

Land North of A47 Normandy Way and West of A447 Ashby Road,

Hinckley, Leicestershire

Written Scheme of Investigation

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Prepared by: Carl Champness (Senior Project Manager)
Checked by: Carl Champness (Senior Project Manager)
Edited by: Carl Champness (Senior Project Manager)
Approved for Issue by: David Score (Head of Fieldwork OAS)
Signature:

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Oxford office
Janus House
Osney Mead
Oxford
OX2 0ES

Cambridge office
15 Trafalgar Way
Bar Hill
Cambridge
CB23 8SQ

Lancaster office
Mill 3
Moor Lane Mills
Moor Lane
Lancaster
LA1 1QD

t. +44 (0)1865 980 700

t. +44 (0)1223 850 500

t. +44 (0)1524 880
250

E: info@oxfordarchaeology.com
W: oxfordarchaeology.com
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Land North of A47 Normandy Way and West of A447 Ashby Road, Hinckley, Leicestershire

Written Scheme of Investigation for an Earthwork Survey and Trial Trench Evaluation

Centred on SP 427 959

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1 INTRODUCTION

1.1 Project details

- 1.1.1 Oxford Archaeology (OA) has been commissioned by RPS on behalf of the Richborough to undertake an earthwork survey and archaeological evaluation of a proposed housing development at Land North of A47 Normandy Way and West of A447 Ashby Road, Hinckley, Leicestershire. The evaluation will comprise a 2.5% sample of the development area with the excavation of 78 trial trenches.
- 1.1.2 The work is being undertaken to inform the Planning Authority in advance of submission of a Planning Application. Although the Local Planning Authority has not set a brief for the work, discussions between Simon Mortimer, RPS, and William Kelly, Senior Planning Archaeologist (Heritage), have established the scope of work required; this document outlines how OA will implement those requirements.
- 1.1.3 All work will be undertaken in accordance with the Chartered Institute for Archaeologists Code of Conduct (CIfA 2022) and relevant Standards and Guidance for archaeological field evaluation (CIfA 2023), and local and national planning policies.

1.2 Location, topography and geology

- 1.2.1 The site lies across seven pasture fields to the north of Normandy Way, Hinckley, surrounding Westfields Farm and Sunnyside Farm (Fig 1; NGR SP 427 959). This land is bounded in the east by housing alongside the A447 / Ashby Road and in the west by a narrow stream which feeds into the River Tweed to the northwest. The area currently lies under short grass and contained the remains of ridge and furrow, which stood as earthworks between c20-50cm high.
- 1.2.2 The site is located on the northern edge of Hinckley, on a westward falling slope of a shallow valley, associated with a brook which follows towards the western boundary of the site. The site gradually falls from a high of c.124m Above Ordnance Datum (AOD) from the eastern boundary to a low of c.107m AOD at the brook.
- 1.2.3 The geology of the area is mapped as mudstone of the Mercia Mudstone Group (<https://geologyviewer.bgs.ac.uk/> - accessed 26.02.24). These are overlain by five northwest / southeast bands of superficial deposits. From west to east these comprise clay, silt, sand and gravel alluvium bounding the brook, Bosworth Clay Member clay and silt, Wolston sand and gravel, Oadby Member diamicton and Dunsmore Gravel sand and gravel (ibid).

2 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

2.1 Archaeological and historical background

- 2.1.1 The archaeological and historical background of the site has been described in detail in the recent desk-based assessment report (RPS 2024), and only the most salient points are briefly summarised below:

Prehistoric to Roman period (10,000 BC - AD 410)

- 2.1.2 Early prehistoric activity is known within the vicinity of Wykin located on an area of high ground c.1.7km to the west of the site, which consists solely of unstratified finds, including multiple Mesolithic and Early Bronze Age flint tools and a tanged arrowhead. The prehistoric potential of the site is considered to be low.
- 2.1.3 Iron Age and Roman activity is relatively scarce within the area, although Iron Age and Roman rural settlements have been recorded to southwest (OA 2023). None of the anomalies identified by the geophysical survey are likely to originate in the Iron Age to Roman period. Though a potential kiln and waste pit was encountered, these are more likely to be of a Post Medieval to early Modern date. The site's potential for Iron Age to Roman remains is low.

Anglo Saxon to medieval period (AD 410 – AD 1540)

- 2.1.4 There is limited Anglo-Saxon archaeological evidence present within the HER, with the only entries of this date being a possible sword pommel found somewhere to the north of the Community Hospital and a potential Anglo-Saxon enclosure recorded c.800m to the north.
- 2.1.5 The site is located in between the settlements of Barwell and Wykin, and Anglo-Saxon activity recorded on the HER appears to be focused to the north of the site. The site's potential for significant Early Medieval activity is considered to be low.
- 2.1.6 The Hinckley historic core is located c.1.5km to the south of the site, and is recorded in the 1086 Domesday Survey as hinehelie under the lordship of Earl Aubrey of Coucy and comprised 69 households, making it a substantially sized settlement for its time (Domesday Online). Barwell is recorded in the Survey as Barewelle (ibid.).
- 2.1.7 It is evident from the earthworks of medieval ridge and furrow present on site that the entire site was ploughed during the medieval period. Though theoretically if there is any evidence for medieval settlement within the site, which is unlikely, it would probably be a precursor to Westfield Farm – no anomalies indicative of medieval settlement were identified in the previous surveys.

Post medieval to Modern (AD 1540 – present day)

- 2.1.8 The closest Post Medieval HER entry to the site comprises the route of the 18th century Turnpike Road which follows the route of Ashby Road, and any associated roadway buildings, were likely located within the area of current housing. Though 'Old Gallows' are noted within proximity of the site, these are depicted adjacent to Ashby Road (A447) and are likely to be located within the area of the residential properties that front the road.
- 2.1.9 The 1814 Ordnance Survey (OS) map shows the site straddling five agricultural fields to the west of the A447. The subsequent 1835 OS is the first map to show Westfield Farm, with an access track leading westward from the A447.

2.2 Previous archaeological surveys at the site

- 2.2.1 A geophysical survey of the site was previously undertaken in support of the current application (MOLA 2023; Figs 2 and 3). A linear anomaly (RPS1), potentially of an archaeological origin, was identified within the field south-west of Westfield Farm. The anomaly abuts a curving linear anomaly (RPS2) to its east, the latter of which, appears to cut the medieval ridge and furrow earthworks.
- 2.2.2 A pair of anomalies (RPS3) were identified to the northwest of Sunnyside Farm, which produced a strong magnetic response in the survey, albeit the easternmost anomaly was much weaker. These have been interpreted as a possible kiln and waste pit. Alternatively, the westernmost anomaly corresponds with a small area of disturbance shown on the 2006 satellite imagery (not reproduced), but this could just represent superficial disturbance.
- 2.2.3 Anomalies potentially representing pits (RPS5) were identified in the fields northwest of Westfield Farm. However, these could also be geological in origin. A linear anomaly was identified east of Westfield Farm (RPS6), which could represent a relict boundary ditch. Several linear anomalies were also identified which could be of an archaeological origin, particularly a pair of linear features located outside of the site boundary to the south-east of Sunnyside Farm, that could represent a trackway.
- 2.2.4 A geophysical survey (MOLA 2022) and evaluation trenching (Groundworks Archaeology 2022; ELE11990) was undertaken within the fields immediately west of the site, to the south of Middlefield Farm and north of Normandy Way. The trenching involved the excavation of 121 trenches each 30m x 2.4m across a 25.4 ha area. The evaluation trenches encountered archaeological features representing a post mill c.400m to the west, dating to between AD 1200 – 1450 (Groundworks Archaeology 2022, 12). Scorched and fire-cracked millstone fragments recovered within the trench indicated the post mill burnt down in the 16th century (ibid., 13). Ploughed-out remains of medieval ridge and furrow were encountered across the site.

3 AIMS

3.1 General

- 3.1.1 The general aims of the earthwork survey are:
- To provide a detailed record and interpretation of all earthworks present within the proposed development area;
 - To record the form and function of the earthworks including ridge and furrow, headlands, trackways and former field boundaries.
 - To place the ridge and furrow remains within a wider landscape and documentary setting.
- 3.1.2 The aims and objectives of the evaluation are:
- To determine or confirm the presence or absence and approximate extent of any surviving remains;

- ii. To determine the date range of any surviving remains;
- iii. To determine the condition and state of preservation of any remains;
- iv. To determine the degree of complexity of any surviving stratigraphy;
- v. To assess the associations and implications of any remains encountered with reference to the historic landscape;
- vi. To determine the potential of the site to provide palaeoenvironmental and/or economic evidence, and the forms in which such evidence may survive;
- vii. To determine the implications of any remains with reference to economy, status utility and social activity;
- viii. To determine or confirm the likely range, quality and quantity of the artefactual evidence present;

3.2 Specific research aims

3.2.1 To ground-truth the results of the geophysical survey, including targeting geophysical anomalies and areas suggested to be devoid of archaeological remains;

- ix. To confirm whether the extant ridge and furrow earthworks on site are overlying any earlier archaeological remains;
- x. To establish the character of any kiln or industrial activity at the site;
- xi. To determine whether the site was settled during prehistory and establish the extent and character of any prehistoric activity.

3.2.2 Further, more detailed research aims, may be generated from the results of the evaluation and specifically in relation to the East Midlands Heritage: A research Agenda and Strategy for the Historic Environment' (compiled on behalf of the region's historic environment community by D. Knight, B. Vyner and C. Allen) and the earlier Archaeological Resource Assessment and Research Agenda for the East Midlands 'The Archaeology of the East Midlands' edited by N. Cooper (2006).). These will be reviewed during an on-site meeting with Senior Planning Archaeologist (Heritage).

4 SPECIFIC EXCAVATION AND RECORDING METHODOLOGY

4.1 Scope of works

4.1.1 The scope of the trial trench evaluation has been determined based on the perceived archaeological potential of the site. A 2.5% sample is to be excavated to target the results of the geophysical survey.

4.1.2 The first phase of work will be to undertake an earthwork survey of the extant ridge and furrow present on parts of the site (Fig. 2) and support this through further desk-based study.

4.1.3 A total of 78 trenches measuring 30m by 1.8m will be excavated across the area as shown in Figure 3 unless prevented by on-site obstructions or archaeological considerations.

4.1.4 A further contingency provision for additional trenching (0.5% - 15 trenches) will be used in discussion with Simon Mortimer and the Planning

Archaeologist should further investigation or clarification of the initial results be required.

4.2 Programme

4.2.1 The fieldwork will be undertaken into two phases:

4.2.2 **Phase 1: Drone survey (Fig 2).** Supported with documentary research and survey of the extant ridge and furrow earthworks;

4.2.3 **Phase 2: Trial trenching (Figs. 3 and 4).** Where appropriate trenches have been targeted on the geophysics and updated with the results of the drone survey;

4.2.4 A summary of OA's general approach to excavation and recording can be found in Appendix A. Standard methodologies for Geomatics and Survey, Environmental evidence, Artefactual evidence and Burials can also be found below (Appendices B, C, D and E respectively).

4.2.5 It is anticipated that Phase 1 will take 1-3 weeks to completed and phase 2 excavation will take a total of four weeks to complete, by a team consisting of a Project Supervisor, directing up to four Project Archaeologists, under the management of Carl Champness, Senior Project Manager.

4.2.6 All fieldwork undertaken by Oxford Archaeology South is overseen by the Head of Fieldwork, David Score MCIfA.

4.3 Earthwork Survey

4.3.1 As specified, an earthwork survey covering 17 hectares will be undertaken across the site before phase 2 evaluation works commence. OA uses as a guideline for its metric survey English Heritage Metric Survey Specifications and Landscape Survey Specifications.

4.3.2 A UAS (Drone) will be flown in a grid pattern over site (Figure 2) with the gimbal mounted camera. The aim of the survey is to provide greater clarity and mapping of the extant ridge and furrow present across the site.

4.3.3 All site work and reporting will be carried out in accordance with the latest guidance documents issued by Historic England - Photogrammetric Applications for Cultural Heritage, Guidance for Good Practice (HE 2017).

4.3.4 Survey quality expected ground sampling distance (resolution) for the photogrammetry survey will be 2 to 5 cm/pix or less, with a georeferencing combined X,Y,Z accuracy of 5cm or less. Flying altitude should be appropriate for the site and the resolution required.

4.3.5 The resulting imagery will be processed in photogrammetry software to produce 3D models, DEMs (Digital Elevation Models) and orthophotographic mapping.

4.3.6 The 3D models and pointcloud can be exported and delivered in a variety of formats if needed or as required for use in onward workflows, such as GIS and CAD.

4.3.7 The survey of the ridge and furrow will be supported with documentary sources from the HER to place the earthworks within their wider historical and landscape settings.

4.4 Trial trench methodology

- 4.4.1 A summary of OA's general approach to excavation and recording can be found in Appendix A. Standard methodologies for Geomatics and Survey, Environmental evidence, Artefactual evidence and Burials can also be found below (Appendices B, C, D and E respectively).
- 4.4.2 The trenches will be laid out as shown on Figures 3 and 4 using a GPS with sub-15mm accuracy, except where minor adjustments are required owing to ground conditions or site obstructions.
- 4.4.3 Trenches will be excavated using an appropriately powered mechanical excavator fitted with a toothless bucket under the direct supervision of an archaeologist. Spoil will be stored adjacent to, but at a safe distance from the trench edges.
- 4.4.4 Machining will continue in even spits down to the top of the undisturbed natural geology or the first archaeological horizon, depending upon which is encountered first. Once archaeological deposits have been exposed, further excavation will proceed by hand.
- 4.4.5 The exposed surface will be sufficiently clean to establish the presence or absence of archaeological remains. A sample of each feature or deposit type, for example pits, postholes, and ditches, will be excavated and recorded. In the event of the identification of an exceptional number and complexity of archaeological deposits, sample excavation will be more circumspect and will aim to be minimally intrusive. Excavation will, however, be sufficient to resolve the principal aims of the evaluation.
- 4.4.6 All features and deposits will be issued with unique context numbers, and context recording will be in accordance with established best practice and the OA field manual. Small finds and samples will be allocated unique numbers. Bulk finds will be collected by context.
- 4.4.7 Spoil produced from machine excavation or archaeological features and spoil from hand excavation will be scanned by a metal detector to enhance finds retrieval.
- 4.4.8 Digital photos will be taken of any archaeological features, deposits, trenches and the evaluation work in general.
- 4.4.9 Plans will be produced at an appropriate scale (normally 1:50 or 1:100) with larger scale plans of features produced as necessary. Sections of features will be drawn at a scale of 1:20 and 1m-wide sample sections of stratigraphy will be drawn at a scale of 1:10 where appropriate. All section drawings will be located on the plan/s. The absolute height (m OD) of all principal strata and features, and the section datum lines, shall be calculated, and shown on the drawings.
- 4.4.10 Sample sections will be located using either a GPS unit or total station. Coordinates relative to Ordnance Survey and Ordnance Datum will be obtained for each sampling location.
- 4.4.11 Upon completion of the works and in agreement with Simon Mortimer, RPS and Senior Planning Archaeologist, the trenches will be backfilled with the arisings in reverse order of excavation. Backfilling will, as far as possible, reinstate the original soil profile within the area of the ridge & furrow.

4.5 Environmental sampling

4.5.1 Environmental sampling will be undertaken to characterise the modes of preservation and concentration of assemblages of biological material from different periods, areas and context types in order to inform the strategy during any further mitigation and achieve the aims and objects as outlined in Section 3. The strategy for environmental sampling will be discussed with Simon Mortimer and the Senior Planning Archaeologist with input with OA's lead environmental archaeologist Dr Rebecca Nicholson (BA (Hons), MA, DPhil, MCIfA, FSA Scot). It is anticipated that the strategy will follow the general approach outlined here.

4.5.2 During the evaluation works emphasis will be placed on contexts that:

- are not believed to be contaminated or of mixed origin;
- thought likely to, or known to, contain biological remains (eg charcoal, plant macrofossils, molluscs);
- are representative of the range of feature types and periods present across the site;
- that contain datable artefacts or have the potential to be dated eg. by radiocarbon;
- interpretatively important at the context or site level;
- potentially archaeological or historically significant.

4.5.3 Soil samples, typically of 40 litres, will be taken from a variety of feature types and dates to assess the paleoenvironmental potential across all periods.

4.5.4 Although sampling will focus on features from which datable material has been recovered, additional sampling of undated features will be undertaken since datable material may not always be evident to the naked eye. This will be done on a case-by-case basis. Advice will be sought from Dr Rebecca Nicholson.

4.5.5 OA's approach to collection and processing of environmental samples is detailed below in Appendix C.

4.5.6 Environmental sampling will be undertaken in accordance with Environmental Archaeology. A guide to the theory and practice of methods, from sampling and recovery to post excavation (2nd ed), Historic England 2011 and Policy for Environmental Archaeology: Sampling, Reporting and Retention/Dispersal, Oxford Archaeology 2017.

4.6 Finds recovery

4.6.1 Artefact assemblages will be recovered by context and by hand to assist in dating the stratigraphic sequences and for obtaining ceramic assemblages for comparison with other sites. The finds will provide an invaluable contribution to the interpretation of the functions and activities taking place on (and off) the site, as well as revealing aspects of trade and economy. All artefacts will be retained from excavated contexts unless they are of recent origin. In these cases, sufficient material will be retained to date and establish the function of the feature.

4.7 Human remains

- 4.7.1 If human remains are encountered, then Simon Mortimer and the Senior Planning Archaeologist will be notified as soon as is practicable. As far as possible, any human remains exposed during these works will be left *in-situ*, protected and re-buried.
- 4.7.2 However, if necessary, the excavation of human remains will be carried out once an appropriate Ministry of Justice licence has been secured.
- 4.7.3 Human remains will be cleaned and placed in boxes by following the methods described by McKinley and Roberts (1993). Current guidance issued by English Heritage and the Church of England (EH and CoFE 2005, 43) states that human remains must be marked. However, the recent Code of Practice (<http://www.babao.org.uk/index/ethics-and-standards>), published by BABAO, acknowledges that marking bone is not always feasible and that there are economic, curatorial, conservational and ethical issues associated with this practice.
- 4.7.4 Any changes to the above methodology will be agreed with Simon Mortimer and the Planning Archaeologist.

4.8 Treatment of treasure

- 4.8.1 Finds discovered that fall under the statutory definition of treasure (as defined by the Treasure Act of 1996 and its revision of 2002) will be reported immediately to the relevant Coroner's Office, the landowner and Senior Planning Archaeologist. A treasure receipt (obtainable from either the finds liaison officer (FLO) or the DCMS website) must be completed and a report submitted to the Coroner's Office and the FLO within 14 days of understanding the find is treasure. Failure to report within 14 days is a criminal offence. The treasure receipt and report must include the date and circumstances of the discovery, the identity of the finder (put as organisation/contractor) and (as exactly as possible) the location of the find.

5 PROJECT SPECIFIC REPORTING AND ARCHIVE METHODOLOGY

5.1 Programme

- 5.1.1 A copy of the report in Adobe Acrobat (.pdf) format will also be provided. The report will be completed within six to eight weeks following the completion of the fieldwork.
- 5.1.2 A draft copy of the report will be issued to Simon Mortimer and the Senior Planning Archaeologist for comment prior to being finalised and prior to formal submission to the planning authority.
- 5.1.3 Digital copies of the completed report in Adobe Acrobat (.pdf) format will be provided to the client and Senior Planning Archaeologist.
- 5.1.4 A digital and hard copy of the report in pdf/A-1a format, will also be submitted to Leicestershire Historic Environment Record.
- 5.1.5 Digital data, including GIS files, will be made available to the lead archaeologist of BCC / HER on request.

- 5.1.6 Unless otherwise requested, a copy of the final report will be placed on the OA Digital Library after six months of the completion of fieldwork at: <https://library.oxfordarchaeology.com/>.

5.2 Content

- 5.2.1 A copy of the report will be submitted to the Senior Planning Archaeologist for review and that any digital data generated as a part of the work (such as GIS or CAD files) will be deposited with the ADS. The report will also be made available for public access after an allotted period via the HER/ADS.
- 5.2.2 A summary report (including illustrations where appropriate) will also be sent to the editors of Leicestershire Archaeology journal no later than three months after the end of the calendar year in which the work is undertaken.
- 5.2.3 For projects which have produced results of significant county, regional or national importance, an illustrated final report which meets the guidelines set out in MAP Appendix 7 and is suitable for publication in an approved archaeological journal should be provided to the Senior Planning Archaeologist within one year of the completion of fieldwork (unless a longer time period has been agreed in the updated project design). The overall content of the report will be agreed with the Senior Planning Archaeologist. The report will reference all aspects of the work undertaken at the site. It will place the site in its local archaeological, historical, and topographical context and include a clear location map. Each plan will be clearly referenced and appropriately scaled with reference to the national grid and ordnance datum.
- 5.2.4 The content of this report will be as defined in Appendix F.

5.3 Specialist input

- 5.3.1 OA has a large pool of internal specialists, as well as a network of external specialists with whom OA have well established working relationships. A general list of these specialists is presented in Appendix G; in the event that additional input should be required, an updated list of specialists can be supplied.

5.4 Community Outreach

- 5.4.1 OA is committed to the dissemination of archaeological information to the public. Most archaeological evaluations, however, are not well suited to public outreach during the fieldwork stage, as they are often relatively short-lived, and the interest of the remains may not be understood until after the fieldwork is finished.
- 5.4.2 Should the works reveal archaeological remains of unusual interest that would generate significant public interest, consideration will be given to additional forms of outreach and engagement, as appropriate, in consultation with Simon Mortimer and Senior Planning Archaeologist such as public talks, publicity and site visits if required.

5.5 Archive

- 5.5.1 The site archive will be deposited with Leicestershire Museum following completion of the project.

- 5.5.2 A summary of OA's general approach to documentary archiving can be found in Appendix H.

6 DIGITAL DATA MANAGEMENT PLAN

6.1 Introduction

- 6.1.1 All digital data will be collected, stored and selected in line with the Oxford Archaeology (OA) Data Management Plan (forthcoming). The project specific Digital Data Management Plan is attached to this WSI as an Appendix (Appendix J). This is a 'living' document and will be reviewed and amended throughout the project where necessary. Should any substantial amendments be made to the plan, then the revised version will be submitted to BCC.
- 6.1.2 The project specific Digital Data Management Plan has been prepared in relation to the following standards and guidelines:
- 6.1.3 Historic England and Dig Ventures 2019. Work Digital/Think Archive. A guide to managing digital data generated from archaeological investigations. <https://digventures-thepixelparlour.netdna-ssl.com/wp-content/uploads/2019/12/WDTA-Guide-FINAL.pdf>
- 6.1.4 Archaeology Data Service/Digital Antiquity. Guides to good practice. <http://guides.archaeologydataservice.ac.uk/g2gp/MainADS>
- 6.1.5 Archaeology Data Service. Guidelines for Depositors <http://archaeologydataservice.ac.uk/advice/guidelinesForDepositors>
- 6.1.6 Historic England 2015. Digital Image Capture and File Storage. Guideline for Best Practice. <https://historicengland.org.uk/images-books/publications/digital-image-capture-and-file-storage/heag059-digital-images/>
- 6.1.7 Oxford Archaeology (forthcoming). Data Management Plan.

6.2 Data collection

- 6.2.1 The data to be collected and created comprises that specific to the project. It does not include related information from the same development, such as site works undertaken by other contractors, except where the findings are fully integrated into this analysis.
- 6.2.2 Site survey data is captured using Leica survey equipment and imported into ArcGIS via FTP transfer. Final versions of site plans will be produced in ArcGIS, AutoCAD and/or Adobe Illustrator.
- 6.2.3 Section drawings are created by hand on drafting film and paper context records are created by hand on standard OA pro forma recording forms. Site register, including context, drawing and sample, will be created digital in the field using OA's bespoke digital recording system. Selected data will be transferred to digital format in line with OA archive preparation guidance. Digital photographic images are taken in accordance with OA digital data guidance in Photographic Recording Manual.

6.3 Data formats

6.3.1 Analytical data created during post-excavation will comprise a project-specific MS Access database. Where appropriate, site stratigraphic matrices will be created using MSEXcel. Individual contributing specialists create MSEXcel, MSWord and/or MSAccess datasheets which may stand alone from the site database. Analytical data may also include GIS files, charts and figures in MSEXcel and hand-drawn visuals.

6.3.2 OA use Microsoft Office, Adobe Acrobat and ArcGIS. File formats will be readable by these programmes. Where appropriate, AutoCAD files will be in a format that can be imported into GIS (for example, .dxf).

6.4 Data retention, deposition, and version control

6.4.1 Strict version control will be applied throughout the project in line with the OA Data Management Plan (DMP). It is proposed that only the final version of all born digital documents (registers, reports, databases, images) will be selected for inclusion in the Preserved Archive. Digital photographs will be assessed during post excavation and selection based on the principles set out in the OA DMP. All raw and processed survey data will be included in the preserved archive.

6.4.2 The digital data will be reviewed following data gathering and analysis to check that data is being properly preserved and version control upheld in-line with the OA DMP. The final decision about selection for inclusion in the Preserved Archive will be made following the reporting stage of the project and enacted during archive completion.

6.4.3 The project executive will decide the fate of all de-selected material archaeological digital data although it is likely this will consist mainly of duplicate and superseded data or confidential business data. It is envisaged that the de-selected material will be retained on the OA Archive Server for a minimum of 3 years following the completion of the project at which point they will be reviewed and deleted as necessary in line with the OA DMP. Information will be held and discarded in accordance with good business practice and GDPR guidelines.

6.4.4 The site's digital archive will be deposited with the Archaeological Data Service or another publicly accessible CoreTrustSeal certified repository on completion of the archaeological programme. The Senior Planning Archaeologist will be notified when this is complete.

7 HEALTH AND SAFETY

7.1 Roles and responsibilities

7.1.1 The Senior Project Manager, Carl Champness, has responsibility for ensuring that safe systems of work are adhered to on site. He/she delegates elements of this responsibility to the Project Officer, who implements these on a day-to-day basis.

7.1.2 The Director with responsibility for Health and Safety at OA is Dan Poore Tech IOSH (Chief Operating Officer).

7.2 Method statement and risk assessment

7.2.1 A summary of OA's general approach to health and safety can be found in Appendix I. A risk assessment has also been undertaken and approved and will be kept on site, along with OA's standard Health and Safety file, which will contain all relevant health and safety documentation.

7.2.2 The Health and Safety file will be available to view at any time.

7.3 Monitoring of works

7.3.1 At least 10 days' notice of the commencement of the evaluation works will be given to William Kelly, Senior Planning Archaeologist (Heritage).

7.3.2 William will have free access to the site (subject to Health and Safety considerations) and all records to ensure the works are being carried out in accordance with this WSI and all other relevant standards.

8 BIBLIOGRAPHY

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OA STANDARD FIELDWORK METHODOLOGY APPENDICES

The following methods and terms will apply, where appropriate, to all OA fieldwork unless varied by the accompanying detailed Written Scheme of Investigation.

Copies of all OA internal standards and guidelines referred to below are available on request.

APPENDIX A GENERAL EXCAVATION AND RECORDING METHODOLOGY

A.1 Standard methodology – summary

Mechanical excavation

- A.1.1 An appropriate mechanical excavator will be used for machine excavation. This will normally be a JCB or 360° tracked excavator with a 1.5 m to 2 m wide toothless ditching bucket. For work with restricted access or working room a mini excavator may be used.
- A.1.2 All mechanical excavation will be undertaken under direct archaeological supervision.
- A.1.3 All undifferentiated topsoil or overburden of recent origin will be removed down to the first significant archaeological horizon, in successive, level spits.
- A.1.4 Following mechanical excavation, all areas that require examination or recording will be cleaned using appropriate hand tools.
- A.1.5 Spoil heaps will be monitored in order to recover artefacts to assist in the analysis of the spatial distribution of artefacts. Modern artefacts will be noted but not retained.
- A.1.6 After recording, evaluation trenches and test pits will usually be backfilled with excavated material in reverse order of excavation, and compacted as far as is practicable with the mechanical excavator. Area excavations will not normally be backfilled.

Hand excavation

- A.1.7 All investigation of archaeological levels will usually be by hand, with cleaning, examination and recording both in plan and section.
 - A.1.8 Within significant archaeological levels the minimum number and proportion of features required to meet the aims of the excavation will be hand excavated. Pits and postholes will usually be subject to a 50% sample by volume. Linear features will be sectioned as appropriate. More complex features such as those associated with funerary activity will usually be subject to 100% hand excavation.
 - A.1.9 In the case of evaluations, it is not necessarily the intention that all trial trenches will be fully excavated to natural stratigraphy, but the depth of archaeological deposits across the site will be assessed. The stratigraphy of a representative sample of the evaluation trenches will be recorded even where no archaeological deposits have been identified. Any excavation, both by machine and by hand, will be undertaken with a view to avoiding
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damage to any archaeological features or deposits, which appear to be worthy of preservation in situ.

Recording

- A.1.10 Written descriptions will be recorded on proforma sheets comprising factual data and interpretative elements.
- A.1.11 Where stratified deposits are encountered a Harris matrix will be compiled during the course of the excavation.
- A.1.12 Plans will normally be drawn at 1:100, but on urban or deeply stratified sites a scale of 1:50 or 1:20 will be used. Detailed plans will be at an appropriate scale. Burials will be drawn at scale 1:10 or recorded using geo-referenced digital photography.
- A.1.13 The site grid will be accurately tied into the National Grid and located on the 1:2500 or 1:1250 map of the area.
- A.1.14 A register of plans will be kept.
- A.1.15 Long sections of showing layers will be drawn at 1:50. Sections of features or short lengths of trenches will be drawn at 1:20.
- A.1.16 A register of sections will be kept.
- A.1.17 Generally, all sections will be tied in to Ordnance Datum.
- A.1.18 A full photographic record, illustrating in both detail and general context the principal features and finds discovered will be maintained. The photographic record will also include working shots to illustrate more generally the nature of the archaeological work.
- A.1.19 Photographs will be recorded on OA Photographic Record Sheets.

A.2 Relevant industry standards and guidelines

- A.2.1 The Chartered Institute for Archaeologists (CIfA) Standard and Universal guidance notes relevant to fieldwork are:

- Standard for archaeological field evaluation, 2023
- Standard for archaeological excavation, 2023
- Standard for archaeological monitoring and recording, 2023
- Universal guidance for archaeological field evaluation, 2023
- Universal guidance for excavation, 2023
- Universal guidance for archaeological monitoring and recording, 2023

- A.2.2 These will be adhered to at all times.

A.3 Relevant OA manual and other supporting documentation

- A.3.1 All fieldwork will be undertaken in accordance with the requirements of the OA Field Manual (ed. D Wilkinson 1992), and the revised OA fieldwork manual (publication forthcoming).

- A.3.2 Further guidance is provided to all excavators in the form of the OA 'Fieldwork Crib Sheets - a companion guide to the Fieldwork Manual'. These have been issued ahead of formal publication of the revised Fieldwork Manual.

APPENDIX B GEOMATICS AND SURVEY

B.1 Standard methodology - summary

- B.1.1 The aim of OA methodology is to provide comprehensive survey cover of all investigation areas. Additionally, it is designed to provide coverage for any areas, beyond the original scope of the project, which arise as a result of further work. It provides digital plans of all required elements of the project and locates them within an overall grid.
- B.1.2 It also maintains all necessary survey data and ensures that the relevant information is copied into the primary record, in order to ensure the integrity of the project archive. Furthermore, it ensures that all core data is securely stored and backed up. It establishes accurate project reference systems utilising a series of control stations and permanent base lines.
- B.1.3 The survey will be conducted using a combination of GPS/GNSS (Global Positioning System/Global Navigation Satellite System), hand-measured elements, Total Station Theodolite (TST) survey utilising Reflectorless Electronic Distance Measurement (REDM), or photogrammetry where appropriate.
- B.1.4 Before the main work commences, a network of control stations will be laid out encompassing the area as necessary. Control stations will be tied in to known points or existing features using rigorous metric observation. The control network will be set in using a TST to complete a traverse or using techniques as appropriate to ensure sufficient accuracy. A GNSS, or other appropriate method, will be used to orientate the control network to National Grid or other recognised coordinate system.
- B.1.5 Control stations will be checked by closed traverse and/or GNSS, as appropriate. The accuracy of these control stations will be accessed on a regular basis and re-established accordingly. Control stations will be recorded on Survey Control Station sheets.
- B.1.6 Each control station will be marked with a PGM (Permanent Ground Marker). Witness diagrams will include the full 3-D co-ordinates generated, a sketch diagram and measurements to at least three fixed details, written description of the mark and a photograph of the control point in its environs.
- B.1.7 Prior to entry into the field all equipment will be checked, and all pre-survey information will be uploaded onto survey equipment as appropriate. Prior to conducting the survey, the site will be reconnoitred for locations for a viable control network and check the line of sight and any possible hindrance to survey. Daily record sheets will be kept recording daily tasks and conditions as appropriate.
- B.1.8 All spatial data will be periodically downloaded uploaded and backed up to our central servers via ftp. It will be cleaned, validated and inspected.

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- B.1.9 All survey data will be documented on daily survey record sheets as necessary. Information entered on these sheets includes key set up information (Instrument height etc.) as well as daily variables and errors/comments. All survey data will be digitally recorded in a raw format and translated during the download process this shall allow for any errors to be cross referenced with the daily survey record and corrected accordingly.
- B.1.10 A summary of survey work will be produced as needed to access development and highlight problems. Technical support for the survey equipment and download software shall be available at all times. In those instances, where sites are remotely operated, all digital data will be backed up regularly via ftp to Oxford on a regular basis.
- B.1.11 A site plan will initially be created by a rapid survey of relevant archaeological features by mapping their extent using a combination of TST and GNSS. This will form the basis for deciding excavation strategy and will be updated as the excavation clarifies the extent of, and relationships between, archaeological features.
- B.1.12 Areas of complex stratigraphy will be hand drawn or recorded by photogrammetry as appropriate. Where hand drawn, at least two Drawing Points (DPs) will be set in as a baseline and measurements taken off this by tape and offset. The hand drawn plans will be referenced to the digitally captured pre-site plan by measuring in the DPs with a TST or GNSS. These hand drawn elements will then be scanned in, geo-referenced using the DPs as reference points and digitised following OA's digitising protocols. For further details on hand planning procedure please refer to the fieldwork guidelines.
- B.1.13 Photogrammetry may also be used to record standing structures or burials. This will be carried out in line with Standard OA procedures for photogrammetry.
- B.1.14 Survey data recorded in the field will be downloaded using appropriate downloading software, and saved as an AutoCAD Map DWG file, or an ESRI Shapefile. These files will be regularly updated and backed up with originals being stored on an OA server in Oxford.
- B.1.15 All drawings will be composed of closed polygons, polylines or points in accordance with the requirements of GIS construction and OA Geomatics protocols. Once created, additional GIS/CAD work will normally be carried out at the local OA central office or at on-site remote locations when appropriate. Support for all GIS/CAD work will be available from OA's Oxford Office during normal office hours. The aim of the GIS/CAD work is to produce workable draft plans, which can be produced as stand-alone products, or can be readily converted to GIS format. Any hand-drawn plans will be scanned and digitised on site in the first instance. Subsequent plans will be added to the main drawing as it develops.
- B.1.16 All plan scans will be numbered according to their plan site number. Digital plans will be given a standard new plan number taken out from the site plan index.
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B.1.17 Information (metadata) on all other digital files will be created and stored as appropriate. At the end of the survey all data recorded will be made available for archiving purposes.

B.2 Relevant industry standards and guidelines

B.2.1 Historic England, 2017 Understanding the Archaeology of Landscapes A Guide to Good Recording Practice

B.2.2 Historic England, 2015 Metric Survey Specifications for Cultural Heritage (3rd edn)

B.2.3 Historic England, 2016 Understanding Historic Buildings: A Guide to Good Recording Practice

B.2.4 Historic England, 2017 Photogrammetric Applications for Cultural Heritage: Guidance for Good Practice

B.3 Relevant OA manual and other supporting documentation

B.3.1 OA South Metric Survey, Data Capture and Download Procedures

B.3.2 OA South Digitising Protocols

B.3.3 OA South GIS Protocols

B.3.4 These will be superseded by the OA South Geomatics Manual (in progress).

APPENDIX C ENVIRONMENTAL EVIDENCE

C.1 Standard methodology – summary

C.1.1 Different environmental and geoarchaeological sampling strategies may be employed according to established research targets and the perceived importance of the strata under investigation. Where possible an environmental specialist(s) will visit the site to advise on sampling strategies. Sampling methods will follow guidelines produced by Historic England and Oxford Archaeology. A register of samples will be kept. Specialists will be consulted where non-standard sampling is required (e.g. TL, OSL or archaeomagnetic dating) and if appropriate will be invited to visit the site and take the samples.

C.1.2 Geoarchaeological sampling methods are site specific, and methodologies will be designed in consultation with the geoarchaeological manager on a site by site basis.

C.1.3 Bulk soil samples, where possible of 40 litres or 100% of a deposit if less is available, will be taken from potentially datable features and layers for flotation for charred plant remains and for the recovery of small bones and artefacts. Larger soil samples (up to 100L) may be taken for the complete recovery of animal bones, marine shell and small artefacts from appropriate contexts. Smaller bulk samples (general biological samples) of 10-20 litres will be taken from any waterlogged deposits present for the recovery of macroscopic plant remains and insects. Series of incremental 2L samples may be taken through buried soils and deep feature fills for the recovery of snails and/or waterlogged plant remains, depending on the nature of the

stratigraphy and of the soils and sediments. Columns will be taken from buried soils, peats and waterlogged feature fills for pollen and/or phytoliths, diatoms, ostracods and foraminifera if appropriate. Soil samples will be taken for soil investigations (particle size, organic matter, bulk chemistry, soil micromorphology etc.) and possibly for metallurgical analysis in consultation with the appropriate specialists.

- C.1.4 Bulk samples from dry deposits will be processed by standard water flotation using a modified Siraf-style machine and meshes of 0.25mm (flot) and 0.5 or 1mm depending on sediment type and like modes of preservation (residue). Heavy residues will be wet sieved, air dried and sorted. Samples taken exclusively for the recovery of bones, marine shell or artefacts will be wet sieved to 2mm. Waterlogged samples (1L sub-sample) and snail samples (2L) will be processed by hand flotation with flots and residues collected to 0.25mm (waterlogged plants) and 0.5mm (snails) respectively; these flots and residues will be sorted by the specialist. Samples specifically taken for insects, pollen, other microflora and microfauna, metallurgy and soil analysis will be submitted as whole earth to the appropriate specialists or processed following their instructions.

C.2 Relevant industry standards and guidelines

- C.2.1 Historic England, 2010 Waterlogged Wood: Guidelines on the recording, sampling, conservation and curation of waterlogged wood.
- C.2.2 Historic England, 2018 Waterlogged Organic Artefacts: Guidelines on their Recovery, Analysis and Conservation.
- C.2.3 Historic England, 2011 Environmental Archaeology. A guide to the theory and practice of methods, from sampling and recovery to post excavation, (2nd ed)
- C.2.4 Historic England, 1998 Dendrochronology: Guidelines on Producing and Interpreting Dendrochronological Dates (revision due 2021).
- C.2.5 University of Bradford, 2019 Archaeomagnetism: Magnetic Moments in the Past <https://www.brad.ac.uk/archaeomagnetism/>
- C.2.6 Historic England, 2008 Luminescence Dating. Guidelines on Using Luminescence Dating in Archaeology (revision due 2020).
- C.2.7 Historic England, 2008 Guidelines for the Curation of Waterlogged Macroscopic Plant and Invertebrate Remains (currently being revised).
- C.2.8 Historic England, 2015 Archaeometallurgy. Guidelines for Best Practice.
- C.2.9 Historic England, 2015 Geoarchaeology. Using Earth Sciences to Understand the Archaeological Record.
- C.2.10 Historic England, 2017 Organic Residue Analysis and Archaeology.
- C.2.11 Baker, P and Worley, F, 2019 Animal Bones and Archaeology: Recovery to archive. Historic England, London
- C.2.12 Bayliss, A and Marshall, P, 2022 Radiocarbon Dating and Chronological Modelling: Guidelines and Best Practices, Historic England, London

C.3 Relevant OA manual and other supporting documentation

C.3.1 Oxford Archaeology 2017. Environmental Sampling Guidelines, 4th ed.

APPENDIX D ARTEFACTUAL EVIDENCE**D.1 Standard methodology - summary**

- D.1.1 Before a site begins arrangements concerning the finds will be discussed with the Finds Team Leader. Information will be provided by the project manager about the nature of the site, the expected size and make-up of the finds assemblage and any site specific finds retrieval strategies. On-site requirements will be discussed and a conservator appointed who can be called on to make site visits if required. Special requirements regarding particular categories of material will be raised at this early stage for instance the likelihood of recovering assemblages of waterlogged material, large timbers, quantities of structural stone or ceramic building material. Specialists may be required to visit sites to discuss retrieval strategies.
- D.1.2 The project manager will supply the Finds Team Leader with contact details of the landowner of the site so that consent to deposit any finds resulting from the investigation can be sought.
- D.1.3 The on-site retrieval, lifting and short term packaging of bulk and small finds will follow the detailed guidelines set out in the OA Finds Manual (sections 2 and 3), First Aid for Finds and the UKIC conservation guidelines No.2.
- D.1.4 All finds recovered from site will be transported to an OA regional office for processing; local sites will return finds at the end of each day, away based sites at the end of each week. Special arrangements can be discussed for certain sites with the Team Leader before the start of a project. Larger long running sites may in some instances set up on-site processing units to deal with the material from a particular site.
- D.1.5 All finds qualifying as Treasure will be removed to a safe place and reported to the local Coroner according to the procedures relating to the Treasure Act (1996), and the Treasure (Designation) Order 2002. Where removal cannot be effected on the same working day as the discovery, suitable security measures will be taken to protect the finds from theft.
- D.1.6 Each box of finds will be accompanied by a finds context checklist itemising the finds within each box. The number of bags of finds from each context and individual small find from each context will be recorded. A member of the processing team will check the list when it arrives in the department. There are separate forms for finds recovered from fieldwalking.
- D.1.7 The processing programme is reviewed on a weekly basis and priorities are worked out after discussions with the Fieldwork Team Leader and the Post-excavation Team Leader. Project managers will keep the Finds Team Leader informed of any pressing deadlines that they are aware of. All finds from evaluations are dealt with as a matter of priority.
- D.1.8 All bulk finds are washed (where appropriate), marked, bagged and boxed by the processing team according to the guidelines set out in section 4 and 5 of the OA Finds Manual, First-aid for finds and the UKIC guidelines No.2. They

- must also take into account the requirements of the receiving museum. Primary data recording count and weight of fragments by material from each context is recorded on the site database.
- D.1.9 Unstable and sensitive objects are recorded onto the database and then packaged and stored in controlled environments according to their individual requirements. The advice of a conservator will be sought for sensitive objects in need of urgent conservation. All metalwork will be x-rayed prior to assessment (and to meet the requirements of most receiving museums).
- D.1.10 Finds recovered from the environmental sample processing will be incorporated into the main assemblage and added to the database.
- D.1.11 On completion of the processing and data entry a finds file for each archaeological investigation will be produced, a summary of which is available for the project manager. The assemblage is allocated an OA number for storage purposes. Bulk finds are stored on a roller racking system, metals in a secure controlled storage and organic finds are refrigerated where possible.
- D.1.12 The movement of finds in and out of the storage areas is strictly monitored and recorded. Carbon copy transit forms exist to record this information. Finds will not be removed from storage without the prior knowledge of the Finds Team Leader.
- D.1.13 Finds information summarised in the finds compendium is used to assess the finds requirements for the post excavation stages of the project. The Team Leader holds a list of all specialists used by OA (see below) both internal and external.
- D.1.14 On completion of the post excavation stage of the project the team prepares the finds assemblage for deposition with the receiving museum. Discussions will be held with the museum, the excavator and the Finds Team Leader to finalise any selection, retention or discard policy. Most museums issue strict guidelines for the preparation of archives for deposition with their individual labelling, packaging and recording requirements.
- D.2 Relevant industry standards and guidelines**
- D.2.1 ClfA, 2014 (updated 2020) Standard and guidance for the collection, documentation, conservation and research of archaeological materials
- D.2.2 Society of Museum Archaeologists, 1993 Selection, retention and dispersal of Archaeological Collections. Download available via <http://www.socmusarch.org.uk/publica.htm>)
- D.2.3 UKIC, 1983 Packaging and Storage of Freshly-Excavated Artefacts from Archaeological Sites. Conservation Guidelines No.2. Archaeology Section, United Kingdom Institute for Conservation.
- D.2.4 UKIC, 1988 Excavated Artefacts and Conservation: UK sites Revised Edition. Conservation Guidelines No.1. Archaeology Section, United Kingdom Institute for Conservation.

D.2.5 Watkinson, D E & Neal, V, 1998 First Aid for Finds (3rd edition). RESCUE & UKIC

D.3 Relevant OA manual and other supporting documentation

D.3.1 Allen, L, and Cropper, C (internal publication only) Oxford Archaeology Finds Manual.

APPENDIX E HUMAN REMAINS

E.1 Standard methodology - summary

E.1.1 Human remains will not be excavated without a relevant licence/faculty and, where applicable (for example, a post medieval cemetery), a risk assessment from the local environmental officer.

E.1.2 All human remains will be treated with due care and regard to the sensitivities involved, and will be screened from the public throughout the course of the works.

E.1.3 Excavation will be undertaken in accordance with ClfA (Roberts and McKinley 1993), Historic England (2018), the Advisory Panel on the Archaeology of Burials in England (APABE, 2015, 2017) and British Association of Biological Anthropology and Osteoarchaeology Code of Practice (2019) and Code of Ethics (2019). For crypts and post-medieval burials, the recommendations set out by the ClfA (Cox 2001) and by the Association of Diocesan and Cathedral Archaeologists and APABE (2010) are also relevant.

E.1.4 In accordance with recommendations set out in the Historic England and Church of England (2005) and updated by the Advisory Panel on the Archaeology of Burials in England (2017), skeletons will not be excavated beyond the limits of the trench, unless they are deemed osteologically or archaeologically important.

E.1.5 Where any soft tissue survives and/or materials (for example, inner coffins, mattresses and other paddings) soaked in body liquor, no excavation or handling of the remains will take place until an appropriate risk assessment has been undertaken. Relevant protocols (i.e. Cox 2001) for their excavation, recording and removal will be adhered to.

E.1.6 OA does not excavate or remove modern burials (those less than 100 years old) and does not remove or open sealed lead coffins. Appropriate PPE (e.g. chemical suit, latex gloves) will be worn by all staff when working with lead coffins.

E.1.7 Graves and their contents will be hand excavated in plan. Each component (for example, skeleton, grave cut, coffin (or remains of), grave fill) will be assigned a unique context number from a running sequence. A group number will also be assigned to all of these, and small finds numbers to features such as coffin nails, hobnails and other grave goods (as appropriate).

E.1.8 Soil samples will be normally taken during the excavation of inhumations, usually from the region of the skull, chest, right hand, left hand, abdomen and pelvis, right foot and left foot. Infants (circa. less than 5 years) will

- normally be recovered as bulk samples. Soil samples will also be taken from graves that appear to contain no human bone.
- E.1.9 Burials (including the skeleton, cremation, coffin fittings, coffin, urn, grave goods / other) will be recorded by photographic and written record using specialised pro forma context sheets, although these records may only include schematic representations of the location and position of the skeletons, depending on the nature and circumstances of the burial.
- E.1.10 Where digital imaging is used it will be done in accordance with the British Association of Biological Anthropology and Osteoarchaeology Recommendations on the Ethical Issues Surrounding 2D and 3D Digital Images of Human Remains (2019).
- E.1.11 Where necessary, hand drawn plans (usually at 1:10, sometimes 1:5) will be made, especially of contexts where required details cannot be adequately seen using photography (for example, urned cremations; undisturbed hob nails).
- E.1.12 Levels will be taken. For inhumations this will be on the skull, pelvis and feet as a minimum.
- E.1.13 Human remains that are exhumed will be bagged and labelled according to skeletal region and carefully packed into suitable containers (for example, acid free cardboard boxes) and transported to a suitable storage location. Any associated coffins and coffin fittings will be contained with the human remains wherever possible.
- E.1.14 Unurned cremations will not usually be half sectioned, but excavated in spits and/or quadrants (i.e. large deposits or spreads), or recovered as a bulk sample.
- E.1.15 Wherever possible, urned cremations will be carefully bandaged, recovered whole and will be excavated in spits in the laboratory, as per the recommendations of McKinley (2004, 2017).
- E.1.16 Unless deemed osteologically or archaeologically important disarticulated bone / charnel will be collected and reserved for re-burial if immediate re-internment as close to its original position is not practicable. In some instances, a rapid scan of this material may be undertaken by a qualified osteologist, if deemed relevant.
- E.1.17 If undisturbed, pyre sites will normally be excavated in quadrants, at the very least in 0.5 m blocks of 0.5 m spits.
- E.1.18 Pyre debris dumps will be half sectioned or quadrant and will be subject to 100% sampling.
- E.1.19 Wooden and lead coffins and any associated fittings, including fixing nails will be recorded on a pro forma coffin recording sheet. All surviving coffin fittings will be recorded by reference to Reeve and Adams (1993) and the unpublished master catalogue that is being compiled by OA. Where individual types cannot be paralleled, they will be drawn and/ or photographed and assigned a style number. Biographical details obtained from legible departum plate inscriptions will be recorded and further documentary research will be made.

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- E.1.20 Funerary structures, such as brick shaft graves and/or vaults will be recorded by photogrammetry or hand-drawn at a scale of 1:10 or 1:20, as appropriate. Location, dimensions and method of construction will be noted, and the structure added to the overall trench plan.
- E.1.21 Memorials, including headstones, revealed within the areas of development will be recorded irrespective of whether they are believed to be in situ.
- E.1.22 Where required, memorials will be accorded an individual context number and will also be included as part of the grave group, if the association with a burial is clear.
- E.1.23 Memorials will be recorded on pro-forma context sheets, based on and following the guidelines set out by Mytum (2002), and will include details of:
- Shape
 - Dimensions
 - Type of stone used
 - Condition, completeness and fragmentation of stones, no longer in original positions
 - Iconography (an illustration may best describe these features)
 - Inscription (verbatim record of inscription; font of the lettering)
 - Stylistic type
- E.2 Relevant industry standards and guidelines**
- E.2.1 Advisory Panel on the Archaeology of Burials in England, 2013 Science and the Dead. A guideline for the destructive sampling of archaeological human remains for scientific analysis. English Heritage Publishing.
- E.2.2 Advisory Panel on the Archaeology of Burials in England, 2017 Guidance for Best Practice for the Treatment of Human Remains Excavated from Christian Burial Grounds in England
- E.2.3 Advisory Panel on the Archaeology of Burials in England, 2015 Large Burial Grounds. Guidance on sampling in archaeological fieldwork projects
- E.2.4 Association of Diocesan and Cathedral Archaeologists and APABE, 2010 Archaeology and Burial Vaults. A guidance note for churches. Guidance Note 2
- E.2.5 British Association of Biological Anthropology and Osteoarchaeology. 2019a Code of Practice (<http://www.babao.org.uk/index/ethics-and-standards>)
- E.2.6 British Association of Biological Anthropology and Osteoarchaeology. 2019b Code of Ethics (<http://www.babao.org.uk/index/ethics-and-standards>)
- E.2.7 British Association of Biological Anthropology and Osteoarchaeology, 2019c Recommendations on the Ethical Issues Surrounding 2D and 3D Digital Images of Human Remains (<http://www.babao.org.uk/index/ethics-and-standards>)
- E.2.8 Cox, M, 2001 Crypt archaeology. An approach. ClfA Paper No. 3
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- E.2.9 English Heritage, 2002 Human Bones from Archaeological Sites. Guidelines for producing assessment documents and analytical reports
- E.2.10 Historic England, 2018 The Role of the Human Osteologist in an Archaeological Fieldwork Project. Swindon, Historic England
- E.2.11 McKinley, J, and Roberts, C, 1993 Excavation and post-excavation treatment of cremated and inhumed human remains, ClfA Technical Paper No. 13
- E.2.12 McKinley, J, 2004 Compiling a skeletal inventory: cremated human bone. In Brickley, M, and McKinley, J (eds) Guidelines to the Standards for Recording Human Remains, ClfA Technical Paper No. 7. 9-13
- E.2.13 McKinley, J, 2017 Compiling a skeletal inventory: cremated human bone. In Mitchell P, and Brickley, M (eds) Updated Guidelines to the Standards for Recording Human Remains, ClfA 14-19
- E.2.14 Mitchell P, and Brickley, M (eds) Updated Guidelines to the Standards for Recording Human Remains, ClfA 2017
- E.2.15 Mytum, H, 2000 Recording and Analysing Graveyards. CBA Handbook No. 15
- E.2.16 Reeve, J, and Adams, M, 1993 The Spitalfields Project. Volume I – The Archaeology Across the Styx. CBA Research Report No. 85
- E.2.17 The Human Tissue Act 2004
- E.3 Relevant OA manual and other supporting documentation**
- E.3.1 Loe, L, 2008 The Treatment of Human Remains in the Care of Oxford Archaeology. Oxford Archaeology internal policy document
- E.3.2 Oxford Archaeology 2018 *Fieldwork Manual Human Remains* unpublished

APPENDIX F REPORTING

F.1 Standard methodology - summary

- F.1.1 For Watching Briefs and Evaluations, the style and format of the report will be determined by OA, but will include as a minimum the following:
- A location plan of trenches and/or other fieldwork in relation to the proposed development.
 - Plans and sections of features located at an appropriate scale.
 - A section drawing showing depth of deposits including present ground level with Ordnance Datum, vertical and horizontal scale.
 - A summary statement of the results.
 - A table summarising the features, classes and numbers of artefacts contained within, spot dating of significant finds and an interpretation.
 - A reconsideration of the methodology used, and a confidence rating for the results.
 - An interpretation of the archaeological findings both within the site and within their wider landscape/townscape setting.

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- F.1.2 For Excavations, a Post-Excavation Assessment and Project Design will generally be prepared, as prescribed by Historic England Management of Research Projects in the Historic Environment (MoRPHE) 2015, Section 2.3. This will include a Project Description containing:
- A summary description and background of the project.
 - A summary of the quantities and assessment of potential for analysis of the information recovered for each category of site, finds, dating and environmental data. Detailed assessment reports will be contained within appendices.
 - An explicit statement of the scope of the project design and how the project relates to any other projects or work preceding, concurrent with or following on from it.
 - A statement of the research aims of the fieldwork and an illustrated summary of results to date indicating to what extent the aims were fulfilled.
 - A list of the project aims as revised in the light of the results of fieldwork and the current post-excavation assessment process.
- F.1.3 A section on Resources and Programming will also be produced, containing:
- A list of the personnel involved indicating their qualifications for the tasks undertaken, along with an explanation of how the project team will communicate, both internally and externally.
 - A list of the methods which will be used to achieve the revised research aims.
 - A list of all the tasks involved in using the stated methods to achieve the aims and produce a report and research archive in the stated format, indicating the personnel and time in days involved in each task. Allowance should be made for general project-related tasks such as monitoring, management and project meetings, editorial and revision time.
 - A cascade or Gantt chart indicating tasks in the sequence and relationships required to complete the project. Due allowance will be made for leave and public holidays. Time will also be allowed for the report to be read by a named academic referee as agreed with the County Archaeological Officer, and by the County Archaeological Officer.
 - A report synopsis indicating publisher and report format, broken down into chapters, section headings and subheadings, with approximate word lengths and numbers and titles of illustrations per chapter. The structure of the report synopsis should explicitly reflect the research aims of the project.
- F.1.4 The Project Design will be submitted to the County Archaeological Officer or equivalent for agreement.
- F.1.5 Under certain circumstances (e.g. with very small mitigations), and as agreed with the County Archaeological Officer or equivalent, a formal Assessment
-

and Project Design may not be required and either the project will continue straight to full analysis, or a simple Project Proposal (MoRPHE 2015 Section 2.1) will be produced prior to full analysis. This proposal may include:

- A summary of the background to the project
- Research aims and objectives
- Methods statement outlining how the aims and objectives will be achieved
- An outline of the stages, products and tasks
- Proposed project team
- Estimated overall timetable and budget if appropriate.

F.1.6 Once the post-excavation Project Design or Project Proposal has been accepted, the County Archaeological Officer or their appointed deputy will monitor the progress of the post-excavation project at agreed points. Any significant variation in the project design will be agreed with the County Archaeological Officer.

F.1.7 The results of the project will be published in an appropriate archaeological journal or monograph. The appropriate level of publication will be dependent on the significance of the fieldwork results and will be agreed with the County Archaeological Officer. An OASIS (Online Access to the Index of Archaeological Investigations) form will be completed for each project as per Historic England guidelines.

F.2 Relevant industry standards and guidelines

F.2.1 Oxford Archaeology (OA) adheres to the national standards in post-excavation procedure as outlined in Historic England's Management of Research Projects in the Historic Environment (MoRPHE; HE 2015). Furthermore, all post-excavation projects take into account the appropriate regional research frameworks as well as national research agendas such as the Framework for Historic Environment Activities & Programmes in Historic England (SHAPE; EH 2008).

APPENDIX G LIST OF SPECIALISTS REGULARLY USED BY OA

G.1.1 Below are two tables, one containing 'in-house' OA specialists, and the other containing a list of external specialists who are regularly used by OA.

Internal archaeological specialists used by OA

Specialist	Specialism	Qualifications
John Cotter	Medieval and Post Medieval pottery, Clay Pipe and CBM	BA (Hons), MCIfA
Dr Alex Davies	Prehistoric Pottery	BA (Hons), MA, PhD, ACIfA
Edward Biddulph	Roman Pottery	BA (Hons), MA, MCIfA
Kate Brady	Roman Pottery	BA, ACIfA
Kirsty Smith	CBM and Fired Clay	BA (Hons), MA, ACIfA

Specialist	Specialism	Qualifications
Leigh Allen	Metalwork and worked bone	BA (Hons), PGDip
Anni Byard	Metalwork, coins and glass	MSx, MCIfA
Dr Ruth Shaffrey	Worked stone artefacts	BA, PhD, MCIfA
Dr Rebecca Nicholson	Fish and Bird Bone	BA (Hons), MA, D.Phil, MCIfA, FSA Scot
Ian Smith	Animal Bone	BA (Hons), MSc, PCIfA
Dr Martyn Allen	Animal Bone	BA (Hons), MA, PhD
Adrienne Powell	Animal Bone	BA (Hons), MA
Dr Denise Druce	Archaeobotany	BA (Hons), PhD, MCIfA
Sharon Cook	Archaeobotany	BSc, MSc, ACIfA
Julia Meen	Archaeobotany	BA (Hons), MA, ACIfA
Elizabeth Stafford	Geoarchaeology and land snails	BA (Hons), MSc
Carl Champness	Geoarchaeology	BA (Hons), MSc, ACIfA
Nicola Scott	Archaeological archive deposition	BA (Hons Dunelm)
Mike Donnelly	Flint	BSc, MCIfA
Dr Louise Loe	Human Bone	BA PhD, MCIfA, BABAO, FSA
Helen Webb	Human Bone	BSc, MSc, MCIfA, BABAO
Mark Gibson	Human Bone	BA, MSc, ACIfA, BABAO
Dr Lauren McIntyre	Human Bone	BSc, MSc, PhD, MCIfA, BABAO
Annsophie Witkin	Human Bone	BA (Hons), PhD, BABAO
Zoe Ui Choileain	Human Bone	Pg Dip, MA, Msc, BABAO
Natasha Dodwell	Human Bone	BA, MSc, BABAO

External archaeological specialists regularly used by OA

Specialist	Specialism	Qualifications
Lynne Keys	Slag	BA (Hons)
Quita Mould	Leather	BA, MA
Penelope Walton Rogers, The Anglo Saxon Laboratory	Identification of Medieval Textiles	FSA, Dip.Acc
Dana Goodburn-Brown	Conservation	BSc (Hons), BA, MSc
Steve Allen, York Archaeological Trust	Conservation	BA, MA, MAAIS
Dr Richard Macphail	Soils, especially Micromorphology	BA (Hons), MSc, PhD
Dana Challinor	Charcoal	MA, MSc
Dr Nigel Cameron	Diatoms	BSc, MSc, PhD
Dr David Smith	Insects	BA (Hons), MA, PhD

Specialist	Specialism	Qualifications
Professor Adrian Parker	Phytoliths and pollen	BSc (Hons), D.Phil
Dr David Starley	Metalworking Slag	BSc (Hons), PhD
Wendy Carruthers	Charred and waterlogged plant remains	BA (Hons)
Dr John Whittaker	Ostracods and Foraminifera	BA (Hons), PhD
Dr John Crowther	Soil Chemistry	MA, PhD
Dr Martin Bates	Geoarchaeology	BSc, PhD
Dr Dan Miles	Dendrochronology	D.Phil, FSA
Dr Jean-Luc Schwenninger	Optically Stimulated Luminescence Dating	PhD
Dr David Higgins	Clay Pipe	BA, PhD, MCIfA
Dr Hugo Anderson-Wymark	Flint	BSc, PhD, FSA Scot, MCIfA
Dr Damian Goodburn-Brown	Ancient Woodwork	BA, PhD
Dr David Dungworth	Archaeometallurgy and Glassworking	BA (Hons), PhD

APPENDIX H DOCUMENTARY ARCHIVING

H.1 Standard methodology – summary

- H.1.1 The documentary archive constitutes all the written, drawn, photographic and digital records relating to the set-up, fieldwork and post-excavation phases of the project. This documentary archive, together with the artefactual and environmental ecofact archive collectively forms the record of the site. The report is part of the documentary archive, and the archive must provide the evidence that supports the conclusions of the report, but the archive may also include data which exceeds the limitations of research parameters set down for the report and which could be of significant value to future researchers.
- H.1.2 At the outset of the project OA Archive manager will contact the relevant local receiving museum or archive repository to notify them of the imminent start of a new fieldwork project in their collecting area. Relevant local archiving guidelines will be observed and site codes, which integrate with the receiving repository, will be agreed for labelling of archives and finds.
- H.1.3 Where there is currently no receiving museum for the project archive, although responsibility for the archive ultimately lies with the client, OA will hold the archive on their behalf for a period of up to 3 years after completion of the report, after which time (in the event that a suitable depository has not been secured) provision for further storage of the archive will be made in agreement with Oxford Archaeology, the client and the relevant planning archaeologist.
- H.1.4 During the course of the project the Archive team will assist the Project Manager in the management of the archive including the cataloguing and development technique suitable for photographic archive requirements.

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- H.1.5 The hard copy site archive will be security copied by scanning to PdFA and a copy of this will be housed on the OA Archive Server. A full digital copy of the archive, including scanned hard copy and born digital data, will be deposited with and made publicly available on-line through the ADS. A further copy will be maintained on the OA server and if requested a copy on disk will also be sent to the receiving museum with the hard copy. This will act as a safeguard against the accidental loss and the long-term degeneration of paper records and photographs.
- H.1.6 Born digital data will only be printed to hard copy for the receiving museum where practical. Archive elements that need maintaining in digital form will be sent to ADS in accordance with Arches Standard and ADS guidelines. A copy will be sent to the receiving museum by CD and back-up copies will be stored on the OA digital network. In most cases a digital copy of the report will be included in the OASIS project library hosted by ADS.
- H.1.7 Prior to deposition the Archive team will contact the museum regarding the size and content of the archive and discuss any retention and dispersal policies which may be applicable in line with local and SMA Guidelines ' Selection, Retention & Dispersal of Archaeological Collections' 1993.
- H.1.8 The site archive will then be deposited with the relevant receiving museum or repository at the earliest opportunity unless further archaeological work on the site is expected. The documentary archive will include correspondence detailing landowner consent to deposit the artefacts and any copyright licences in accordance with the receiving museum guidelines. Deposition charges will be required from the client as part of the project costs, but the level of the fee is set by the receiving body and may be subject to change during the lifespan of the project. Changes to archiving charges beyond OA's control will be passed across to the client.
- H.1.9 Oxford Archaeology will retain full copyright of any commissioned reports, tender documents, or other project documents, under the Copyright, Designs and Patents Act 1988 with all rights reserved; excepting that it will provide the receiving repository or museum for the archive with a full licence for use to the client in all matters directly relating to the project as described in the Written Scheme of Investigation, and in line with the relevant receiving body guidelines.
- H.1.10 OA will advise the receiving repository or museum for the archive of 3rd party materials supplied in the course of projects which are not OA's copyright.
- H.1.11 OA undertakes to respect all requirements for confidentiality about the client's proposals provided that these are clearly stated. It is expected that such conditions shall not unreasonably impede the satisfactory performance of the services required. Archaeological findings and conclusions can be kept confidential for a limited period but will be made publicly available in line with the above procedure either after a specified time period agreed with the client at the outset of the project, or where no such period is agreed, after a reasonable period of time. It is expected that clients respect OA's general ethical obligations not to suppress significant archaeological data for an unreasonable period.
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H.2 Relevant industry standards and guidelines

- H.2.1 At the end of the project the site archive will be ordered, catalogued, labelled and conserved and stored according to the following national guidelines:
- H.2.2 EAC, 2014 A Standard and Guide to Best Practice for Archaeological Archiving in Europe (EAC Guidelines 1)
- H.2.3 ClfA, 2014 (Updated 2020) Standard and Guidance for the Creation, Compilation, Transfer and Deposition of Archaeological Archives
- H.2.4 Brown, D, 2011 Archaeological Archives A Guide to Best Practice in Creation, Compilation, Transfer and Curation. AAF
- H.2.5 UKIC, 1990 Guidelines for the preparation of excavation archives for long-term storage
- H.2.6 SMA, 2020 Standards and Guidance in the Care of Archaeological Collections
- H.2.7 Local museum guidelines such as Museum of London Guidelines: (<http://www.museumoflondonarchaeology.org.uk/English/ArchiveResearch/DeposResource>) will be adopted where appropriate to the archive collecting area.
- H.2.8 The site archive will be prepared to at least the minimum acceptable standard defined in Management of Archaeological Projects 2, Historic England 1991.

H.3 Relevant OA manual and other supporting documentation

- H.3.1 The OA Archives Policy.

APPENDIX I HEALTH AND SAFETY**I.1 Standard Methodology - summary**

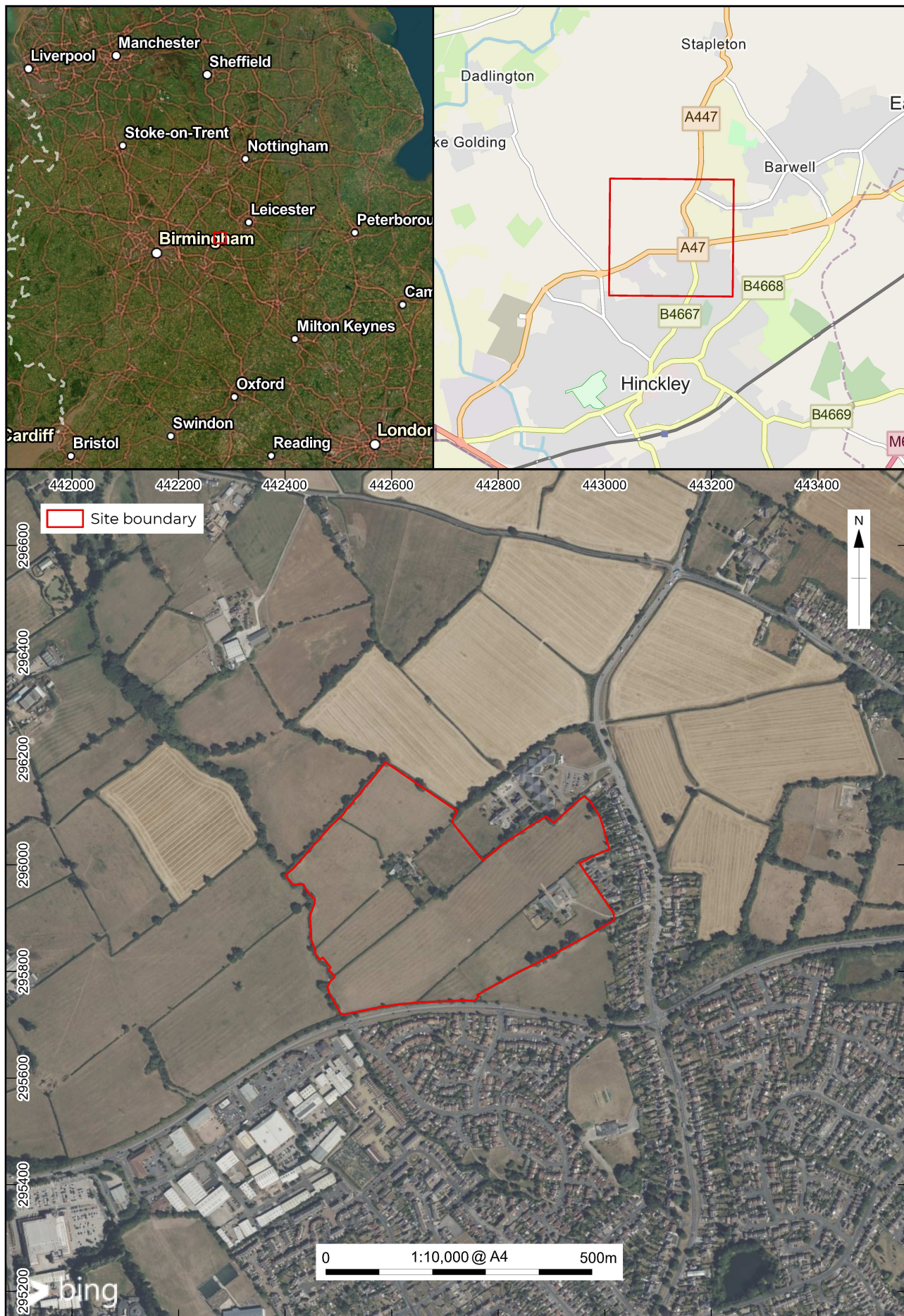
- I.1.1 All work will be undertaken in accordance with the current OA Health and Safety Policy, the OA Site Safety Procedures Manual, a site-specific Risk Assessment and, if required, Safety Plan or Method Statement. Copies of the site-specific documents will be submitted to the client or their representative for approvals prior to mobilisation, and all relevant H and S documentation will be available on site at all times. The Health and Safety documentation will be read in conjunction with the project WSI.
- I.1.2 Where a project falls under the Construction (Design and Management) Regulations (2015), all work will be carried out in accordance with the Principal Contractor's Construction Phase Plan (CPP).

I.2 Relevant industry standards and guidelines

- I.2.1 All work will be carried out according to the requirements of all relevant legislation and guidance, including, but not exclusively:
- I.2.2 The Health and Safety at Work Act (1974).
- I.2.3 Management of Health and Safety at Work Regulations (1999).
- I.2.4 Manual Handling Operations Regulations 1992 (as amended).

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- I.2.5 The Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (2013).
 - I.2.6 The Construction (Design and Management) Regulations (2015).
 - I.2.7 Relevant OA manual and other supporting documentation
 - I.2.8 The OA Health and Safety Policy.
 - I.2.9 The OA Site Safety Procedures Manual.
 - I.2.10 The OA Risk Assessment templates.
 - I.2.11 The OA Method Statement template.
 - I.2.12 The OA Construction Phase Plan template.

X:\n\Hinckley_Ashby_Road\Geomatics_ArcPro\02_GIS Projects\Figures\Hinckley_Ashby_Rd_2024-05-09_Figure_1_(WSI).aprx*benjamin.brown 09/05/2024



World Imagery: Earthstar Geographics
OpenStreetMap: Map data © OpenStreetMap contributors, Microsoft, Facebook, Inc.

Figure 1: Site location

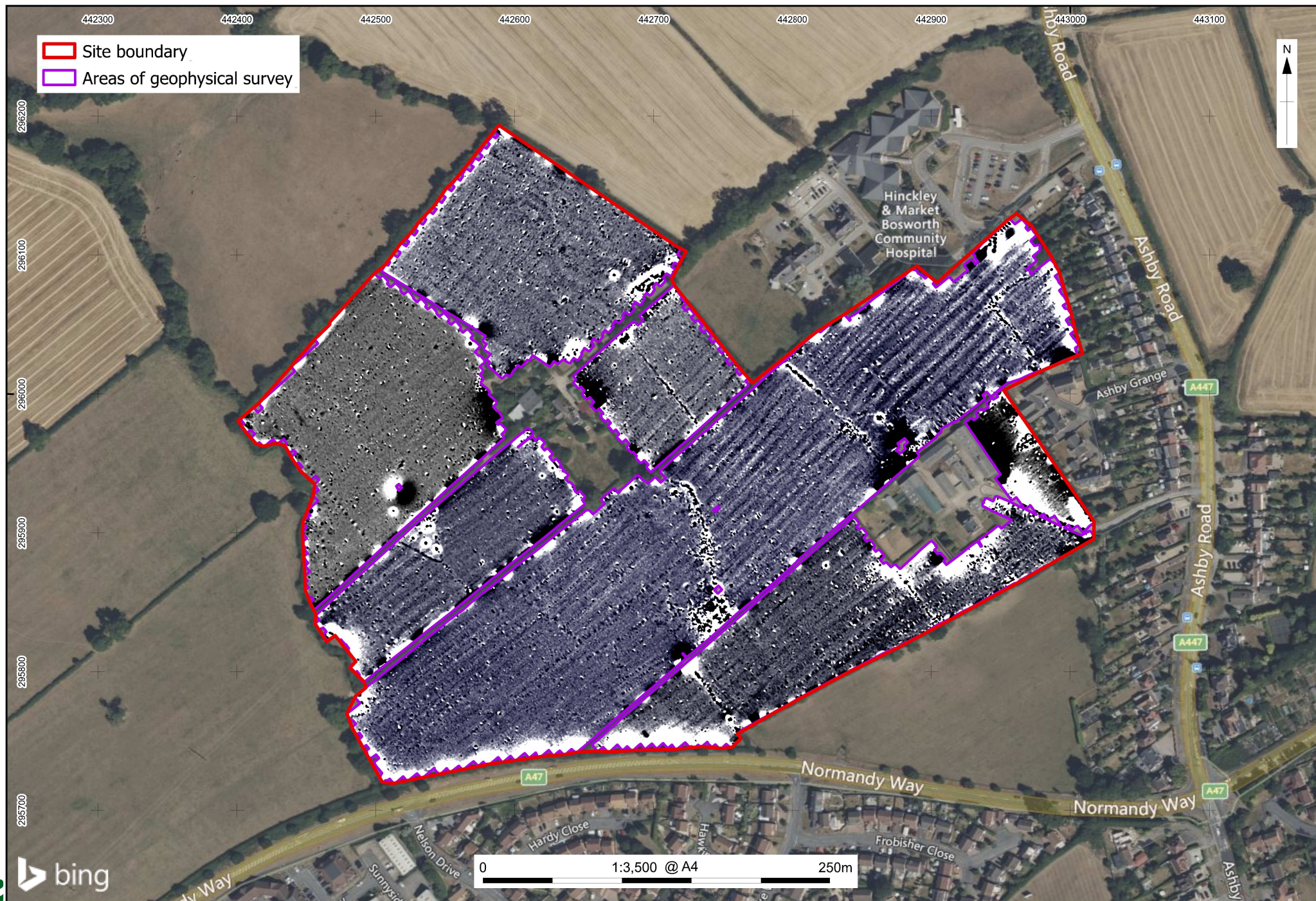


Figure 2: Survey location

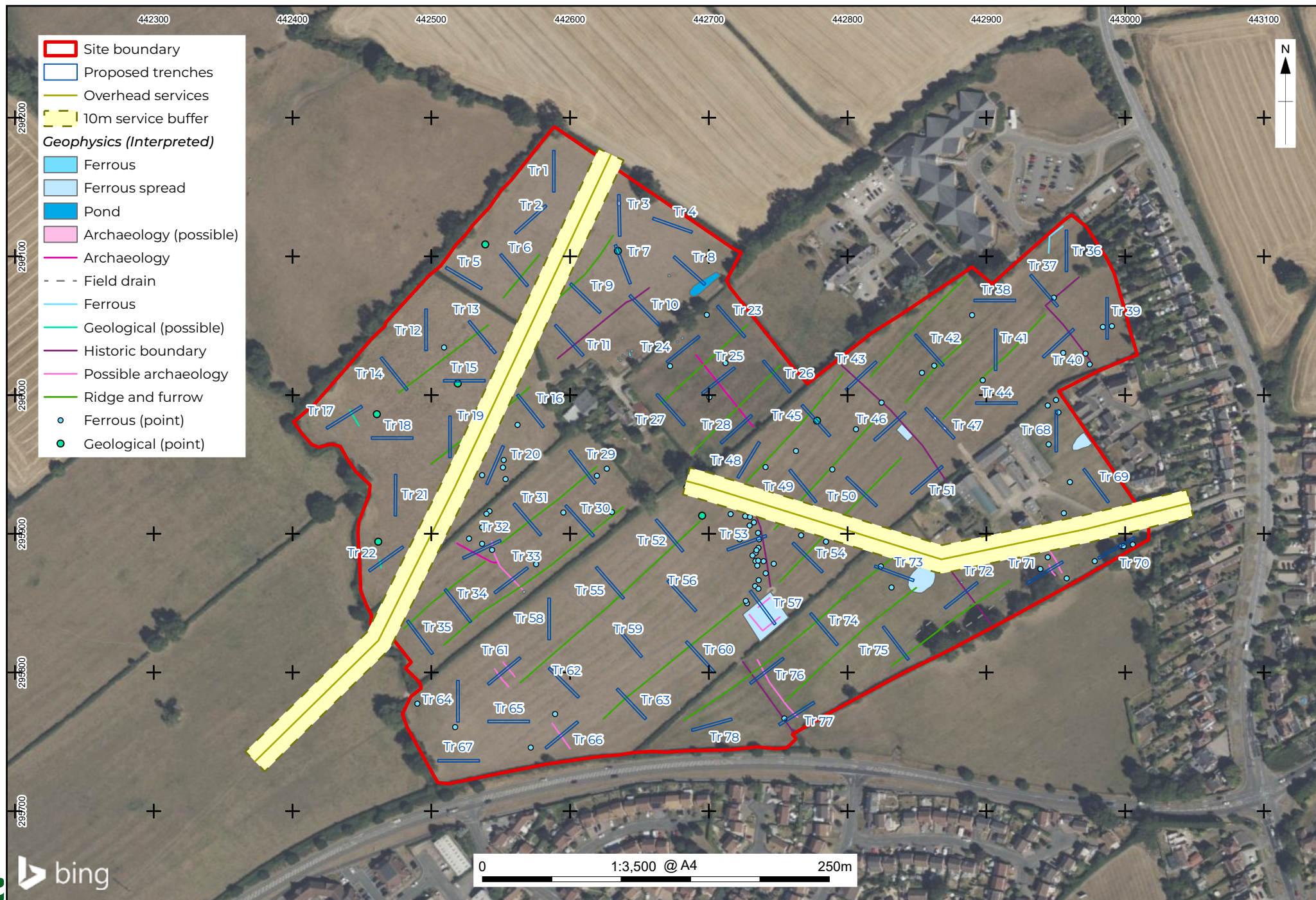


Figure 3: Trench layout with interpretative geophysics



Figure 4: Trench layout with LiDAR, photogrammetry and multispectral analysis

Cambridge office

15 Trafalgar Way,
Bar Hill,
Cambridgeshire, CB23 8SQ
T: +44(0)1223 850500
E: info@oxfordarchaeology.com

Lancaster office

Mill 3,
Moor Lane,
Lancaster, LA1 1QD
T: +44(0)1524 541000
E: info@oxfordarchaeology.com

Oxford office

Janus House,
Osney Mead,
Oxford OX2 0ES
T: +44(0)1865 980700
E: info@oxfordarchaeology.com
W: <http://oxfordarchaeology.com>



Chief Executive Officer
Ken Welsh, BSc, MCIfA, FSA
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