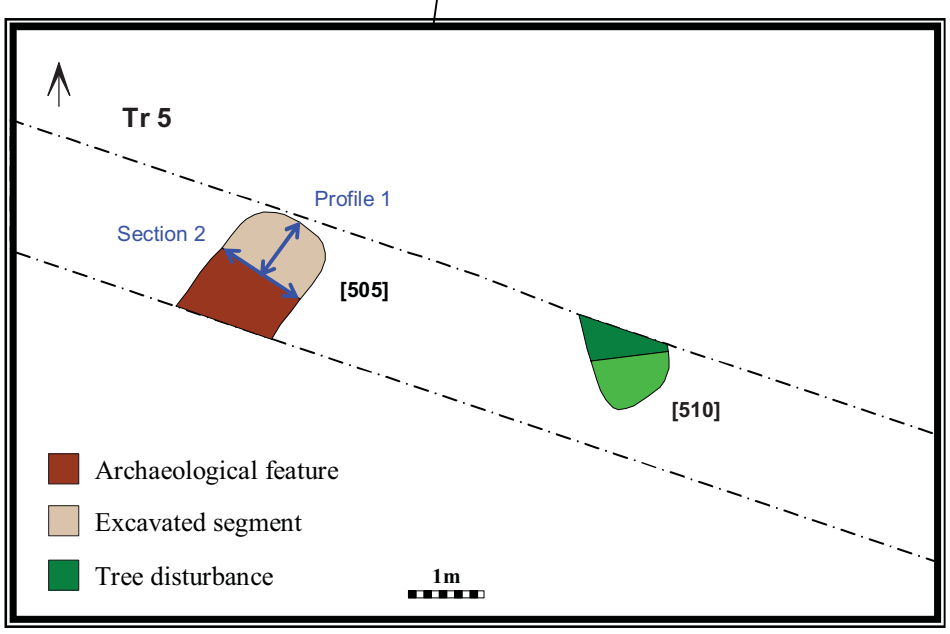
Figure 2: Trial trench location plan



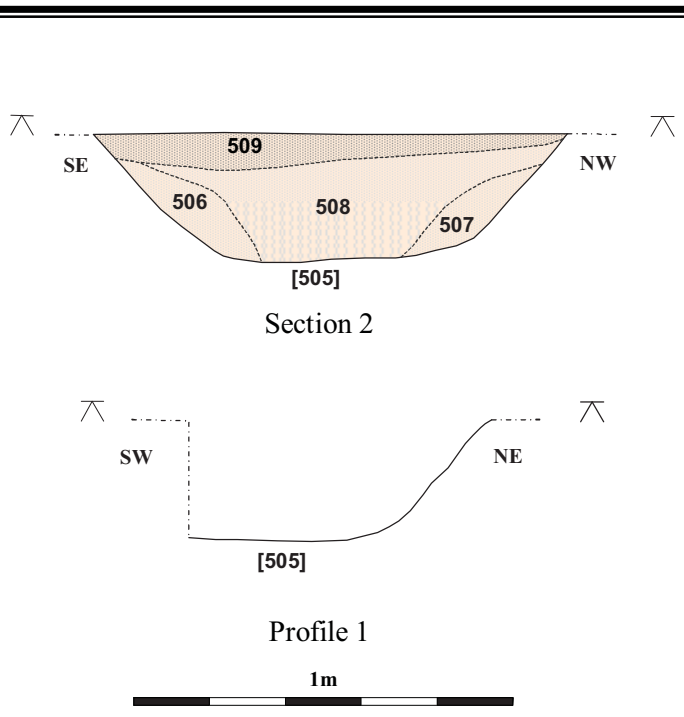




Section 1



Ditch [104] looking NE
Scale 1m



Key to sections

Topsoil

Geology

Fills

Feature [505] looking SW
Scale 1m

Figure 3: All features plan

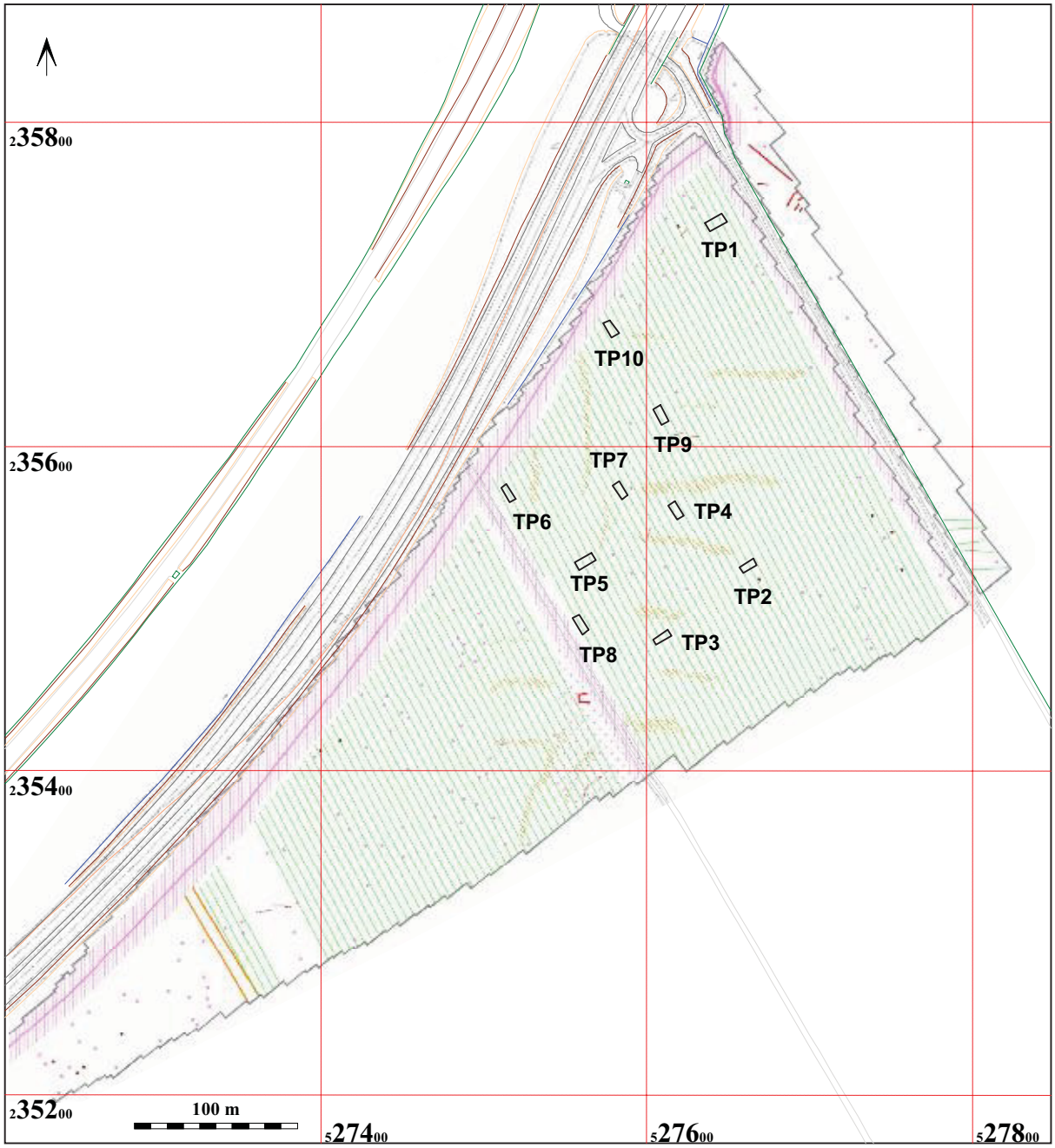
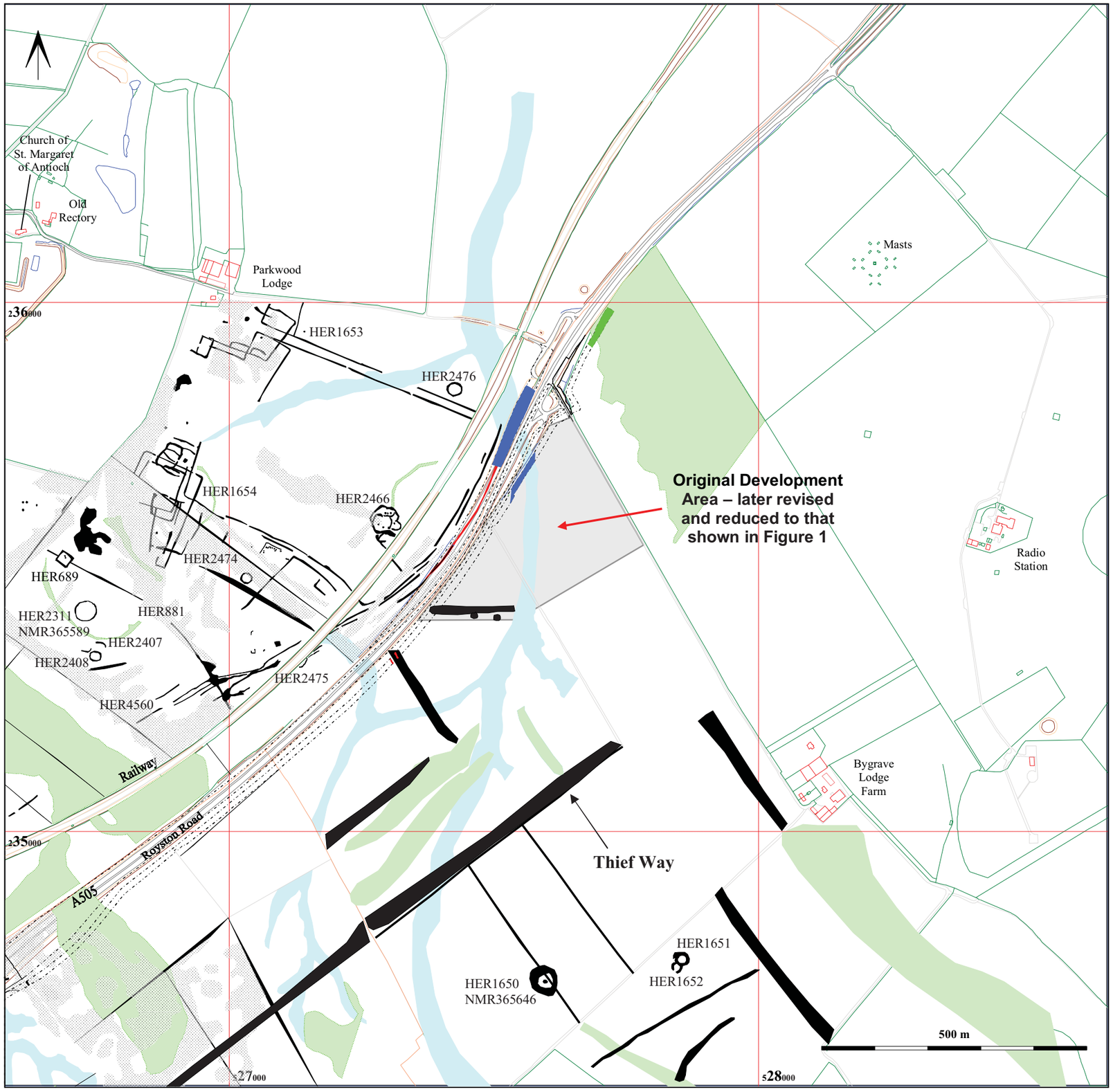


Figure 4: Test-pit locations overlaid onto geophysical survey results



Excavations

- Limit of excavations on Baldock Bypass
- Archaeological features
- Palaeochannels
- Layer

Cropmarks

- Archaeological features
- Palaeochannels
- Geological features
- Deeper soil

Figure 5: Original Development Area (later revised and reduced to that shown in Figure 1) shown with cropmarks, HER Data and selected previous excavations