

Cowards Lane, Codicote, Hertfordshire
Archaeological Desk-Based Assessment
July 2025

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Report

Archaeological Desk-Based Assessment

Site

Cowards Lane, Codicote, Hertfordshire

Client

Hawridge Strategic Land Limited

Date

July 2025

Planning Authority

North Hertfordshire District Council

Site Centred At

TL 21590 17800

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Timescales Used in This Report

Prehistoric

Palaeolithic	450,000 -12,000 BC
Mesolithic	12,000 - 4,000 BC
Neolithic	4,000 - 2,200 BC
Bronze Age	2,200 - 700 BC
Iron Age	700 - AD 43

Historic

Roman	43 - 410AD
Saxon/Early Medieval	410 - 1066AD
Medieval	1066 - 1485AD
Post Medieval	1486 - 1901AD
Modern	1901 - Present Day

Executive Summary

This archaeological desk-based assessment considers land to the south of Cowards Lane, Codicote, Hertfordshire (hereinafter referred to as the “Study Site”). In accordance with government policy (National Planning Policy Framework 2024), this assessment draws together the available archaeological, historic, topographic and land-use information in order to clarify the archaeological potential of the study site. The assessment will accompany a planning application for the re-development of the Study Site for housing.

There are no archaeological designated heritage assets (Scheduled Ancient Monuments, Registered Battlefields or World Heritage Sites) within the Study Site or the wider 1km study area.

A review of the available evidence has confirmed that the Study Site has a low potential to contain archaeological finds and features dating from all periods. A recent geophysical survey of the site did not record any magnetic responses that could be interpreted as being of definite archaeological interest. Any archaeological remains which may have been present on the site are likely to have survived, although these are likely to be of local significance only. The groundworks associated with the proposed development have the potential to disturb or destroy any archaeological remains which might be present on the site.

It is possible that some form of archaeological work will be required in respect of the proposed development in due course. This should be covered by an appropriately worded planning condition attached to any consent granted, although the exact scope and timing of any such work will need to be discussed between the appellant and the LPA’s archaeological advisor.

1.0 Introduction

- 1.1** This archaeological desk-based assessment considers land to the south of Cowards Lane, Codicote, Hertfordshire (Figure 1). It has been researched and prepared by Orion Heritage on behalf of Hawridge Strategic Land Limited. The site (hereinafter referred to as the “Study Site”) is centred on grid reference TL 21590 17800. It has been prepared to support a planning application in respect of a new housing development on the Study Site.
- 1.2** In accordance with the Standard and Guidance for Archaeological Desk-Based Assessment (Chartered Institute for Archaeologists 2020), the assessment draws together available information on designated and non-designated heritage assets, topographic and land-use information so as to establish the potential for non-designated archaeological assets within the study site. The assessment includes the results of a site survey, an examination of published and unpublished records, and charts historic land-use through a map regression exercise. The assessment also considers the setting of archaeological heritage assets, and provides an assessment of how their settings contribute to their significance. A separate report will consider built heritage assets.
- 1.3** The assessment enables relevant parties to assess the significance of archaeological assets on and close to the study site and considers the potential for hitherto undiscovered archaeological assets, thus enabling potential impacts on assets to be identified along with the need for design, civil engineering or archaeological solutions. It also provides an understanding of any constraints to development of the study site due to the presence of nearby archaeological heritage assets, and provides an assessment of the potential impact Development would have on the significance of heritage assets and also provides design responses that would serve to reduce that impact in line with local and national policy.
- 1.4** The study area used in this assessment is a 1km buffer radius from the red line boundary of the Study Site (Figures 2a, 2b, 3 and 4).
- 1.5** A site visit was carried out by Orion Heritage on 7th April 2025, at which time it was clear and sunny and the visibility good.

Location, Topography and Geology

- 1.6** The study site is located c. 350m south of the historic core of Codicote, Hertfordshire, and consists of an irregular shaped plot of land, measuring c. 1.33 ha in size, that is used for grazing horses. There is a short access road connecting the field to Cowards Lane to the north.
- 1.7** The site is bounded to the north-west, north, north-east and east by numerous residential properties and their associated gardens, and to the south and west by further open fields. The western and southern boundaries of the site were largely obscured by vegetation at the time of the site visit in April 2025.
- 1.8** The surrounding area generally slopes down towards the centre of the Study Site and, as a result, the height above Ordnance Datum varies from c. 102m in

the western and northern parts of the site down to c. 98m in the central area. According to the British Geological Survey, the underlying geology of the site consists of Boulder Clay overlying Upper Chalk (BGS 1978).



Plate 1: General view looking South-east from the northern part of the Study Site.



Plate 2: General view looking South from the northern part of the Study Site.



Plate 3: General view looking North-west from the southern part of the Study Site.



Plate 4: General view looking North-east from the southern part of the Study Site.

2.0 Aims, Objectives & Methodology

2.1 The principal aims of the desk-based assessment are to:

- Gain an understanding of the archaeological potential of the study site;
- Identify any archaeological constraints to the development of the study site; and to
- Assess the likely impact of the proposed development as defined in the introduction.

2.2 The results of the archaeological desk-based assessment will inform an archaeological strategy for further on-site assessment and formulation of a mitigation strategy, as appropriate to the archaeological potential of the study site.

2.3 This desk-based assessment conforms to the requirements of current national and local planning policy (including *National Planning Policy Framework 2024*) and it has been designed in accordance with current best archaeological practice, and the appropriate national and local standards and guidelines, including:

- Management of Recording Projects in the Historic Environment: MORPHE (English Heritage 2006);
- Code of Conduct (Chartered Institute for Archaeologists [CIfA] [revised edition] 2022); and
- Standard and Guidance for Historic Environment Desk-Based Assessment (CIfA January 2020).

2.4 It is noted that the Chartered Institute for Archaeologists defines desk-based assessment as:

“a programme of study of the historic environment within a specified area or site on land, the inter-tidal zone or underwater that addresses agreed research and/or conservation objectives. It consists of an analysis of existing written, graphic, photographic and electronic information in order to identify the likely heritage assets, their interests and significance and the character of the study area, including appropriate consideration of the settings of heritage assets and, in England, the nature, extent and quality of the known or potential archaeological, historic, architectural and artistic interest. Significance is to be judged in a local, regional, national or international context as appropriate.”

2.5 The Chartered Institute for Archaeologists Standard for desk-based assessment states that:

“Desk-based assessment will determine, as far as is reasonably possible from existing records, the nature, extent and significance of the historic environment within a specified area. Desk-based assessment will be undertaken using appropriate methods and practices which satisfy the stated

aims of the project, and which comply with the Code of conduct and other relevant regulations of ClfA. In a development context desk-based assessment will establish the impact of the proposed development on the significance of the historic environment (or will identify the need for further evaluation to do so) and will enable reasoned proposals and decisions to be made whether to mitigate, offset or accept without further intervention that impact.”

Methodology

2.6 The following sources will be consulted for the whole study area:

- Hertfordshire Historic Environment Record (HHER).
- National Heritage List for England held by Historic England.
- Historic mapping.
- Previous archaeological evaluation and excavation records relating to sites in and immediately adjacent to the study area.
- Such other published works, reports and other information relevant to the desk-based assessment.
- Online aerial photography including Google Earth.
- An assessment of any Lidar holdings held by the Environment Agency for the study area.

2.7 When the planning application is submitted, a digital copy of the report will be provided to the Hertfordshire HER (hard copies will be provided on request) and a copy will also be uploaded as part of the ADS OASIS database record.

2.8 Lidar provides topographic data and is particularly useful in the detection and identification of heritage assets that survive as earthworks. The Environment Agency (EA) regularly collects Lidar data for England and makes these data available for public use through their online portal. Digital Terrain Models (DTM) are routinely used for heritage purposes as this model shows the ground surface with buildings and trees filtered out to create a ‘bare earth’ effect. The Environmental Agency collected Lidar data that covers the study site and much of the surrounding 1km study area in 2021.

3.0 Planning Background and Development Plan Framework

Ancient Monuments & Archaeological Areas Act 1979

- 3.1** The Ancient Monuments & Archaeological Areas Act 1979 (as amended) protects the fabric of Scheduled Monuments but does not afford statutory protection to their settings.

National Planning Policy Framework (NPPF) & National Planning Practice Guidance (NPPG)

- 3.2** Government policy in relation to the historic environment is outlined in Section 16 of the National Planning Policy Framework (NPPF 2024), entitled 'Conserving and Enhancing the Historic Environment'. This provides guidance for planning authorities, property owners, developers and others on the conservation and investigation of heritage assets. Overall, the objectives of Section 16 of the NPPF can be summarised as seeking the:

- Delivery of sustainable development;
- Understanding the wider social, cultural, economic and environmental benefits brought by the conservation of the historic environment;
- Conservation of England's heritage assets in a manner appropriate to their significance; and
- Recognition of the contribution that heritage assets make to our knowledge and understanding of the past.

- 3.3** Section 16 of the NPPF recognises that intelligently managed change may sometimes be necessary if heritage assets are to be maintained for the long term. The NPPF is supported by the National Planning Policy Guidance (NPPG). In relation to the historic environment, paragraph 002 of the NPPG (Reference ID: 18a-002-20190723) states that:

Conservation is an active process of maintenance and managing change. It requires a flexible and thoughtful approach to get the best out of assets as diverse as listed buildings in every day use and as yet undiscovered, undesignated buried remains of archaeological interest.

- 3.4** Paragraph 207 of the NPPF states that planning decisions should be based on the significance of the heritage asset, and that the level of detail supplied by an applicant should be proportionate to the importance of the asset and should be no more than sufficient to understand the potential impact of the proposal upon the significance of that asset.

Designated Heritage Assets

- 3.5** A key aspect of NPPF paragraphs 212-215 is whether a proposed development will result in substantial harm or less than substantial harm to a designated asset. However, substantial harm is not defined in the NPPF. Paragraph 018 (Reference ID: 18a-018-20190723) of the NPPG provides additional guidance

on substantial harm. The following quote refers to listed buildings but the same principles applies to archaeological designated heritage assets. It states:

“Proposed development affecting a heritage asset may have no impact on its significance or may enhance its significance and therefore cause no harm to the heritage asset. Where potential harm to designated heritage assets is identified, it needs to be categorised as either less than substantial harm or substantial harm (which includes total loss) in order to identify which policies in the National Planning Policy Framework (paragraphs 194-196 now para 212-215 in the 2024 NPPF) apply.”

Within each category of harm (which category applies should be explicitly identified), the extent of the harm may vary and should be clearly articulated.

*Whether a proposal causes substantial harm will be a judgment for the decision-maker, having regard to the circumstances of the case and the policy in the National Planning Policy Framework. In general terms, substantial harm is a high test, so it may not arise in many cases. For example, in determining whether works to a listed building constitute substantial harm, an important consideration would be whether the adverse impact seriously affects a key element of its special architectural or historic interest. **It is the degree of harm to the asset’s significance rather than the scale of the development that is to be assessed.** The harm may arise from works to the asset or from development within its setting. (emphasis added).*

- 3.6** Paragraph 215 of the NPPF outlines that where a proposed development results in less than substantial harm to the significance of a heritage asset, the harm arising should be weighed against the public benefits accruing from the proposed development. Paragraph 020 of the NPPG (Reference ID: 18a-020-20190723) outlines what is meant by public benefits:

“Public benefits may follow from many developments and could be anything that delivers economic, social or environmental objectives as described in the National Planning Policy Framework (paragraph 8). Public benefits should flow from the proposed development. They should be of a nature or scale to be of benefit to the public at large and not just be a private benefit. However, benefits do not always have to be visible or accessible to the public in order to be genuine public benefits, for example, works to a listed private dwelling which secure its future as a designated heritage asset could be a public benefit.”

- 3.7** No harm occurs where a proposed development will have no direct physical effects on heritage assets and/or where a proposed development is outside of the setting of a designated heritage asset. In such instances, there will be no adverse effects on the significance of designated heritage assets.

Non-Designated Heritage Assets

- 3.8** Paragraph 216 of the NPPF requires the decision-maker to take into account the effect on the significance of non-designated heritage assets and to take a

balanced judgement having regard to the scale of harm or loss and the significance of the asset(s) potentially affected.

NPPF Definitions

- 3.9** *Heritage Assets* are defined in Annex 2 as a building, monument, site, place, area or landscape identified as having a degree of significance meriting consideration in planning decisions, because of its heritage interest. It includes designated heritage assets and assets identified by the local planning authority (including local listing).
- 3.10** *Archaeological Interest* is defined as a heritage asset which holds, or potentially could hold, evidence of past human activity worthy of expert investigation at some point. Heritage assets with archaeological interest are the primary source of evidence about the substance and evolution of places, and of the people and cultures that made them.
- 3.11** *Designated Heritage Assets* comprise: A World Heritage Site, Scheduled Monument, Listed Building, Protected Wreck Site, Registered Parks and Garden, Registered Battlefield or Conservation Areas designated under the relevant legislation.
- 3.12** *Significance* is defined as the value of a heritage asset to this and future generations because of its heritage interest. This interest may be archaeological, architectural, artistic or historic. Significance derives not only from a heritage asset's physical presence, but also from its setting.
- 3.13** *Setting* is defined as the surroundings in which a heritage asset is experienced. Its extent is not fixed and may change as the asset and its surroundings evolve. Elements of a setting may make a positive or negative contribution to the significance of an asset, may affect the ability to appreciate that significance or may be neutral.

Local Planning Policy

- 3.14** The North Hertfordshire Local Plan 2011-2031 was adopted in November 2022, and contains the following policies which may be relevant in respect of the proposed development.

Policy HE1: Designated heritage assets

Planning applications relating to Designated heritage Assets or their setting shall be accompanied by a Heritage Assessment/Justification Statement that:

- i. Assesses the significance of heritage assets, including their setting;*
- ii. Justifies and details the impacts of any proposal upon the significance of the designated heritage asset(s); and*
- iii. Informs any necessary measures to minimise or mitigate against any identified harms.*

Planning permission for development proposals affecting Designated Heritage Assets or their setting will be granted where they (as applicable):

- a) Enable the heritage asset to be used in a manner that secures its conservation and preserves its significance;*
- b) Incorporate a palette of materials that make a positive contribution to local character or distinctiveness, where it is appropriate and justified; and*
- c) Will lead to less than substantial harm to the significance of the designated heritage asset, and this harm is outweighed by the public benefits of the development, including securing the asset's optimum viable use.*

Where substantial harm to, or loss of significance, of a designated heritage asset is proposed the Council shall refuse consent unless it can be demonstrated that the scheme is necessary to deliver considerable public benefits that outweigh the harm or loss.

Policy HE2: Heritage at risk

Planning permission will be granted for proposals that seek to conserve or provide new uses for designated heritage assets identified on the national register, or the Council's 'At Risk' register maintained by the Council, that are justified and appropriate to the significance of the asset to return a heritage asset to beneficial use.

Proposals that harm the significance of heritage assets included on national and local registers will be resisted unless the need for, and the benefits of, the development in that location clearly outweigh that harm, taking account of the asset's significance and importance, and all feasible solutions to avoid and mitigate that harm have been fully assessed.

Policy HE3: Non-designated heritage assets

Permission for a proposal that would result in harm to, or the loss of, a non-designated heritage asset will only be granted provided that a balanced judgement has been made that assesses the scale of harm to, or loss of significance of the non-designated asset and, where the proposal results in the loss of a non-designated heritage asset:

- a) The replacement building contributes to preserving the local character and distinctiveness of the area; and*
- b) Where the asset is located in a conservation area a continuous contract for the demolition and redevelopment of the site has been secured, unless there are justifiable grounds for not developing the site.*

Policy HE4: Archaeology

Permission for development proposals affecting heritage assets with archaeological interest will be granted provided that:

- a) Developers submit an appropriate desk-based assessment and, where justified, an archaeological field evaluation.*
- b) It is demonstrated how archaeological remains will be preserved and incorporated into the layout of that development, if in situ preservation of important archaeological remains is considered preferable; and*
- c) Where the loss of the whole or a material part of important archaeological remains is justified, appropriate conditions are applied to ensure that the archaeological recording, reporting, publication and archiving of the results of such archaeological work is undertaken before it is damaged or lost.*

Where archaeological sites have been assessed to meet the criteria for inclusion on adopted registers or maps of locally important heritage assets these shall be treated in the same way as archaeology areas and areas of archaeological significance.

Areas of as yet, unknown archaeology may be identified during research, or through the planning or plan making process. These sites or areas should be treated in the same way as archaeology areas and areas of archaeological significance.

Guidance

Historic Environment Good Practice Advice In Planning Note 2: Managing Significance in Decision-Taking in the Historic Environment (Historic England 2015)

3.15 The purpose of this document is to provide information to assist local authorities, planning and other consultants, owners, applicants and other interested parties in implementing historic environment policy in the NPPF and NPPG. It outlines a six-stage process to the assembly and analysis of relevant information relating to heritage assets potentially affected by a proposed development:

- Understand the significance of the affected assets;
- Understand the impact of the proposal on that significance;
- Avoid, minimise and mitigate impact in a way that meets the objectives of the NPPF;
- Look for opportunities to better reveal or enhance significance;
- Justify any harmful impacts in terms of the sustainable development objective of conserving significance and the need for change; and
- Offset negative impacts on aspects of significance by enhancing others through recording, disseminating and archiving archaeological and historical interest of the important elements of the heritage assets affected.

4.0 Archaeological and Historic Baseline

Archaeological Heritage Assets

- 4.1** The heritage assets under consideration have been identified by means of a review of the following resources:
- Hertfordshire Historic Environment Record (HHER) Data;
 - The National Heritage List for England (NHLE) held by Historic England;
 - Historic England Archive;
 - Pastscape;
 - Local studies and record office research; and
 - Review of historic mapping.
- 4.2** These resources will be used to provide an understanding of the heritage assets which may be affected by the proposed Development. This chapter will describe the archaeological heritage assets which may be affected and assess their significance. Built heritage assets will be discussed in more detail in a separate Heritage Statement, but may be mentioned in this report where relevant.
- 4.3** The location of heritage assets mentioned in the text are shown on Figures 2a, 2b, 3 and 4.

Designated Archaeological Heritage Assets

- 4.4** No designated archaeological heritage assets are located within the study site, and there are none within the 1km study area.

Online Satellite and Aerial Imagery

- 4.5** Google Earth holds a collection of historic aerial photographs covering the Study Site, including images taken between 1985 and 2024. The image from 1985 is too blurred to make out the site clearly, but the photographs from 2000 onwards indicate that the Study Site has changed very little in the last twenty-five years. Nothing of archaeological interest is visible on any of the available aerial images.

Environment Agency Lidar Data

- 4.6** The Environment Agency National Lidar Programme collected data in 2021 which covers the Study Site and the wider 1km buffer study area (Plate 5). The image shows a number of sub-circular anomalies within the Study Site that do not appear to represent any features known from historic maps and aerial photographs. It is possible that some of these anomalies may represent former quarry pits or ponds, although a natural origin for them cannot be discounted.

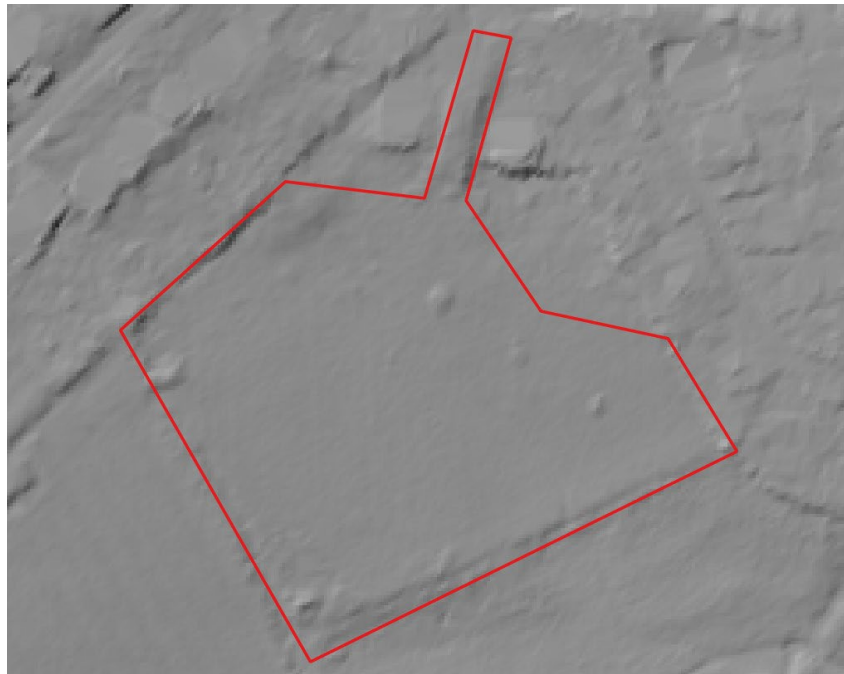


Plate 5: Lidar image covering the entire study site (DTM 2021 1m NLP Lidar data – Multidirectional Hillshade).

Previous archaeological investigations

- 4.7** A geophysical survey of the Study Site was undertaken in June 2025. No magnetic responses that could be interpreted as being of definite archaeological interest were recorded, although there were some anomalies relating to natural variations, agricultural practices and buried ferrous debris. The full geophysical survey report is attached as Appendix B (Sumo 2025).
- 4.8** The HHER contains numerous entries in respect of archaeological ‘events’ within the 1km study area. These cover a wide range of projects including geophysical surveys, evaluations, excavations and watching briefs (Appendix A; Figure 4).
- 4.9** According to the HHER, there have been no known archaeological investigations carried out on the Study Site in the past.
- 4.10** An archaeological evaluation was carried out to the south of Cowards Lane, to the east of the Study Site, in 2018 (EHT8505), following an earlier geophysical survey (EHT8413). A small number of features, mostly post-medieval or modern in date, were recorded across the site.
- 4.11** A programme of archaeological and geotechnical fieldwork was carried out in respect of the proposed development of a large plot of land c. 120m north-west of the Study Site at its closest point. The work included a geophysical survey (EHT8317), monitoring of geotechnical test pits (EHT8318), two trial trench evaluations (EHT8613 and EHT8992), and an open area excavation (EHT9046). The features recorded during the evaluation stage included a Late Bronze Age pit and an Early Iron Age ditch (MHT39801), while flintwork dating from the Neolithic and Bronze Age periods was also recovered. The geophysics and evaluations had confirmed the presence of a multi-phase

ditched enclosure system in the southern part of the site, dating from the Late Iron Age and early Roman periods. The results of the subsequent excavation have not yet been provided to the HHER.

- 4.12 No archaeological finds or features were recorded during an evaluation close to the High Street, c. 200m north-east of the Study Site (EHT4642). Other archaeological projects along the High Street recorded post-medieval footings and a well (EHT4893 / MHT10988), and truncated backyard features (EHT7985 and EHT7986). The HHER entry in respect of an evaluation at the Bell Inn does not note any findings of interest (EHT8988).
- 4.13 An evaluation at Holland's Farm, c. 530m south of the Study Site, recorded parts of a rectangular enclosure dating from the Late Iron Age or early Roman periods (EHT4343 / MHT2388). The feature had previously been identified from aerial photographs (EHT1695 and EHT2257).
- 4.14 There are several HHER entries in respect of archaeological projects in the area which contain no details of what was found (EHT4803, EHT8464, EHT8762, EHT8919, EHT9059, EHT9079 and EHT9267). However, as these are all located some distance from the Study Site, they are deemed to have no impact on the archaeological potential of the site.
- 4.15 Some of the HHER entries relate to features which have been recorded within the study area from aerial photographs (EHT2795, EHT2796 and EHT2797).

Archaeological Notification Areas

- 4.16 There are five Archaeological Notification Areas within the 1km study area which have been defined by the Kent County Council Archaeological Team (Figure 3). One of these covers the historic core of Codicote, along the High Street. Another area has been defined around Holland's Farm, to the south of the Study Site, where an enclosure dating from the Late Iron Age or early Roman period has been identified.

Prehistoric

- 4.17 A flint implement, described as 'a rather chunky Mesolithic tranche axehead' was found in 1929 c. 545m west of the Study Site (MHT1132).
- 4.18 A Late Bronze Age pit and an Early Iron Age ditch was recorded during the archaeological evaluations carried out close to Heath Lane, c. 120m north-west of the Study Site (MHT39801). Flintwork probably dating from the Neolithic and Bronze Age periods was also recovered. A multi-phase ditched enclosure system in the southern part of the site had been identified by a geophysical survey and confirmed during the evaluations. The enclosures, dating from the Late Iron Age and early Roman periods, were subsequently investigated during an open area excavation, although details of this project have not yet been provided to the HHER. There was no indication that any of the features recorded on the Heath Lane site extended south-eastwards towards the Study Site.

- 4.19** A group of ring ditches, which probably represent barrows dating from the Late Neolithic or Early Bronze Age periods, have been recorded as cropmarks close to the River Mimram, c. 720m south-west of the Study Site (MHT16339).
- 4.20** An enclosure dating from the Late Iron Age or early Roman period has been recorded close to Holland's Farm, c. 530m south of the Study Site (MHT2388).
- 4.21** Fragments of Iron Age pottery were found at Rooks Wood in 1930, to the west of the Study Site (MHT1134). A prehistoric flint implement was found nearby (MHT250), although the HHER stresses that the NGR given for both entries is arbitrary.
- 4.22** Numerous artefacts have been found within the study area over the years by metal detectorists, who have reported the objects to the HHER via the Portable Antiquities Scheme. Unsurprisingly, most of these objects are made of metal. The only prehistoric object recorded within 250m of the Study Site was a fragment of copper alloy casting waste that was found to the east of the site (MHT20758). The other objects are recorded in Appendix A, with their locations shown on Figure 2b (MHT20167, MHT20757, MHT22913, MHT23277, MHT34221, MHT34265, MHT36796 and MHT36822).
- 4.23** Whilst there is some evidence for prehistoric activity within the study area, nothing has been recorded in close vicinity to the Study Site. As a result, the potential for the Study Site to contain archaeological finds and features dating from the prehistoric period is deemed to be low. Any such remains which might be present on the Study Site are likely to be of local significance only.

Roman

- 4.24** Archaeological fieldwork to the south of Heath Lane recorded a ditched enclosure system dating from the Late Iron Age or early Roman period. The results of the open area excavation have not yet been provided to the HHER, but there was no indication that any features extended south-eastwards towards the Study Site.
- 4.25** An enclosure dating from the Late Iron Age or early Roman period has been recorded close to Holland's Farm, c. 530m south of the Study Site (MHT2388).
- 4.26** Numerous artefacts have been found within the study area over the years by metal detectorists, who have reported the objects to the HHER via the Portable Antiquities Scheme. Over fifty of these finds appear to date from the Roman period and, unsurprisingly, most are metal objects. The only Roman finds recorded within 250m of the Study Site are two copper alloy coins that were found c. 60m (MHT21219) and c. 235m (MHT20739) south of the site. The other objects are recorded in Appendix A, with their locations shown on Figure 2b (MHT34221, MHT34265, MHT36796, MHT36822, MHT19885, MHT20113, MHT20410, MHT20585, MHT20586, MHT20587, MHT20733, MHT20734, MHT20736, MHT20737, MHT20738, MHT20740, MHT20864, MHT20912, MHT21076, MHT22121, MHT26358, MHT26405, MHT36021, MHT19714, MHT19810, MHT20735, MHT22119, MHT22120, MHT33224, MHT33683, MHT34446, MHT34958, MHT34960, MHT34963, MHT35107,

MHT35108, MHT35309, MHT35312, MHT35353, MHT35354, MHT35355, MHT35357, MHT36223, MHT36786, MHT36793, MHT36797, MHT36831, MHT37854, MHT38073, MHT38109 and MHT38978).

- 4.27** Although evidence of Roman activity has been found within the study area, none has been recorded in close vicinity to the Study Site itself. Of the many Roman artefacts recovered by metal detectorists over the years, only a couple of coins have been found within 250m of the Study Site. As a result, the potential for the study site to contain archaeological finds and features dating from the Roman period is deemed to be low. Any such remains which may be present on the site are likely to be of local significance only.

Saxon

- 4.28** The study site lies just south of the historic core of Codicote. The settlement probably developed during the Saxon period as Codicote is mentioned in a document dating from 1002, and is listed in the Domesday Book (1086). The placename is believed to be derived from the Old English words *ing* and *cot*, and a personal name, meaning 'cottage(s) associated with a man called Cuthhere' (Mills 1993). At that time of the Domesday Book the manor was held by the Abbey of St Albans. The population consisted of 16 villagers, 3 cottagers and 1 Frenchman. There was arable land for 12 plough teams, woodland for 200 pigs, 2 mills, and meadow for 2 ploughs (Open Domesday).
- 4.29** The only HHER entries relating to the Saxon period are in respect of stray finds of artefacts recorded within the study area, some of which have been found by metal detectorists. Two silver coins (sceat) dating from the Middle Saxon period were found c. 175m south of the Study Site (MHT20401 and MHT20402). A silver penny of Ecgbearht, who was king of the West Saxons between 800 and 837, was found in Codicote in 1926, although the NGR given in the HHER is arbitrary (MHT1044).
- 4.30** There are no HHER entries in respect of archaeological features dating from the Saxon period within the study area, and it is likely that any traces of the original Saxon settlement lie beneath the present village. The Study Site probably lay within the agricultural hinterland of Codicote at this time. As a result, the potential for the Study Site to contain archaeological finds and features dating from the Saxon period is deemed to be low. Any such remains which may be present on the site are likely to be of local significance only.

Medieval

- 4.31** The Study Site continued to lie within the parish of Codicote during the medieval period, south of the historic core of the village. There is a HHER entry relating to Codicote itself, which is described as a 'village with medieval origins around a green, encouraged to expand with the grant of a market in the 13th century' (MHT1807). As discussed above, the village had actually existed since the late Saxon period as it is listed in the Domesday Book (1086). The parish church, dedicated to St Giles, is a Grade II Listed Building with

elements dating from the 12th, 13th, and 15th centuries, although it was restored in the 19th century (NHLE 1102834 / MHT4302). The isolated location of the church, c. 500m north of the centre of the village, has led to the suggestion that Codicote may originally have been larger, and that it shrunk during the medieval period. However, there is no archaeological evidence to support this theory.]

- 4.32 A small number of medieval features were recorded during the recent archaeological fieldwork carried out close to Heath Lane, to the north-west of the Study Site (EHT9046 and MHT39802).
- 4.33 It is possible that the parallel linear ditches that have been recorded as cropmarks on aerial photographs, c. 770m south-west of the Study Site, could be medieval in date (MHT7449).
- 4.34 A medieval glazed jug was found at Sisservernes Farm, c. 700m east of the Study Site, in the first half of the 20th century (MHT1383).
- 4.35 Numerous artefacts have been found within the study area over the years by metal detectorists, who have reported the objects to the HHER via the Portable Antiquities Scheme. Almost thirty of these finds appear to date from the medieval period and, unsurprisingly, most are metal objects. The only medieval finds recorded within 250m of the Study Site are a lead papal bull (MHT20296) and silver farthing (MHT20400) that were found c. 175m south of the site. The other objects are listed in Appendix A, with their locations shown on Figure 2b (MHT18898, MHT20161, MHT20411, MHT20412, MHT20484, MHT20679, MHT20729, MHT20981, MHT21217, MHT21218, MHT22059, MHT22060, MHT22061, MHT22117, MHT28939, MHT28941, MHT28942, MHT35362, MHT36577, MHT20160, MHT20731, MHT20903, MHT21376, MHT22116, MHT22189 and MHT33658)
- 4.36 There is very little evidence of medieval activity recorded within the study area, and it is likely that the Study Site continued to lie within the agricultural hinterland of Codicote during this period, to the south of the core of the village. As a result, the potential for the study site to contain archaeological finds and features dating from the medieval period is deemed to be low. Any such remains which may be present on the site are likely to be of local significance only.

Post Medieval and Modern

- 4.37 One of the earliest available maps to show the study area is Christopher Saxton's survey of Hertfordshire from 1579 (not illustrated). This map clearly depicts the nearby settlements of Ayot St Lawrence, Knebworth and Welwyn, but Codicote is not shown. Strangely, the settlement of Whitwell is shown roughly where Codicote should be, despite the fact that Whitwell is located to the west of Knebworth, not the south-west.
- 4.38 Codicote (*Cudicot*) is shown on John Speed's map of Hertfordshire from 1610, alongside the River Mimram (Figure 5). The nearby settlements of Ayot St Lawrence, Knebworth and Welwyn are also shown on this map, but oddly

Whitwell is not. The map is rather schematic and nothing of interest is shown in the area of the Study Site.

- 4.39** The 1766 map of Hertfordshire by Andrew Dury and John Andrews shows the area in far more detail than any of the earlier surveys, including the emerging road network (Figure 6). The village of Codicote is clearly depicted with numerous buildings along the High Street, and it is also possible to identify Cowards Lane, St Albans Road, Heath Lane and Bury Lane on the map. The Study Site lies within a large field to the south of Cowards Lane, which is obscured by the words 'Coddicot Street'. Codicote High Street became part of the turnpike road between Hitchin and Welwyn during the 18th century.
- 4.40** The 1805 drawing for the Ordnance Survey only covers the southern part of Codicote, but the location of the Study Site can be ascertained fairly accurately to the south of Cowards Lane (Figure 7). The map is still rather schematic, but it suggests that large field shown on the 1766 map may have been subdivided by 1805.
- 4.41** The Codicote Parish Tithe Map from 1842 shows the area far more accurately than any of the earlier available surveys (Figure 8). The Study Site is shown within a single plot of land (plot 442), and it is clear that most of its boundaries had been established by 1842, along with the distinctive bend in Cowards Lane close to the proposed site access. The tithe apportionment document records plot 442 as being an arable field named 'Markwell. It was owned at the time by Charles Bedford and occupied by William Titmass. No features are visible within the Study Site on the map.
- 4.42** Very little appears to have happened to the Study Site by the time the First Edition Ordnance Survey was published in 1881 (Figure 9), although a footpath is shown running southwards across the site from Cowards Lane for the first time.
- 4.43** Subsequent Ordnance Surveys from 1898 (Figure 10), 1924 (Figure 11), and 1937 (Figure 12) show that the site changed very little in the late 19th and early 20th centuries, while the surrounding areas to the north-west, north and north-east slowly began to be developed.
- 4.44** The 1972 Ordnance Survey (Figure 13) shows new houses immediately to the north-west, north and north-east of the Study Site, including two (Merlin and Field House) which flank the proposed entrance into the site. Apart from the new access to these two properties from Cowards Lane, no changes to the Study Site are visible. No changes to the Study Site are evident on the 1990 edition of the Ordnance Survey (Figure 14).
- 4.45** The modern Ordnance Survey (Figure 15) shows a small stable building in the far western part of the Study Site, along with a new fence in the eastern part.
- 4.46** The HHER contains a couple of entries relating to archaeological features dating from the post-medieval and modern periods that have been found within the study area. A small number of post-medieval features were recorded during an archaeological evaluation carried out to the east of the

Study Site (MHT39800). Post-medieval footings and a well were discovered during fieldwork carried out at 85-93 High Street (MHT10988).

- 4.47** Numerous artefacts have been found within the study area over the years by metal detectorists, who have reported the objects to the HHER via the Portable Antiquities Scheme. Over thirty of these finds appear to date from the post-medieval and modern periods and, unsurprisingly, most are metal objects. The only post-medieval find recorded within 250m of the Study Site is a silver half-groat that was found c. 175m south of the site (MHT20397). The other objects are listed in Appendix A, with their locations shown on Figure 2b MHT20160, MHT20731, MHT20903, MHT21376, MHT22116, MHT22189 and MHT33658, MHT19886, MHT20109, MHT20159, MHT20264, MHT20395, MHT20399, MHT20486, MHT20677, MHT20730, MHT20732, MHT20804, MHT21110, MHT21820, MHT21966, MHT21980, MHT22092, MHT22139, MHT22159, MHT22270, MHT26398, MHT26472, MHT36835, MHT39541, MHT20435, MHT21075 and MHT21578).
- 4.48** The remaining HHER entries for the post-medieval and modern periods relate to historic buildings and other features within the study area. None of these are located in close proximity to the Study Site and will therefore have no impact on the archaeological potential of the site. They are listed in Appendix A and their locations shown on Figures 2a and 4.
- 4.49** Historic maps indicate that the Study Site has been utilised for agricultural purposes since at least the late 18th century, and that it has changed very little since then. As a result, the potential for the Study Site to contain Archaeological finds and features dating from the post-medieval and modern periods is deemed to be low. Any such remains which might be present are likely to be of local significance only.

Undated

- 4.50** The HHER contains two entries in respect of undated features which have been recorded within the study area as cropmarks in aerial photographs. A series of cropmarks recorded c. 730m west of the Study Site may represent former field boundaries, although some could be geological in origin (MHT11960). Cropmarks of possible pits and a curvilinear enclosure, which could possibly be prehistoric in date, have been recorded c. 975m north-east of the Study Site (MHT18390).
- 4.51** The potential for the Study Site to contain undated archaeological features is deemed to be low. Any such remains which might be present on the site are likely to be of local significance only.

Summary of Archaeological Potential and Assessment of Significance

- 4.52** The study site contains no designated archaeological heritage assets, and there are none within the 1km study area.

- 4.53** Very few archaeological features have been recorded in the study area, although recent excavations to the north-west of the Study Site found enclosures dating from the Late Iron Age or early Roman periods, along with a smaller number of features dating from earlier and later periods. Much of the evidence for activity in the past comes from stray finds of artefacts discovered by metal detectorists. These finds are overwhelmingly metal objects, and their distribution is largely based on the areas where the metal detectorists have been given permission to survey.
- 4.54** Historic maps indicate that the study site has been utilised as agricultural land since the late 18th century, and it is therefore likely that any archaeological remains which might have been present on the site are likely to have survived beneath the topsoil relatively undisturbed.
- 4.55** A recent geophysical survey of the site did not record any magnetic responses that could be interpreted as being of definite archaeological interest.
- 4.56** A review of the available evidence has confirmed that the study site has a low potential to contain archaeological finds and features from all periods. Any such remains which might be present are likely to be of local significance only.

5.0 Proposed Development and Potential Impact on Archaeological Heritage Assets

Site Conditions

- 5.1 The Study Site consists of an irregular shaped plot of land located to the south of the historic core of Codicote, Hertfordshire. It is currently used for grazing horses, but was formerly utilised for arable farming.

The Proposed Development

- 5.2 It is proposed to re-develop the Study Site for housing and a plan of the proposed development is shown on Figure 16. This report will support an Outline planning application for residential development with means of access for consideration and all other matters reserved for subsequent approval; demolition of all existing structures; associated landscaping, drainage, car parking; infrastructure and all ancillary and enabling works.

Potential Archaeological Impacts and Mitigation Measures

- 5.3 The proposed development will have no impact upon any designated archaeological heritage assets.
- 5.4 A review of the available evidence has confirmed that the study site has the following potential:
- A low potential to contain finds and features relating to any period.
- 5.5 A recent geophysical survey of the site did not record any magnetic responses that could be interpreted as being of definite archaeological interest.
- 5.6 Historic maps indicate that the Study Site has been farmland from at least the late 18th century. As a result, any archaeological remains which might have been present on the site are likely to have survived. Any such remains are likely to be of local significance only.
- 5.7 The groundworks associated with the construction of the proposed development have the potential to impact on any previously unrecorded archaeological remains which may survive on the site as sub-surface features.
- 5.8 Impacts upon archaeological deposits can be mitigated for in advance of, or during construction works, and it is possible that some form of archaeological work will be required in respect of the proposed development in due course. This should be covered by an appropriately worded planning condition attached to any consent granted, although the exact scope and timing of any such work will need to be discussed between the appellant and the LPA's archaeological advisor.

6.0 Summary and Conclusions

- 6.1** This archaeological desk-based assessment considers land to the south of Cowards Lane, Hertfordshire, which is proposed for a new housing development.
- 6.2** The proposed development will have no impact upon the significance of any designated archaeological heritage assets in the surrounding area.
- 6.3** A review of the available evidence has confirmed that the study site has the following potential:
- A low potential to contain finds and features relating to all periods.
- 6.4** Historic maps indicate that the Study Site has been farmland from at least the late 18th century. As a result, any archaeological remains which might have been present on the site are likely to have survived.
- 6.5** A recent geophysical survey of the site did not record any magnetic responses that could be interpreted as being of definite archaeological interest.
- 6.6** Any archaeological remains which may have been present on the site are likely to be of local significance only.
- 6.7** The groundworks associated with the proposed development have the potential to disturb or destroy any archaeological remains which might be present on the site.
- 6.8** Impacts upon archaeological deposits can be mitigated for in advance of, or during construction works, and it is possible that some form of archaeological work will be required in respect of the proposed development in due course. This should be covered by an appropriately worded planning condition attached to any consent granted, although the exact scope and timing of any such work will need to be discussed between the appellant and the LPA's archaeological advisor.

Sources

General

British Library

The National Archives

Kent Historic Environment Record

Cartographic

- 1579 Saxton's Map of Hertfordshire
- 1610 Speed's Map of Hertfordshire
- 1766 Dury and Andrew's Map of Hertfordshire
- 1805 Drawing for the Ordnance Survey
- 1842 Codicote Parish Tithe Map
- 1881 Ordnance Survey 1:2500 Map
- 1898 Ordnance Survey 1:2500 Map
- 1924 Ordnance Survey 1:2500 Map
- 1937 Ordnance Survey 1:2500 Map
- 1972 Ordnance Survey 1:2500 Map
- 1990 Ordnance Survey 1:2500 Map
- 1999 Ordnance Survey 1:10000 Map
- 2006 Ordnance Survey 1:10000 Map
- 2024 Ordnance Survey 1:10000 Map

Websites

Archaeological Data Service – www.ads.ahds.ac.uk

British History Online – <http://www.british-history.ac.uk/>

British Geological Society Geology of Britain Viewer -
<http://www.bgs.ac.uk/discoveringGeology/geologyOfBritain/viewer.html>

Historic England National Heritage List for England -
<https://www.historicengland.org.uk/listing/the-list/>

Heritage Gateway - www.heritagegateway.org.uk

MAGIC - www.magic.gov.uk

Open Domesday – www.opendomesday.org

Pastscape - www.pastscape.org.uk

Bibliographic

BGS, 1978, *British Geological Survey*, Sheet **239**, 1:50000, Drift Edition, Keyworth.

DCMS, 2013. Scheduled Monuments & nationally important but non-scheduled monuments. DCMS.

Department of Communities and Local Government, 2019. Planning Practice Guidance.

Department for Communities and Local Government, 2024. National Planning Policy Framework DCLG.

- Historic England, 2015. Historic Environment Good Practice Advice in Planning: 2 – Managing Significance in Decision-Taking in the Historic Environment.
- Historic England, 2017. Historic Environment Good Practice Advice in Planning Note 3 – The Setting of Heritage Assets.
- Mills, A D, 1993, *English Place-names*, Oxford.
- Sumo, 2025, 'Cowards Lane, Codicote, Hertfordshire – Geophysical Survey Report', unpublished report by Sumo Services Ltd.

APPENDIX A – GAZETTEERS

GAZETTEER OF ARCHAEOLOGICAL ASSETS

In order to understand the nature and extent of the surrounding archaeological resource, a study area of a 1km radius from the centre of the study site was adopted. The following gazetteer represents all of the entries from the Hertfordshire Historic Environment Record.

Abbreviations

HHER: Hertfordshire Historic Environment Record
PrefRef: HHER monument identification reference number

PrefRef	Name	Period
MHT1132	MESOLITHIC TRANCHET AXEHEAD, CODICOTE	MESOLITHIC
MHT39801	PREHISTORIC FINDS AND FEATURES, HEATH LANE, CODICOTE	EARLY NEOLITHIC TO EARLIER IRON AGE
MHT16339	RING DITCHES SE OF CODICOTE BOTTOM FARM, CODICOTE	LATE NEOLITHIC TO LATER BRONZE AGE
MHT20758	BRONZE AGE COPPER-ALLOY CASTING WASTE, CODICOTE	EARLIER BRONZE AGE TO LATER BRONZE AGE
MHT1134	LATE IRON AGE POTTERY, ROOKS WOOD, CODICOTE	LATE IRON AGE
MHT20167	LATE IRON AGE BRONZE COIN, AYOT ST LAWRENCE	LATE IRON AGE
MHT20757	LATE IRON AGE GOLD QUARTER STATER, CODICOTE	LATE IRON AGE
MHT22913	LATE IRON AGE SILVER COIN, CODICOTE	LATE IRON AGE
MHT23277	LATE IRON AGE SILVER STATER, CODICOTE	LATE IRON AGE
MHT2388	LATE IRON AGE/ROMANO-BRITISH ENCLOSURE, HOLLARD'S FARM, CODICOTE	LATE IRON AGE TO EARLY ROMAN
MHT34221	NR CODICOTE (KNOWN AS)	LATE IRON AGE TO EARLY ROMAN
MHT34265	NR CODICOTE (KNOWN AS)	LATE IRON AGE TO EARLY ROMAN
MHT36796	NR CODICOTE (KNOWN AS)	LATE IRON AGE TO EARLY ROMAN
MHT36822	NR CODICOTE (KNOWN AS)	LATE IRON AGE TO EARLY ROMAN
MHT250	FLINT IMPLEMENT, CODICOTE	PREHISTORIC
MHT20739	ROMAN COPPER-ALLOY COIN, CODICOTE	ROMAN

MHT19885	EARLY ROMAN COPPER-ALLOY BROOCH, AYOT ST LAWRENCE	EARLY ROMAN
MHT20113	EARLY ROMAN COPPER-ALLOY COIN, CODICOTE	EARLY ROMAN
MHT20410	EARLY ROMAN COPPER-ALLOY BROOCH, AYOT ST LAWRENCE	EARLY ROMAN
MHT20585	EARLY ROMAN COPPER-ALLOY COIN, CODICOTE	EARLY ROMAN
MHT20586	EARLY ROMAN COPPER-ALLOY COIN, CODICOTE	EARLY ROMAN
MHT20587	EARLY ROMAN COPPER-ALLOY COIN, CODICOTE	EARLY ROMAN
MHT20733	EARLY ROMAN COPPER-ALLOY DOLPHIN BROOCH, CODICOTE	EARLY ROMAN
MHT20734	EARLY ROMAN COPPER-ALLOY BROOCH, CODICOTE	EARLY ROMAN
MHT20736	EARLY ROMAN COPPER-ALLOY COIN, CODICOTE	EARLY ROMAN
MHT20737	EARLY ROMAN COPPER-ALLOY COIN, CODICOTE	EARLY ROMAN
MHT20738	EARLY ROMAN COPPER-ALLOY COIN, CODICOTE	EARLY ROMAN
MHT20740	EARLY ROMAN COPPER-ALLOY COIN, CODICOTE	EARLY ROMAN
MHT20864	EARLY ROMAN COPPER-ALLOY TOILET ARTICLE, CODICOTE	EARLY ROMAN
MHT20912	EARLY ROMAN COPPER-ALLOY BROOCH, CODICOTE	EARLY ROMAN
MHT21076	EARLY ROMAN COPPER-ALLOY COIN, AYOT ST LAWRENCE	EARLY ROMAN
MHT21219	EARLY ROMAN COPPER-ALLOY COIN, CODICOTE	EARLY ROMAN
MHT22121	EARLY ROMAN COPPER-ALLOY COIN, CODIOCTE	EARLY ROMAN
MHT26358	EARLY ROMAN COPPER-ALLOY DOLPHIN BROOCH, CODICOTE	EARLY ROMAN
MHT26405	EARLY ROMAN COPPER-ALLOY HOD HILL BROOCH, CODICOTE	EARLY ROMAN
MHT36021		EARLY ROMAN
MHT19714	LATE ROMAN COPPER-ALLOY COIN, AYOT ST LAWRENCE	LATE ROMAN
MHT19810	LATE ROMAN COPPER-ALLOY COIN, CODICOTE	LATE ROMAN
MHT20735	LATE ROMAN COPPER-ALLOY COIN, CODICOTE	LATE ROMAN
MHT22119	LATE ROMAN COPPER-ALLOY COIN, CODICOTE	LATE ROMAN

MHT22120	LATE ROMAN COPPER-ALLOY COIN, CODICOTE	LATE ROMAN
MHT33224	NR CODICOTE (KNOWN AS)	LATE ROMAN
MHT33683	NR CODICOTE (KNOWN AS)	LATE ROMAN
MHT34446	NR CODICOTE (KNOWN AS)	LATE ROMAN
MHT34958		LATE ROMAN
MHT34960		LATE ROMAN
MHT34963		LATE ROMAN
MHT35107		LATE ROMAN
MHT35108	NR CODICOTE (KNOWN AS)	LATE ROMAN
MHT35309	NR CODICOTE (KNOWN AS)	LATE ROMAN
MHT35312	NR CODICOTE (KNOWN AS)	LATE ROMAN
MHT35353		LATE ROMAN
MHT35354		LATE ROMAN
MHT35355		LATE ROMAN
MHT35357		LATE ROMAN
MHT36223	NR CODICOTE (KNOWN AS)	LATE ROMAN
MHT36786	NR CODICOTE (KNOWN AS)	LATE ROMAN
MHT36793	NR AYOT ST LAWRENCE (KNOWN AS)	LATE ROMAN
MHT36797	NR CODICOTE (KNOWN AS)	LATE ROMAN
MHT36831	NR CODICOTE (KNOWN AS)	LATE ROMAN
MHT37854	NR CODICOTE (KNOWN AS)	LATE ROMAN
MHT38073	NR CODICOTE (KNOWN AS)	LATE ROMAN
MHT38109	NR CODICOTE (KNOWN AS)	LATE ROMAN
MHT38978	NR CODICOTE (KNOWN AS)	LATE ROMAN

MHT20401	MIDDLE SAXON SILVER SCEAT, CODICOTE	MIDDLE SAXON
MHT20402	MIDDLE SAXON SILVER SCEAT, CODICOTE	MIDDLE SAXON
MHT1044	EARLY MEDIEVAL COIN, CODICOTE	LATE SAXON
MHT1383	MEDIEVAL POTTERY, SISSERVERNES FARM, POTTERSHEATH, CODICOTE	MEDIEVAL
MHT18898	MEDIEVAL RIM SHERD, CODICOTE	MEDIEVAL
MHT20161	MEDIEVAL COPPER-ALLOY JETTON, AYOT ST LAWRENCE	MEDIEVAL
MHT20396	MEDIEVAL LEAD PAPAL BULL, CODICOTE	MEDIEVAL
MHT20400	MEDIEVAL SILVER FARTHING, CODICOTE	MEDIEVAL
MHT20411	MEDIEVAL SILVER HALFPENNY, AYOT ST LAWRENCE	MEDIEVAL
MHT20412	MEDIEVAL SILVER FARTHING, AYOT ST LAWRENCE	MEDIEVAL
MHT20484	MEDIEVAL SILVER LONG-CROSS PENNY, CODICOTE	MEDIEVAL
MHT20679	MEDIEVAL COPPER-ALLOY MOUNT, CODICOTE	MEDIEVAL
MHT20729	MEDIEVAL COPPER-ALLOY SEAL MATRIX, CODICOTE	MEDIEVAL
MHT20981	MEDIEVAL COPPER-ALLOY STRAP-END, CODICOTE	MEDIEVAL
MHT21217	MEDIEVAL SILVER HALFGROAT, CODICOTE	MEDIEVAL
MHT21218	MEDIEVAL SILVER HALFGROAT, CODICOTE	MEDIEVAL
MHT22059	MEDIEVAL COPPER-ALLOY COIN, CODICOTE	MEDIEVAL
MHT22060	MEDIEVAL COPPER-ALLOY COIN, CODICOTE	MEDIEVAL
MHT22061	MEDIEVAL LEAD SEAL MATRIX, CODICOTE	MEDIEVAL
MHT22117	MEDIEVAL COPPER-ALLOY JETTON, CODICOTE	MEDIEVAL
MHT28939	MEDIEVAL SILVER PENNY IMITATION, CODICOTE	MEDIEVAL
MHT28941	MEDIEVAL SILVER LONG-CROSS PENNY, CODICOTE	MEDIEVAL
MHT28942	MEDIEVAL COPPER-ALLOY FINGER RING, CODICOTE	MEDIEVAL
MHT4302	CHURCH OF ST GILES, BURY LANE, CODICOTE	MEDIEVAL
MHT1807	CODICOTE VILLAGE	MEDIEVAL TO POST MEDIEVAL

MHT7449	CROPMARKS OF PARALLEL LINEAR DITCHES, S OF AYOT LODGE, AYOT ST LAWRENCE	MEDIEVAL
MHT35362		MEDIEVAL
MHT36577	NR CODICOTE (KNOWN AS)	MEDIEVAL
MHT20160	MEDIEVAL - POST-MEDIEVAL COPPER-ALLOY FRAME, AYOT ST LAWRENCE	MEDIEVAL TO POST MEDIEVAL
MHT20731	MEDIEVAL/POST-MEDIEVAL COPPER-ALLOY PURSE FRAME, CODICOTE	MEDIEVAL TO POST MEDIEVAL
MHT20903	MEDIEVAL/POST-MEDIEVAL COPPER-ALLOY PURSE FRAME, CODICOTE	MEDIEVAL TO POST MEDIEVAL
MHT21376	MEDIEVAL/POST-MEDIEVAL COPPER-ALLOY BUCKLE, CODICOTE	MEDIEVAL TO POST MEDIEVAL
MHT22116	MEDIEVAL - POST-MEDIEVAL COPPER-ALLOY HOOKED TAG, CODICOTE	MEDIEVAL TO POST MEDIEVAL
MHT22189	MEDIEVAL - POST-MEDIEVAL COPPER-ALLOY CHAPE, CODICOTE	MEDIEVAL TO POST MEDIEVAL
MHT30928	THE GEORGE & DRAGON, 69 HIGH STREET, CODICOTE	MEDIEVAL TO POST MEDIEVAL
MHT33658	NR CODICOTE (KNOWN AS)	MEDIEVAL TO POST MEDIEVAL
MHT10985	CODICOTE MILL, CODICOTE BOTTOM, KIMPTON ROAD, CODICOTE	POST MEDIEVAL
MHT10988	POST-MEDIEVAL FOOTINGS AND WELL, 85-93 HIGH STREET, CODICOTE	POST MEDIEVAL
MHT13462	THE BURY, BURY LANE, CODICOTE	POST MEDIEVAL
MHT13470	THE OLD SCHOOL, BURY LANE, CODICOTE	POST MEDIEVAL
MHT15722	CODICOTE LODGE, HEATH LANE, CODICOTE	POST MEDIEVAL
MHT15723	SITE OF 'STAGENHOE HALL', HEATH LANE, CODICOTE	POST MEDIEVAL
MHT15972	SISSERVERNES FARM, RABLEY HEATH ROAD, CODICOTE	POST MEDIEVAL
MHT1666	ICEHOUSE, CODICOTE LODGE	POST MEDIEVAL
MHT18528	SITE OF ALLOTMENTS, OLD SCHOOL CLOSE, CODICOTE	POST MEDIEVAL
MHT18529	SITE OF ALLOTMENTS, HIGH STREET, CODICOTE	POST MEDIEVAL
MHT18530	2 BURY LANE, CODICOTE	POST MEDIEVAL
MHT18531	HALL HILL FARM, 8 ST ALBANS ROAD, CODICOTE	POST MEDIEVAL
MHT18532	TITHE FARM, BAKERS LANE, CODICOTE	POST MEDIEVAL
MHT18533	LODGE FARM, HEATH LANE, CODICOTE	POST MEDIEVAL

MHT18534	SITE OF THE BURY FARMSTEAD, BURY LANE, CODICOTE	POST MEDIEVAL
MHT18542	CODICOTE BOTTOM FARM, CODICOTE	POST MEDIEVAL
MHT19886	POST-MEDIEVAL COPPER-ALLOY MOUNT, AOYT ST LAWRENCE	POST MEDIEVAL
MHT20109	POST-MEDIEVAL SILVER SHILLING, CODICOTE	POST MEDIEVAL
MHT20159	POST-MEDIEVAL COPPER-ALLOY MOUNT, AYOT ST LAWRENCE	POST MEDIEVAL
MHT20264	POST-MEDIEVAL LEAD WEIGHT, AYOT ST LAWRENCE	POST MEDIEVAL
MHT20395	POST-MEDIEVAL SILVER COIN, CODICOTE	POST MEDIEVAL
MHT20397	POST-MEDIEVAL SILVER HALFGROAT, CODICOTE	POST MEDIEVAL
MHT20399	POST-MEDIEVAL COPPER-ALLOY BUTTON, CODICOTE	POST MEDIEVAL
MHT20486	POST-MEDIEVAL COPPER-ALLOY MOUNT, CODICOTE	POST MEDIEVAL
MHT20677	POST-MEDIEVAL LEAD TOKEN, AYOT ST LAWRENCE	POST MEDIEVAL
MHT20730	POST-MEDIEVAL COPPER-ALLOY MOUNT, CODICOTE	POST MEDIEVAL
MHT20732	POST-MEDIEVAL COPPER-ALLOY MOUNT, CODICOTE	POST MEDIEVAL
MHT20804	POST-MEDIEVAL COPPER-ALLOY MOUNT, AYOT ST LAWRENCE	POST MEDIEVAL
MHT21110	POST-MEDIEVAL COPPER-ALLOY BUCKLE, AYOT ST LAWRENCE	POST MEDIEVAL
MHT21820	POST-MEDIEVAL COPPER-ALLOY SNAKE BUCKLE, AYOT ST LAWRENCE	POST MEDIEVAL
MHT21966	POST-MEDIEVAL LEAD KOSHER MEAT SEAL, AYOT ST LAWRENCE	POST MEDIEVAL
MHT21980	POST-MEDIEVAL COPPER-ALLOY MOUNT, AYOT ST LAWRENCE	POST MEDIEVAL
MHT21981	POST-MEDIEVAL COPPER-ALLOY MOUNT, CODICOTE	POST MEDIEVAL
MHT22092	POST-MEDIEVAL SILVER GROAT, CODICOTE	POST MEDIEVAL
MHT22139	POST-MEDIEVAL LEAD WEIGHT, AYOT ST LAWRENCE	POST MEDIEVAL
MHT22159	POST-MEDIEVAL COPPER-ALLOY KEY, AYOT ST LAWRENCE	POST MEDIEVAL
MHT22270	POST-MEDIEVAL LEAD CLOTH SEAL, CODICOTE	POST MEDIEVAL
MHT26398	POST-MEDIEVAL COPPER-ALLOY MOUNT, CODICOTE	POST MEDIEVAL

MHT26472	POST-MEDIEVAL SILVER THREEPENCE, CODICOTE	POST MEDIEVAL
MHT31028	HOLLARD'S FARM, CODICOTE ROAD, CODICOTE	POST MEDIEVAL
MHT31351	THE GABLES, 71 HIGH STREET, CODICOTE	POST MEDIEVAL
MHT5075	MILESTONE, HIGH STREET, CODICOTE	POST MEDIEVAL
MHT9585	PARKLAND AND GARDENS, THE LODGE, CODICOTE	POST MEDIEVAL
MHT36835	NR CODICOTE (KNOWN AS)	POST MEDIEVAL
MHT39541	NR CODICOTE (KNOWN AS)	POST MEDIEVAL
MHT18528	SITE OF ALLOTMENTS, OLD SCHOOL CLOSE, CODICOTE	POST MEDIEVAL
MHT7364	LANDSCAPE PARK AND GARDEN, AYOT HOUSE, AYOT ST LAWRENCE	POST MEDIEVAL
MHT9585	PARKLAND AND GARDENS, THE LODGE, CODICOTE	POST MEDIEVAL
MHT39800	MEDIEVAL AND POST MEDIEVAL FEATURES, COWARDS LANE, CODICOTE	POST MEDIEVAL TO 21ST CENTURY
MHT20435	POST-MEDIEVAL COPPER-ALLOY BADGE, CODICOTE	POST MEDIEVAL TO TWENTIETH CENTURY
MHT21075	POST-MEDIEVAL - TWENTIETH CENTURY COPPER-ALLOY BLADE, CODICOTE	POST MEDIEVAL TO TWENTIETH CENTURY
MHT21578	POST-MEDIEVAL COPPER-ALLOY BUCKLE, AYOT ST LAWRENCE	POST MEDIEVAL TO TWENTIETH CENTURY
MHT31029	CODICOTE FREE CHURCH, HIGH STREET, CODICOTE	POST MEDIEVAL TO TWENTIETH CENTURY
MHT18527	THE POND HOUSE, 67 HIGH STREET, CODICOTE	POST MEDIEVAL TO WORLD WAR I
MHT6903	LOOPHOLES AND ANTI-TANK OBSTACLES, CODICOTE	WORLD WAR II
MHT18554	PEACE MEMORIAL HALL, HIGH STREET, CODICOTE	TWENTIETH CENTURY
MHT11960	CROPMARKS OF FIELD BOUNDARIES AND INDETERMINATE MARKS, S OF CODICOTE MILL, CODICOTE	UNKNOWN
MHT18390	CROPMARKS OF POSSIBLE PITS AND CURVILINEAR DITCHED ENCLOSURE, CODICOTE HEIGHTS, CODICOTE	UNKNOWN
MHT35345		UNKNOWN
MHT39802	MEDIEVAL DITCH, HEATH LANE, CODICOTE	UNKNOWN

GAZETTEER OF ARCHAEOLOGICAL EVENTS

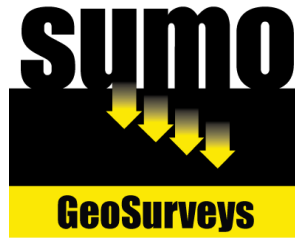
The following gazetteer represents all events recorded by the HHER within the 1km study area.

Abbreviations

Event ID: HHER event identification reference number

Event ID	Name	Organisation
EHT1695	AIR PHOTO OF A CROPMARK OF A RECTANGULAR ENCLOSURE, CODICOTE	AIR PHOTOS FROM CUCAP
EHT2257	AIR PHOTO SHOWING CROPMARKS, CODICOTE	HERTS COUNTY COUNCIL 25" VERTICAL PHOTOMAPS
EHT2795	AIR PHOTO OF PARALLEL LINEAR DITCHES, FIELD S OF AYOT LODGE, AYOT ST LAWRENCE	AIR PHOTO SERVICES AIR PHOTOS
EHT2796	AIR PHOTO OF PARALLEL LINEAR DITCHES, FIELD S OF AYOT LODGE, AYOT ST LAWRENCE	AIR PHOTO SERVICES AIR PHOTOS
EHT2797	AIR PHOTO OF CROPMARKS OF FIELD BOUNDARIES, S OF CODICOTE MILL, CODICOTE	AIR PHOTO SERVICES AIR PHOTOS
EHT4343	TRIAL TRENCHING AT HOLLARD'S FARM, CODICOTE, 1990	NORTH HERTFORDSHIRE DISTRICT COUNCIL MUSEUMS SERVICE
EHT4642	EVALUATION AT 144-170 HIGH STREET, CODICOTE, 2001	FOUNDATIONS ARCHAEOLOGY
EHT4803	EVALUATION AT ST GILES' PARISH ROOMS, BURY LANE, CODICOTE, 1997	THE HERITAGE NETWORK
EHT4893	WATCHING BRIEF AT 85-93 HIGH STREET, CODICOTE, 2000	ARCHAEOLOGICAL SERVICES & CONSULTANCY LTD
EHT7984	BUILDING RECORDING AT 69-71 HIGH STREET, CODICOTE, 2014	ALBION ARCHAEOLOGY
EHT7985	MONITORING AT 69-71 HIGH STREET, CODICOTE, 2016	ALBION ARCHAEOLOGY
EHT7986	EVALUATION AT 69-71 HIGH STREET, CODICOTE, 2015	ALBION ARCHAEOLOGY
EHT8317	GEOPHYSICAL SURVEY OF LAND SOUTH OF HEATH LANE, CODICOTE, 2017	SUMO SURVEY
EHT8318	MONITORING OF GEOTECHNICAL WORKS ON LAND SOUTH OF HEATH LANE, CODICOTE, 2017	ARCHAEOLOGY SOUTH-EAST
EHT8413	GEOPHYSICAL SURVEY AT LAND ADJACENT TO OAKLEA AND SOUTH OF, COWARDS LANE, CODICOTE, 2017	SUMO SURVEY
EHT8464	EVALUATION AT BURY FARM HOUSE, BURY LANE, CODICOTE, 2018	HERITAGE NETWORK
EHT8505	EVALUATION AT LAND ADJACENT TO OAKLEA AND SOUTH OF, COWARDS LANE, CODICOTE, 2018	HERITAGE NETWORK
EHT8613	EVALUATION AT LAND ON THE SOUTH SIDE OF HEATH LANE, CODICOTE 2017	ARCHAEOLOGY SOUTH-EAST
EHT8762	MONITORING AT 1 ROLLSWOOD ROAD, WELWYN, 2020	ICKNIELD ARCHAEOLOGY
EHT8919	MONITORING AT BURY FARM HOUSE BURY LANE CODICOTE, 2021	WARDELL ARMSTRONG
EHT8988	EVALUATION AT THE BELL INN 65 HIGH STREET CODICOTE, 2022	FOUNDATIONS ARCHAEOLOGY
EHT8992	EVALUATION AT LAND SOUTH OF HEATH LANE CODICOTE, 2022	PRE-CONSTRUCT ARCHAEOLOGY LTD
EHT9046	EXCAVATION AT LAND SOUTH OF HEATH LANE CODICOTE, 2022	PRE-CONSTRUCT ARCHAEOLOGY LTD
EHT9059	EVALUATION AT CODICOTE C OF E PRIMARY SCHOOL, MEADOW WAY, CODICOTE, 2022	COTSWOLD ARCHAEOLOGY
EHT9079	EVALUATION AT FORMER WYVALE CODICOTE GARDEN CENTRE HIGH STREET CODICOTE, 2022	PRE-CONSTRUCT ARCHAEOLOGY LTD

Event ID	Name	Organisation
EHT9267	GEOPHYSICAL SURVEY AT LAND ON THE NORTH EAST SIDE OF THE CLOSE CODICOTE HERTFORDSHIRE, 2024	THAMES VALLEY ARCHAEOLOGICAL SERVICES
EHT8317	GEOPHYSICAL SURVEY OF LAND SOUTH OF HEATH LANE, CODICOTE, 2017	SUMO SURVEY
EHT8613	EVALUATION AT LAND ON THE SOUTH SIDE OF HEATH LANE, CODICOTE 2017	ARCHAEOLOGY SOUTH-EAST



GEOPHYSICAL SURVEY REPORT

Cowards Lane, Codicote, Hertfordshire

Client

Orion Heritage Ltd

For

Hawridge Strategic Land Limited

Survey Report

SUMO-22625

OASIS Ref. No.

sumogeop1-535099

Date

09 July 2025



Survey Report SUMO-22625: Cowards Lane, Codicote, Hertfordshire

Survey dates	26 June 2025
Field co-ordinator	Mia Long BA MSc
Field Team	Morgan Potter
Report Date	09 July 2025
CAD Illustrations	Thomas Cockcroft MSc MCIfA
Report Author	Thomas Cockcroft MSc MCIfA
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Appendix A	Technical Information: Magnetometer Survey Methods, Processing and Presentation
Appendix B	Technical Information: Magnetic Theory
Appendix C	OASIS Data Collection Sheet
Appendix D	Data Management Plan & Archive Selection Strategy

3 SURVEY TECHNIQUE

- 3.1 Detailed magnetic survey (magnetometry) was chosen as the most efficient and effective method of locating the type of archaeological anomalies which might be expected at this site. All survey techniques followed the guidance set out by ClfA (2020) and the European Archaeology Council (EAC) (2016).

MACS Cart System (Foerster) Traverse Interval 1.0m Sample Interval 0.125m

The only processes performed on data are the following unless specifically stated otherwise:

Zero Mean Traverse	This process sets the background mean of each traverse to zero. The operation removes instrument striping effects and edge discontinuities over the whole of the data set.
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4 EXECUTIVE SUMMARY OF RESULTS

- 4.1 A magnetometer survey of 1.4 hectares of land at Cowards Lane, Codicote, Hertfordshire has not recorded any magnetic responses that could be interpreted as being of definite archaeological interest. Responses of uncertain origin have been marked in the survey which are likely to have been caused by natural variations, agricultural processes and buried ferrous debris. A current field boundary is visible in the north-east of the survey.

5 INTRODUCTION

- 5.1 **SUMO GeoSurveys** was commissioned to undertake a geophysical survey of an area outlined for residential development. This survey forms part of an archaeological investigation being undertaken by **Orion Heritage Ltd** on behalf of **Hawridge Strategic Land Limited**.

5.2 Site Details

NGR / Postcode	TL 21596 17805 / SG4 8UN	
Location	The site is located 5km north-west of Welwyn Garden City and 2km north-west of Welwyn. The site is bounded to the north-west by houses of St Albans Road, to the north-east by houses off The Riddy Road and pasture fields to the south.	
HER	Hertfordshire HER	
OASIS Ref. No.	sumogeop1-535099	
District	North Hertfordshire District	
Parish	Codicote Civil Parish	
Topography	Undulating	
Land Use	Pasture	
Geology (BGS 2025)	Bedrock:	Lewes Nodular Chalk Formation and Seaford Chalk Formation - Chalk.
	Superficial:	Lowestoft Formation - Diamicton.
Soils (CU 2025)	Soilscape 8: Slightly acid loamy and clayey soils with impeded drainage	
Survey Methods	Magnetometer survey (fluxgate gradiometer)	
Study Area	1.4 ha	

5.3 *Archaeological Background (OH 2025)*

- 5.3.1 The study site contains no designated archaeological heritage assets, and there are none within the 1km study area. Very few archaeological features have been recorded in the study area, although recent excavations to the north-west of the Study Site found enclosures dating from the Late Iron Age or early Roman periods, along with a smaller number of features dating from earlier and later periods. Much of the evidence for activity in the past comes from stray finds of artefacts discovered by metal detectorists. These finds are overwhelmingly metal objects, and their distribution is largely based on the areas where the metal detectorists have been given permission to survey.
- 5.3.2 Historic maps indicate that the study site has been utilised as agricultural land since the late 18th century, and it is therefore likely that any archaeological remains which might have been present on the site are likely to have survived beneath the topsoil relatively undisturbed. A review of the available evidence has confirmed that the study site has a low potential to contain archaeological finds and features from all periods. Any such remains which might be present are likely to be of local significance only.

5.4 ***Aims and Objectives***

- 5.4.1 To locate and characterise any anomalies of possible archaeological interest within the study area.

6 **RESULTS**

6.1 ***Probable / Possible Archaeology***

- 6.1.1 No magnetic responses have been recorded that could be interpreted as being of archaeological interest.

6.2 ***Uncertain***

- 6.2.1 A few discrete anomalies and numerous trends have been detected in the survey which have been assigned to the category of *Uncertain*. They are magnetically weak and lack the defined morphology of anomalies that would normally warrant an archaeological interpretation. The uncertain anomalies have probably been caused by a combination of natural variations, agricultural processes and buried ferrous debris.

6.3 ***Current Former Boundary***

- 6.3.1 A strong linear ferrous anomaly in the north-east of the survey has been caused by a current fence; it is visible on aerial imagery (see Figure 05).

6.4 ***Ferrous / Magnetic Disturbance***

- 6.4.1 Zones of magnetic disturbance have been recorded in the survey which are likely to have been caused by spreads of agricultural debris or ground disturbance.
- 6.4.2 A water trough in the centre of the site and a bore hole in the south-east of the survey have caused ferrous anomalies. Other ferrous responses close to boundaries are due to adjacent buildings, fences and gates. Smaller scale ferrous anomalies ("iron spikes") are present throughout the data and are characteristic of small pieces of ferrous debris (or brick / tile) in the topsoil; they are commonly assigned a modern origin. Only the most prominent of these are highlighted on the interpretation diagram.

7 **DATA APPRAISAL & CONFIDENCE ASSESSMENT**

- 7.1 Historic England Table 4 (EH 2008) states that the typical magnetic response on the local soils / geology is variable. There is no *a priori* reason why archaeological features would not have been detected.

8 **CONCLUSION**

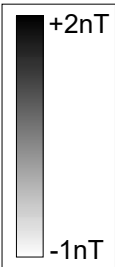
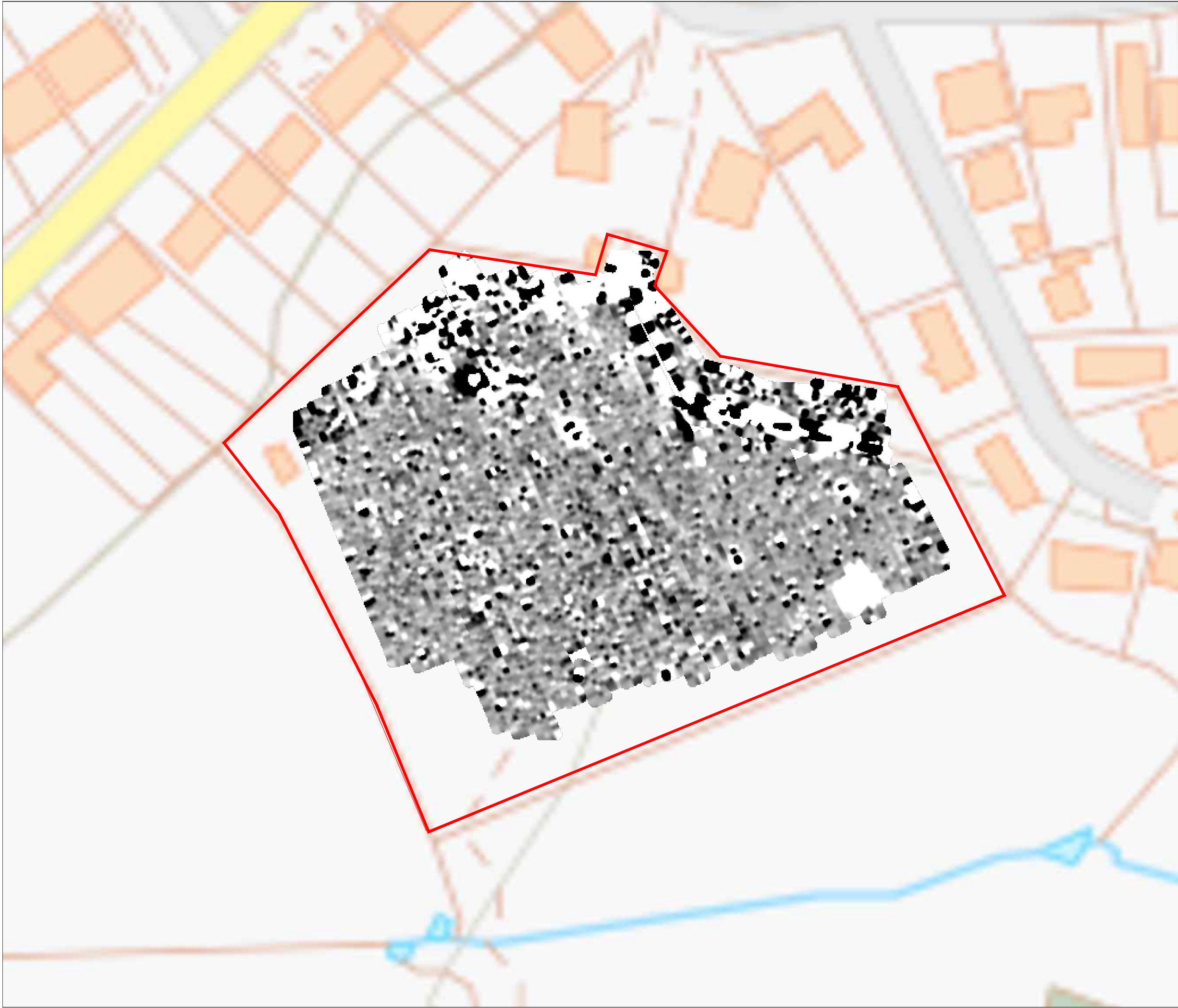
- 8.1 The magnetometer survey has not recorded any magnetic responses that could be interpreted as being of definite archaeological interest. Responses of uncertain origin have been marked in the survey which are likely to have been caused by natural variations, agricultural processes and buried ferrous debris. A current field boundary is visible in the north-east of the survey.

9 REFERENCES

- BGS 2025 *Geology of Britain Viewer*, British Geological Survey, website:
(<http://www.bgs.ac.uk/opengeoscience/home.html?Accordion1=1#maps>)
- CA 2025 Cowards Lane, Codicote, Hertfordshire Archaeological Desk-Based Assessment.
Orion Heritage Ltd, London
- ClfA 2020 *Standard and Guidance for Archaeological Geophysical Survey*. 2014 amended
2020. ClfA Guidance note. Chartered Institute for Archaeologists, Reading
https://www.archaeologists.net/sites/default/files/ClfAS%26GGeophysics_3.pdf
- CU 2025 *The Soils Guide*. www.landis.org.uk. Cranfield University, UK. website:
<http://mapapps2.bgs.ac.uk/ukso/home.html>
- EAC 2016 *EAC Guidelines for the Use of Geophysics in Archaeology*, European Archaeological
Council, Guidelines 2.
- EH 2008 *Geophysical Survey in Archaeological Field Evaluation*. English Heritage, Swindon
(now withdrawn, but used for evaluating suitability of soil types)

10 ARCHIVE

- 10.1 The minimally processed data, data images, XY traces and a copy of this report are stored in **SUMO GeoSurveys'** digital archive, on an internal RAID configured NAS drive in the Midlands Office. These data are also backed up to the Cloud for off-site storage.
- 10.2 The Grey Literature will be archived with OASIS and the relevant HER within a period of 12 months.



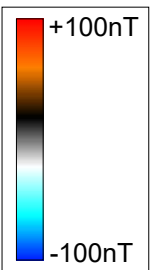
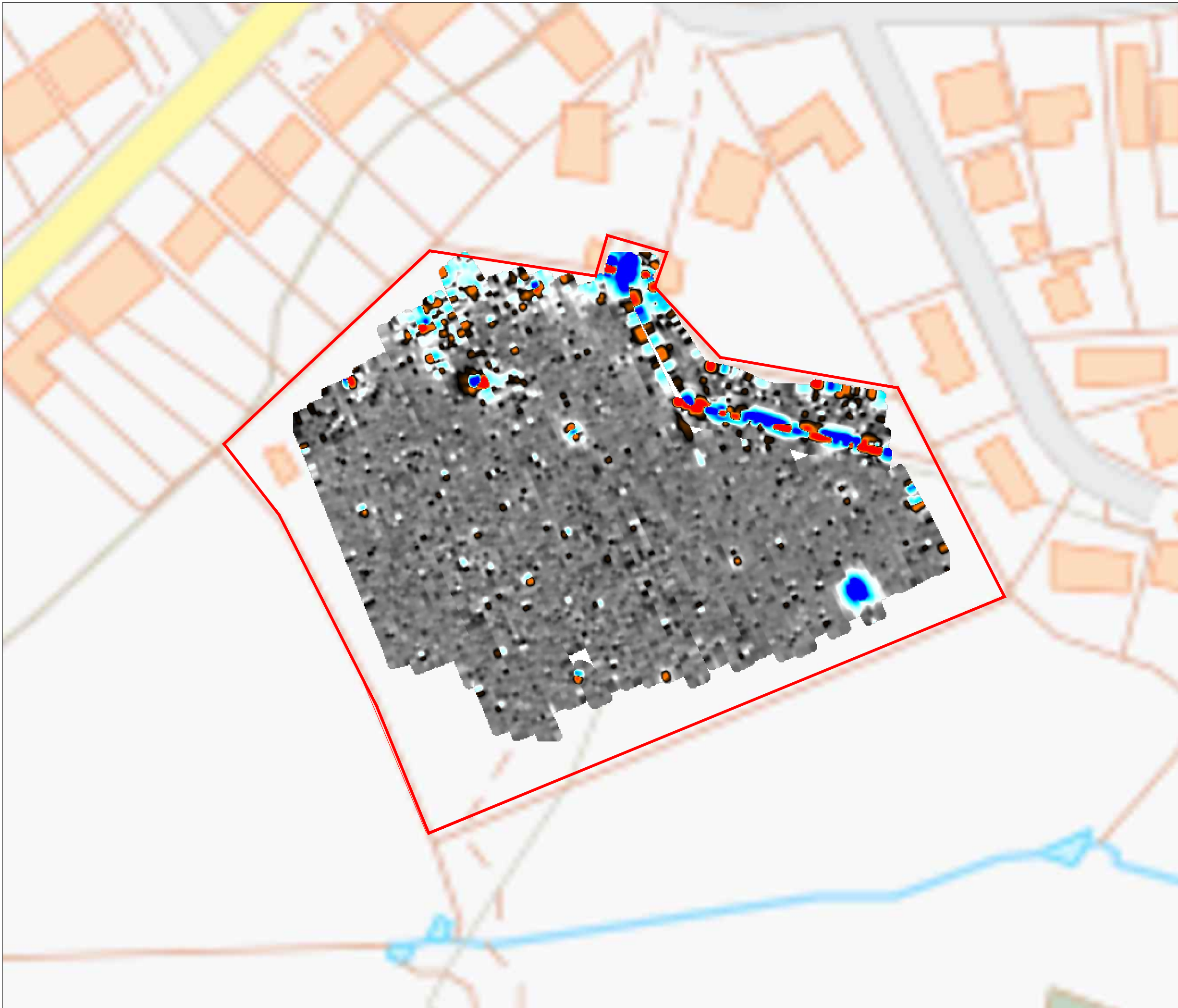
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Client:
Orion Heritage Ltd

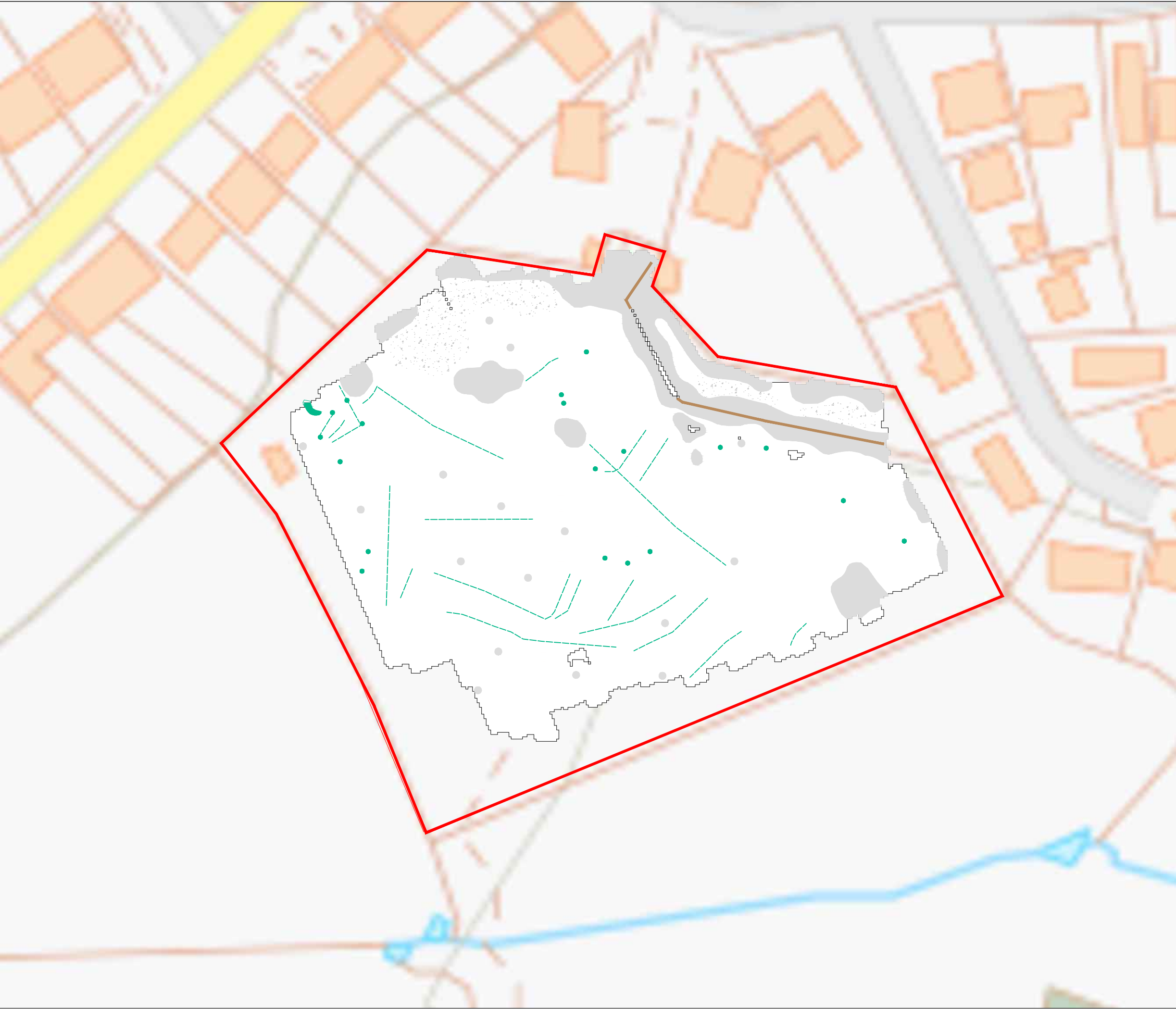
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SUMO-22625: Cowards Lane, Codicote,
Hertfordshire

Scale:
0 metres 40
1:800 @ A3

Fig No:
02



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Client: Orion Heritage Ltd	
Project: SUMO-22625: Cowards Lane, Codicote, Hertfordshire	
Scale: 0 metres 40 1:1000 @ A3	Fig No: 03



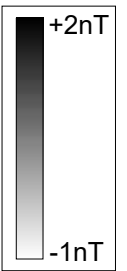
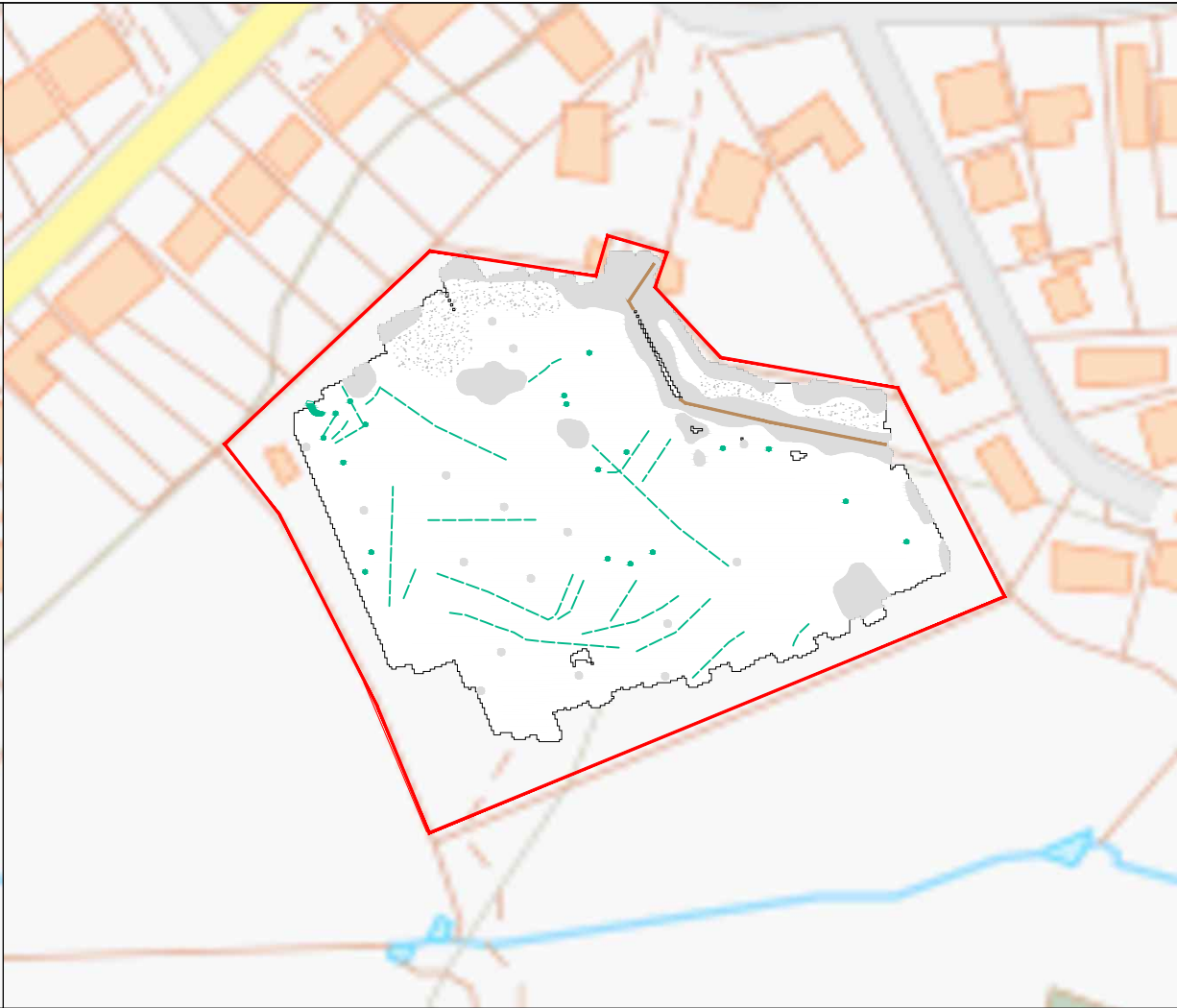
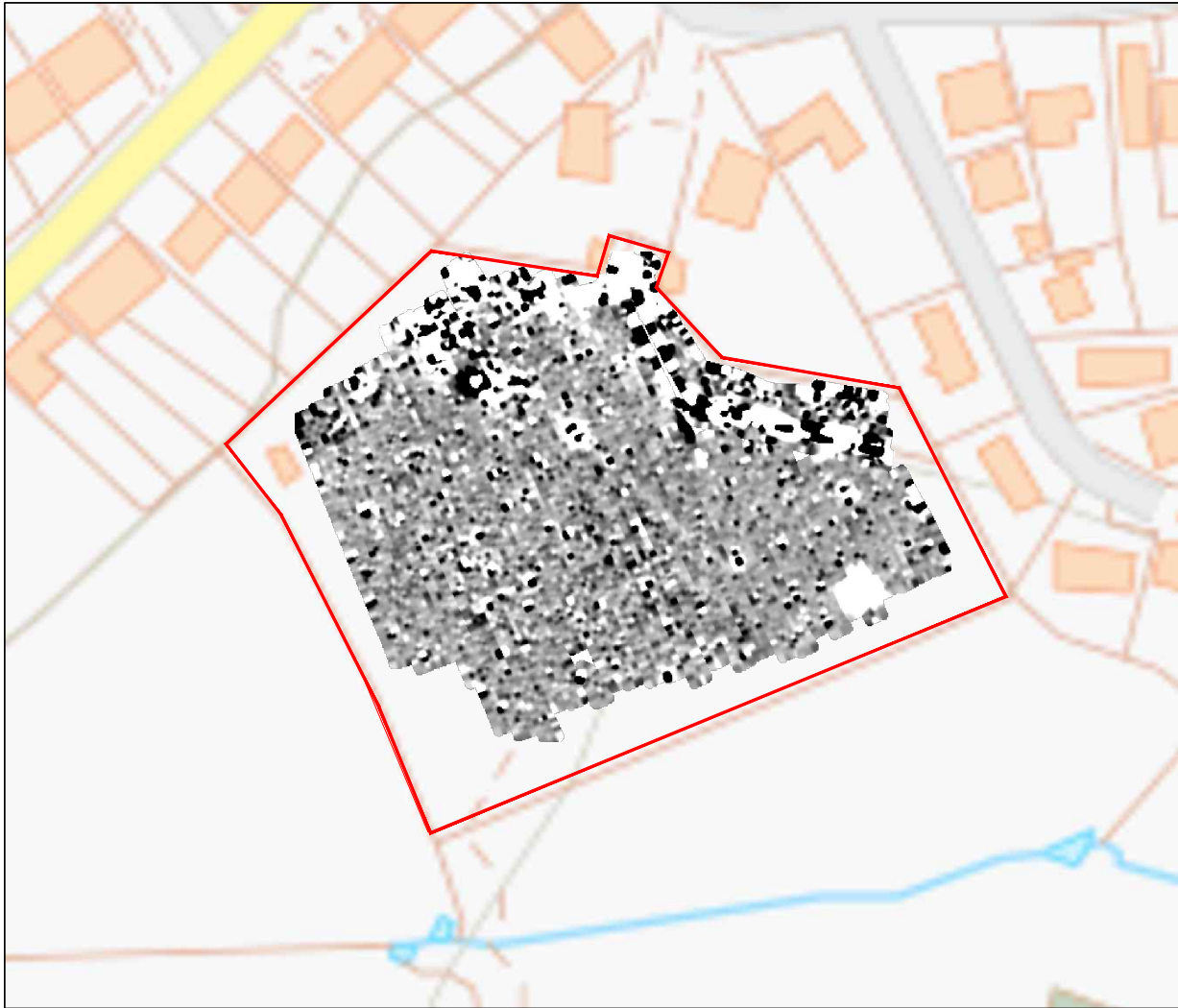
KEY

	Uncertain Origin (discrete anomaly / trend)
	Current field boundary
	Magnetic disturbance
	Ferrous



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Client:	Orion Heritage Ltd
Project:	SUMO-22625: Cowards Lane, Codicote, Hertfordshire

Scale:	metres	Fig No:
0	1: @ A3	04



KEY

	Uncertain Origin (discrete anomaly / trend)
	Current field boundary
	Magnetic disturbance
	Ferrous



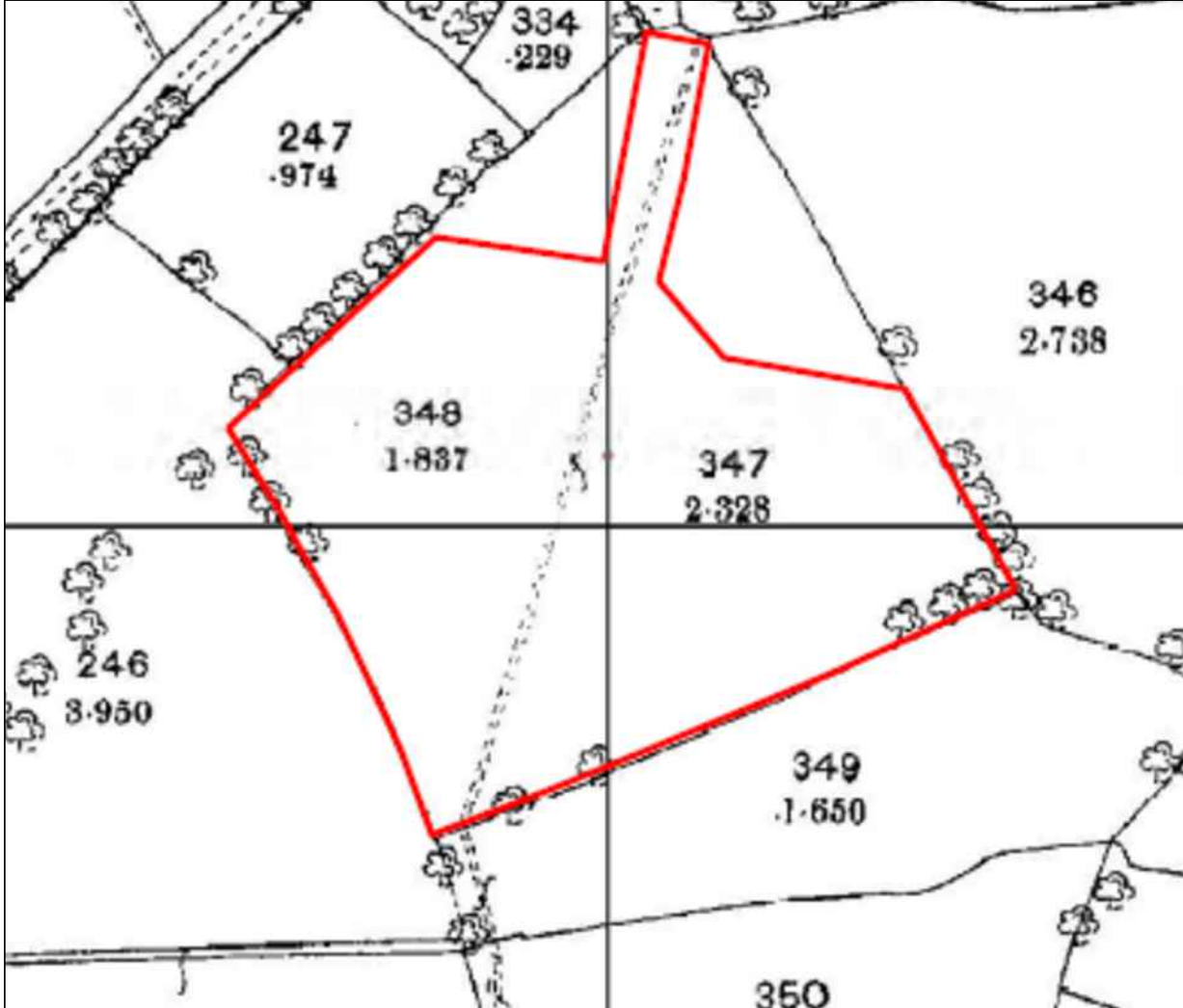
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Greyscale Plot / Interpretation / 1881 Ordnance
Survey Map (OH 2025) / 2025 Aerial Image

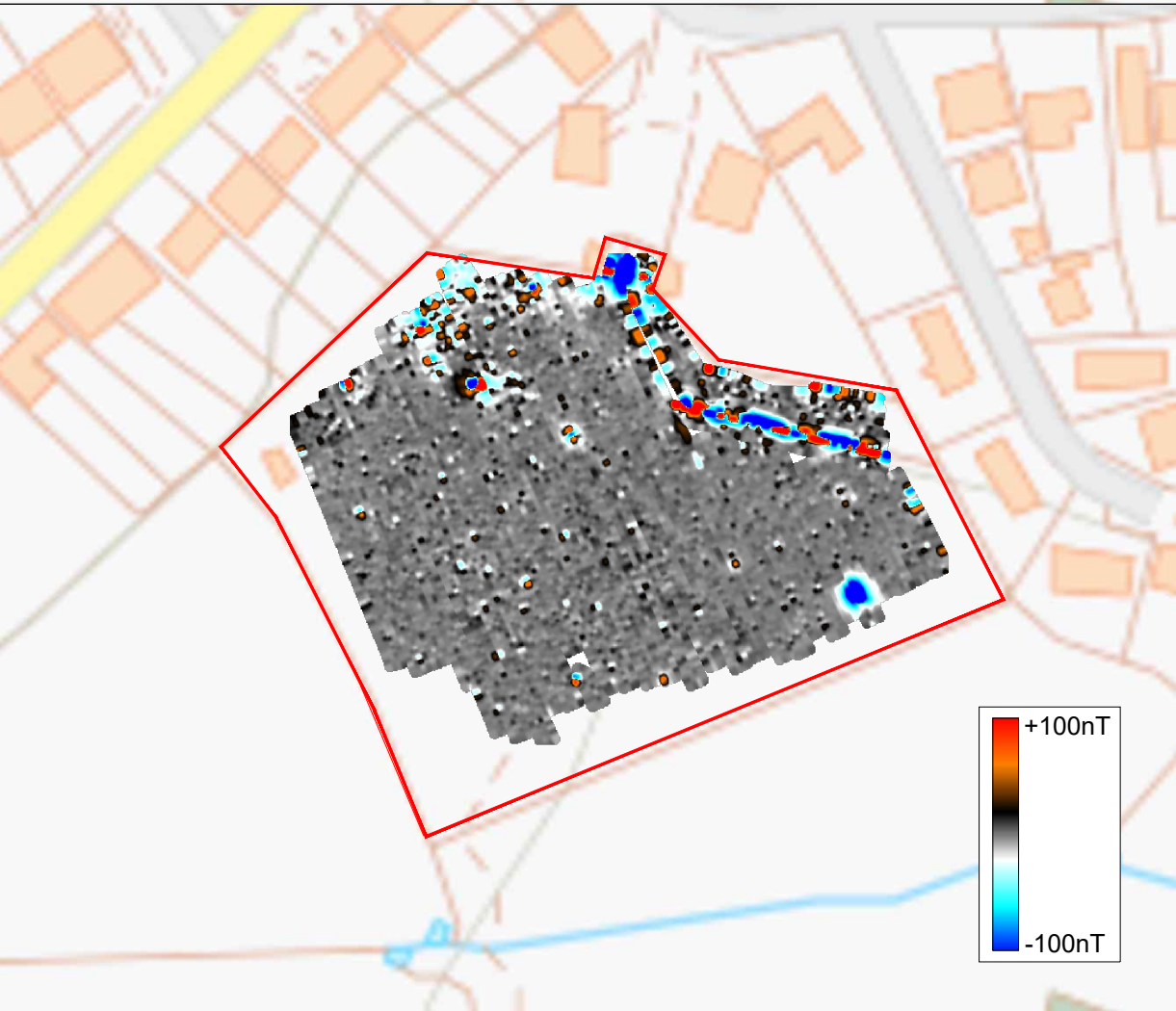
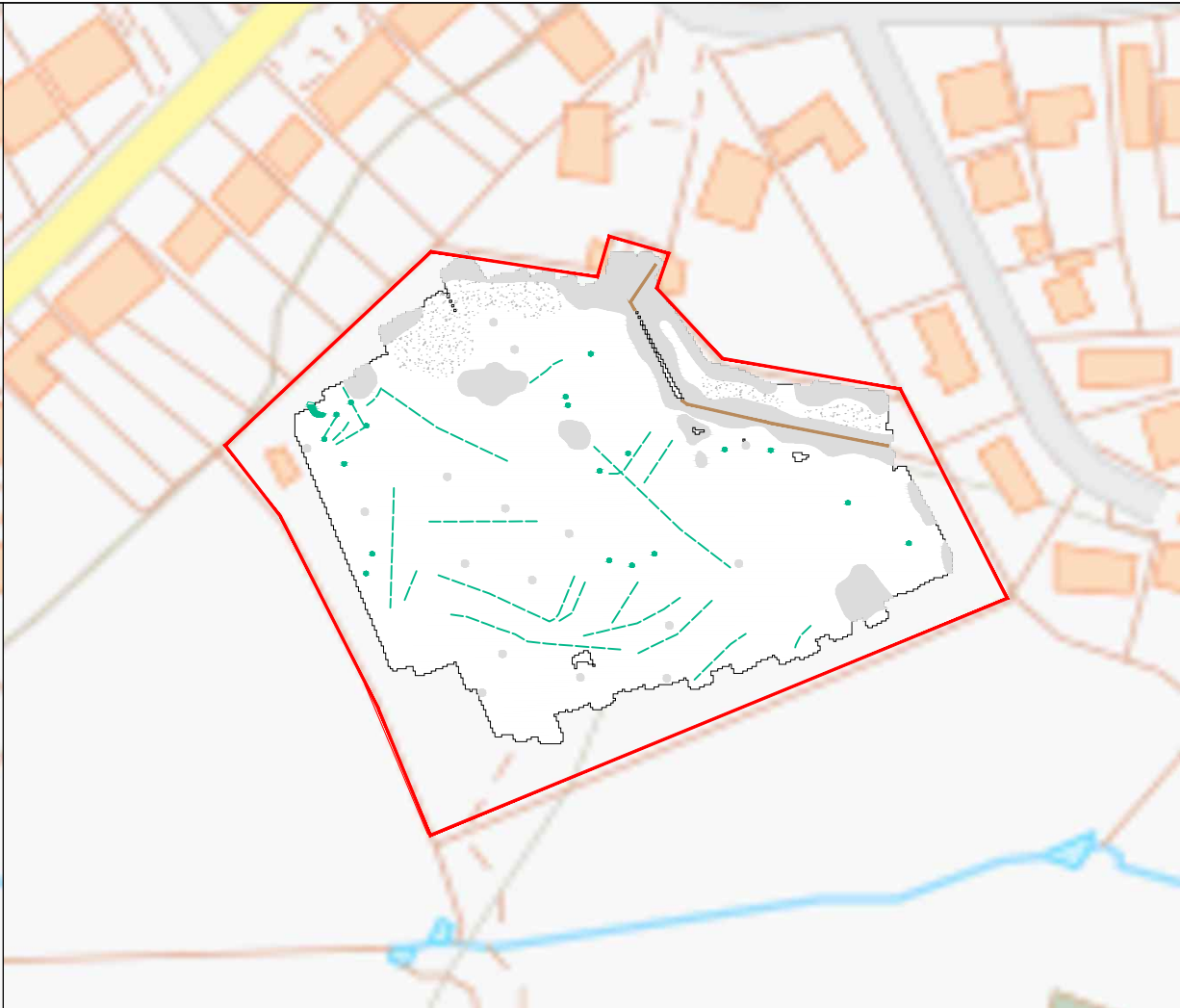
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Orion Heritage Ltd

Project:
SUMO-22625: Cowards Lane, Codicote,
Hertfordshire

Scale:
NOT TO SCALE

Fig No:
05



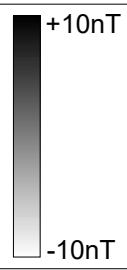
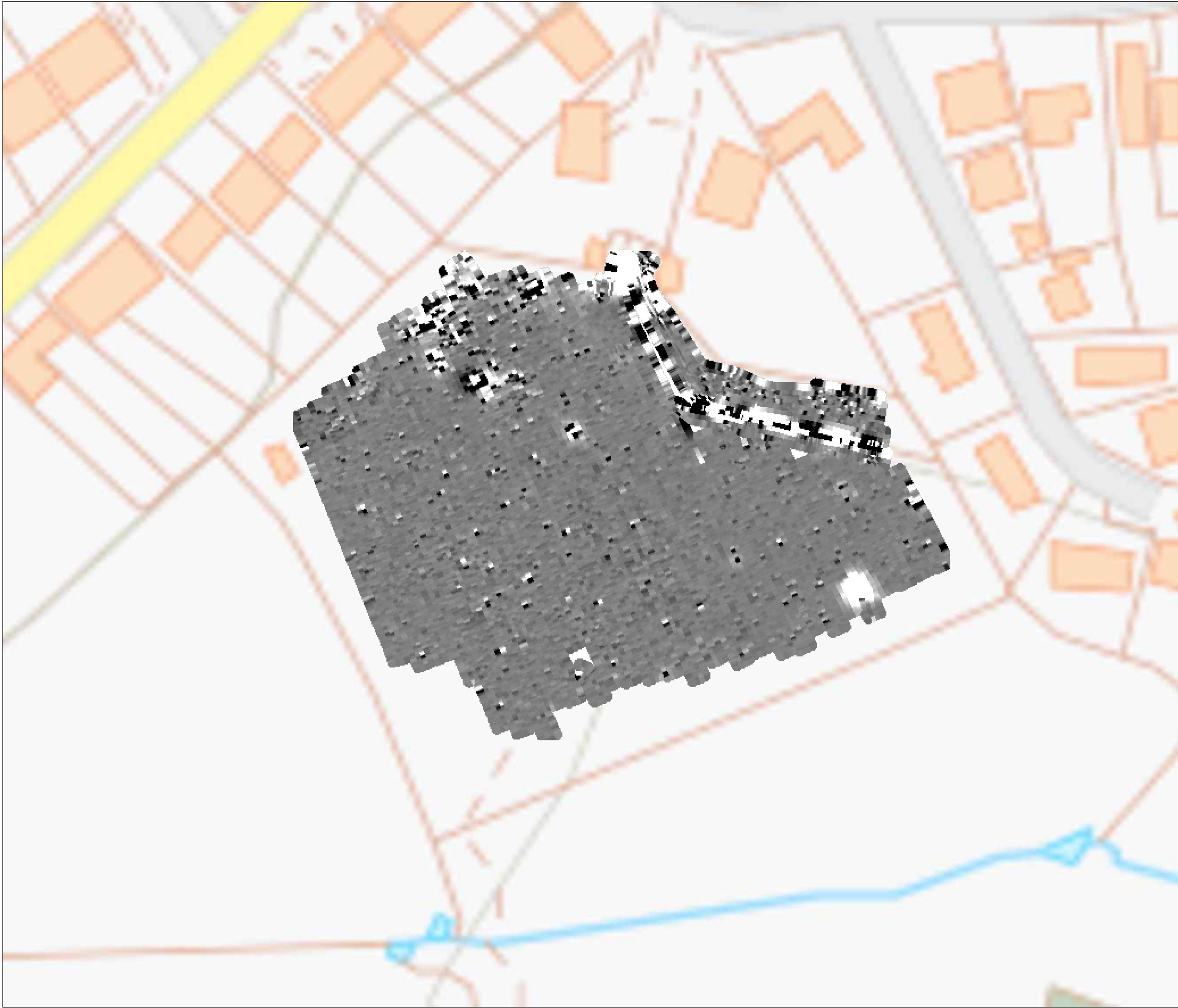


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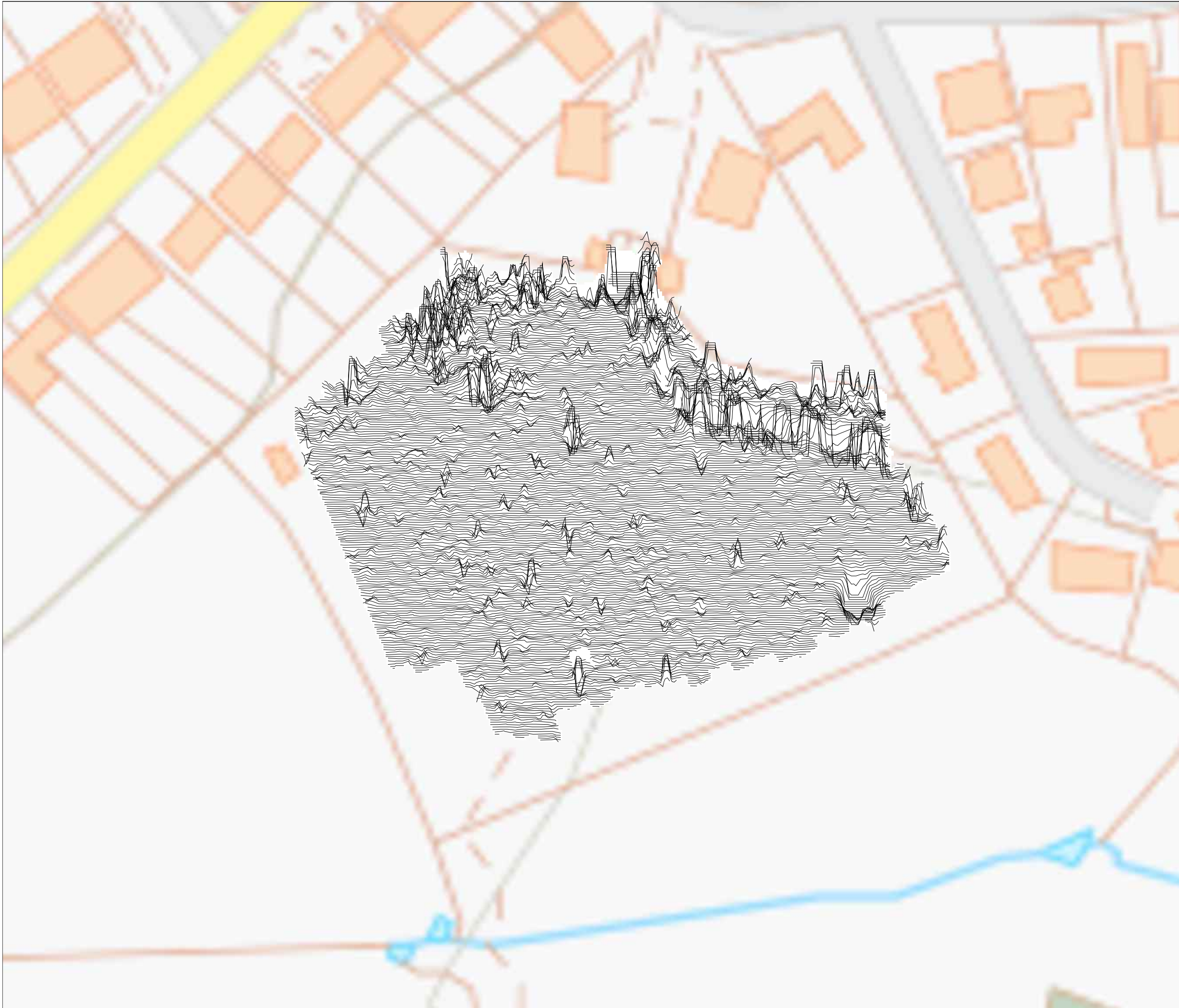
	Uncertain Origin (discrete anomaly / trend)
	Current field boundary
	Magnetic disturbance
	Ferrous



Title: Greyscale and Colour Plots / Interpretation / LiDAR Data Plot	
Client: Orion Heritage Ltd	
Project: SUMO-22625: Cowards Lane, Codicote, Hertfordshire	
Scale:	NOT TO SCALE
Fig No:	06



Title: Minimally Processed Data - Greyscale Plot	
Client: Orion Heritage Ltd	
Project: SUMO-22625: Cowards Lane, Codicote, Hertfordshire	
Scale: 0 40 metres 1:800 @ A3	Fig No: 07



Title: XY Trace Plots (clipped at +/-15nT)	
Client: Orion Heritage Ltd	
Project: SUMO-22625: Cowards Lane, Codicote, Hertfordshire	
Scale: 0 40 metres 1:800 @ A3	Fig No: 08

Appendix A - Technical Information: Magnetometer Survey Method

Grid Positioning

For hand held gradiometers the location of the survey grids has been plotted together with the referencing information. Grids were set out using a Trimble R8 Real Time Kinematic (RTK) VRS Now GNSS GPS system.

An RTK GPS (Real-time Kinematic Global Positioning System) can locate a point on the ground to a far greater accuracy than a standard GPS unit. A standard GPS suffers from errors created by satellite orbit errors, clock errors and atmospheric interference, resulting in an accuracy of 5m-10m. An RTK system uses a single base station receiver and a number of mobile units. The base station re-broadcasts the phase of the carrier it measured, and the mobile units compare their own phase measurements with those they received from the base station. This results in an accuracy of around 0.01m.

Technique	Instrument	Traverse Interval	Sample Interval
Magnetometer	Bartington Grad 601-2	1.0m	0.25m
Magnetometer	Bartington Cart System	1.0m	0.125m
Magnetometer	MACS Cart System (Foerster)	1.0m	0.125m

Instrumentation:

Bartington instruments operate in a gradiometer configuration which comprises fluxgate sensors mounted horizontally, set 1.0m apart. The fluxgate gradiometer suppresses any diurnal or regional effects. The instruments are carried, or cart mounted, with the bottom sensor approximately 0.1-0.3m from the ground surface. At each survey station, the difference in the magnetic field between the two fluxgates is measured in nanoTesla (nT). The sensitivity of the instrument can be adjusted; for most archaeological surveys the most sensitive range (0.1nT) is used. Generally, features up to 1m deep may be detected by this method, though strongly magnetic objects may be visible at greater depths.

Bartington Grad 601-2

Hand-Held: Data will be collected using a Bartington Grad 601-2. The instrument consists of two paired sensors and readings are logged at 0.25m centres along traverses 1.0m apart across 30m grids. The collection of data at 0.25m centres provides an appropriate methodology balancing cost and time with resolution as per Historic England guidelines

Bartington Cart System

Data will be collected using a cart carrying four paired Bartington magnetic sensors. Each data point is geographically referenced using an on-board Trimble RTK survey grade GPS system. Readings will be taken at 0.125m centres along traverses 1.0m apart.

MACS Cart System (Foerster)

A multi-sensor array cart system (MACS) utilising 4 Foerster 4.032 Ferex CON 650 gradiometers, spaced at 1m intervals, with a control unit and data logger was used for the magnetic survey. Each data point is geographically referenced using an on-board RTK GNSS system. Readings will be taken at 0.125m centres along traverses 1.0m apart.

Data Processing

Zero Mean	This process sets the background mean of each traverse within each grid to zero.
Traverse	The operation removes striping effects and edge discontinuities over the whole of the data set.
Step Correction (De-stagger)	When gradiometer data are collected in 'zig-zag' fashion, stepping errors can sometimes arise. These occur because of a slight difference in the speed of walking on the forward and reverse traverses. The result is a staggered effect in the data, which is particularly noticeable on linear anomalies. This process corrects these errors.

Display

Greyscale/
Colourscale Plot

This format divides a given range of readings into a set number of classes. Each class is represented by a specific shade of grey, the intensity increasing with value. All values above the given range are allocated the same shade (maximum intensity); similarly, all values below the given range are represented by the minimum intensity shade. Similar plots can be produced in colour, either using a wide range of colours or by selecting two or three colours to represent positive and negative values. The assigned range (plotting levels) can be adjusted to emphasise different anomalies in the data-set.

Interpretation Categories

In certain circumstances (usually when there is corroborative evidence from desk-based or excavation data) very specific interpretations can be assigned to magnetic anomalies (for example, *Roman Road, Wall, etc.*) and where appropriate, such interpretations will be applied. The list below outlines the generic categories commonly used in the interpretation of the results.

<i>Archaeology / Probable Archaeology</i>	This term is used when the form, nature and pattern of the responses are clearly or very probably archaeological and /or if corroborative evidence is available. These anomalies, whilst considered anthropogenic, could be of any age.
<i>Possible Archaeology</i>	These anomalies exhibit either weak signal strength and / or poor definition, or form incomplete archaeological patterns, thereby reducing the level of confidence in the interpretation. Although the archaeological interpretation is favoured, they may be the result of variable soil depth, plough damage or even aliasing as a result of data collection orientation.
<i>Industrial / Burnt-Fired</i>	Strong magnetic anomalies that, due to their shape and form or the context in which they are found, suggest the presence of kilns, ovens, corn dryers, metal-working areas or hearths. It should be noted that in many instances modern ferrous material can produce similar magnetic anomalies.
<i>Former Field Boundary (probable & possible)</i>	Anomalies that correspond to former boundaries indicated on historic mapping, or which are clearly a continuation of existing land divisions. Possible denotes less confidence where the anomaly may not be shown on historic mapping but nevertheless the anomaly displays all the characteristics of a field boundary.
<i>Ridge & Furrow</i>	Parallel linear anomalies whose broad spacing suggests ridge and furrow cultivation. In some cases, the response may be the result of more recent agricultural activity.
<i>Agriculture (ploughing)</i>	Parallel linear anomalies or trends with a narrower spacing, sometimes aligned with existing boundaries, indicating more recent cultivation regimes.
<i>Land Drain</i>	Weakly magnetic linear anomalies, quite often appearing in series forming parallel and herringbone patterns. Smaller drains may lead and empty into larger diameter pipes, which in turn usually lead to local streams and ponds. These are indicative of clay fired land drains.
<i>Natural</i>	These responses form clear patterns in geographical zones where natural variations are known to produce significant magnetic distortions.
<i>Magnetic Disturbance</i>	Broad zones of strong dipolar anomalies, commonly found in places where modern ferrous or fired materials (e.g. brick rubble) are present.
<i>Service</i>	Magnetically strong anomalies, usually forming linear features are indicative of ferrous pipes/cables. Sometimes other materials (e.g. pvc) or the fill of the trench can cause weaker magnetic responses which can be identified from their uniform linearity.
<i>Ferrous</i>	This type of response is associated with ferrous material and may result from small items in the topsoil, larger buried objects such as pipes, or above ground features such as fence lines or pylons. Ferrous responses are usually regarded as modern.

Individual burnt stones, fired bricks or igneous rocks can produce responses similar to ferrous material.

Uncertain Origin

Anomalies which stand out from the background magnetic variation, yet whose form and lack of patterning gives little clue as to their origin. Often the characteristics and distribution of the responses straddle the categories of *Possible Archaeology / Natural* or (in the case of linear responses) *Possible Archaeology / Agriculture*; occasionally they are simply of an unusual form.

Where appropriate some anomalies will be further classified according to their form (positive or negative) and relative strength and coherence (trend: weak and poorly defined).

Appendix B - Technical Information: Magnetic Theory

Detailed magnetic survey can be used to effectively define areas of past human activity by mapping spatial variation and contrast in the magnetic properties of soil, subsoil and bedrock. Although the changes in the magnetic field resulting from differing features in the soil are usually weak, changes as small as 0.1 nanoTeslas (nT) in an overall field strength of 48,000 (nT), can be accurately detected.

Weakly magnetic iron minerals are always present within the soil and areas of enhancement relate to increases in *magnetic susceptibility* and permanently magnetised *thermoremanent* material.

Magnetic susceptibility relates to the induced magnetism of a material when in the presence of a magnetic field. This magnetism can be considered as effectively permanent as it exists within the Earth's magnetic field. Magnetic susceptibility can become enhanced due to burning and complex biological or fermentation processes.

Thermoremanence is a permanent magnetism acquired by iron minerals that, after heating to a specific temperature known as the Curie Point, are effectively demagnetised followed by re-magnetisation by the Earth's magnetic field on cooling. Thermoremanent archaeological features can include hearths and kilns; material such as brick and tile may be magnetised through the same process.

Silting and deliberate infilling of ditches and pits with magnetically enhanced soil creates a relative contrast against the much lower levels of magnetism within the subsoil into which the feature is cut. Systematic mapping of magnetic anomalies will produce linear and discrete areas of enhancement allowing assessment and characterisation of subsurface features. Material such as subsoil and non-magnetic bedrock used to create former earthworks and walls may be mapped as areas of lower enhancement compared to surrounding soils.

Magnetic survey is carried out using a fluxgate gradiometer which is a passive instrument consisting of two sensors mounted vertically 1m apart. The instrument is carried about 30cm above the ground surface and the top sensor measures the Earth's magnetic field whilst the lower sensor measures the same field but is also more affected by any localised buried feature. The difference between the two sensors will relate to the strength of a magnetic field created by this feature, if no field is present the difference will be close to zero as the magnetic field measured by both sensors will be the same.

Factors affecting the magnetic survey may include soil type, local geology, previous human activity and disturbance from modern services.

Appendix C - OASIS Summary

OASIS ID (UID)	sumogeop1-535099
Project Name	Geophysical Survey at Cowards Lane, Codicote, Hertfordshire
Sitename	Cowards Lane, Codicote, Hertfordshire
Sitecode	SUMO-22625
Project Identifier(s)	SUMO-22625
Activity type	Geophysical Survey, MAGNETOMETRY SURVEY
Planning Id	
Reason For Investigation	Planning requirement
Organisation Responsible for work	SUMO Geophysics Ltd.
Project Dates	26-Jun-2025 - 26-Jun-2025
Location	Cowards Lane, Codicote, Hertfordshire NGR: TL 21601 17806 LL: 51.84562360984756, -0.236149615052616 12 Fig: 521601,217806
Administrative Areas	Country: England County/Local Authority: Hertfordshire Local Authority District: North Hertfordshire Parish: Codicote
Project Methodology	Data was collected using a cart carrying four paired MACS Cart System (Foerster) magnetic sensors. Four sensors mounted 1m horizontally apart and very accurately aligned to nullify the effects of the earth's magnetic field. Readings relate to the difference in localised magnetic anomalies compared with the general magnetic background. Each data point is geographically referenced using an on-board Trimble RTK survey grade GPS system. Readings were taken at 0.125m centres along traverses 1.0m apart. Readings relate to the difference in localised magnetic anomalies compared with the general magnetic background.
Project Results	The magnetometer survey has not recorded any magnetic responses that could be interpreted as being of definite archaeological interest. Responses of uncertain origin have been marked in the survey which are likely to have been caused by natural variations, agricultural processes and buried ferrous debris. A current field boundary is visible in the north-east of the survey.
Keywords	Field Boundary - 20TH CENTURY - FISH Thesaurus of Monument Types
Funder	Private or public corporation Orion Heritage Ltd

HER	Hertfordshire HER - unRev - STANDARD
Person Responsible for work	Thomas Cockcroft
HER Identifiers	
Archives	

Report generated on: 07-07-2025:1002

Appendix D – Data Management Plan & Archive Selection Strategy

Data Management Plan

Project ID / OASIS ID

SUMO-22625 / sumogeop1-535099

Project Name

Cowards Lane, Codicote, Hertfordshire

Project Description

A magnetometer survey of 1.4 hectares of land at Cowards Lane, Codicote, Hertfordshire

Client

Orion Heritage Ltd

Project Manager

Thomas Cockcroft

Field Leader

Mia Long

Date DMP created

23.06.2025

Date DMP last updated

07.07.2025

Version

2

Technique - data

Detailed magnetic survey.

Manual – cart - other

Cart mounted magnetometers

Documentation and metadata

All documentation and data produced are stored on SUMO servers in a specific job file.

Data storage, access and back-up

- SUMO Secure server during the project life set up in a RAID configuration (a RAID configuration incorporates a level of data redundancy meaning if a single hard drive in fails data can still be restored).
- Snap shots of the data will be made at several intervals during the day to allow data to be restored for up to 30 days if changed / deleted.
- Once the final report has been completed data will be moved onto NAS drive set up in a RAID configuration.
- All data is backed up to an off-site location (Cloud storage).

Archive Selection Strategy

Digital Data

Selection

It is proposed that only the final version of all born digital documents (reports, images and CAD files) will be selected for inclusion in the Preserved Archive. All raw and processed survey data will be included in the preserved archive. Below is what will constitute the selected archive:

- Raw data in XYZ format .csv and .png plus .pgw world file
- Processed data as .png plus .pgw world file
- Final survey report .pdf
- CAD and Vector graphics (interpretations) in .dwg format

De-selected digital data

The de-selected material will be retained on the SUMO Secure server and Cloud storage.

Documents

Not applicable – no archive

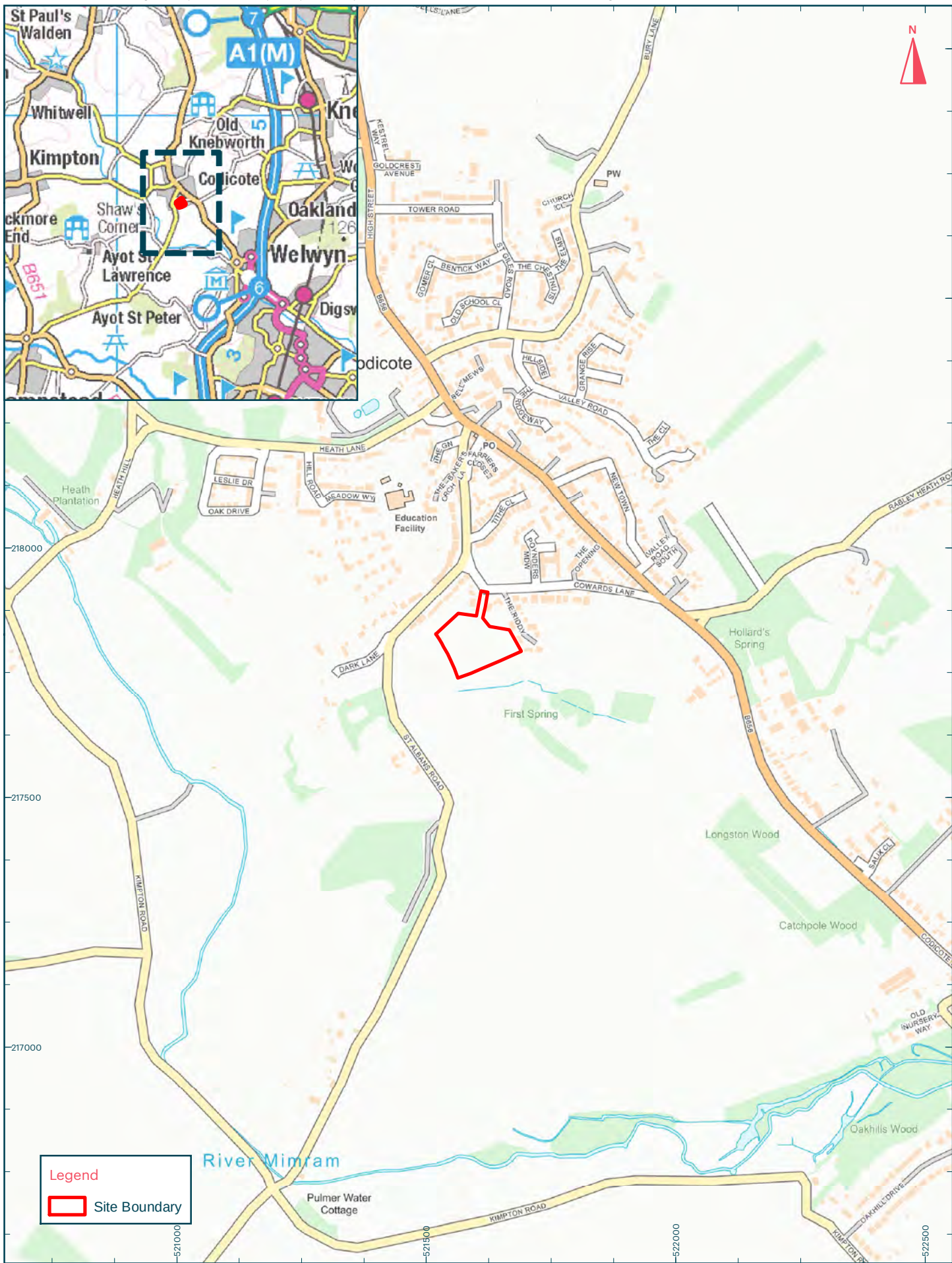
Materials

Not applicable – no archive

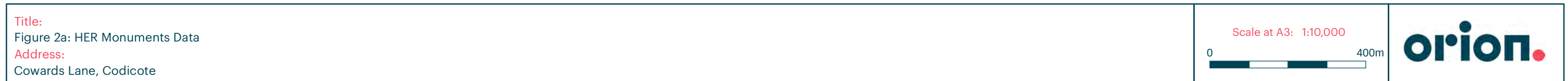


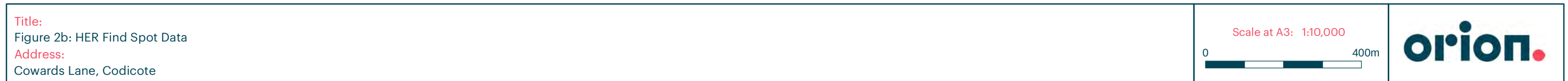
- Archaeological Geophysics
- Engineering Geophysics
- Measured Building Services
- Utility and Topographic Services
- Aerial Surveys
- Rail Surveys

SUMO GeoSurveys is a trading name of SUMO Geophysics Ltd.
SUMO Services Ltd, incorporated under the laws of England and Wales,
Company Registration No.4275993.
Registered Office Unit 8 Hayward Business Centre, New Lane, Havant, Hampshire, PO9 2NL

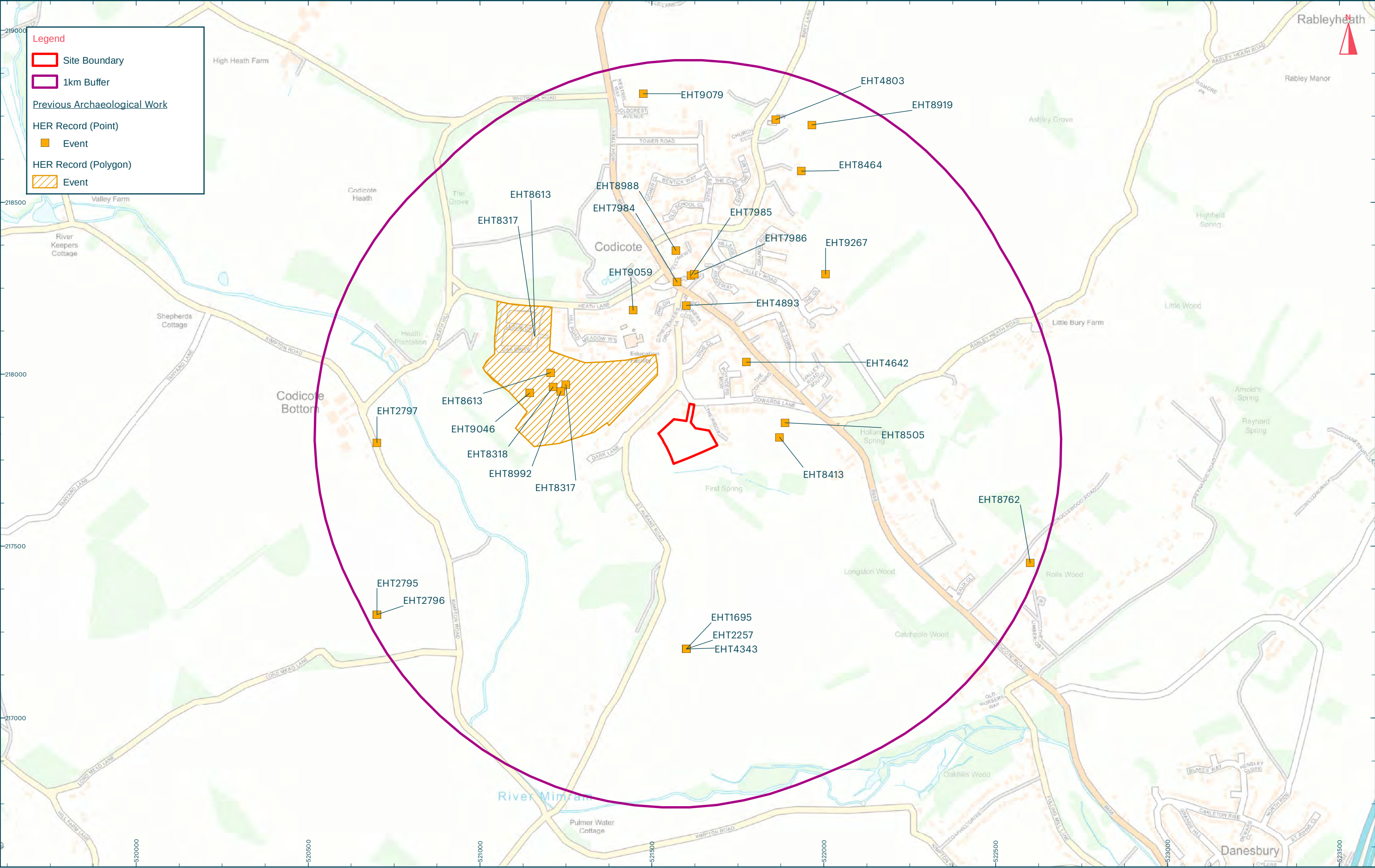


Title:
Figure 1: Site Location
Address:
Cowards Lane, Codicote









Title:
Figure 4: HER Events Data

Address:
Cowards Lane, Codicote

Scale at A3: 1:10,000

0 400m



Legend

Approximate Site Location



Title:
Figure 5: 1610 Speed's Map of Hertfordshire

Address:
Cowards Lane, Codicote

Scale at A3:
NOT TO SCALE





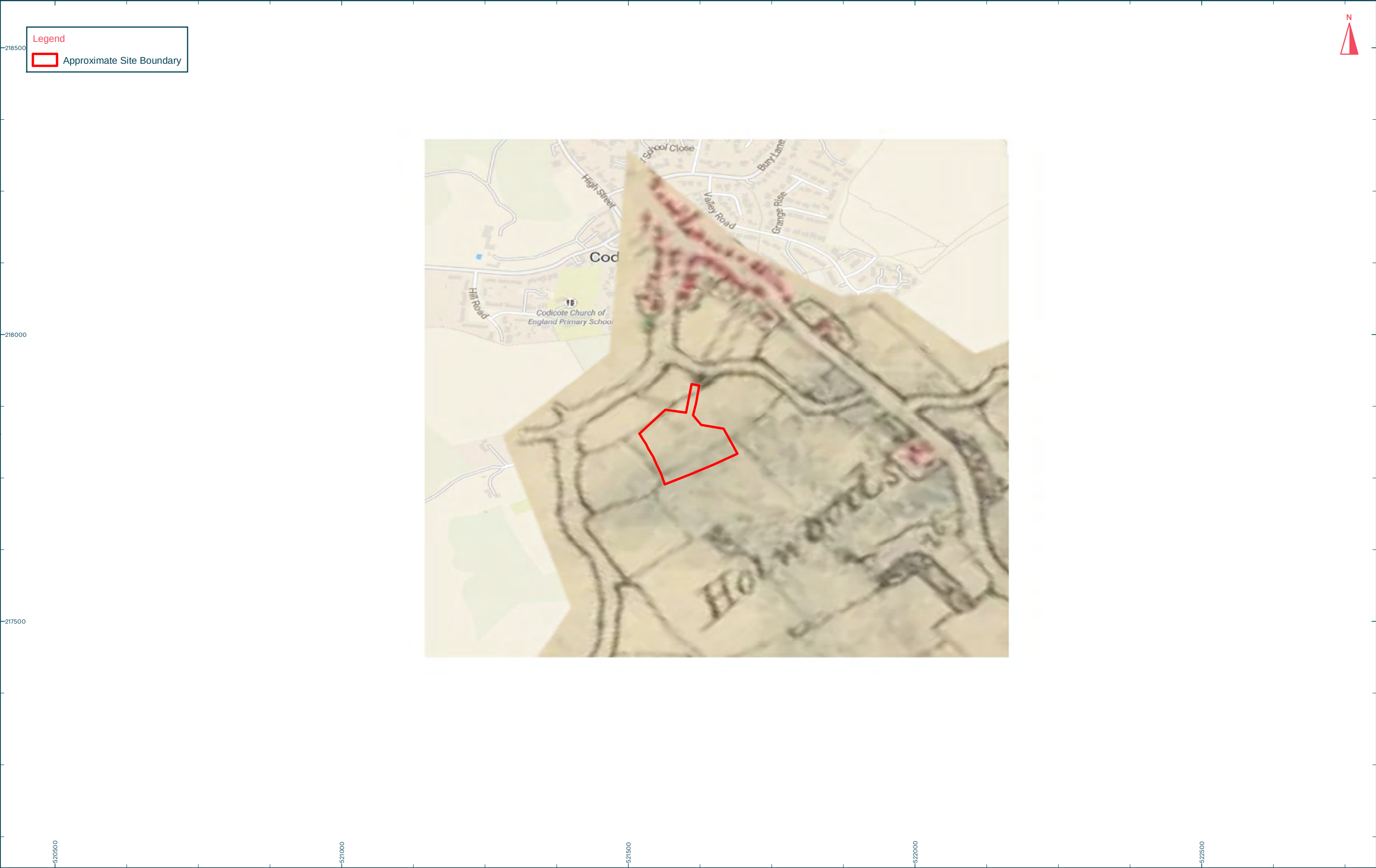
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Figure 6: 1766 Dury and Andrew's Map of Hertfordshire

Address:
Cowards Lane, Codicote

Scale at A3: 1:6,000

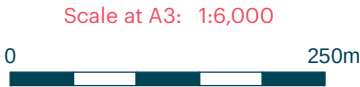
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Title:
Figure 7: 1805 Ordnance Survey Drawing

Address:
Cowards Lane, Codicote





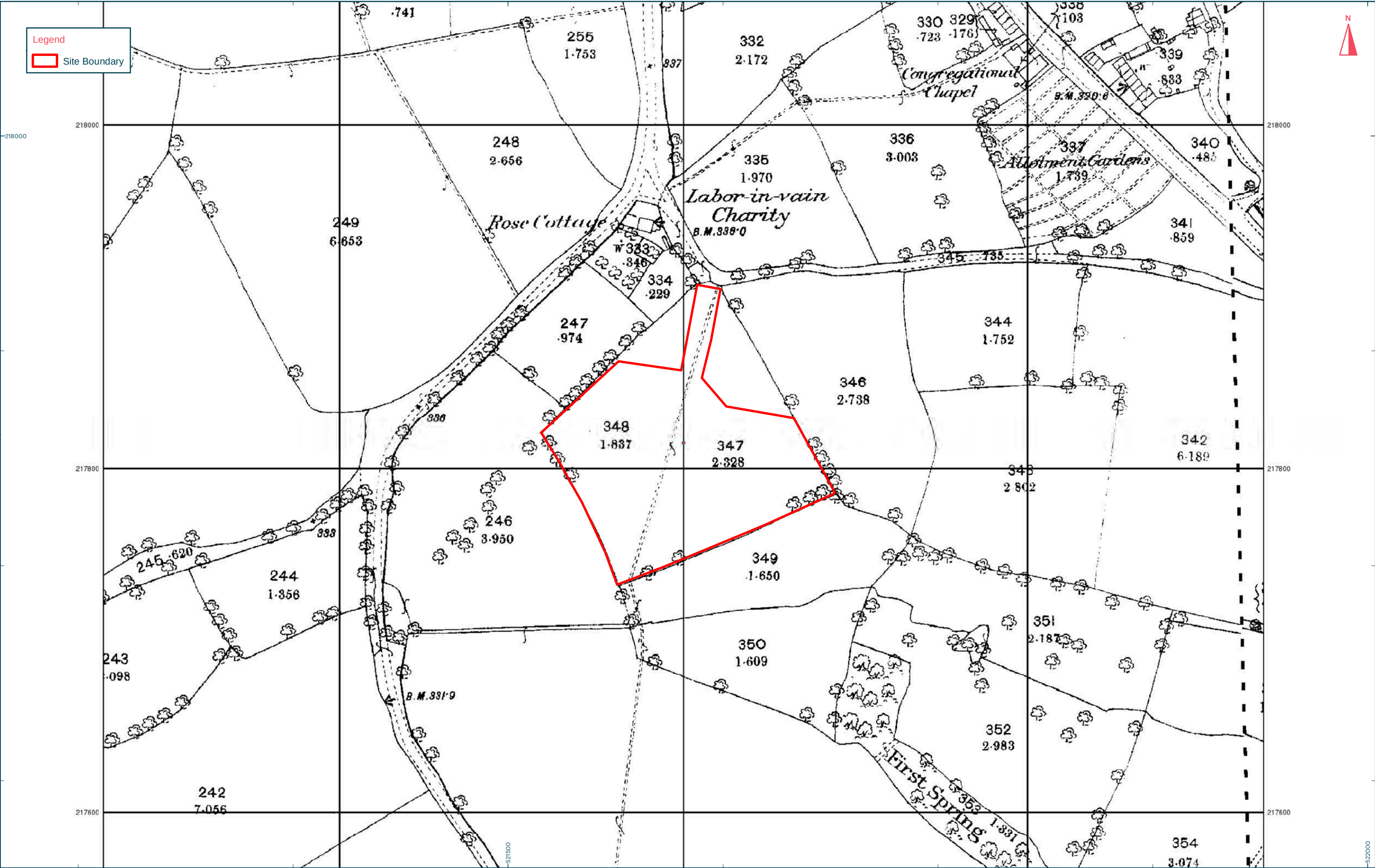
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Figure 8: 1842 Codicote Parish Tithe Map

Address:
Cowards Lane, Codicote

Scale at A3: 1:2,000

0 50m





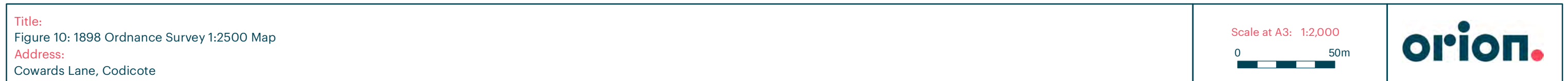
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Figure 9: 1881 First Edition Ordnance Survey 1:2500 Map

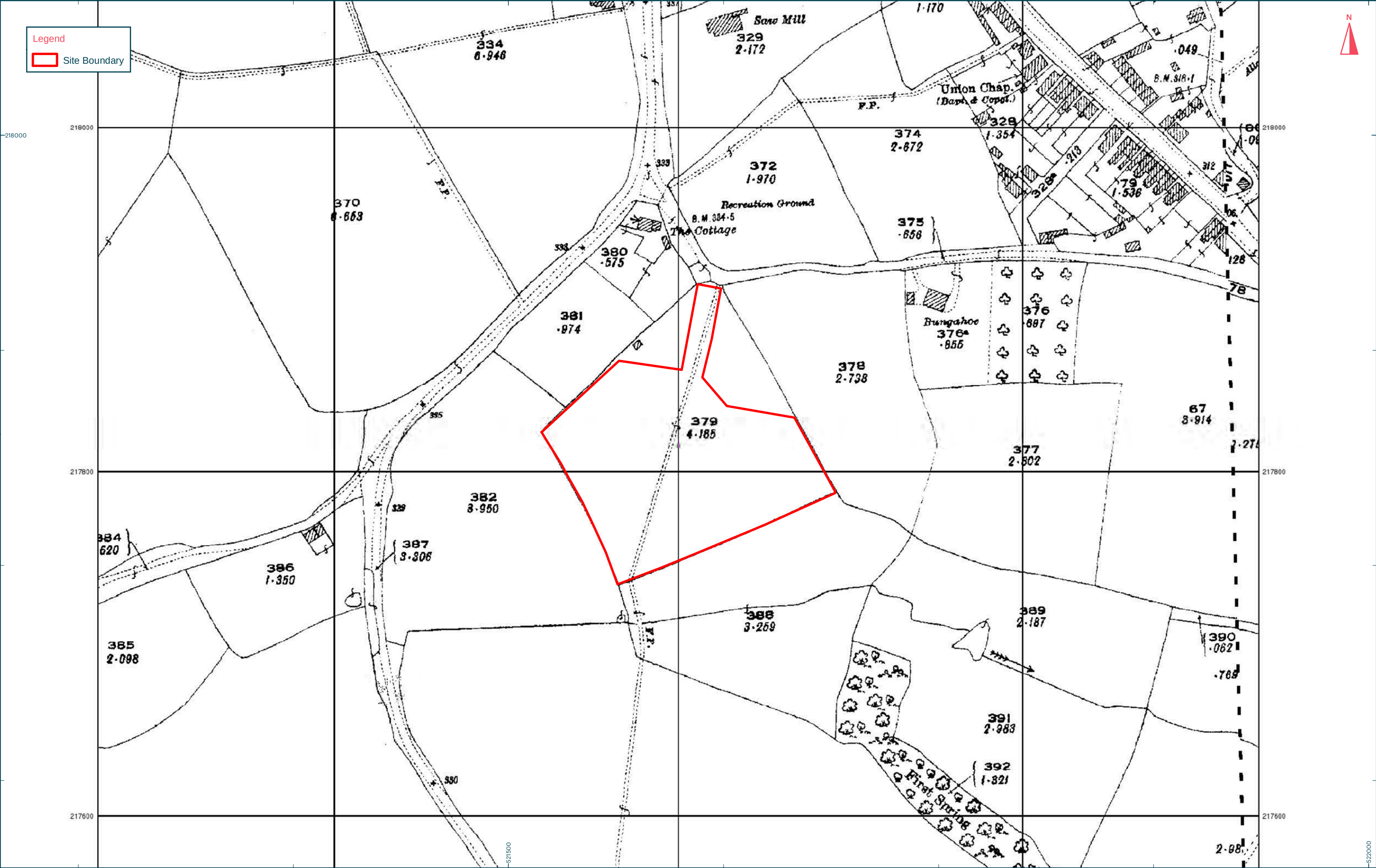
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0 50m







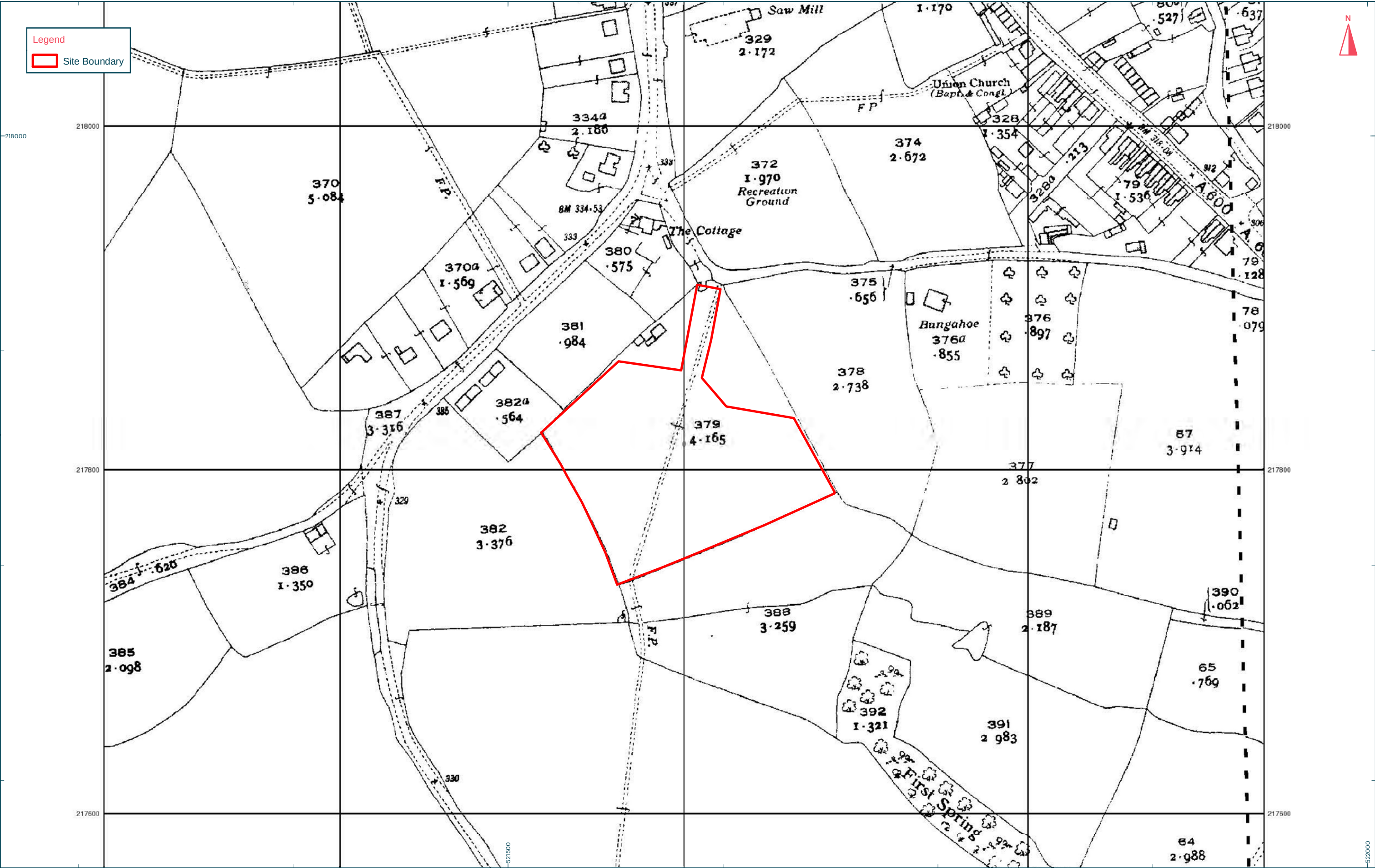
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Figure 11: 1924 Ordnance Survey 1:2500 Map

Address:
Cowards Lane, Codicote

Scale at A3: 1:2,000

0 50m





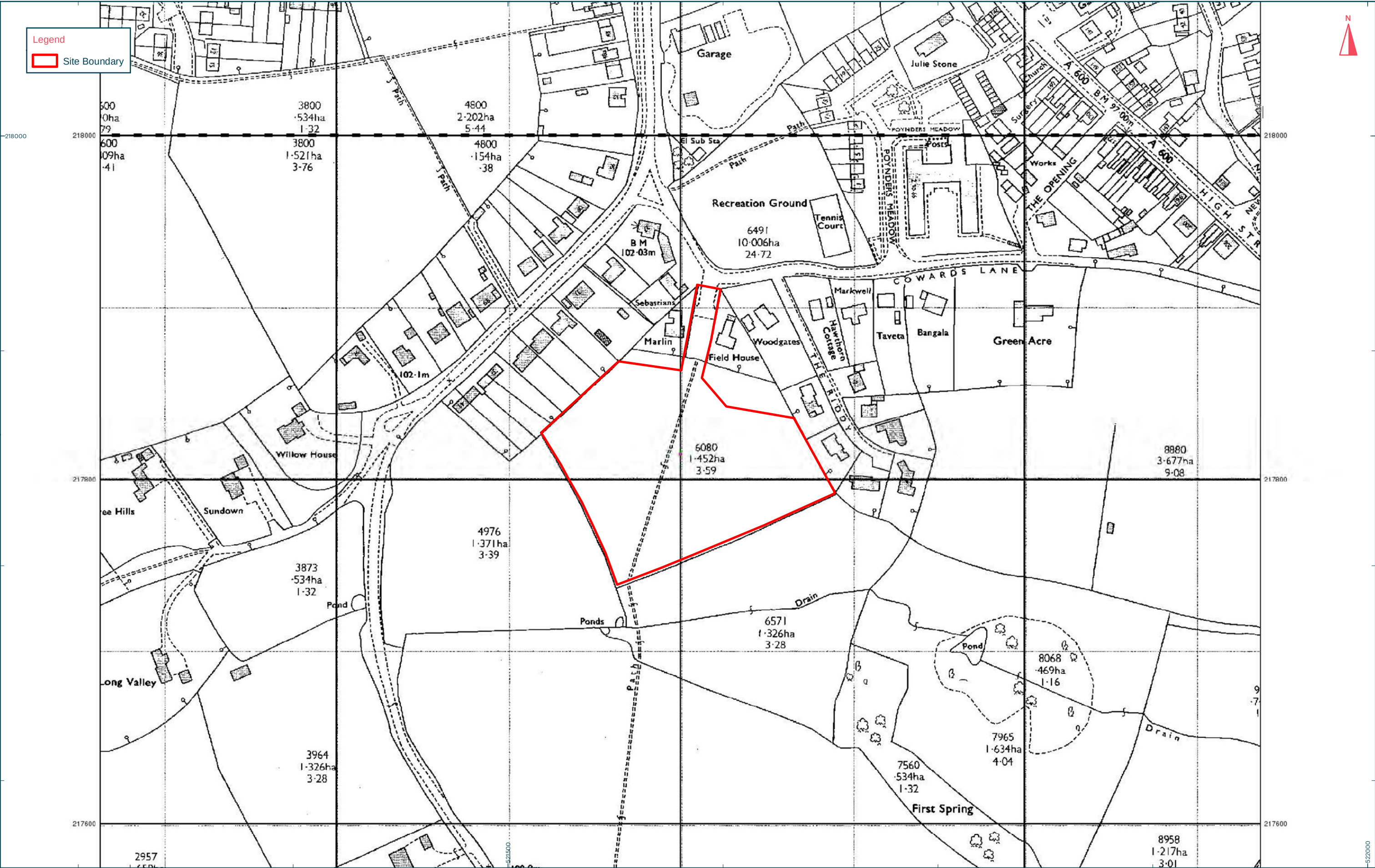
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Figure 12: 1937 Ordnance Survey 1:2500 Map

Address:
Cowards Lane, Codicote

Scale at A3: 1:2,000

0 50m





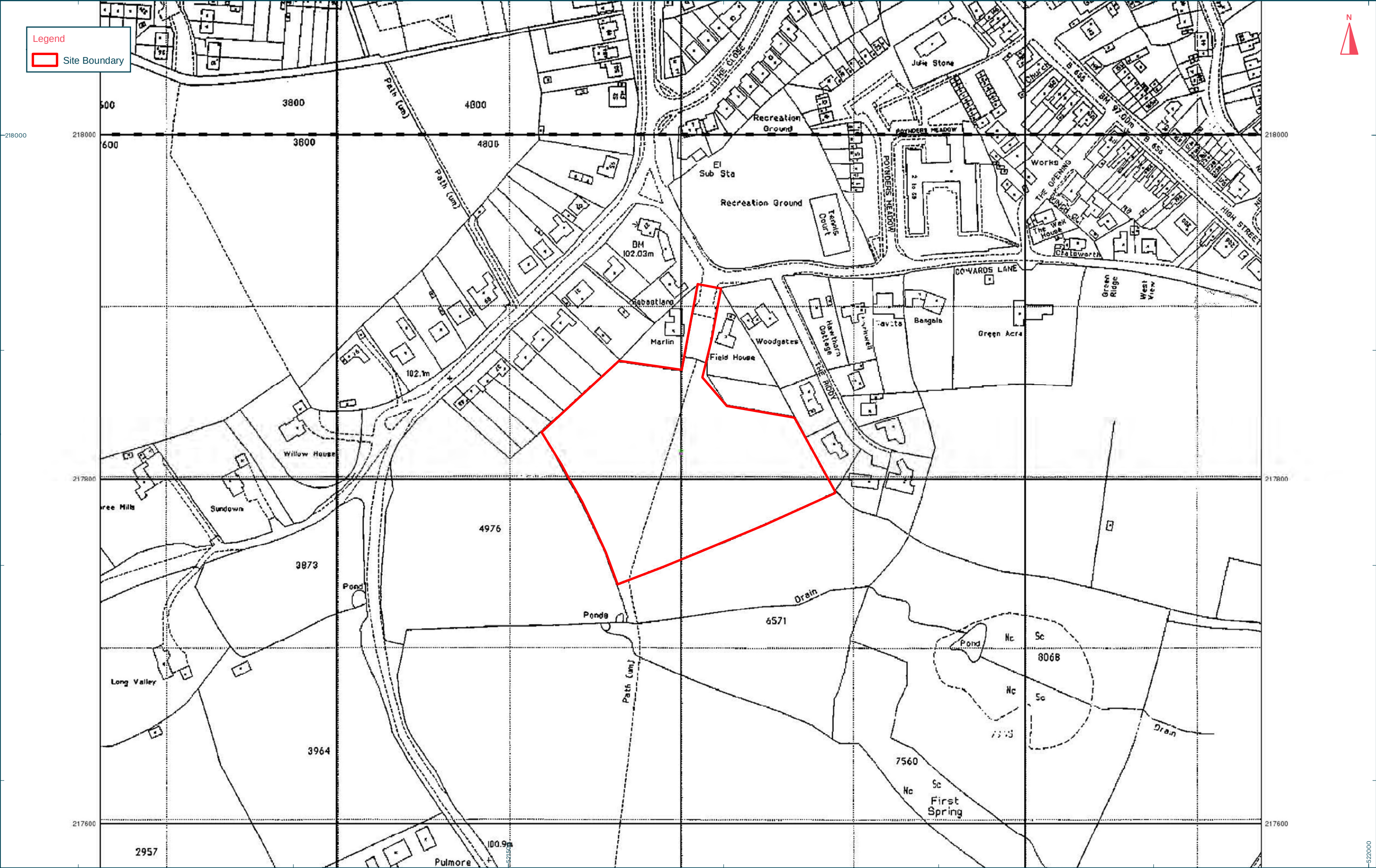
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Figure 13: 1972 Ordnance Survey 1:2500 Map

Address:
Cowards Lane, Codicote

Scale at A3: 1:2,000

0 50m





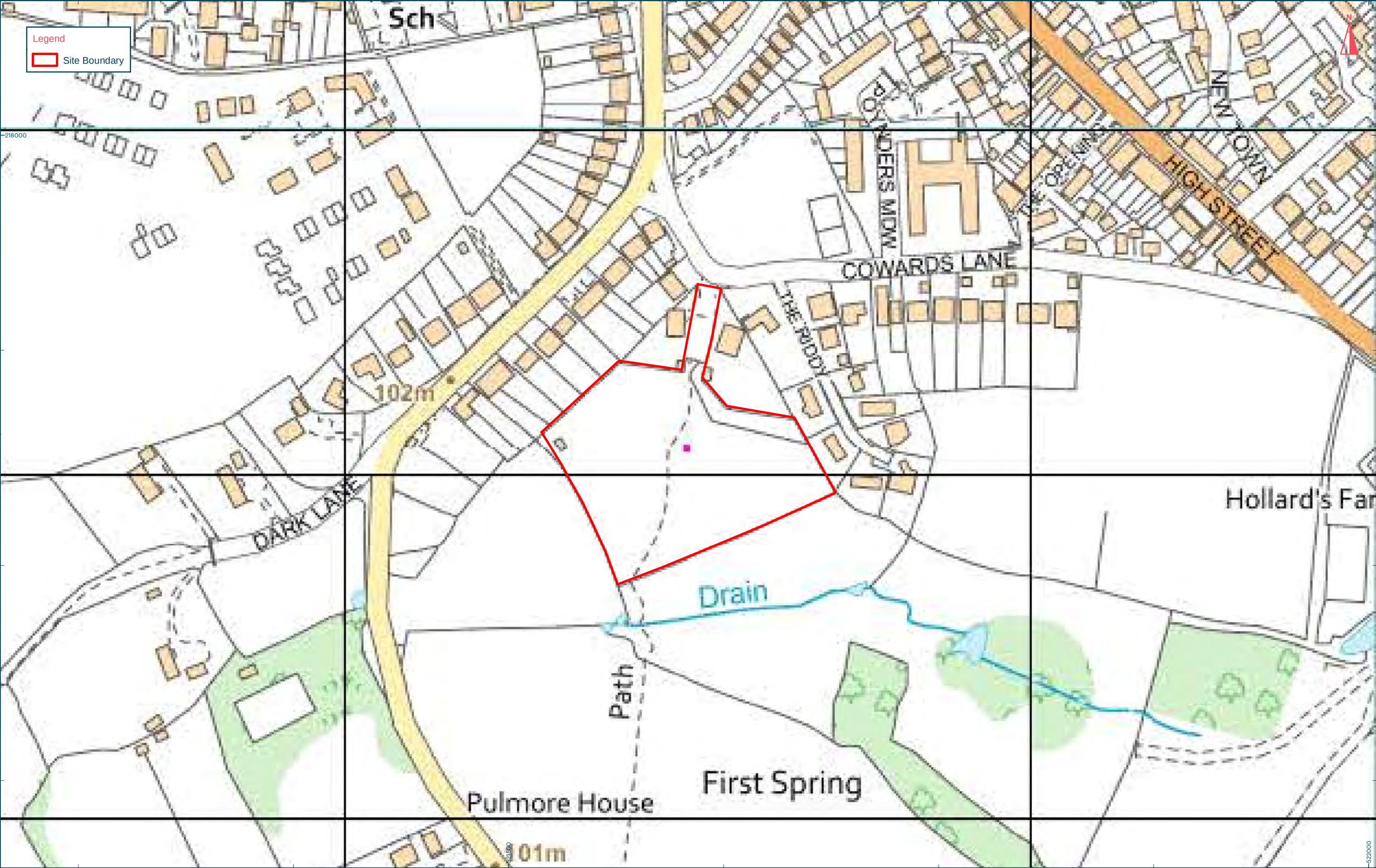
Title:
Figure 14: 1990 Ordnance Survey 1:2500 Map

Address:
Cowards Lane, Codicote

Scale at A3: 1:2,000

0 50m





Title:
Figure 15: 2024 Ordnance Survey 1:10000 Map

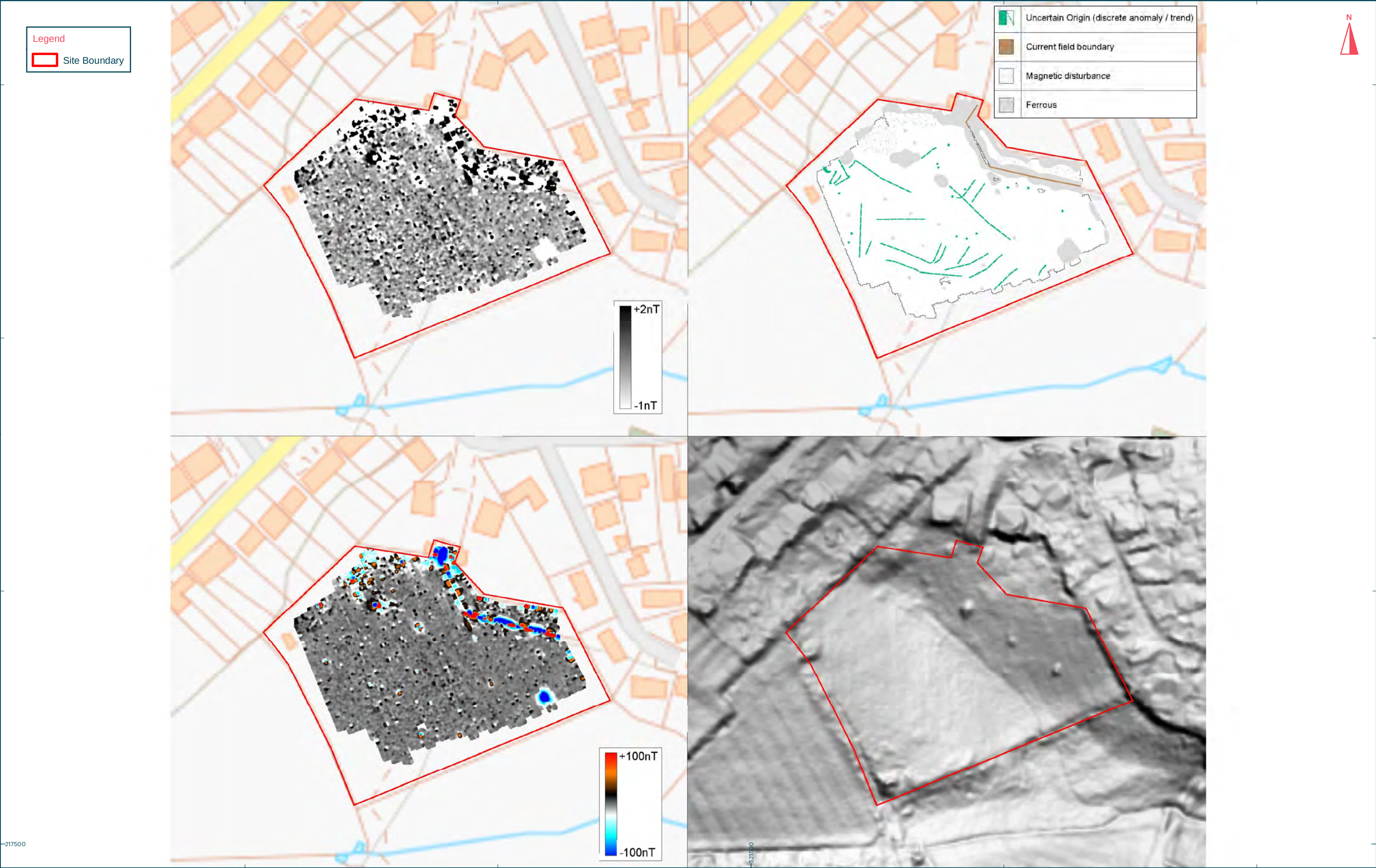
Address:
Cowards Lane, Codicote

Scale at A3: 1:2,000

0 50m







Title:
Figure 17: Results of Geophysical Survey

Address:
Cowards Lane, Codicote

Scale at A3: 1:1,700

0 50m

