

Written Scheme of Investigation

Archaeological Excavation at Banbury Rise, Banbury Oxfordshire

Project reference: P6519
Planning Condition: 22/02101/OUT
Date: 28th June 2023
Status: Version 3 (final)
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Written Scheme of Investigation

Archaeological Excavation at Banbury Rise, Banbury, Oxfordshire

1 Introduction

Worcestershire Archaeology (WA) has been requested to prepare a Written Scheme of Investigation (WSI) for the excavation of an archaeological site at Banbury Rise, Banbury, Oxfordshire (the Site; Figure 1; NGR SP 43423 40229).

The WSI has been requested by Cathy Patrick of Orion Heritage (the Consultant) on behalf of Bloor Homes Ltd (Western) (the Client).

The WSI is intended for submission for approval to the Curator prior to commencement of the works which are required in advance of residential development of the Site for which an outline planning application has been submitted to Cherwell District Council (ref 22/02101/OUT) and for which a resolution to grant has been issued.

The WSI is submitted in order to fulfil Condition 15 which will be attached to the planning consent which is as follows:

15. Prior to any demolition and the commencement of the development a professional archaeological organisation acceptable to the Local Planning Authority shall prepare an Archaeological Written Scheme of Investigation, relating to the application site area, which shall be submitted to and approved in writing by the Local Planning Authority.

Reason - To safeguard the recording of archaeological matters within the site in accordance with the NPPF (2021).

The WSI details the approaches and methods to be used by WA in delivering a programme of archaeological mitigation (excavation) required for the Site in order to fulfil Planning Condition 16:

16. Following the approval of the Written Scheme of Investigation referred to in condition 15, and prior to any demolition on the site and the commencement of the development (other than in accordance with the agreed Written Scheme of Investigation), a programme of archaeological mitigation shall be carried out by the commissioned archaeological organisation in accordance with the approved Written Scheme of Investigation. The programme of work shall include all processing, research and analysis necessary to produce an accessible and useable archive and a full report for publication which shall be submitted to the Local Planning Authority within two years of the completion of the archaeological fieldwork.

Reason – To safeguard the identification, recording, analysis and archiving of heritage assets before they are lost and to advance understanding of the heritage assets in their wider context through publication and dissemination of the evidence in accordance with the NPPF (2021).

No Brief has been requested, however, discussions between the Consultant and Victoria Green, Archaeological Planning Advisor to Cherwell District Council (the Curator) have

defined a Mitigation Area (Figures 2 and 3) and sampling levels to be employed during the excavation as described in this WSI (see Section 5.3).

This WSI, and the excavation samples included within it, have been prepared in line with Oxfordshire Council's standard excavation brief.

It is noted that the westernmost part of the northern field and the westernmost part of the southern field are excluded from the archaeological mitigation area; these areas are shown in brown on Figures 2 and 3. These two areas will be fenced off prior to commencement of the archaeological investigations and will remain fenced off for the duration of the archaeological works. These areas will be fenced off prior to and throughout the construction works to ensure that there are no impacts. As part of the proposed development, the areas shown in brown on Figures 2 and 3 will be excluded from any form of development; they will be sown with grass and paths will be mown; there will be no soft landscaping and there will be no planting.

An updated masterplan showing the areas of public open space which now exclude wooded planting will be submitted to Cherwell District Council as part of the reserved matters application. It is noted that the reserved matters application has not been submitted at the time of preparing this WSI. If the reserved matters are not approved or if they differ from the plans submitted with this WSI, it is noted that further archaeological mitigation will be required and this WSI will be updated accordingly.

The exclusion of these two areas has been agreed with Victoria Green, archaeological advisor to Cherwell District Council (5th June 2023).

2 Archaeological Background

The archaeological background to the Site is provided by a staged programme of evaluation comprising the following:

- Geophysical Survey (Archaeological Surveys Ltd, February 2022)
- Desk-Based Assessment (Orion Heritage, June 2022),
- Evaluation trenching (Worcestershire Archaeology, January 2023).

The results from this work can be summarised as follows:

The geophysical survey identified the presence of archaeological features across the site, including linear boundary features, pit alignments, ring ditches, groups of pits, and an enclosure. One hundred trenches were subsequently excavated across the two fields involved, with the trenches laid out to target both geophysical anomalies and apparently blank areas. The results of the geophysical survey were found to be broadly accurate.

Archaeological activity was present across the site, though focussed in specific areas with 'blank' areas between. The main phase of activity is prehistoric, characterised by clusters of pits and ring ditch features within two large curvilinear boundary ditches towards the southern extent of the site. This appears to form the north-west corner of a larger, double-ditched curvilinear enclosure, and it is likely that settlement activity is present within this to the south and east of the site. While the majority of finds recovered from these features date to the Iron Age, the presence of a few sherds of Bronze Age and Roman pottery suggest that activity spanned a broad time period. Flint flakes

recovered as surface finds in the southern field are thought likely to reflect earlier episodes of seasonal activity within the landscape during the Neolithic and Early Bronze Age periods.

Three pit alignments were identified in the northern field and likely date from the later Bronze Age to Iron Age period. A number of undated ditches were also identified to the north of the curvilinear boundary ditches, and appear to either be contemporary with, or later than, the prehistoric activity. Due to their form and the lack of finds recovered from these ditches, it is likely that these features form part of the surrounding agricultural landscape, and they may have been contemporary with the large boundary ditches. Two small ring gully features were identified outside of the external boundary ditch. These may also be contemporary with the main phase of prehistoric activity, possibly in use as seasonal shelters or small enclosures.

Post-medieval agricultural activity was also present across the site, consisting of furrows on a number of different alignments, and a possible small enclosure in the southern field. The differing alignments of furrows indicate a long period of agricultural use, possibly extending back into the medieval period.

The prehistoric activity identified has been assessed as likely to be of local to regional significance with the potential to contribute to specific regional research aims and following consultation between the Client, Consultant and Curator defined areas of mitigation excavation have been approved as shown on Figures 2 and 3.

The underlying geology comprises bedrock of Marlstone Rock formation across the majority of the Site, with an area of Northampton Sand formation and Chipping Norton Limestone formation in the south-east corner of the site (BGS 2022).

The Client should be aware that buried archaeological evidence can be very variable, and that the Evaluation results on which this WSI is based may not accurately specify what may exist on this particular site.

3 Aims and objectives

The aims and objectives for the project can be defined as follows:

- *Double ditched enclosure*
To undertake sample excavation in order to determine the extents, survival, date and character of the prehistoric double ditched curvilinear enclosure, internal activity areas and associated landscape boundaries within the defined Mitigation Area.

Whilst the full extents of the enclosure will not be possible to project accurately from the small portion to be investigated through this current project, excavation of the clusters of activity present will characterise this part of the wider enclosure site. This also has the potential to inform understanding of the dating and character of settlement and other activity areas liable to lie to the south and east within the remainder of the projected enclosure but outside of the development footprint.

- *Pit alignments*
To undertake sample excavation of the pit alignments in order to determine their extents, survival, date and character within the defined mitigation area. Such

landscape features are a commonly recognised prehistoric site type, most commonly of Later Bronze Age or Iron Age date and the project will aim to securely date these features and develop an understanding of early landscape division in this area prior to establishment of the later prehistoric enclosure.

- *Earlier prehistoric activity*
To determine the presence or absence of dispersed earlier prehistoric features associated with seasonal activity in the Neolithic to Early Bronze Age within the defined Mitigation Area. Although no features of this date were identified during the evaluation, the potential for the presence of such activity/features was indicated by the recovery of unstratified and residual flint during trenching.

More specific research aims for the project are defined below through reference to Lambrick, G 2014 *The Later Bronze Age and Iron Age: Resource Assessment*, in G, Hey and J Hind (eds), *Solent-Thames Research Framework for the Historic Environment: Resource Assessments and Research Agendas*. Oxford Archaeology, Oxford Wessex Monograph No. 6 (available at

https://eprints.oxfordarchaeology.com/2597/199/Solent-Thames_chap-10_Later%20Bronze%20Age%20and%20Iron%20Age_Agenda.pdf).

- *Iron Age Settlement in the Upper Thames Valley* (Regional Research Agenda Theme 10.5)
During the Middle to Late Iron Age, in the Upper Thames Valley, a series of very large lowland enclosures emerged as at Abingdon Vineyard, Salmondsbury, Dyke Hills and Cassington Big Rings (Lambrick 2014, 20). The evidence from investigations to date indicates that the enclosure at Banbury Rise may represent a further example of this monument class and the excavation will aim to confirm whether this is the case or whether the site represents an alternative settlement form.

In particular, through determining the dating and character of the activity within the enclosure and the associated site sequence, there is the potential to further understanding of the reasons for increases in the intensity of settlements in the region at this time (10.5.2), factors leading to the common shift of settlement location in the Late Iron Age (10.5.4), and changes in settlement function (10.5.12).

- *Social organisation* (Regional Research Agenda Theme 10.6)
The enclosed area in the south-east part of the Site includes a large number of pits which can probably be related to storage and/or disposal functions. These have a high potential to provide information which will support understanding of the function and use of storage pits (10.6.2).

The enclosure ditches and associated landscape boundary features and the pit alignments have the potential to contribute to our understanding of large-scale land divisions (10.6.5) and the form of boundaries above ground (10.6.6).

- *Material culture* (Regional Research Agenda Theme 10.8)
The pottery assemblage from this site has the potential to provide an assemblage which will contribute in the longer term to a detailed study of assemblages from large numbers of excavated sites to explore distributions of pottery fabrics, changing fashions, and the definition of sub-regional styles (10.8.3). The low

incidence of pottery from this period in the area has been noted by Blinkhorn (2017) and the ceramic assemblage and other artefacts recovered have the potential to provide a better understanding of material culture in use in this area during the middle to late Iron Age.

- *Landscape and land use* (Regional Research Agenda Theme 10.4)
Although environmental remains from samples recovered during evaluation trenching were either present in small quantities or modern/intrusive and thus have limited potential, excavation will recover further material, whilst the hand-collected animal bone indicates the potential to provide information of local significance.

In conjunction with evidence for early landscape boundaries in the form of the pit alignments and also later ditched boundaries liable to be associated with the large Iron Age enclosure, these have the potential to contribute to the development of greater understanding of the agricultural basis of local settlement.

4 Quality

WA is part of Worcestershire County Council and is subject to the Council's policies, safeguards, practices and audit procedures.

WA is registered as an archaeological organisation with the Chartered Institute for Archaeologists, and as such is bound to the ClfA's *Code of Conduct*, standards and guidelines.

The following are relevant to this project:

- ClfA 2014a *Standard and guidance for commissioning work or providing consultancy advice on archaeology and the historic environment*, Institute for Archaeologists, published December 2014, updated October 2020;
- ClfA 2014b *Standard and guidance: Archaeological excavation*, Chartered Institute for Archaeologists, published December 2014, updated October 2020;
- ClfA 2014c *Standard and guidance for the collection, documentation, conservation and research of archaeological materials*, Chartered Institute for Archaeologists, published December 2014, updated October 2020; and
- ClfA 2014d *Standard and guidance for the creation, compilation, transfer and deposition of archaeological archives*, Chartered Institute for Archaeologists, published December 2014, updated October 2020.

The project and any recommendations will conform to government policy on the historic environment contained in the *National Planning Policy Framework* (NPPF; MHCLG 2021) and relevant guidance in Historic England's *Good Practice Advice Notes 1-3* (HE, dated 25 March 2015; https://www.designingbuildings.co.uk/wiki/Historic_environment_good_practice_advice).

5 Methodology

The project will follow the procedures of the following

- *Manual of Service Practice: Recording Manual*, 2012, Worcestershire Archaeology Worcestershire County Council internal report, **1842**. Of particular importance here are the *Finds recovery policy*, and *Guidelines for environmental sampling*; and
- *Manual of Service Practice: Digital Preservation and Project Archiving*, October 2007, revised June 2020, Worcestershire Archaeology, Worcestershire County Council, internal report, **1582**.

Copies of the manuals will be supplied to the Client and Curator on request.

5.1 Stage 1: Mobilisation

Prior to commencement on site the Senior Project Manager, Project Officer and Archaeological Archivist will:

- obtain information necessary to undertake the project (eg liaise with Consultant/Client regarding access, service constraints, site security, etc);
- produce any necessary documentation relating to the project (eg agreement, written scheme of investigation, safety methods statement and risk assessment, etc);
- initiate a data management plan for the project;
- notify the Curator of the start of the fieldwork (a minimum of 10 working days notice will be given);
- notify Oxfordshire County Museums Service of the fieldwork in order to obtain an accession number in advance of the commencement of fieldwork. The museum will be informed one month prior to work starting of the expected time limits for deposition of the archive;
- attend a pre-start meeting; and
- ensure that all staff and other resources (such as plant) have been programmed.

5.2 Stage 2: Fieldwork

The location and extent of the Mitigation Area has been carefully considered based on current archaeological information and site constraints and has been agreed following discussions between the Curator and the Consultant.

The agreed Mitigation Areas are shown on Figures 2 and 3, and will be addressed in two stages as follows:

- Stage 2.1: Northern Area (20,266m²; Figure 2)
- Stage 2.2: Southern Area (17,539m²; Figure 3)

Within both the Northern and Southern Area, areas of archaeological potential lying within public open spaces of the scheme (towards the western side of the Site) have

been excluded from mitigation areas and will be fenced off in advance of and during mitigation and construction works to ensure preservation *in situ* of any remains within those areas. These areas are also shown on Figures 2 and 3.

Initial excavation of areas identified for mitigation will be undertaken using appropriately sized (min 20 tonnes) tracked 360° excavators equipped with a toothless (bladed) bucket and operating under the supervision of an archaeological banksman.

Topsoil, subsoil and any recent overburden will be removed down to the first significant archaeological horizon in successive level spits. Excavated material will be removed in dumpers to spoil storage bunds placed away from the mitigation areas. Topsoil and subsoil will be separately stored.

The continued use of machinery beyond this point will only be undertaken as and when specifically agreed with the Curator.

Upon completion of machine excavation of any given area, the following will be undertaken:

- Clean surfaces will be inspected and the location of deposits and features of archaeological interest marked using flags and/or temporary spray paint.
- A preliminary survey of excavated areas will be undertaken using a drone to produce a geo-rectified photomontage. This will provide a preliminary record of the excavation areas and will be used to support development of the excavation strategy.
- Mitigation area limits and subsequent survey of feature/deposit locations will be undertaken using a GNSS device with an accuracy limit set at <0.04m.
- Deposits and features will be fully or partially excavated (according to the sample levels identified below) to determine their nature and to retrieve artefactual material and environmental samples.
- Recording of deposits will be undertaken and will follow standard WA practice (*Manual of Service Practice: recording manual*, 2012, Worcestershire Archaeology internal report, **1842**).
- Depending on the circumstances (availability of phone signal) context recording will either be undertaken using context sheets and other pro-forma recording sheets or digitally via DiggIt, <https://www.diggitararchaeology.com/>.
- Written descriptions will be recorded comprising factual data and interpretative elements.
- Where stratified deposits are encountered a Harris matrix will be compiled during the course of the fieldwork.
- Site plans of excavated features will normally be drawn at 1:50 or 1:20 as appropriate.

- The site grid will be accurately tied into the National Grid and located on the 1:2500 or 1:1250 map of the area.
- Long sections showing layers will be drawn at 1:50 as appropriate. Sections of features or short lengths of trenches will be drawn at 1:20 as appropriate.
- All sections will be tied into Ordnance Datum.
- A register of all drawings will be kept.
- 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.
- Photographic recording will comprise digital images, at a minimum of 7 megapixels, taken with a digital SLR. Details of the photographs will be recorded on Photographic Record Sheets.
- In the event that human remains (burials and/or) cremations are revealed the Consultant and curator will be notified and a Ministry of Justice licence under Section 25 of the Burial Act 1857 will be obtained. All exhumation and post excavation treatment will be carried out in accordance with published guidelines (https://www.archaeologists.net/sites/default/files/14_Updated%20Guidelines%20to%20the%20Standards%20for%20Recording%20Human%20Remains%20digital.pdf).
- If, during the course of excavation, items are found that may be potentially defined as 'Treasure' under the Code of Practice for the Treasure Act 1996, WA will be responsible for ensuring that the County Coroner and Finds Liaison Officer are both informed. OCAS will also be informed of any possible treasure finds.

The sampling level for context excavation has been defined following discussions between the Consultant and Curator as follows:

Type of context	Percentage
Structural features (post/stakeholes, floors, wall foundations, hearths, ovens, kilns, etc) relating to specialised activities. Burials	100%
Other post/stakeholes and ring-gullies	50%
Pits	50% (min)
Gullies and ditches	20% or 10m incl all intersections (whichever is the greater)

Occupation deposits/stratified layers	Excavation in systematic and gridded squares (2.5m or 1m) depending on complexity/extent. Supported by on-site sieving. To be agreed with Consultant/Curator
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The sample levels identified above may be re-assessed once the site is stripped and the nature and dating of deposits/features is clearer.

Any changes in excavation sample levels will only be undertaken following discussion with, and the agreement of, the Curator and Consultant.

The sampling level for sieving for artefacts and ecofacts will meet the aims of the project and will be as set out below:

Sampling method	Features to be sampled
Hand retrieval of all artefacts and animal bone	All features
Sample retrieval of building materials (building stone, roof tile, brick) with total volume recorded/estimated.	All features
Bulk samples (40 litres) taken for wet sieving (plant macrofossils, small animal bone, small artefacts)	Selected pits and ditches. All hearths/ovens/kilns
Column samples, micromorphological and other specialist environmental sampling	Following advice of Senior Environmental Officer and HE Guidance (EH 2011) and the HE South East Regional Scientific Advisor where appropriate.

- Selection of deposits for sampling will follow guidance set out in English Heritage (2011) *Environmental Archaeology. A Guide to the Theory and Practice of Methods, from Sampling and Recovery to Post-excavation* (2nd edition).
- Artefactual retrieval policy, treatment and discard will follow the requirements of the receiving museum.
- WA's specialist staff in artefacts and environmental evidence will be available for on-site advice.

The sample levels identified above may be re-assessed once the site is stripped and the nature of the features is clearer. Any changes in finds or environmental sampling levels will only be undertaken following discussion with, and the agreement of, the Curator and Consultant.

- Reinstatement of excavation areas where requested shall consist of simple replacement of the excavated material.

- No area will be re-instated prior to written agreement from the County Archaeological Service. A post-excavation plan showing the features and interventions along with grid references will be provided for any sign off areas in advance of this written confirmation.
- It is a requirement of the Curator that they monitor fieldwork. Monitoring visits will normally be arranged by the Consultant and notified to WA. A site plan will be provided by WA to the County Archaeological Service prior to any monitoring visits.

5.3 Stage 3: Post Fieldwork

5.3.1 Stage 3.1: Assessment/Audit

Following completion of Stage 2 fieldwork, the fieldwork archive will be checked and secured as follows:

- All records and surveys will be checked, cross-referenced and quantified;
- Artefacts will be cleaned, marked and quantified;
- Environmental samples will be processed and the resultant flots and residues will be scanned and sorted;
- Site plans and surveys will be downloaded and/or digitised (as appropriate) within AutoCAD;
- Relational databases will be established for various categories of information (structural, artefactual and ecofactual); and
- Security copies of the documentary archive will be prepared (within four weeks of the completion of fieldwork) and kept by WA. The security copy will be entirely digital and is backed up and stored at a location remote from WA's office (County Hall).

Depending on the complexity of results and quantities of material either an Audit or Assessment Report will be prepared for submission to the Client, Consultant and Curator.

This will include:

- Quantification of all records, artefact classes and environmental material
- Assessment of the quantity, quality, range and research potential.
- Appropriate specialists will be consulted or contracted where appropriate.

Assessment of research potential will make use of appropriate national, regional and research frameworks in identifying priorities for subsequent analysis.

The Audit/Assessment Report will be accompanied by an Updated Project Design (UPD) which will summarise the results of the fieldwork and present a proposed programme of analysis and publication (Stage 3.2).

The Audit/Assessment Report and UPD will be submitted to the Client and Consultant in the first instance for approval and subsequently to the Curator for their approval.

5.3.2 Stage 3.2: Analysis and report

Following approval of the Audit/Assessment and UPD by all parties, a programme of analysis and reporting will be undertaken as appropriate and as defined in the UPD. Appropriate specialists will be consulted or contracted where appropriate.

Results will initially be presented through a report in the WA's internal report series.

In the first instance WA will normally supply a digital copy of the draft report to the Client and Consultant for approval.

Following any editing or alterations requested a final draft will be issued to the Client and Consultant for forwarding to the Curator for approval.

Following receipt of Curator comments and completion of any required alterations a final report will be issued.

Where requested a reasonable number of hard copies (up to three) of the finalised report will be provided.

Any report produced will contain as minimum:

- a non-technical summary;
- background;
- aims;
- methods;
- location and size of archive;
- discussion of results in relation to appropriate local, regional and national research frameworks;
- associated tables, figures, bibliography and appendices;
- a statement will be included on Transfer of Title and arrangements which have been made for the archive.

WA has a professional responsibility to make available the results of archaeological work with reasonable despatch (ClfA Code of Conduct, principle 4). The following statement is also made with regard to best practice in stewardship (ClfA Standard and guidance for stewardship for the historic environment 2014, section 3 communication).

WA recognises the need for discretion to protect the Client's interests when communicating the results of its work. The nature of our work, however, is a matter of constant public fascination. In aiming to meet its responsibilities, Client needs, and public demands, WA will take the following approach, unless notified by the Client before the project commences:

- The report will be submitted to the HER;
- A short summary will be published in one or more regional journals (e.g. Oxoniensia) where appropriate. These publications are generally produced annually.
- In some instances it may be appropriate for a summary report or version of the full report to be prepared for more widespread publication in a national period journal (e.g. Britannia, Proceeding of the Prehistoric Society, Medieval Archaeology, etc) or as a stand-alone report (monograph). In this instance, it is anticipated that the significance of the results will warrant preparation as a report within the Service's digital report series, copies of which are held by the Archaeology Data Service.
- WA will register the report with OASIS.

The potential for inclusion of outreach/public engagement opportunities has been considered as follows:

- The discovery of remains or items (including artefacts), of particular interest may be communicated through social media at any time. See <https://www.explorethepast.co.uk/>. Depending on the circumstances of discovery and in the interests of site safety and security, social media releases may need to anonymise the location of the site, and/or the Client's name.
- Consideration to an open event will be given and will be dependent on the quality of archaeology and safe access to the site as it is adjacent to a construction site.
- Where site safety circumstances do not enable the provision of an open event, consideration may also be given to provision of an off-site event at a local venue or via web content either during, or following completion of, fieldwork.

5.3.3 Stage 3.3: Archiving and deposition

Oxfordshire County Museums Service shall be notified of the fieldwork and an accession number will be obtained in advance of the commencement of fieldwork. The museum will be informed one month prior to work starting of the expected time limits for deposition of the archive.

On completion of the fieldwork the site archive will be prepared in the format agreed with Oxfordshire County Museums Service. The archive will be prepared to the minimum acceptable standard defined in Historic England *Management of Archaeological Projects 2* (MoRPHE, 1991), in line with local and SMA *Guidelines Selection, Retention & Dispersal of Archaeological Collections* (1993). The integrity of the archive will be maintained.

The full integrated site archive including all finds will, with the agreement of the owners, be deposited after completion of post-excavation work (Stages 3.1 and 3.2) with the Oxfordshire County Museums Service. The appropriate deposition will be accompanied by appropriate funding equivalent to the current HBMC Box Storage Grant.

A summary report and details of archive deposition shall be submitted to the County HER and NMR, and a limited selection of representative photographic slides from the site archive shall be duplicated and deposited with the HER.

GIS (shape) files of the final phased excavated site plan will be provided to the office of the County Archaeological Officer

Archiving will be undertaken following standard WA practice (*Manual of Service Practice: Digital Preservation and Project Archiving*, October 2007, revised June 2020, Worcestershire Archaeology, Worcestershire County Council, internal report, **1582**) and *Oxfordshire Museums Service, Requirements for transferring Archaeological Archives 2022-23*. Oxfordshire County Council Documentation Manual dated 1st April 2022.

Security copies of the documentary archive will be prepared within four weeks of the completion of fieldwork and kept by WA. The security copy will be entirely digital and is backed up and stored at a location remote from WA's office (County Hall).

The digital archive will be placed with ADS.

In the event of the legal owner(s) resolving to retain all or part of the site archive, they shall be responsible for the future preservation and maintenance of any material element of that archive. That part of the site archive in question, shall be transferred to the legal owner only after; all necessary processing, research, analysis and investigative/stabilising conservation and correct packing necessary to prepare the archive for preservation and storage in a usable, accessible form, and to produce a full report for publication, has been completed. The owner shall ensure that all necessary provision is made for the long-term preservation of the archive in a satisfactory environment, and that it is accessible for future research. WA will ensure that a proper record of material kept by the landowner shall be included in the written archive, and the location and ownership of the material shall be stated in the written archive and public record. The explicit (written) permission of the owner shall be obtained for the latter in order that the Data Protection Act 1984 is not contravened.

5.3.4 Contingency

A contingency has been allowed to be applied to either fieldwork or report stages where necessary. The contingency is to allow for the appropriate treatment of the archaeological resource where this cannot be accommodated within the original mitigation areas. The contingency will be implemented in one or more of the following circumstances.

- Additional excavation of up to up to 5,000m² if archaeological features are seen to extend beyond the defined mitigation areas.
- The recording and analysis of archaeological remains of a date and nature not previously anticipated (anticipated remains are defined in Section 2).

6 Health and safety

The current (available through the County Council's intranet) conditions and requirements of the County Council's health and safety policies and procedures cover WA (*Health and Safety, corporate health and safety policy*). The County Council also produces a comprehensive range of supplementary guidance.

WA is an accredited organisation with *The Contractors Health and Safety Assessment Scheme*, CHAS.

WA has issued *Manual of service practice: safe working practice* (2012 as amended, internal report, **581**) which are guidelines drawn from its risk assessments of common situations. In addition, provision has been made within the guidelines for assessing further risks which may be encountered during the project. All these documents may be viewed at WA's offices, and may be copied to the Client, Consultant and Curator on request.

The Client must notify WA if asbestos is known to be present on the site. All staff will be made aware of the dangers of asbestos and all access to potential areas of risk will be carried out inline with The Control of Asbestos Regulations 2006 (Statutory Instrument 2006 No. 2739). The presence of asbestos may prevent access to part, or the whole, of the site.

The Client must notify WA of any hazards within the archaeological site before the project commences. These include unsafe parts of any structure (eg unstable walls, rotten floors), the presence of other contractors, hidden voids and contaminated ground or materials.

Where the project falls within the Construction (Design and Management) Regulations 2015 WA will act in the role of Contractor and may contribute to design for the purposes of the regulations. The Client must provide WA with the following.

- The name of the Principal Designer.
- The name of the Principal Contractor.
- The relevant contents of the Safety Plan.
- Service staff will follow any proper instruction given by the Principal Contractor for the purposes of health and safety when on site.
- Protective clothing will consist of hard hat, protective boots, and high visibility jacket.
- The Client will be responsible for fencing the Mitigation Area
- WA will maintain hazard fencing around areas in which it is undertaking detailed recording and where this may be a hazard to others working on the site.
- All staff will be appropriately certified in the use of any equipment used during the project. Any equipment or plant (including scaffolding) will be inspected before use by Service staff.

7 Personnel

The team will comprise the following, as required.

- | | |
|---------------------------|---|
| • Senior Project Manager | Responsible for the project |
| • Project Manager | Fieldwork management (Stage 2)
Assist & Deputise for SPM |
| • Post-Excavation Manager | Management of Post-Excavation (Stage 3) |
| • Project Officer | On-site and report preparation lead |

- Field Supervisor Assist & deputise for Project Officer
- Field Archaeologists Undertake fieldwork and associated tasks
- Specialist coordination & support Specialist input to project (Finds, Environment, Illustration & Archiving).

The Senior Project Manager will be the first point of contact in all matters relating to the project.

- The Senior Project Manager for this project will be Robin Jackson, MCIfA.
- A Project Manager will assist the Senior Project Manager in managing the project. The Project Manager will be Andrew Mann, MCIfA.
- The Post-Excavation Manager will be Derek Hurst
- The Project Officer (site lead) for this project will be Elspeth Iliff, ACIfA.
- The Field Supervisor/Geomatics Officer for this project will be Beth Williams, PCIfA.

In-house specialist support may be provided in a number of broad areas common to this type of project.

- Artefacts - Laura Griffin, Sam Elwell.
- Environmental archaeology - Elizabeth Pearson (plant macrofossils, wood and charcoal; and basic bone identification), Andrew Mann (molluscs).
- Illustration – Laura Templeton.

All staff will be appropriately qualified and with an established record of expertise. Profiles of key members of the team are appended below (Appendix 1).

WA currently use the following external specialists where in-house expertise is not available:

- Rebecca Devaney, Robert Hedge - flint
- Pieta Greaves - conservation
- Gaynor Western, Jaqueline McKinley – human osteoarchaeological analysis
- Milena Grzybowska, Matilda Holmes, Alison Foster – animal osteoarchaeological analysis
- Ellen Simmons - charcoal
- Enid Allison - insects
- Tom Hill – palynology
- Andy Howard – geoarchaeological analysis
- Mike Bamforth – waterlogged wood

WA has worked previously with a range of specialists in other fields (details can be supplied on request).

8 Programme

The project will commence on 10th July 2023.

A period of 12 weeks is required for the excavation of the northern area and a further 15 weeks for the southern area.

WA will meet externally imposed deadlines wherever possible. Please inform WA of specific date requirements for submission of the report.

The table below is for the purposes of demonstrating that an adequate level of resources has been committed to the project and variation may occur due to staff availability and the nature of the archaeological site. Any such variation will not compromise the quality or standard of the project.

Periods for Post-Fieldwork stages (Stages 3.1-3.3) are dependent on the quantity and complexity of information retrieved and cannot be quantified at present. Provision equivalent to 35% of Stage 1 and 2 costs has been allowed for post-excavation assessment and analysis.

The resources identified for the contingency would allow for a further 3 weeks excavation time on site, together with further plant hire and post-excavation funds also at 35% of field costs.

Programme	Mobilisation Stage 1	Fieldwork Stage 2	Contingency
Senior Project Manager	15 hours	55 hours	
Project Officer	15 hours	110 days	15 days
Field Supervisor		110 days	15 days
Field Archaeologists		570 days	60 days
Enviro/finds specialists		44 hours	
Enviro/finds technician		22 days	

Appendix 1: Staff Profiles



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Robin Jackson MCIfA

Worcestershire Archaeology Manager

Joined WA in 1988

In archaeological practice from 1986

Robin leads the Worcestershire Archaeology team bringing a wide range of experience and a problem-solving approach to all sites. He has successfully managed the delivery of numerous projects across the region for over 25 years for a wide variety of clients in both the commercial and public sectors. He specialises in large-scale infrastructure and mineral extraction projects and has particular research interests in prehistoric archaeology, river valley landscapes and assessment of cultivation impacts on archaeological sites.

Attainments

- BA (Combined Honours) 2.1 Ancient History and Archaeology/Medieval and Modern History, University of Birmingham, 1985

Selected publications

- **Jackson, R**, 2007 Pits, pots, places and people: approaching the Neolithic at Wellington Quarry, in Garwood, P (ed), 2007 *The undiscovered country. The earlier prehistory of the West Midlands, The making of the West Midlands*, 1, Oxford: Oxbow Books, 109-22
- **Jackson, R**, and Miller, D, 2011 *Wellington Quarry, Herefordshire (1986-96). Investigations of a landscape in the Lower Lugg Valley*, Oxbow Books
- **Jackson, R**, and Ray, K, 2012 Place, presencing and pits in the Neolithic of the Severn-Wye region, in Anderson-Whymark, H, & Thomas, J (eds), *Regional Perspectives on Neolithic Pit Deposition*, Neolithic Studies Group Seminar papers, **12**, 144-70
- **Jackson, R**, 2012 *Ariconium, Herefordshire. An Iron Age settlement and Romano-British 'Small Town'*, Oxbow Books
- **Jackson, R**, Brown, A G, Carey, C, Howard, A J, Mann, A, Roberts, A J, Sworn, S, and Toms, P S, 2012 Delivering the benefits of Aggregates Levy Sustainability Funded led research on river valley archaeological sites in the Severn-Wye catchment, UK, *The Historic Environment. Policy and Practice*, **3.2**, 97-115
- **Jackson, R**, 2015 *Huntsman's Quarry, Kemerton: A Late Bronze Age settlement and landscape in Worcestershire*, Oxbow Books
- Carey, C, Howard, A J, **Jackson, R**, and Brown, A, 2017 *Using geoarchaeological deposit modelling as a framework for archaeological evaluation and mitigation in alluvial environments*, Journal of Archaeological Science: Reports, **11** (2017), 658-73
- Mann, A, and **Jackson, R**, 2018 *Clifton Quarry, Worcestershire. Pits, posts and cereals: Archaeological Investigations 2006-2009*, Oxbow Books

Other

- Member of Trent Geoarchaeology Group

Worcestershire Archaeology, Worcestershire Archive and Archaeology Service,
Worcestershire County Council, The Hive, Sawmill Walk, The Butts, Worcester, WR1 3PD
Tel 01905 844866 rjackson@worcestershire.gov.uk

Andrew Mann MCIfA

Project Manager

Joined WA in 2004

In archaeological practice from 2001

Andrew has a wide range of experience in supervising and leading archaeological fieldwork throughout the United Kingdom. He has gained valuable experience of working within deeply alluviated landscapes, and on waterlogged archaeological remains. He has also undertaken projects focused on prospecting and evaluating aggregate producing areas of Worcestershire and Staffordshire using Lidar and GIS. His particular interest is in the prehistoric landscapes, environment and archaeology of the Midlands.

Expertise and skills

- Use of total station and GPS.
- Use of AutoCAD
- Use of GIS (ArcMap)
- Environmental sampling, processing and sorting

Attainments

- M.Sc. Distinction. Environmental archaeology and Palaeo-economy, University of Sheffield, 2003
- BA (Hons) 2:1. Archaeology, University of Southampton, 2001

Selected publications and reports

- Mann, A C, and Hurst, D, 2009 Buttington Cross, Welshpool, Powys, Wales: a Bronze Age barrow and post-Roman grain processing site Worcestershire Archaeological Service, Worcestershire County Council, report **1638**
- Jackson, R, Mann, A C, and Roberts, T, 2011, Evaluating and enhancing the geoarchaeological resource of the Lower Severn Valley, Worcestershire, Archaeological Service, Worcestershire County Council, report **1819**



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Derek Hurst Post Excavation Manager

Joined WA in 1982

In archaeological practice from 1977

Specialist in ceramic research, and dedicated to maintaining finds study as central to archaeological work in the region. Project Manager since 1987: major urban excavations etc. Post Excavation Manager since 2017. Author of popular book on Droitwich salt industry, and promoter of heritage appreciation through replication of ancient technologies.

Attainments

- BA (Hons) Classics, University of Cambridge, 1977
- Diploma in post-excavation Studies, University of Leicester, 1982

Select publications

- Hurst, J D, and Rees, H, 1992 Pottery fabrics; a multi-period series for the County of Hereford and Worcester, in S G Woodiwiss (ed), *Iron Age and Roman salt production and the medieval town of Droitwich*, CBA Res Rep, **81**, 200-9
- Hurst, J D, 1992 *Savouring the past; the Droitwich salt industry*, Hereford and Worcester County Council
- Hurst, J D, 1994 A medieval ceramic production site and other medieval sites in the parish of Hanley Castle; results of fieldwork in 1987-1992, *Trans Worcestershire Archaeol Soc 3 ser*, **14**, 115-28
- Hurst, J D (ed), 1997 *A multi-period salt production site at Droitwich: excavations at Upwich*, CBA Res Rep, **107**
- Hurst, D, 2005 *Sheep in the Cotswolds: the medieval wool trade*. Stroud: Tempus
- Hurst, D (ed), 2006 *Roman Droitwich: Dodderhill fort, Bays Meadow villa and roadside settlement*, CBA Res Rep, **146**
- Hurst, D, and Miller, D, 2008 *River Severn bank-side survey; Worcester to Tewkesbury*. Available at <http://doi:10.5284/1000036>
- Hurst, D, Hunt, A, and Davenport, P, 2010 *Iron Age settlement at Blackstone, Worcestershire: excavations 1972, 1973, and 1977*, *Internet Archaeology* **28**. Online access, http://intarch.ac.uk/journal/issue28/hurst_index.html
- Hurst, D, and Wright, S M, 2010 *Midlands purple and Cistercian-type wares in the West Midlands in the 15th–16th centuries*, WHEAS Rep 1800. Available at <http://dx.doi.org/10.5284/1010824>
- Hurst, D, Allan, K, Blewitt, L, Bowers, C, Hooke, D, Jones, C, Morris, C, Peberdy, H, Price, S, Stewart, C, Townshend, J, and Wilks, M, 2011 *'some good corne, meatly woodyd, and well pasturyd': Dodderhill through the ages* Awarded Worcestershire History Book of the Year

Other information

- Elected as Council member of the Institute of Field Archaeologists, 1985; member of IFA Validation Committee 1987-9

Elsbeth Iliff ACIfA Project Officer

Joined WA in 2015

In archaeological practice from 2015

Elsbeth has a background in commercial and research led archaeological projects. She has worked on a wide variety of excavations across the UK from Bronze Age cremation cemeteries to urban post-medieval sites. As a Project Officer she leads teams in watching briefs, evaluations and excavations. She is experienced in post-excavation work and has produced a range of reports, including excavations, large evaluations, and desk-based assessments.

Elsbeth has undertaken a Master's degree focusing on the identification and assessment of human skeletal remains and has experience in assessing and recording archaeological skeletal assemblages.

Attainments

- Level 3 NVQ in Archaeological Practice, 2016
- MSc Merit Skeletal and Dental Bioarchaeology, University College London, 2014
- BA (Hons) 2:1 Ancient History and Archaeology, University of Birmingham, 2012

Selected reports

- Iliff, E, 2022 *Archaeological desk-based assessment of The Weighing Room, Worcester Racecourse, Worcester, Worcestershire* Archaeology Unpubl report **3029**, Worcestershire County Council
- Wilkins, J and Iliff, E, 2022 *Archaeological evaluation at land off Woodstock Road, Yarnton, Oxfordshire, Worcestershire* Archaeology Unpubl report **2902**, Worcestershire County Council
- Iliff, E, 2021 *Archaeological watching brief at Diglis Weir, Worcester, Worcestershire, Worcestershire* Archaeology Unpubl report **2813**, Worcestershire County Council



Beth Williams PCIfA Field Supervisor and Geomatics Lead

Joined WA in 2018

In archaeological practice from 2017

Beth has a background in commercial and research led archaeological projects. They joined Worcestershire Archaeology in 2018, after working as a geophysical surveyor and archaeologist across the UK.

As a supervisor, Beth leads sites ranging from watching briefs to small excavations, as well as completing post excavation reporting. They have experience of excavating a wide range of sites, from waterlogged prehistoric wood trackways to medieval castle remains.

They have a particular interest in the collection and management of data. As our geomatics lead, they are responsible for updating and maintaining our tech capabilities including surveying with UAV.

Attainments

- MA Archaeology, Cardiff University, 2017
- BA Archaeology, Cardiff University, 2014

Selected reports

- Williams, B, 2023 *Archaeological evaluation at land south of A40, Churcham, Gloucestershire*, Worcestershire Archaeology Unpubl report **3079**, Worcestershire County Council
- Williams, B, 2018 *Archaeological evaluation at land north of Southend Lane, Newent, Gloucestershire*, Worcestershire Archaeology Unpubl report **2624**, Worcestershire County Council
- Mann, A and Williams, B, 2023 *Archaeological investigations at Worcester 6 Business Park, Tibberton, Worcestershire*, Worcestershire Archaeology Unpubl report **3047**, Worcestershire County Council

Elizabeth Pearson ACIfA

Senior Environmental Archaeologist

In archaeological practice from 1987

Joined the Service in 1993

Environmental Archaeology is a valuable part of archaeological research. Elizabeth has the ability to coordinate a diverse group of specialists in order to produce an integrated reconstruction of past environments and human activities on archaeological sites. She is also a competent field archaeologist and actively involved with education and public awareness in archaeology.

Attainments

- MSc Bioarchaeology, Institute of Archaeology, London
- Associate of the Institute for Archaeologists, 1997

Selected publications

- Pearson, E, (ed) 2005 Environmental evidence, in W D Klemperer and N Boothroyd, *Excavations at Hulton Abbey, Staffordshire 1987-1994*, The Society for Medieval Archaeology Monograph Series, **21**, 135-148
- Pearson, E, 2006, Environmental evidence, in N Boothroyd, *Keeping up the Middle Ages: excavations at Lawn Farm moated site, Staffordshire*, Stoke-on-Trent Archaeology Service Monograph, **1**, 36-42
- Pearson, E, 2008 The charred plant remains, in A Barber and M Watts, *Excavations at Saxon's Lode Farm, Ryall Quarry, Ripple, 2001 2: Iron Age, Romano-British and Anglo-Saxon Rural Settlement in the Severn Valley*, *Trans. Worcestershire Archaeol Soc*, **3 ser, 21**, 1-90

Other information

- Member of the Association for Environmental Archaeologists



Laura Griffin ACIfA Senior Finds Archaeologist

In archaeological practice from 1996

Joined the Service in 1999

Laura has extensive experience in the identification and analysis of artefacts of all periods, with particular specialism in Roman and medieval pottery and ceramic building materials, including roof tile and decorated floor tiles. Her publications include a number of key assemblages from both urban and rural excavations and kiln sites in the Midlands and North-west regions.

Attainments

- Associate Member of the Institute for Archaeologists, 2003
- PG Cert History, University of Worcester, 2004
- BA (Hons) Archaeology, University of Liverpool, 1996

Selected publications

- Griffin, L, 2011 The Roman pottery, medieval pottery, Post-medieval and modern pottery, Ceramic building material and Other finds, in R Jackson and D Miller, *Wellington Quarry, Herefordshire (1986-1996): Investigations of a Landscape in the Lower Lugg Valley*, WHEAS monograph
- Griffin, L C, 2010 'The Roman pottery' in R A Philpott and M H Adams, *Irby, Wirral: Excavations on a Late Prehistoric, Romano-British and medieval site, 1987-96*, National Museums Liverpool
- Jones, L C, 2001 The Roman pottery from Ochre Brook, The Roman tile from Ochre Brook, The kiln furniture from Ochre Brook, The Roman pottery from Brunt Boggart, in R Cowell and R A Philpott, *Some recent excavations along the route of the A5300 in Tarbock, Merseyside*, National Museums Liverpool
- Jones, L C, 1998-9 'Four zoomorphic roof finials from Worcestershire' in *Medieval Ceramics* **22-3**, 154-9
- Griffin, L and Miller, D, forthcoming 'Excavation of a late medieval tile kiln site in Worcester'.
- Griffin, L forthcoming, 'The medieval pottery and building materials' in Dalwood, H and Davenport, P, *Newport Street, Worcester: Excavations 2005*
- Griffin, L, 2007, 'Medieval floor tiles' in Miller, D, Crawford, A and Dalwood, H, 'Excavations at The Commandery, Worcester, 2005-6', HEAS, Worcestershire County Council Report **1549**

Other information

- Committee member of the Study Group for Roman Pottery
- Member of the Medieval Pottery Research Group
- Member of the Archaeological Ceramic Building Materials Group



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Laura Templeton MCIfA Senior Illustrator

Joined Worcestershire in 1988 In archaeological practice from 1985

Extensive experience in all aspects of illustration for archaeological fieldwork

Graphics and Cad design for innovative projects.

Illustrator for national and regional publications

Graphics CAD and GIS software specialist.

Publicity, posters, exhibition and graphic presentations.

Attainments

- BA Fine Art, Exeter College of Art and Design 1983
- Post-Graduate Certificate of Education 1984
- Member of the Association of Archaeological Illustrators and Surveyors, 1990. Active member of AAI&S council since 1990, Chairman 1995- 1997
- Member of the Chartered Institute for Archaeologists (MCIfA) – Committee member and acting Chair - Graphics Archaeology Group 2009- 2016

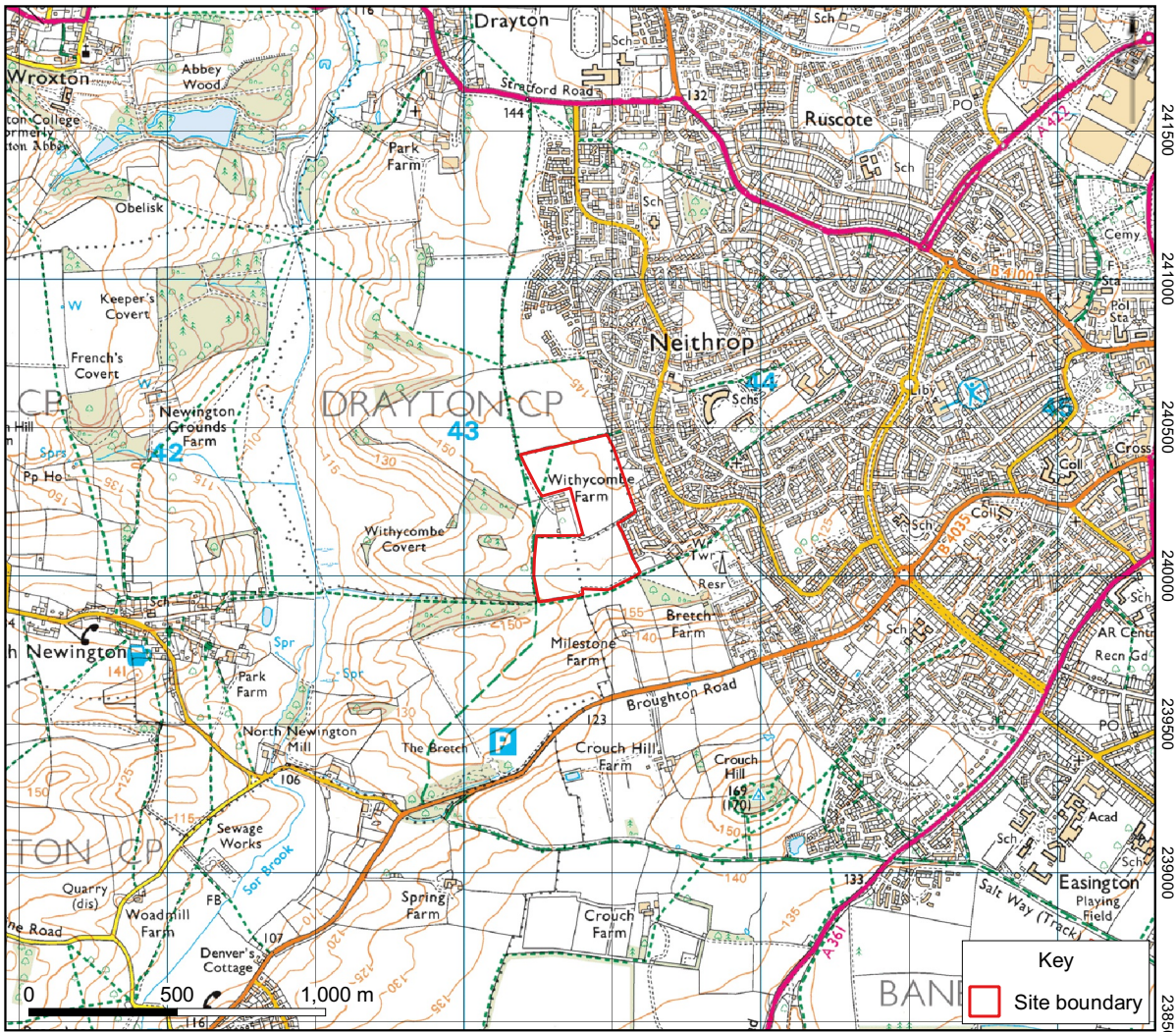
Selected work

- Evesham Abbey and Leominster Priory interpretation panels. (Research, CAD 3d modelling and design)
- Report layout, typesetting and production, Worcestershire Archaeology Research Reports. http://www.worcestershire.gov.uk/info/20189/search_our_records
- A Roman Steelyard from Worcestershire, in M Steiner (ed) *Approaches to Archaeological Illustration*, CBA Practical Handbook **18**

Illustrations in the following selected papers and monographs

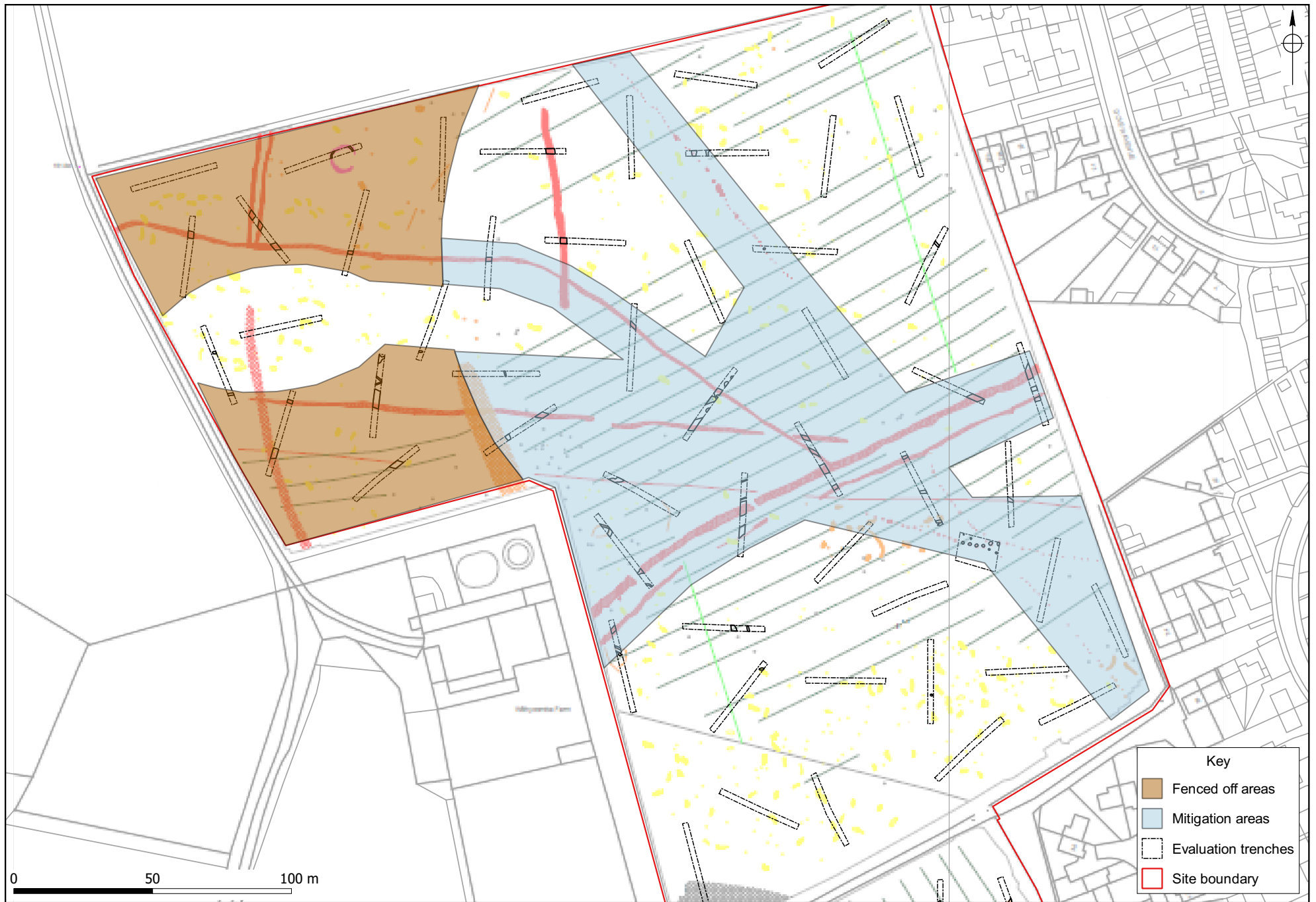
- Bradley, R, 2017, *Archaeological investigations at Cathedral Square. Worcester*, Worcestershire Archaeological Research Report no **9**
- Dalwood, H, and Edwards, R, 2004 *Excavations at Deansway, Worcester, 1988–89, Romano-British small town to late medieval city*, CBA Research Report **139**, York
- Jackson, R, and Miller, D, 2011 *Wellington Quarry, Herefordshire (1986–96): Investigations of a landscape in the Lower Lugg Valley*, Oxford

Figures



Location of the site

Figure 1



443500

Mitigation and fenced off areas in northern field

Figure 2

