

**WRITTEN SCHEME OF INVESTIGATION FOR
ARCHAEOLOGICAL MITIGATION**

**LAND OFF DERBY ROAD
DOVERIDGE
DERBYSHIRE**

**PREPARED BY LANPRO SERVICES
ON BEHALF OF
BELLWAY HOMES**

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Planning + Development | Design Studio | Archaeology + Heritage

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Document Prepared by: Paul Gajos MCIfA

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1 INTRODUCTION

- 1.1 This Written Scheme of Investigation (WSI) has been prepared by Lanpro on behalf of Bellway Homes (the client) and details the methodology for undertaking a scheme of archaeological mitigation of land off Derby Road, Doveridge, Derbyshire.

2 SITE DESCRIPTION

- 2.1 The site is located on the eastern edge of Doveridge centred at National Grid Reference SK 1229 3403 (Figure 1). The site is bounded to the north and east by Derby Road, the west by Bakers Lane and properties along Chapel Green.
- 2.2 The British Geological Survey (BGS) record the underlying geology of the site as being sand and gravel overlying Mercia mudstone (www.bgs.ac.uk/lexicon/lexicon). The site is located on relatively level ground at approximately 85mAOD.

3 PLANNING BACKGROUND

- 3.1 Outline Planning Permission for residential development of the site has been granted by Derbyshire Dales District Council (15/00389/OUT). Condition 22 relates to the archaeological implications of the development and states:

22.

a) No development shall take place until a Written Scheme of Investigation for archaeological work has been submitted to and approved by the Local Planning Authority in writing, and any pre-start element of the approved scheme has been completed to the written satisfaction of the Local Planning Authority. The scheme shall include an assessment of significance and research questions; and

1. The programme and methodology of site investigation and recording

2. The programme for post investigation assessment

3. Provision to be made for analysis of the site investigation and recording

4. Provision to be made for publication and dissemination of the analysis and records of the site investigation

5. Provision to be made for archive deposition of the analysis and records of the site investigation

6. Nomination of a competent person or persons/organisation to undertake the works set out in the Written Scheme of Investigation

The initial trial trenching stage of the scheme shall take place before submission of the reserved matters with regard to layout.

b) No development shall take place other than in accordance with the archaeological Written Scheme of Investigation approved under condition (a)

c) The development shall not be occupied until the site investigation and post investigation assessment has been completed in accordance with the programme set out in the archaeological Written Scheme of Investigation approved under condition (a) and the provision to be made for analysis, publication and dissemination of results and archive deposition has been secured.

3.2 This document provides the Written Scheme of Investigation for the archaeological mitigation.

4 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

4.1 An archaeological desk based assessment and geophysical survey of the site was carried out to support the outline application (ARS 2015) and in August 2018 and archaeological trial trench evaluation was undertaken (Wessex Archaeology 2018). The full reports will be provided to the appointed archaeological contractor before work commences. The following presents a summary of the findings of those reports.

4.2 Desk-based assessment of the Site identified two historic assets within it: a demolished early 19th-century building and medieval ridge and furrow. The structure was considered to be of negligible archaeological significance as it has been demolished and little is likely to survive below ground. The fossilised remains of medieval ridge and furrow visible in the fields of the Site are part of an extensive swathe of similar earthworks within the wider area.

4.3 The evaluation comprised six trial trenches, measuring between 25 m in length and 40 m in length, targeted on known geophysical anomalies.

4.4 One trench exposed three pits containing cremated bone (identifiable as human in two of the features) with one of the deposits representing the remains of an unurned burial. No datable material was found in any of the deposits, but their form is prehistoric in nature. The features correlate with a partial/irregular ring-shaped geophysical anomaly and a circular mound discernible within the LiDAR data, and would appear to indicate a small (c. 10 m-diameter) round barrow or other similar prehistoric funerary ringwork monument in this part of the Site. A linear cut feature lying to the south of the pits was examined, although due to the confines of the evaluation trench it was not possible to establish whether it formed part of ditch of the potential barrow, or merely a section of furrow base.

4.5 Two large pits were also revealed. One contained medieval pottery and slag, and the other contained timbers and cattle remains. Both correlate with pond-like anomalies detected by the geophysical survey, with the former existence of one of the ponds confirmed by historic mapping.

4.6 A small assemblage of finds was recovered from the evaluation; six sherds of medieval pottery (c. 12th–15th-century) were the earliest easily datable artefacts. There is little indication the Site contains deposits of high palaeoenvironmental significance, although the

wood charcoal from the cremation pits could provide information on aspects of the funerary rite. Waterlogged remains were found in the samples from the pond in trench 2, although the relatively recent date of that feature reduces their significance.

5 RESEARCH DESIGN

Aims and Objectives

5.1 The primary aim of the archaeological mitigation excavation is to identify and record any features of archaeological interest prior to the commencement of site construction works, in order to mitigate the impact of these works on the archaeological resource. This will be carried out through a programme of archaeological open area excavation aimed at gathering sufficient information to establish the presence/absence, character, extent, state of preservation, significance and date of any archaeological remains within the proposed development site.

5.2 This will be realised through the achievement of the following objectives:

- To establish the spatial extent date, character, condition and significance of the archaeological activity in the excavation area highlighted on Figure 2.
- To recover information relating to the nature and function of past human activity represented by the surviving archaeological remains,
- To excavate and record identified archaeological features and deposits to a level appropriate to their extent and significance
- To interpret the nature of human activity at the site and to place the site within its local, regional and national context as appropriate
- To assess the site formation processes and the effects that these may have had on the survival and integrity of the archaeological features and deposits
- To undertake sufficient post-excavation assessment to confidently interpret identified archaeological features
- To undertake sufficient post-excavation assessment and analysis of artefacts and environmental samples to interpret their significance
- To report and publish the results of the excavation and post-excavation assessment and analysis, and place them within their local and regional context
- To compile and deposit a site archive at a suitable repository and to provide information for the Derbyshire HER to ensure the long-term survival of the excavated data.

Research Framework

5.3 The programme of archaeological investigation will be conducted within the general research parameters and objectives defined by: '*East Midlands Heritage: A research Agenda and Strategy for the Historic Environment*' 2012 (compiled on behalf of the region's historic environment community by D. Knight, B. Vyner and C. Allen).

- 5.4 Whilst the cremation burial identified in the evaluation are currently undated they are believed to be of prehistoric date and therefore have particular potential to add to regional research objective 3H.
- 5.5 The investigation will also take account of the national research programmes outlined in English Heritage's *Strategic Framework for historic Environment Activities and Programmes in English Heritage* (SHAPE) first published in 2008.

6 STANDARDS

- 6.1 All work will be undertaken to fully meet the requirements of all nationally recognised guidance for such work, including standards laid down by the former English Heritage (now Historic England) and the Chartered Institute for Archaeologists (CIfA).
- 6.2 The programme of archaeological work will be managed in line with the standards laid down in the Historic England guideline publication *Management of Research Projects in the Historic Environment (MoRPHE): Project Managers Guide* (2015) and the *MoRPHE Project Planning Note 3: Archaeological Excavation (PPN3)* (2008), as well as to meet the requirements of the National Planning Policy Framework (NPPF; Chapter 12: 'Conserving and enhancing the historic environment'). All excavation will be undertaken using recording standards detailed in the *Archaeological Field Manual* (MOLAS 1994).
- 6.3 Of particular relevance to the programme of works are –
- *Standard and guidance for archaeological excavation* (CIfA 2014b)
 - *Standard and guidance for the creation, compilation, transfer and deposition of archaeological archives* (CIfA 2014c)
 - *Code of Conduct* (CIfA 2014d)
 - *Management of Research Projects in the Historic Environment: PPN3: Archaeological Excavation* (English Heritage 2008)

7 METHODOLOGY

Project Initialisation

- 7.1 Lanpro will inform the Planning Archaeologist at least one week in advance of the commencement of fieldwork.
- 7.2 The appointed archaeological contractor will contact Derby Museum to arrange for the project archive to be created and deposited in accordance with their deposition and archiving standards. At this stage a Project Initiation Form will be submitted by the appointed Archaeological Contractor to the Museum and to the Planning Archaeologist.
- 7.3 All works will be archived under an accession number (TBC) to be obtained by the Archaeological Contractor, who will complete the required archive deposition forms.

- 7.4 Before fieldwork commences an OASIS online record will be initiated and key fields completed on Details, Location and Creator forms.

Fieldwork

- 7.5 The archaeological mitigation will comprise the excavation of an area measuring 20m by 20m centred on the archaeological features uncovered in trench 1 of the trial trench evaluation and 2 further 10m by 10m areas targeted on the features identified in trenches 2 and 4 (Fig 2).
- 7.6 A contingency to extend the stripping of the archaeological areas is available should it become clear that archaeological deposits worthy of further investigation extend beyond the limits of the set areas. Use of the contingency will only be enacted following agreement between Lanpro and the Development Control Archaeologist for Derbyshire County Council.
- 7.7 Topsoil and overburden will be removed by mechanical excavator using a toothless ditching bucket (c.2m wide), under archaeological supervision. The spoil generated will be mounded away from the edges of the archaeological area. Topsoil and subsoil will be stored separately. Mechanical excavation will cease at either undisturbed natural deposits or the top of archaeological deposits.
- 7.8 Spoil from mechanical excavation will be scanned by eye and by metal detector to aid the recovery of topsoil artefact. Metal detecting will also be conducted over the surface of all exposed features before the end of each working day as a countermeasure to 'nighthawking'.
- 7.9 All excavation by mechanical excavator will be undertaken under direct archaeological supervision, by a suitably experienced and qualified archaeologist, with one archaeologist responsible for monitoring each excavator.
- 7.10 Following the initial soil strip, priority will be given to the cleaning of features as required to produce a pre-excitation plan. In association with the production of this plan initial sample excavation will commence to characterise the nature of the archaeological resource present. Early in this process an initial site review meeting will be convened between the archaeological consultant, the Planning Archaeologist for Derbyshire County Council and the appointed archaeological contractor to agree the application of the sample excavation strategy.
- 7.11 The following sampling levels will form the standard to be applied to features and deposits identified as contributing to the project objectives and any additional specific objectives identified.

<i>Feature Class</i>	<i>Proportion to be excavated</i>
Pre-modern linear features not associated with structural remains	10% of fill
Pits associated with agricultural & other activities	50% of fill
Layers/ deposits/horizontal stratigraphy relating to domestic/industrial activity [e.g. hearths, floor surfaces, floor make-up deposits...]	100% of deposit
Post-built structures of pre-modern date	50% of each post-hole fill
Ring ditches or roundhouse gullies	50% of fill
Linear features (ditches/gullies...) associated with structural remains	20% of fill
Human burials, cremations & other deposits relating to funerary activity	100% of fill/deposit
Prehistoric discrete pits	100% of fill/deposit

- 7.12 Application of this standard to exposed archaeological remains will be agreed between the curator, contractor and consultant in project review meetings.
- 7.13 All archaeological features and deposits revealed will be cleaned and excavated in an archaeologically controlled and stratigraphic manner, in order to establish their extent, form, date, function and relationship to other features. All features will be investigated to understand the full stratigraphic sequence down to naturally occurring deposits.
- 7.14 All identified finds and artefacts will be collected and retained, and bagged and labelled according to their context. Finds of significant interest will be given a 'small finds' number, and information on their location in three dimensions will be entered on a separate pro-forma sheet. No finds will be discarded without assessment by an appropriate finds specialist, and/or the approval of the Senior Planning Archaeologist.
- 7.15 A full written, drawn and photographic record will be made of all features revealed during the course of the archaeological works. All archaeological features or deposits encountered will be described fully on pro-forma individual context recording sheets, using standard methods of the archaeological contractor appointed. A stratigraphic matrix will be compiled to record the relationships of any archaeological features or deposits encountered.
- 7.16 Plans will be completed at a scale of 1:20 (as appropriate), with section drawings at a scale of 1:10. All plans will be tied in with the Ordnance Survey National Grid with levels given to above OD.
- 7.17 A photographic record, utilising black and white negative film, supplemented by high resolution digital photography of a minimum of 10 megapixels and in RAW format, will be maintained during the course of the fieldwork and will include:

- the site prior to commencement of fieldwork
- the site during work, showing specific stages of fieldwork
- the layout of archaeological features within each trench
- individual features and, where appropriate, their sections
- groups of features where their relationship is important

7.18 All photography will follow the archaeological contractor's guidance which conforms to industry best practice (ADS 2013 and HE 2015b). Images will be converted to uncompressed baseline v.6 TIFF for archiving. All images will have accompanying metadata specifying; photo ID, capture device, converting software, colour space, bit depth, resolution, date of capture, photographer, caption, and any alterations made to the image.

Palaeoenvironmental sampling strategy

7.19 The general aim is for the sampling to cover the range of feature types and phases present on site to assist in interpreting the nature of the settlement and any specific activities taking place. Furthermore samples should also be taken to enable the site to be placed in the wider archaeological landscape.

Bulk Samples

Charred plant remains and wood charcoal

7.20 Samples for the recovery of charred plant remains and wood charcoal should be taken where permitting from secure phased features, especially any arising and related to settlement activities and/or structures. Features that are specifically related to burning activities, such as cremations, should also be sampled. Generally samples should be taken covering a wider range of feature types, and phases as possible. Where available deposits permit, sample size should be up to 40 litres from individual, secure contexts.

7.21 If contexts are encountered that consist predominately of carbonised wood charcoal, in these cases smaller samples of 10 litres would appear suitable.

7.22 Where charred deposits are encountered with a wide spatial spread then multiple smaller samples of 1-10 litres should be taken to provide information on vertical and horizontal variation within the deposit. This should especially be conducted with deposits that consist of material other than wood charcoal.

Mineralised/Silicified remains

7.23 Samples of up to 40 litres for the recovery of mineralised/silicified remains, as well as charred remains, should be taken from secure dated ashy or cess deposits.

Industrial remains

7.24 Samples of up to 40 litres for the recovery of remains from industrial activities, such as hammer scale, together with charred remains should be taken from appropriate dated features such as hearths and kilns.

- 7.25 Where there is evidence for large scale metalworking spreads, a specific sampling strategy should be developed.

Marine shell

- 7.26 Samples of up to 20 litres should be taken from large deposits of marine shell, such as oysters and mussels. A specific sampling strategy should be developed if shell middens or a large number of shell dumps are encountered.

Insect remains

- 7.27 Samples of up to 40 litres for the recovery of insect remains, together with
7.28 waterlogged remains and charred remains, should be taken from features with well sealed waterlogged deposits such as water holes, wells and palaeo-channels.

Animal bone

- 7.29 Samples should be targeted from contexts containing larger deposits of bone in particular those with articulated animal bone groups or larger quantities of fish bone.

Cremated human bone

- 7.30 Samples of 100% of the deposit should be taken in quadrants and spits from cremation related deposits for the recovery of cremated human bone, together with charred remains.

Column Samples

Land and aquatic mollusc samples

- 7.31 Where larger deeper deposits are uncovered from appropriate dated features, such as enclosure ditches, barrow ditches, palaeo-channels, or buried soils, then column samples should be taken for the recovery of molluscan remains. The mollusc samples should generally be two litres taken at around 10 cm intervals respecting context boundaries through the appropriate section. Spot samples of two litres can be taken from any additional contexts in the section not present in the column.

- 7.32 Spot samples for the recovery of molluscs can also be taken from features where a full series of samples is unwarranted such as basal fills of Neolithic pits or ditches where the question to be addressed is whether it was a wet or dry environment.

Waterlogged plant remains

- 7.33 Where larger deeper waterlogged deposits are uncovered from appropriate dated features such as palaeo-channels, drainage ditches and water holes, then column samples of two litres should be taken. These can be the same samples as those taken for molluscs if appropriate.

- 7.34 Spot samples for the recovery of waterlogged remains can also be taken from features where a full series of samples is unwarranted such as basal fills of wells.

Monolith samples

- 7.35 Monolith samples should be taken from deep sequences to allow soil and sediment description/interpretation as well as sub-sampling for pollen and other micro/macrofossils such as diatoms, foraminifera and ostracods. They should also be taken from sections with column samples for mollusc and waterlogged remains

Kubiena samples

- 7.36 Kubiena samples should be taken from buried soils and occupation surfaces for soil micro-morphological analysis.

Worked wood samples

- 7.37 Where worked wood has been preserved forming part of a structure such as a tanning pit or revetment, a suitable sampling strategy should be devised.

Inhumation remains samples

- 7.38 Samples should be taken for the recovery of human remains from around different parts of the skeleton.

Artefact samples

- 7.39 Samples taken only for the recovery of artefact, such as flint micro-debitage, are generally only taken as part of an agreed sampling strategy for the site.

Other specialist samples

- 7.40 Other specialist samples, such as for OSL, archaeomagnetism, thermoluminescence, magnetic susceptibility, phosphate analysis and dendrochronology, should be taken under the direction of the relevant specialists.

- 7.41 The post-excavation processing of all palaeoenvironmental samples will be undertaken in line with the requirements of the former English Heritage's (now Historic England) publications *Archaeological Science at PPG16 Interventions: Best Practice Guidance for Curators and Commissioning Archaeologists* (2006) and *Environmental Archaeology: A guide to the theory and practice of methods from sampling and recovery to post-excavation* (2011).

Human remains

- 7.42 The site is known to contain cremation burials. Removal of human remains will only take place in compliance with the Burial Act 1857 and after obtaining a Section 25 exhumation licence obtained from the Ministry of Justice. If required a qualified and experienced osteoarchaeologist will undertake site visits to discuss the recording and assist in the removal of any human skeletal remains.

- 7.43 Human remains will be processed as part of the post-excavation assessment following national standards and guidance, including English Heritage (2004), Brickley and McKinley (2004) and the Church of England/English Heritage (2005).

Scientific dating

- 7.44 The recovery of material suitable for radiocarbon, archaeomagnetic and/or dendrochronological dating will be sought, if appropriate.

Waterlogged wood

- 7.45 Given the find of worked wood in the evaluation there is a high likelihood of further items of worked wood being recovered in the excavation. The recording, sampling and storage of any worked wood will follow the methodology contained within the 2010 English Heritage document *Waterlogged Wood: Guidelines on the recording, sampling, conservation and curation of waterlogged wood*.

- 7.46 It is anticipated that all worked wood will be recovered from site following in situ recording. If necessary Wessex Archaeology's wood specialist will attend to provide advice on recording and recovery.

Other finds

- 7.47 All finds and samples will be treated in a proper manner during the excavation and post-excavation stage and to standards agreed in advance with the recipient museum. Finds will be exposed, lifted, cleaned, conserved, marked, bagged and stored in accordance with the guidelines set out in United Kingdom Institute for Conservation's Conservation Guidelines No. 2 (1990) and the ClfA guidelines *Standard and Guidance for the collection, documentation, conservation and research of archaeological materials* (2014c).

- 7.48 If required, conservation will be undertaken by approved conservators in line with the *First Aid for Finds* guidelines (Watkinson and Neal 1998). In accordance with the procedures outlined in English Heritage's MoRPHE PPN3 (2008), significant iron objects, a selection of non-ferrous artefacts (including all coins), and a sample of any industrial debris relating to metallurgy should be X-radiographed before assessment.

- 7.49 All finds of gold and silver will be moved to a safe place. Where removal cannot be effected immediately, suitable security measures will be taken to protect the artefacts from theft or damage. All finds of gold and silver, and associated objects, will be immediately reported to the Derbyshire Finds Liaison Officer (FLO) who will inform the coroner according to the procedures relating to the Treasure Act 1996 (and the act's amendment of 2003 to include prehistoric objects such as Bronze Age metalworking hoards and other non-precious metal items), after discussion with the client and the Planning Archaeologist.

- 7.50 Ownership of any finds recovered from the archaeological works rests with the landowner except where other law overrides this (e.g. Treasure Act 1996, Burial Act 1857). However, Lanpro will seek to obtain 'in principle' agreement from the landowner to donate the recovered artefacts to the recipient museum (subject to statutory laws concerning human remains and treasure trove).

Unexpectedly significant or complex discoveries

- 7.51 Should unexpectedly extensive, complex or significant remains be uncovered that warrant, in the professional judgment of the archaeologist on site, requiring more detailed recording than is appropriate within the terms of the WSI, the scope of the WSI will be reviewed.

7.52 In the event of a review of the WSI being required, Lanpro will contact the client and The Planning Archaeologist with the relevant information to enable them to resolve the matter. This is likely to require an on-site meeting between the relevant stakeholders to review the archaeological remains on-site and identify a way forward. Any variations to this WSI will be put in writing and agreed by the relevant stakeholders including the Planning Archaeologist and the client.

Plant and equipment

7.53 The archaeological contractor on site will be responsible for the provision of all required welfare, plant and health and safety equipment.

8 POST-EXCAVATION ASSESSMENT AND REPORTING

8.1 The post-excavation assessment work will comprise the following:

- checking of drawn and written records during and on completion of fieldwork
- production of a stratigraphic matrix of the archaeological deposits and features present on the site, if appropriate
- cataloguing of photographic material
- cleaning, marking, bagging and labelling of finds according to the individual deposits from which they were recovered. Finds requiring specialist conservation will be sent for appropriate treatment. Finds will be identified and dated by appropriate specialists

Finds

8.2 All finds will be treated in a proper manner during the post-excavation stage and to standards agreed in advance with the Derby Museum. Finds will be cleaned, conserved, marked, bagged and stored in accordance with the guidelines set out in United Kingdom Institute for Conservation's Conservation Guidelines No. 2 (1990) and the ClfA guidelines *Standard and Guidance for the collection, documentation, conservation and research of archaeological materials* (2014b).

8.3 In accordance with the procedures outlined in English Heritage's MoRPHE PPN3 (2008), significant iron objects, a selection of non-ferrous artefacts (including all coins), and a sample of any industrial debris relating to metallurgy will be X-radiographed before assessment.

8.4 All material will be packed and stored in optimum conditions, as described in *First Aid for Finds* (Watkinson and Neal 1998). Waterlogged organic materials will be dealt with in line with the English Heritage guidance documents, *Waterlogged Organic Artefacts. Guidelines on their Recovery, Analysis and Conservation* (2012) and *Waterlogged Wood. Guidelines on the recording, sampling, conservation and curation of waterlogged wood* (2010).

8.5 The preservation state, density and significance of material retrieved will be assessed, following the English Heritage guidelines *Environmental Archaeology: A guide to the theory*

and practice of methods from sampling and recovery to post-excavation (2011). The finds assessment will be reported within the overall post-excavation assessment report and include proposals for full analysis to be incorporated into the updated Project Design.

- 8.6 Finds for dating will be submitted to specialists promptly, so as to ensure that results are available to aid development of the Project Design for the analysis stage.

Environmental Sample Processing

- 8.7 The processing of all palaeoenvironmental samples will be undertaken in line with the requirements of the English Heritage publications *Archaeological Science at PPG16 Interventions: Best Practice Guidance for Curators and Commissioning Archaeologists* (2006b) and *Environmental Archaeology: A guide to the theory and practice of methods from sampling and recovery to post-excavation* (2011).
- 8.8 The samples will be processed, and ecofacts collected and assessed with regard to the potential for detailed analysis of pollen, charred plant macrofossils, land molluscs, faunal remains (including small mammals and fish) and soil micromorphology. Samples suitable for radiocarbon, or other dating methods, will also be identified. The environmental assessment will be reported within the overall post-excavation assessment report and include proposals for full analysis to be incorporated into the updated Project Design. Unprocessed sub-samples will be stored in conditions specified by the appropriate specialists. Samples for dating will be submitted to specialists promptly, so as to ensure that results are available to aid development of the Project Design for the analysis stage.

Human Remains Processing

- 8.9 Human remains will be processed following national standards and guidance, including English Heritage (2004), Mitchell and Brickley (2017) and the Church of England/Historic England (2017). Processing will be undertaken by experienced specialists trained in the identification of human remains and who are familiar with delicate areas of the skeleton that need careful preservation, important areas required for an individual identification (e.g. age and sex) as well as potentially pathologically altered bones.
- 8.10 Where specialist processing may be required, for example where samples may be required for DNA analysis, specialist advice will be sought to minimise potential contamination. The human remains will be placed in breathable bags and labelled and boxed protected by polyethylene 3mm foam sheeting and in line with any specific archive requirements.
- 8.11 Cremation burials will be processed by removing the fill of the vessel in 5 to 10mm spits with recording of the distribution and density of the bone per spit following guidance by Mitchell and Brickley (2017). The fill will be wet sieved over a 1mm mesh with retrieval of burnt bone, pyre debris such as charcoal and botanical remains, and the remains then air-dried and hand-sorted.

Conservation

- 8.12 If required, conservation will be undertaken by approved conservators in line with the *First Aid for Finds* guidelines (Watkinson and Neal 1998). Material considered vulnerable will be selected for stabilisation after specialist recording. Where intervention is necessary, consideration must be given to possible investigative procedures (e.g. glass composition studies, residues in or on pottery, and mineral-preserved organic material).

Reporting

- 8.13 Following completion of the fieldwork and consolidation of the archive, the excavation results will be assessed in order to establish the potential of the data for further analysis. Should the results warrant it a formal process of post-excavation 'Assessment of Potential for Analysis', in line with Historic England MoRPHE PPN3 procedures will be undertaken to ensure that analytical and reporting work is most effectively targeted and that the potential of the excavated data is fully met in the post-fieldwork analytical programme.
- 8.14 The methodologies and timetable for post-excavation and publication will be included in the Updated Project Design (UPD). The document will be based on English Heritage's Management of Archaeological Projects. It is likely to comprise the following sections:
- Introduction - planning and project background, site location, results of adjacent archaeological investigations etc;
 - Original Aims and Objectives of the Investigation;
 - Provisional Summary of Results - an integrated text (combining structural, artefactual and ecofactual) divided by chronological period;
 - Data Quantification - divided by data type (structural, artefactual and ecofactual);
 - Potential of the Data to Address the Original and New Research Objectives - realistic discussion linked to the information presented in preceding sections;
 - Updated Project Design - revised research objectives appropriate to the recovered data, timetable, description of analysis, publication and archiving.
- 8.15 Following approval of the UPD by the Development Control Archaeologist any necessary analysis and publication of the records, artefacts and ecofacts will be undertaken.
- 8.16 Should the results of the excavation not be considered to warrant a formal assessment process, and with the agreement of the Development Control Archaeologist, a report detailing the findings of the archaeological works will be prepared within four months of the completion of site works (dependant on receiving specialist reports) and will consist of:
- a title page detailing site address, site code and accession number, NGR, author/originating body, client's name and address;
 - full contents listing;
 - a non-technical summary of the findings of the fieldwork;
 - a description of the topography and geology of the excavation areas;

- a description of the methodologies used during the fieldwork;
 - a description of the findings of the fieldwork;
 - site and excavation area location plans and plans of each of the excavation areas showing the archaeological features exposed;
 - sections of the excavated archaeological features;
 - interpretation of the archaeological features exposed and their context within the surrounding landscape;
 - specialist reports on the artefactual / ecofactual remains from the site;
 - appropriate photographs of specific archaeological features;
 - the OASIS reference and summary form
- 8.17 The format and contents of the report will conform to Derbyshire County Council requirements and to published regional Standards.
- 8.18 An unbound hardcopy of the report, clearly marked DRAFT, will be presented to the Planning Archaeologist for Derbyshire CC for approval within four months of the completion of fieldwork unless other arrangements are negotiated. Following acceptance, a single copy of the report will be presented to the Derbyshire HER as well as a digital copy of the approved report. Where appropriate, a copy of the approved report will be sent to the local archaeological museum. A digital vector trench plan will be included with the report, compatible with industry standard GIS software for integration in the Derbyshire HER.
- 8.19 Notes or articles describing the results of the archaeological fieldwork will be submitted for publication to an appropriate local journal and/or national journals, dependant on the nature of the results. As a minimum a summary of the results of the fieldwork will be submitted to the Derbyshire Archaeological Journal within 2 years of completion of the fieldwork.

9 ARCHIVING

- 9.1 The archive will be prepared in accordance with the *Guidelines for the preparation of Excavation Archives for long-term storage* (United Kingdom Institute for Conservation, 1990), *Standards in the museum care of archaeological collections* (Museums and Galleries Commission 1994), the Historic England guideline publication *Management of Research Projects in the Historic Environment (MoRPHE): Project Managers Guide* (2015) and *Procedures for the Deposition of Archaeological Archives from Derbyshire at Derby Museums* (Derby Museums 2016). Provision will be made for the stable storage of paper records and their long-term storage.

9.2 Adequate resources will be provided during fieldwork to ensure that all records are checked and internally consistent. Archive consolidation will be undertaken immediately following the conclusion of fieldwork and will include the following work:

- the site record will be checked, cross-referenced and indexed as necessary
- all retained finds will be cleaned, conserved, marked and packaged in accordance with the requirements of the recipient museum
- all retained finds will be assessed and recorded using pro forma recording sheets, by suitably qualified and experienced staff. Initial artefact dating will be integrated within the site matrix
- all retained environmental samples will be processed by suitably experienced and qualified staff

9.3 The site archive will be deposited with Derby Museum.

9.4 An OASIS form will be completed for the project and an electronic copy of the final report deposited with the Archaeological Data Service (ADS).

10 STAFFING

10.1 The fieldwork will be undertaken by Wessex Archaeology. The project will be managed for Wessex Archaeology by Andrew Norton MCIfA and supervised by Hannah Dabill. Details of Wessex Archaeology's specialists are as follows:

Name	Qualifications	Specialism
Phil Andrews	BSc; FSA; MCIfA	Slag and metal working debris
Pippa Bradley	BA; MPhil; Dip Post Ex; FSA; MCIfA	Prehistoric flint and worked stone, shale and jet
Elina Brook	BA; MA; PCIfA	Later prehistoric and Romano-British pottery, and small finds
Kirsten Egging Dinwiddy	BA; MA; ACIfA	Human remains (inhumations)
Ines Lopez Doriga	BA; MA; PhD	Archaeobotanical remains
Erica Gittins	BA; MA; PhD	Prehistoric flint
Phil Harding	PhD	Prehistoric flint, particularly Palaeolithic flint
Lorrain Higbee	BSc; MSc; MCIfA	Animal bone

Name	Qualifications	Specialism
Matt Leivers	BA; PhD; ACIfA	Prehistoric pottery and flint
Jacqueline McKinley	BTech; FSA	Human remains (inhumations and cremations)
Erica Macey-Bracken	BA; ACIfA	Post-medieval finds, ceramic building material and worked wood
David Norcott	BA; MSc; MCIfA	Geoarchaeology
Richard Payne	BSc; MSc; MPhil	Geoarchaeology
Holly Rodgers	BA; MSc	Geoarchaeology
Lorraine Mephram	BA; MCIfA	Pottery and other ceramic finds of all dates, concentrating on later prehistoric and post-Roman;
Sue Nelson	BA; MA; ACIfA	Prehistoric and Romano-British pottery, small finds, glass, and tile
Rachael Seager Smith	BA; MCIfA	Pottery with particular emphasis on Roman ceramics; and metalwork, fired clay, ceramic building material, stone, worked bone, shale, glass, and wall plaster
Lynn Wooten	BSc; ICON; MIOc	Archaeological conservator

10.2 Paul Gajos MCIfA (Lanpro Archaeology and Heritage Director) will be in overall charge of the project and will monitor the work on behalf of the developer. The appointed archaeological contractor will be a Registered Organisation with the Chartered Institute for Archaeologists.

11 TIMETABLE

11.1 The Planning Archaeologist for Derbyshire CC will be given at least one week's notice of the commencement of the fieldwork and will monitor implementation of the programme of works on behalf of the Local Planning Authority and evaluate the work being undertaken on site against the methodology detailed in this WSI. They will be free to visit the site at any time by prior arrangement with Lanpro.

11.2 Excavation and recording is anticipated to involve a maximum of three week fieldwork on-site.

- 11.3 An assessment report will be produced within eight weeks of completion subject to the complexity of any archaeological features or finds encountered.

12 MONITORING

- 12.1 The aim of monitoring is to ensure that the archaeological works are undertaken within the limits set by this WSI, and to the satisfaction of the Planning Archaeologist for Derbyshire CC.
- 12.2 Paul Gajos of Lanpro (MCIfA; Director Archaeologist & Heritage, Lanpro) will monitor implementation of the programme of works on behalf of the client.
- 12.3 The Planning Archaeologist for Derbyshire CC will monitor implementation of the programme of works on behalf of the Local Planning Authority and evaluate the work being undertaken on site against the methodology detailed in this WSI.
- 12.4 The Planning Archaeologist for Derbyshire CC will be responsible for considering any changes to the scope of works. Any such alterations will be agreed in writing with the relevant parties prior to commencement of on-site works, or at the earliest available opportunity.

13 INSURANCE

- 13.1 The archaeological contractor will produce evidence of Public Liability Insurance to the minimum value of £5m and Professional Indemnity Insurance to the minimum of £5m.

14 HEALTH AND SAFETY

- 14.1 All works will be undertaken in compliance with the Health and Safety at Work Act (1974) and all applicable regulations and Codes of Practice, and the Construction Design Management Regulations 2015.
- 14.2 All archaeological staff will undertake their operations in accordance with safe working practices and will be CSCS certified. At least one First Aider will be present on site at all times.
- 14.3 A site-specific risk assessment will be undertaken, recorded and provided to Lanpro prior to the commencement of work on site.
- 14.4 Regular audits of health and safety practices will be carried out during the course of the project by Lanpro and the archaeological contractor in consultation with the site workforce. Toolbox talks on health and safety issues will be conducted at minimum weekly intervals and/or after changes in working practices or identification of new threats/risks. The risk assessment will be reviewed and updated as necessary. Control measures will be implemented as required in response to specific hazards.

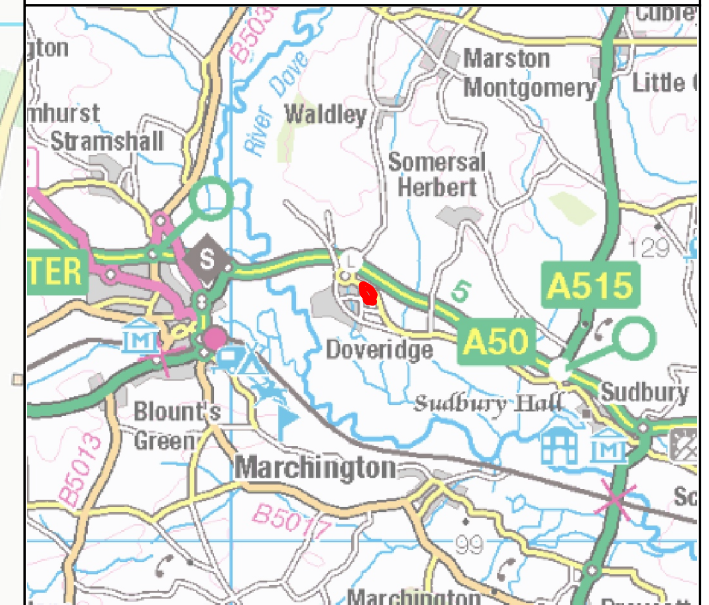
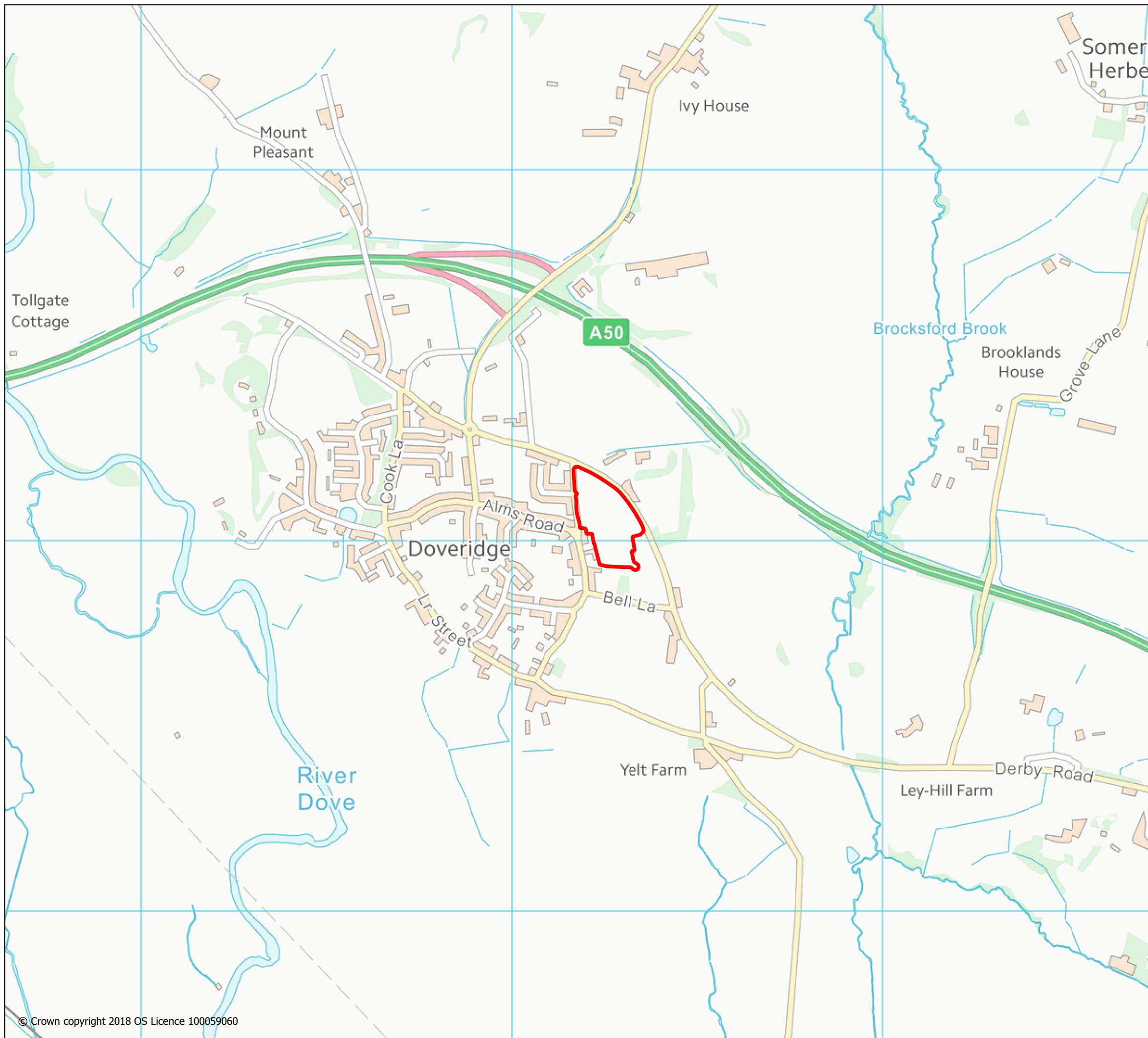
- 14.5 Safe working will take priority over the desire to record archaeological features or remains, and where it is considered that recording is dangerous, any such features will be recorded by photography at a safe distance.
- 14.6 Trench locations will be scanned with a Cable Avoidance Tool (CAT) prior to excavation.
- 14.7 Where archaeological work is carried out at the same time as the work of other contractors, regard will be taken of any reasonable additional constraints that these contractors may impose.
- 14.8 All staff will receive a health and safety induction prior to starting work on site to be provided by the archaeological contractor, and visitors to the site will receive an induction as required.
- 14.9 The archaeological contractor will provide all staff on site with copies of all health and safety documentation. Plant operators will be required to produce evidence of qualification within an industry accepted registration scheme. Sub-Contractors health and safety performance will be kept under review and action taken if necessary.

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Figures

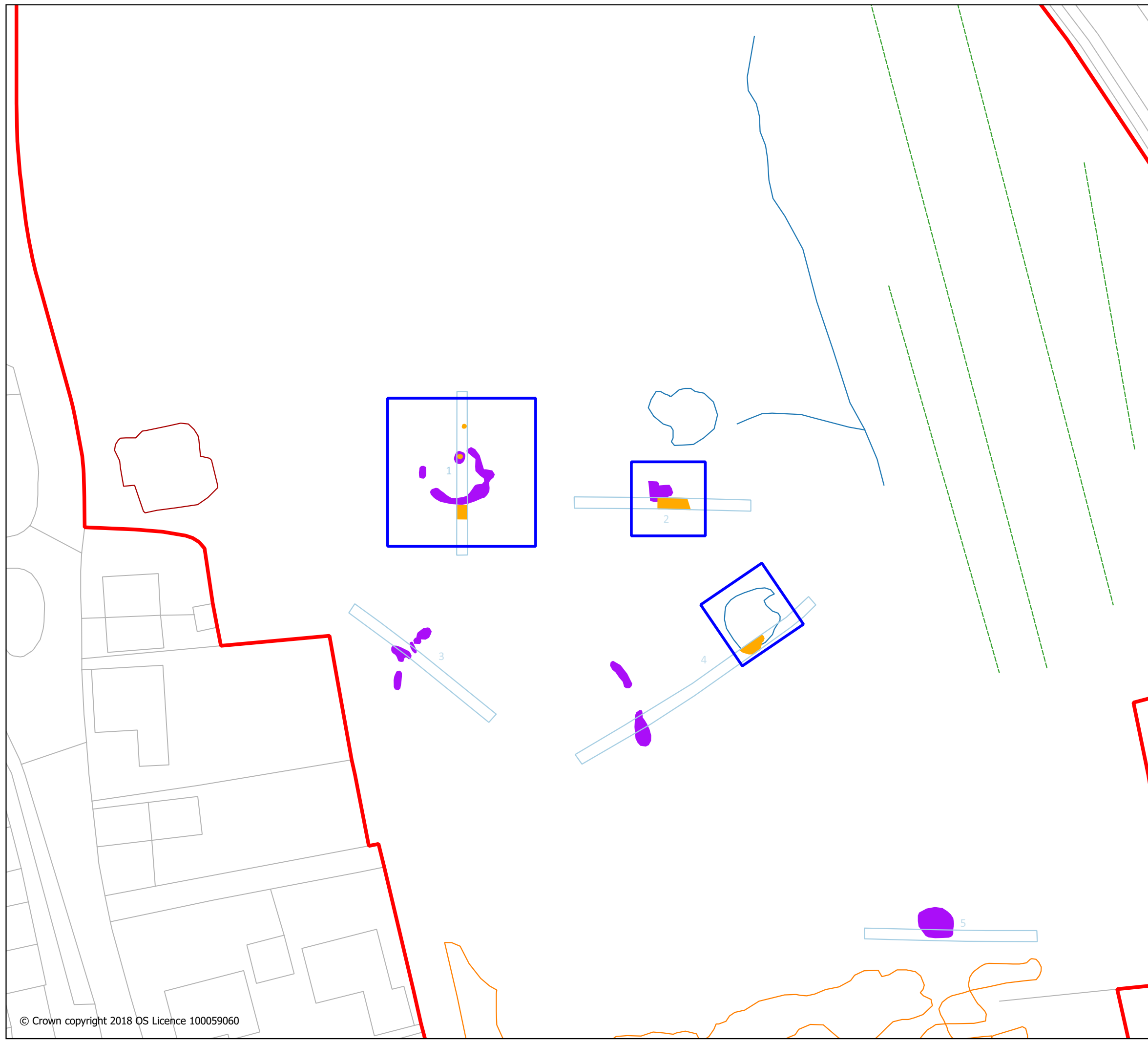
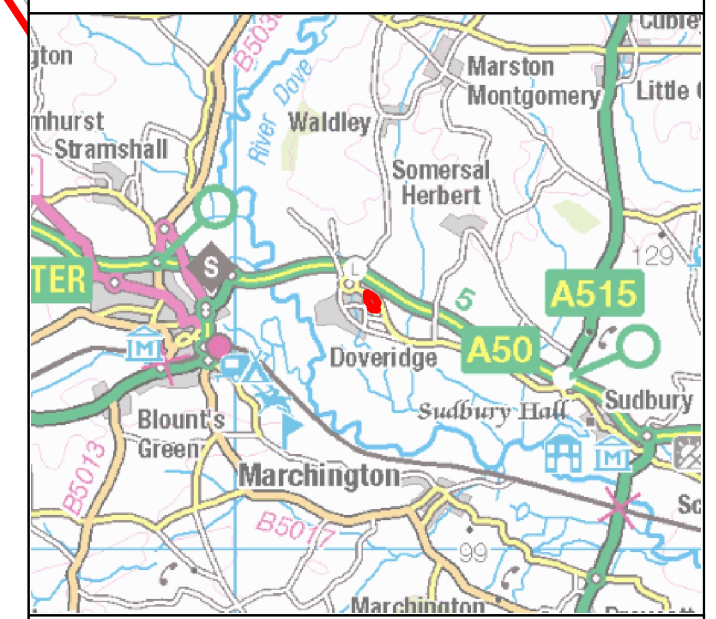


— Site boundary



0 100 200 300 400 500 m

Figure 1. Site location



- Site boundary
- Mitigation excavation area
- Excavated trench
- Excavated archaeology
- Geophysics - possible archaeology
- Geophysics - modern disturbance (pipe/culvert)
- Geophysics - modern disturbance
- Geophysics - probable field drain
- Geophysics - probable in-filled pond
- - - Ridge and Furrow

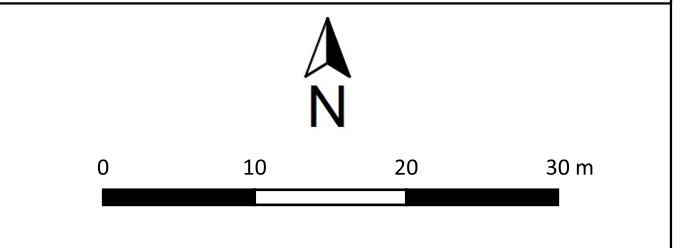



Figure 2. Proposed archaeological excavation area plan, overlaid on geophysical survey interpretation and trial trenching results

Appendix 1

Project Initiation Form

Project name: Land off Derby Road, Doveridge		Contractor's site code: 205731	
Main contact person	Jenny Crangle		
Contractor	Wessex Archaeology		
Address	Wessex Archaeology, Unit R6, Sheaf Bank Business Park, Prospect Road, Sheffield, S2 3EN		
Telephone	0114 255 9774		
Fax	N/A		
Email	j.crangle@wessexarch.co.uk		
Project Manager:	Andy Norton		
Site Details			
Site name: Land off Derby Road		A copy of the agreed Written Scheme of Investigation/Project Design is attached	
Address: Doveridge, Derbyshire, DE6 5LA			
National Grid Reference (centred): SK 41229 3403			
Size of area to be investigated: - m ²		Planning reference: 15/00389/OUT	
Brief description of the proposed development: Mitigation of possible barrow (see WSI)			
Land Owner(s) and contact details:	Not known	Developer and contact details:	Bellway Homes Relay Point Relay Drive Tamworth Staffordshire B77 5PA
Brief description of the site, the expected archaeology and its expected significance:			

Type of Fieldwork (<i>please circle</i>): evaluation/ <u>excavation</u> / watching brief/ survey
Date of Site expected (<i>please circle</i>): <u>Prehistoric</u> / Roman / Medieval / <u>Post-Medieval</u>
Type of Site expected (<i>please circle</i>): <u>Rural</u> / Urban / Industrial / <u>Cemetery</u>
Conservation & Storage Problems Anticipated
Waterlogged material anticipated: <u>YES</u> /NO
Bulk environmental samples anticipated: <u>YES</u> / NO
Bulk industrial/kiln waste products anticipated: <u>YES</u> / NO
Building materials/architectural fragments anticipated: YES/ <u>NO</u>
Comment
Please describe any extraordinary conservation needs that might be necessary for the archive: N/A

Archive		
Anticipated volume of material including documentary archive to be deposited: Two boxes m ³		
Proposed deposition milestones	What? Expected by when?	
	<input type="checkbox"/> Field work starts	22/10/2018
	<input type="checkbox"/> Field work completed	21/12/2018
	<input type="checkbox"/> Mid project review of deposition	TBC
	<input type="checkbox"/> Post excavation work completed	TBC
	<input type="checkbox"/> Title of transfer secured	TBC
	<input type="checkbox"/> Deposition	Within 1 year of fieldwork
Proposed on site sampling strategy: See WSI		
Electronic archive to be deposited with ADS or similar organisation: Yes /No		
Oasis form to be completed and report uploaded digitally.		
Please describe what public or stakeholder consultation you are planning as part of this project:		
Consultation with Derbyshire Development Control Officer throughout		
<p>On behalf of the depositor, I confirm that we intend to offer this archive to Derby Museum as the most appropriate depository according to pre-published Collections Development Policy. I have read and understood the museum's deposition guidance policy. The archive will be prepared in accordance with said policy including full transfer of title and the payment of the relevant deposition charge.</p> <p>Date: Name: Jennifer Crangle Job Title: Finds & Archives Officer</p> <p>Signature: </p>		

