



Land off Lundhill Road, Wombwell
Barnsley
South Yorkshire
S75 4JP

Written Scheme of Investigation for an Archaeological Evaluation by
Trial Trenching

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On behalf of: Persimmon Homes West Yorkshire

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Written Scheme of Investigation for an Archaeological Evaluation by Trial Trenching on land off Lundhill Road, Wombwell, South Yorkshire

1. Introduction

- 1.1 This Written Scheme of Investigation (WSI) has been prepared by Archaeological Services WYAS (ASWYAS) for White Persimmon Homes to carry out an archaeological evaluation by trial trenching on land off Lundhill Road, Wombwell. (Fig. 1).
- 1.2 This document sets out a strategy for archaeological investigation in order to fulfil a condition of the planning consent.
- 1.3 Thereafter the evaluation shall only take place in accordance with the approved WSI and the development shall not be brought into use until the Local Planning Authority has confirmed in writing that the requirements of the WSI have been fulfilled or alternative timescales agreed.
- 1.4 The archaeological work will comply with the relevant standard of the Chartered Institute for Archaeologists (2014a-c), Historic England's best practice documents (1991, 2006, 2008) and the "Regional statement of good practice for archaeology in the development process, Yorkshire, the Humber & the north east" (available for download from the 'Technical Documents' page of the SYAS website).
- 1.5 This WSI specifies a scheme of investigation for archaeological evaluation by trial trenching. Should mitigation works be required by the planning authority, they will be specified in a subsequent WSI to be approved by SYAS.

2. Site location, topography and land-use

- 2.1 The proposed development site covers an area of approximately 5.08 hectares on the south-eastern edge of Wombwell, centred at SE 40426 01915. The site is located to the east of Lundhill Road, to the south of Dove Road and to the west of Elsecar Canal. The land to the south of the proposed development is occupied by a single residential property and its surrounding land.
- 2.2 The site is situated on ground sloping gently from north to south between approximately 49m AOD and 42m AOD. The land is currently occupied by overgrown scrub to the north and a grass meadow to the south.

3. Geology and soils

- 3.1 The underlying geology of the proposed development site comprises Pennine Middle Coal Measures Formation, described as sedimentary bedrock formed approximately 309 to 312 million years ago in the Carboniferous Period, no superficial deposits are recorded (BGS 2018). The soils are classified as

Rivington 1 association and are described as well drained coarse loamy soils over sandstone (Soil Survey of England and Wales 1983).

4. Archaeological background

- 4.1 The following information has been taken from Lundhill Road, Wombwell: Desk based archaeological assessment (Moon 2016).
- 4.2 The proposed development site occupies land that was used for agricultural purposes until fairly recently, and remains undeveloped to the present day. This lack of development might facilitate the survival of earlier (e.g. prehistoric or Roman) activity.
- 4.3 The site also lies in an area of known medieval activity, close to the site of a former medieval manor house, so the possibility of encountering further medieval remains should not be discounted.
- 4.4 The archaeological desk-based assessment established that there is a medium potential for archaeological remains within the proposed development site based on the known heritage assets close to the proposed development site and mining activity in the vicinity, but in the absence of any known archaeological interventions, evidence for earlier activity cannot be excluded.
- 4.5 A geophysical survey undertaken by ASWYAS in January 2018 identified anomalies in the north of the area indicative of ridge and furrow agriculture. The south of the PDA also identified ridge and furrow as well as anomalies of possible archaeological origin (Brunning and Sykes 2018).

5. Aims and Objectives

- 5.1 The overall aim of the trial trench evaluation is to provide information on the presence or absence and the extent, character, chronology, depth of burial and degree of archaeological survival across the site. The results of the trial trenching will be used by SYAS to inform the level and type of archaeological investigations that may be required to mitigate future development.

6. Methodology

- 6.1 All work will be undertaken in accordance with the relevant standards (ClfA 2014a-c; Historic England 1991, 2006, 2008). The evaluation will involve the excavation of 17 trenches, with their proposed locations detailed in Fig. 1 and their rationale in Table 1. The evaluation will be conducted by an appropriately qualified and experienced archaeologist who will be present during all ground works. In case the extent and nature of features need to be clarified, an additional 10% of trenching will be allowed for as a contingency.

Table 1. Rationale for the trench locations

Trench	Size (m)	Target
1	50 x 2	Investigate potential ridge and furrow agriculture in the northwest area of the PDA
2	50 x 2	Investigates potential ridge and furrow agriculture in the west of the PDA
3	30 x 2	Investigate potential ridge and furrow agriculture in the west of the PDA
4	50 x 2	Investigate agricultural anomalies and the line of a former field boundary
5	50 x 2	Investigate agricultural anomalies
6	50 x 2	Investigate relatively blank area
7	30 x 2	Investigate area of magnetic disturbance
8	30 x 2	Investigate potential agricultural anomaly
9	30 x 2	Investigate potential agricultural anomaly
10	50 x 2	Investigate possible archaeological and agricultural anomalies
11	50 x 2	Investigate anomalies of possible archaeological and geological origin.
12	50 x 2	Investigate potential ridge and furrow agriculture
13	65 x 2	Investigate possible archaeological features within the southern area of the PDA
14	30 x 2	Investigate possible archaeological features in the southern area of the PDA
15	50 x 2	Investigate potential continuation of features to the east
16	50 x 2	Investigate potential ridge and furrow agriculture and the line of a former field boundary
17	50 x 2	Investigate potential ridge and furrow in the east of the PDA

- 6.2 The trial trenches will be opened and the recent overburden removed down to the first significant archaeological horizon in successive level spits of a maximum 0.2m thickness, by the use of an appropriate machine using a wide toothless ditching blade. Under no circumstances will the machine be used to cut arbitrary trenches down to natural deposits. Any machine work will be carried out under direct archaeological supervision and the machine halted if significant archaeological deposits are encountered. The top of the first significant archaeological horizon may be exposed by the machine, but will then be cleaned by hand and inspected for features. The trench excavation should not exceed 1.2m.

- 6.3 Any archaeological features/deposits will be manually excavated in an archaeologically controlled and stratigraphic manner, in order to meet the aims and objectives outlined above.
- 6.4 No archaeological deposits will be entirely removed unless this is unavoidable in achieving the objectives of this evaluation, although all features identified are expected to be half-sectioned and the full depth of archaeological deposits assessed.
- 6.5 Features will be sample excavated employing the following strategy:
- Linear features: sufficient excavation will be carried out to investigate the depth, profile and fills of a ditch or gully and to recover dating and environmental evidence from its fills. Normally this will involve a minimum of 20% sample dispersed along the length of the feature (each sample section to be not less than 1m), With respect to trial trenches, one 1m section will be located and recorded adjacent to the trench edge. Feature intersections will always be excavated in such a way to determine a stratigraphic relationship.
 - Discrete features: pits, post-holes and other discrete features will normally be half-sectioned to determine and record their form with a minimum sample of 50% of discrete features in each area. The complete excavation of such features may be appropriate, but only following consultation with SYAS.
- 6.6 A full written, drawn and photographic record of all material revealed during the course of the work shall be made. The excavation limits will be surveyed using electronic survey equipment with larger scale hand drawn plans of features, at 1:20 or 1:50, being created as appropriate. Sections of linear and discrete features will be drawn at 1:10 or 1:20. All sections, plans and elevations will include spot-heights related to Ordnance Datum in metres as correct to two decimal places. Tie-in information will be undertaken during the course of the evaluation and will be fixed in relation to nearby permanent structures and roads and to the National Grid. The photographic archive will comprise monochrome negative photographs at a minimum format of 35mm and colour slide film, augmented by digital photographs taken using cameras with a resolution of at least 10 megapixels.
- 6.7 All excavated archaeological contexts shall be fully recorded by written records, giving details of location, composition, shape, dimensions, relationships, finds, samples, and cross-references to other elements of the record and other relevant contexts, in accordance with best practice. All contexts, and any small finds and samples from them will be given unique numbers. Bulk finds will be collected by context.
- 6.8 All artefacts will be removed from the site for assessment and analysis, and where it is appropriate, their find spots shall, if appropriate, be recorded three

dimensionally. Non-modern artefacts from the excavated topsoil and subsoil will be collected. Finds material will be stored in controlled environments, where appropriate. All artefacts recovered will be retained, cleaned, labelled and stored as detailed in the guidelines laid out in the ClfA (2014b). Any necessary conservation work will be undertaken by approved conservators working to UKIC guidelines.

- 6.9 A soil-sampling programme shall be undertaken during the course of the investigation for the identification and recovery of carbonised and waterlogged remains, vertebrate remains, molluscs and small artefactual material.
- 6.10 In the event of human remains being discovered they will, in the first instance, be left *in situ*, covered and protected. The removal of human remains will only take place in compliance with either a faculty issued by the Chancellor of the Diocese, or the Burial Act 1857. In the case of the latter (i.e. in the absence of a faculty) an exhumation licence must be obtained from the Ministry of Justice prior to the removal of the remains.
- 6.11 All finds defined as 'treasure' under the Treasure Act 1996 shall be reported to HM Coroner according to the procedures relating to the Treasure Act 1996.
- 6.12 Appropriate specialists will visit the site to advise on sampling strategies and their suggested strategies will then be implemented.
- 6.13 Provision will be made to recover material suitable for scientific dating. Contingency sums will be made available to undertake such dating.
- 6.14 Further contingency provision will be made for additional specialist advice, e.g. for finds analysis and conservation. Illustrated notices will be displayed around the site (with the client's agreement), explaining what work is in progress and why, to keep members of the public informed. The notice will be a minimum of A3 size, with font at a minimum size of 16 point

7. Analysis and Reporting

- 7.1 An interim note will be submitted to SYAS within a fortnight of fieldwork finishing. This will include:

- A brief summary of fieldwork results ;
- A basic description of material recovered;
- An initial assessment of character and significance;
- A sketch plan of archaeological features on the site;
- An updated post-excavation timetable.

- 7.1 Following the conclusion of the fieldwork and the submission of an interim statement, an evaluation report shall be produced. For all categories of material recovered, including finds, palaeo-environmental, industrial and other specialist samples, an assessment by an appropriately experienced specialist will be undertaken. Samples must be processed and sorted, and any artefacts recovered provided to the appropriate specialist(s) to be considered alongside the hand-recovered material. Basic stratigraphic information will be supplied to the project specialists. All finds are to be treated in accordance with current best practice guidance, including English Heritage's '*Investigative Conservation*'. Finds are to be cleaned and marked, according to accepted principles and in line with appropriate period/material guidelines. For ceramic assemblages, recording shall be carried out in a manner compatible with existing typological series in local pottery reference collections, e.g. the South Yorkshire and North Derbyshire medieval ceramics reference collection. All ferrous objects and a selection of non-ferrous objects (including all coins), will be x-radiographed. Where material suitable for scientific dating was recovered, sufficient dating will be undertaken to meet the aims of the evaluation. Where further fieldwork is not to be undertaken and assessment has identified the need for further analysis, this will be completed by drawing upon agreed contingencies.
- 7.2 The site archive will be assembled in line with the recommended composition provided in English Heritage PPN3 (2008) and UKIC's document *Guidelines for the Preparation of Excavation Archives for Long Term Storage* and the ClfA's "*Standard And Guidance for the creation, compilation, transfer and deposition of archaeological archives*."
- 7.3 In addition to the site records, artefacts, ecofacts and other sample residues, the archive shall contain all the data collected during the fieldwork, including records, finds and environmental samples. It will be quantified, ordered, indexed and internally consistent. Archive consolidation will be undertaken immediately following the conclusion of fieldwork and will involve:
- the site record being checked, cross-referenced and indexed as necessary;
 - retained finds being cleaned, stabilised, marked and packaged in accordance with the requirements of the recipient museum;
 - retained finds being assessed and recorded using *pro forma* recording sheets, by suitably qualified and experienced staff. Initial artefact dating will be integrated within the site matrix; and
 - environmental samples being processed by suitably experienced and qualified staff and recorded using *pro forma* recording sheets.

- 7.4 In addition to the site records, artefacts, ecofacts and other sample residues, the archive shall contain:
- a summary report synthesising the context record;
 - a summary of the artefact record; and
 - a summary of the environment record.
- 7.5 The integrity of the primary field record will be preserved. Security copies will be maintained where appropriate.
- 7.6 Provision will be made for the deposition of the archive, artefacts and environmental material in Experience Barnsley, subject to the permission of the landowner. The museum will be contacted **in advance of commencement of fieldwork** to ascertain their requirements for the archive (e.g. marking and labelling requirements, accession number). "Archaeological Archive Deposition Policy for Museums in Yorkshire and the Humber", produced by Renaissance Yorkshire, created a uniform region-wide approach to the preparation and deposition of archaeological archives. The resulting formal process requires the completion and submission of forms to the relevant museum service at the project initiation, mid-point review and completion stages (template forms are available for download from the 'Technical Documents' page of the SYAS website). A budget to cover the museum's deposition charge must be allowed for. On completion of archiving, confirmation of deposition will be supplied to SYAS.
- 7.7 Upon completion of the investigations, the artefacts, ecofacts and stratigraphic information shall be assessed to ascertain their potential and significance for further analysis.
- 7.8 An evaluation report will be prepared within four to six weeks of the completion of on-site archaeological investigations and include the following:
- a non-technical summary of the results of the work;
 - a summary of the project's background;
 - the dates the fieldwork took place;
 - the site location, including National Grid Reference;
 - an account of the method;
 - the results of the evaluation, including phasing and interpretation of the site sequence;

- conservation assessment;
 - an assessment of the stratigraphic and other written, drawn and photographic records;
 - a catalogue of the archaeological material recovered during the evaluation;
 - assessments of each material category of finds recovered, including their types, quantities and concentrations, illustrations and/or photographs as appropriate;
 - a summary of the contents of the project archive and its location.
- 7.9 The evaluation report will be supported by an overall plan of the site, at a usable scale that accurately identifies the location of the evaluation and any findings.
- 7.10 The evaluation report will outline the archaeological significance of the deposits identified, and provide an interpretation of the results in relation to other sites in the vicinity.
- 7.11 Upon completion of the work, the archaeological contractor will make their work accessible to the wider research community by submitting digital data and copies of reports online to OASIS (<http://ads.ahds.ac.uk/project/oasis/>).
- 7.12 It is possible that the excavation findings will warrant wider publication. This may be effected through publication with *Archaeology in South Yorkshire*.
- 7.13 A recommendation on whether further archaeological investigation or preservation in situ is considered appropriate will first be discussed with SYAS and then be clearly expressed in the report. Based on the results of the evaluation, SYAS will advise the planning authority on the requirements for further investigation. These will be specified in a subsequent WSI, if required.**
- 7.14 The evaluation report will include a detailed context index and an index to the archive.
- 7.15 Bound copies of the report will be supplied to Persimmon Homes and the South Yorkshire SMR for incorporation into the South Yorkshire Sites and Monuments Record. A digital copy will also be supplied to SYAS and to Historic England's Regional Science Advisor.
- 7.16 A summary report of an appropriate length, accompanied by illustrations (at 300dpi resolution), will prepared and submitted in digital format, for publication

in the appropriate volume of *Archaeology in South Yorkshire*, if the results warrant it.

- 7.17 Provision will be made for publicising the results of the work locally, e.g. by presenting a paper at South Yorkshire Archaeology Day, if the results warrant it.
- 7.18 ASWYAS will complete the online OASIS form at <http://ads.ahds.ac.uk/project/oasis/>.
- 7.19 Where further fieldwork does not take place, a contingency will be made for the preparation and publication, in a local, regional or national journal, of the results of the evaluation.

8. Copyright, Confidentiality and Publicity

- 8.1 Copyright in the documentation prepared by ASWYAS and specialist sub-contractors should be the subject of additional licences in favour of the repository accepting the archive to use such documentation for their statutory educational and museum service functions, and to provide copies to third parties as an incidental to such functions.
- 8.2 Under the Environmental Information Regulations 2005 (EIR), information submitted to the HER becomes publicly accessible, except where disclosure might lead to environmental damage, and reports cannot be embargoed as 'confidential' or 'commercially sensitive'.
- 8.3 Requests for sensitive information are subject to a public interest test, and if this is met, then the information has to be disclosed. ASWYAS will inform the client of EIR requirements, and ensure that any information disclosure issues are resolved before completion of the work. Intellectual property rights are not affected by the EIR.
- 8.4 Unless the client commissioning the project wishes to state otherwise, the copyright of any written, graphic or photographic record and reports will rest with the originating body (Archaeological Services WYAS).

9. Health and Safety

- 9.1 ASWYAS has its own Health and Safety policy which has been compiled using national guidelines. These guidelines conform to all relevant Health and Safety legislation.
- 9.2 In addition each project undergoes a 'Risk Assessment' which sets project specific Health and Safety requirements to which all members of staff are made aware of prior to on-site work commencing. Health and Safety will take priority over archaeological matters. Necessary precautions will be taken over underground services and overhead lines at the outset of the project.

10. Insurance

- 10.1 ASWYAS is covered by the insurance and indemnities of the West Yorkshire Joint Services Committee. Insurance has been effected with: Zurich Municipal, Zurich House, 2 Gladiator Way, Farnborough, Hampshire, GU14 6GB (policy number QLA-03R896-0013). Any further enquiries should be directed to: Head of Finance, Wakefield Council, Wakefield One, PO Box 700, Wakefield, WF1 2EB.

11. Monitoring

- 11.1 Access to the site will be arranged through Persimmon Homes.
- 11.2 The project will be monitored by the SYAS to whom notification will be sent before the start of the work. A minimum of one week's notice of the commencement of fieldwork is required.
- 11.3 If appropriate, the advice of the Regional Advisor for Archaeological Science (Yorkshire and the Humber Region) at Historic England will be called upon.
- 11.4 ASWYAS will ensure that any significant results are brought to the attention the client and the SYAS as soon as is practically possible.
- 11.5 Site inspections will be arranged so that the general site stratigraphy can be assessed in the initial stage of trial trenching and/or so that the site can be inspected when fieldwork is near to completion but before any trenches have been backfilled.

12. Resources and programming

- 12.1 Key project personnel:

Project Management:	Jane Richardson PhD MIFA FSA,
	Phil Moore BA
Project Supervisors:	Phil Moore BA
Project Excavators:	Marina Rose

- 12.2 Post-excavation specialists:

Prehistoric pottery specialist:	Dr Chris Cumberpatch
Roman pottery specialist:	Dr Ruth Leary
Medieval pottery specialist:	Dr Chris Cumberpatch

Flint specialist:	Dr Ian P Brooks
Environmental specialist:	Dr Diane Alldritt
Faunal analyst:	Dr Jane Richardson
Human bone specialist:	Malin Holst MA
Metalwork specialist:	Gail Hama
Artefact conservationist:	Ian Panter

12.3 The list of Archaeological Services WYAS project personnel may be subject to change depending on workload and availability.

Bibliography

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