



East Riding Archaeology

ERECTION OF A LIVESTOCK BUILDING FOR USE AS A PIG NURSERY AT WOOD FARM, MAPPLETON ROAD, HATFIELD, EAST RIDING OF YORKSHIRE:

**Written Scheme of Investigation for a scheme of observation,
investigation and recording (Watching Brief)
for below-ground works.**

Prepared for:
H. N. Butterworth and Son

Planning Ref: DC/19/00473/PLF

HHER Ref No: HER/PA/CONS/27255

National Grid Ref: TA 21061 42582 centred around

ERA site code: 308 HWF.2021

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FIGURE 1: SITE LOCATION (COURTESY OF IAN PICK ASSOCIATES LTD).

1. SUMMARY

The purpose of this Written Scheme of Investigation is to present an archaeological strategy (Watching Brief) in support of proposals for the construction of a livestock building for use as a pig nursery and associated infrastructure at Wood Farm, Mappleton Road, Hatfield, East Riding of Yorkshire. This document has been produced by East Riding Archaeology (ERA) for H. N. Butterworth and Son. The works will commence on 7th February 2022, pending approval of this document by the Humber Historic Environment Office (HHER) and submission to and approval by the LPA.

2. INTRODUCTION

2.1 PLANNING BACKGROUND

The application for this development (reference: DC/19/00473/PLF) was submitted to East Riding of Yorkshire Council in February 2019. Permission was subsequently granted (5th April 2019) subject to various conditions including Condition 3 pertaining to archaeology:

“No development shall take place until the applicant, or their agents or successors in title, has secured the implementation of a programme of archaeological work in accordance with a Written Scheme of Investigation which has been submitted to, and approved in writing, by the Local Planning Authority. This pre-commencement condition is imposed in accordance with policy ENV3 of the East Riding Local Plan and in order to provide a reasonable opportunity to record the history of the site which site lies within an area of archaeological interest.”

The Humber Historic Environment Record Office also comments (14th March 2019; HER/PA/CONS/27255):

“The recommendation of a programme of observation, investigation and recording (watching brief) has been requested because the application site is surrounded by significant heritage assets dating from the prehistoric and/or Romano-British periods. The request for this condition is in line with Section 16 ‘Conserving and enhancing the historic environment’ of the National Planning Policy Framework 2018.”

2.2 ARCHAEOLOGICAL/HISTORICAL BACKGROUND

The following information has been provided by the HHER Office (14th March 2019; HER/PA/CONS/27255):

“The site of the proposed development lies within a sensitive archaeological landscaping containing heritage assets dating to the prehistoric and medieval periods. To the north of the application site the crop-marks of a number of enclosures have been identified and plotted from aerial photographic evidence. These have been given a probable date of prehistoric. Also to the north, during the construction of a wind turbine, and lying adjacent to the above mentioned crop-marks; a programme of archaeological work identified an Iron Age and/or Romano-British ditch. This was filled with a brown/grey clay silt from which a cows tooth and sherds of Iron Age and Romano-British pottery was recovered. Further evidence for prehistoric activity in the area can be seen with the identification of possible Bronze Age round barrows to the south-west of the application site. It is possible therefore, that any groundwork in this area has the potential to encounter archaeological remains dating from the prehistoric and Romano-British periods.”

2.3 SITE TOPOGRAPHY AND GEOLOGY

The proposed development area (NGR Ref: TA 21061 42582 centred around) is to the immediate east of an existing livestock building, currently part of an agricultural field, in the southern extent of Wood Farm complex (*Figure 1*). The underlying solid geology of the area is Rowe Chalk Formation - Chalk, with superficial deposits of Till, Devensian - Diamicton (British Geological Survey 2021).

3. AIM AND OBJECTIVES

The aim of the Watching Brief will be to identify and record the presence/absence, depth, quality of survival and importance of any archaeological deposits/features or finds exposed during the ground-works. The objectives of the monitoring will be to:

- Determine the form and function of any archaeological features identified;
- Establish the sequence of archaeological deposits;
- Retrieve dating and palaeoecological evidence from archaeological features;
- Identify any spatial distribution of activity.

Upon completion of the required monitoring, the results will be presented in appropriate detail in a post-excavation report. Assessment of the results of the fieldwork will also aim to provide recommendations as to the need, or otherwise, for further research on any of the excavated material and will determine the appropriate methods for dissemination of the results should they be of any archaeological significance.

4. METHOD STATEMENTS AND STRATEGIES

4.1 EXCAVATION

All work carried out by ERA will be undertaken by a qualified archaeologist(s) in accordance with this document, the standards and requirements of HHER Office (Evans 1999) and ClfA guidelines (ClfA 2020a) in order to meet the aim and objectives of the project. An archaeologist will attend to record any features/deposits exposed either during or the following day of completion of the ground-works prior to infilling/development; monitoring visits will continue as necessary until all ground-works are complete. Should any archaeological features and/or finds of significance be encountered, negotiations between the client, ERA and HHER Office should take place to determine appropriate procedures.

Where features of archaeological interest are present, time must be allowed for proper recording by measured plans (at a scale of 1:50 or 1:20), sections (at a scale of 1:10 or 1:20) and written descriptions of the deposits compiled. A photographic record will be made (12.1 megapixel resolution minimum) supplemented by 35mm SLR cameras (monochrome & colour transparencies) if appropriate. The level of features or deposits relative to Ordnance Datum will be determined where possible, otherwise with reference to depth below ground level. Any artefacts will be assigned to their context; if necessary, environmental sediment samples will be taken from features or deposits deemed likely to have palaeo-environmental potential.

4.2 FINDS

Any artefacts will be recorded, marked, packaged and stored to professional standards (ClfA 2020b; English Heritage 2008; Watkinson & Neal 1998), compatible with the accessioning system of the recipient museum; all packaging and storage materials will be of archive quality to the recipient museum's standards. Artefacts of particular interest – e.g. metalwork – will be allocated a Recorded Find number and recorded on an appropriate *pro forma*. If the analysis/conservation of any artefacts is required, after quantification of any such material the client will be provided with cost estimates for any necessary work so that funding can be agreed; contingency sums only will be included in any cost estimates. Artefacts such as gold or silver, as defined under the categories of 'treasure' in accordance with Section C of The Treasure Act 1996 Code of Practice (Revised), will be reported to the Coroner.

4.3 HUMAN REMAINS

In the event that cremations, burials and/or disarticulated/disturbed human remains are encountered, they will be treated with due respect at all times and recorded *in situ* using an appropriate *pro forma* in line with guidelines outlined by ClfA/BABAO (Mitchell & Brickley 2017) and HE (APABE/HE 2017; HE 2004a). The osteoarchaeologist (York Osteoarchaeology Ltd) will also be consulted and given an opportunity to visit the site, if required. Any human remains will be lifted and removed (unless circumstances dictate otherwise) in accordance with the conditions set out in the License for the Removal of Human Remains, issued by the Ministry of Justice; ERA will contact the Ministry on the client's behalf. Arrangements will be made for storage of the remains unless the licence specifies reburial or cremation. The extra costs which would be involved in the proper excavation and analysis of burials/human remains will usually be stated in the contingency sums included in the cost estimates for the work.

4.4 ENVIRONMENTAL SAMPLING AND BIOLOGICAL REMAINS

SEDIMENT SAMPLES

No sampling strategy is planned unless circumstances dictate this is necessary or desirable. Should environmental sampling and subsequent assessment and/or analysis be required, this will be in line with the recommendations of HE policy guidance (English Heritage 2011 2nd edition). Sediment samples taken will consist of at least one 10 litre general biological analysis (GBA) sample taken from targeted deposits and stored in ten-litre plastic tubs. All samples will initially be examined at ERA/PRS premises and/or on-site by the environmental specialist.

In light of this examination and the results of the fieldwork, suitable material will be sent to Palaeoecology Research Services Ltd (PRS) for assessment. When the material has been quantified, estimates for the assessment (and where necessary, subsequent analysis) will be passed to the client to arrange funding; only indicative allowances for this work will be included in any initial cost estimates.

SPOT/ID SAMPLES

A small number of spot samples, e.g. concentrations of small bones, seeds, wood samples etc. might be taken all of which will be subject to assessment by PRS.

FAUNAL REMAINS

Faunal remains (e.g. animal/bird/fish bone and shell) will be hand-collected from all excavated features; collection of unstratified material will not be attempted unless of archaeological interest. Where deposits are noted to contain dense concentrations, these will be sampled as bulk sediment (BS) samples as described in the HE policy guidance (English Heritage 2011 2nd edition). Faunal remains recovered by hand-collection and from processed sediment samples will be assessed by Alison Foster/PRS and/or the Finds Officer in line with the recommendations of HE guidelines (English Heritage 2019).

SCIENTIFIC DATING

Specialist dating by scientific sampling may be considered in certain circumstances, normally where contexts or features cannot be dated by 'conventional' means (e.g. pottery, artefacts, documentary). The three main types are: dendrochronological sampling of preserved timbers; archaeo-magnetic assay of slow-accumulated waterlain silts and hearth/kiln structures; radiocarbon/accelerator mass spectroscopy (AMS) dating of organic material recovered either from GBA/BS samples or taken as Spot/ID samples (e.g. bone, organic sediments). Scientific sampling will be carried out in accordance with the appropriate guidelines (English Heritage 2004b; 2006a). Costs for such analyses will be approved with the client before expenditure.

4.5 OFF-SITE WORKS

ASSESSMENT

Upon completion of the on-site monitoring, the site records (written, drawn & photographic) will be indexed and assessed to provide the basis for the production of the final report which will include any specialist(s) reports, if required. Artefacts and environmental samples will be retained for assessment as per ClfA and MoRPHE guidelines (ClfA 2020b; English Heritage 2008). Artefacts will be processed, catalogued and prepared for the archive by a Finds Assistant and/or the Finds Officer; ERA retain the right at this stage to discard unstratified and/or artefacts from modern topsoil and overburden unless of clear intrinsic interest.

Provision will be made for the x-radiography, initial conservation/stabilisation and assessment of the conservation needs for stratified metalwork and waterlogged finds by the York Archaeological Trust (YAT) Conservation Laboratory in accordance with HE guidelines (English Heritage 2006b; 2010; 2018). The artefacts will be spot dated/assessed by sub-contracted specialist(s) as appropriate, and/or the Finds Officer. Sediment samples will be assessed by PRS; arrangements will also be made to assess specialist samples where these have been taken.

REPORT PRODUCTION

A report of the results of the fieldwork will be produced and will include the following (as appropriate):

- a) A summary (non-technical) of the results of the monitoring.
- b) A description of the background to the project, including site code, planning reference, HHER casework number, national grid reference, dates of fieldwork and the historical and archaeological background of the site.
- c) A written description and analysis of the methods and results of the archaeological fieldwork in the context of the known archaeology of the area. Phasing and interpretation of the site sequence supported by scaled figures: a location plan; an overall plan of the site accurately identifying the areas monitored showing the location of any archaeological features; section and plan drawings detailing the stratigraphic sequence of the archaeology with ground level and, where possible, Ordnance Datum. The report will also contain a number of photographs where significant archaeological deposits or artefacts are encountered and general photographs to show the prevailing condition of the site at the time of the fieldwork.
- d) Specialist reports on all material categories of artefact (including any artefacts recovered from the environmental samples), human remains and environmental samples will be included as necessary. If required, a conservation report will also be produced taking into account the long-term conservation and storage requirements. The potential for any subsequent study of the artefacts and environmental remains will also be included.

- e) Recommendations for the future treatment of archaeological remains on the site, the potential impact of the proposed development and the need for further post-excavation and publication work.
- f) Details of archive location and destination (Archive index).
- g) Appendices as appropriate including the Written Scheme of Investigation.
- h) References of all sources used.

ERA will supply digital copies of the report (in PDF format) to the client and the HHER Office; a copy will also be submitted to the Local Planning Authorities by the client/agent. If any archaeology of significance is encountered, ERA will submit a hard copy of the report to the HHER Office; a hard copy will also be submitted to the client upon request.

ARCHIVE PREPARATION AND DEPOSITION (INCLUDING RETENTION/DISPOSAL OF ARTEFACTS AND ENVIRONMENTAL MATERIAL)

The site archive will be collated, packaged and stored in accordance with ERA's procedures in line with the appropriate guidelines (English Heritage 2008; ClfA 2020c; Brown 2011; Walker 1990; MGC 1992). It is intended that the site archive – subject to the permission of the relevant landowners – will be deposited with a suitable repository, in this case East Riding of Yorkshire Museum Service (ERYMS). A site-specific accession number will be agreed with the recipient museum prior to deposition.

Finds remain the property of the landowner until such time as they may grant title to a museum; the client is normally encouraged to donate the finds to a museum. Upon completion of the post-excavation work, ownership of the finds can be transferred to the museum with the written and/or digital archive also being transferred by ERA. All artefacts would be deposited as a matter of course but discussions will take place to determine which finds are of sufficient importance to be deposited (as per ERYMS Guidelines on Archaeological Archives 2019). An allowance will be made as a contribution to the recipient museum towards the long-term curation and storage of materials.

4.6 COPYRIGHT, CONFIDENTIALITY AND PUBLICITY

Unless the client wishes to state otherwise, the copyright of any written, graphic, photographic or digital records and reports rests with the contractor (ERA). The results of the work will remain confidential initially being distributed only to the clients, their agents and HHER Office, and will remain so until such time as it is submitted in support of a planning application and is then deemed to have entered the public domain. The contractor will normally make information from this fieldwork available to interested parties when it is no longer considered confidential; this takes into account both the duty of confidence to the client commissioning the work and also the professional obligation to make the results of archaeological work available to the wider archaeological community within a reasonable time.

If the results are of significance, a brief note will be submitted for publication in a local or regional archaeological journal, such as the East Riding Archaeologist. However, the findings may be of sufficient importance to merit more detailed publication; recommendations as to the need or otherwise for additional post-excavation works to for publication will be identified in the archaeological report. All aspects of publicity will be agreed at the outset of the project between the client and the contractor.

4.7 HEALTH & SAFETY, INSURANCE

Health and Safety will take priority over archaeological matters. ERA abides by the 1974 Health and Safety Act and its subsequent amendments. Our overall policy is in line with recommendations as per the Federation of Archaeological Managers & Employers' Manual of Health and Safety in Field Archaeology 2012. A Risk Assessment is prepared for any excavations undertaken and members of staff are given a Health and Safety induction at commencement of all projects. ERA is fully covered by a Public Liability Insurance Policy.

4.8 MONITORING

The work will be monitored by the Principal Archaeologist/Development Management Archaeologist of the Humber Historic Environment Record Office (HHER) to ensure that it is carried out to the required standard. The opportunity will be afforded for them to visit the site to inspect and comment upon the excavation and recording procedures. This Written Scheme of Investigation has been submitted to the HHER Office for approval upon which, this document will then be submitted to the client/agent for submission to the Local Planning Authority for their approval, prior to any ground-works being undertaken.

5. TIMETABLE AND STAFFING

5.1 TIMETABLE FOR THE WORK

The works will commence on 7th February 2022. The on-site work will be followed by a post-excavation period during which the archaeological report will be produced.

5.2 PROJECT TEAM AND TECHNICAL EXPERTISE

The on-site monitoring will be carried out by a Project Officer; subsequent hand-cleaning, recording or surveying may require the presence of Site Assistants. The off-site team will comprise the Project Officer, Finds Officer and Illustrator, with contributions from specialists as required. The above will be under the overall direction of a Project Manager. The project team includes the following, with expertise drawn as necessary from the external specialists listed.

PROJECT MANAGER

J. Tibbles, BA (Hons) – Has extensive professional experience in both archaeological fieldwork and the production of ceramic building material publications since 1986. Has over 25 years experience in directing small and large-scale prehistoric, Roman, medieval and post-medieval excavations, both rural and urban. Has produced numerous excavation reports ('grey literature').

PROJECT OFFICER/ILLUSTRATOR

J. Fraser, BSc – Has worked in professional archaeology since 1991. Has over 17 years experience directing both rural and urban excavations, ranging from prehistoric through to post-medieval, including medieval waterfronts. Experienced in watching briefs, post-excavation analysis, producing excavation reports ('grey literature'), AutoCAD illustration, n4ce survey software, GPS and EDM surveys.

PROJECT OFFICER(S)

The following staff are experienced in all aspects of on-site techniques, having worked on numerous multi-period, large and small-scale urban and rural excavations, (open area and trial trenching), including the excavation of inhumations and cremations. All have supervised/trained volunteers.

R. J. Coates, BA (Hons) MA, – Has worked in professional archaeology since 2011 as a supervisor and site assistant. Experienced in undertaking watching briefs and building surveys, post-excavation analysis, finds processing, producing excavation reports ('grey literature') and collation of archives. Has worked on community outreach projects for ERA.

E. Samuel, BA (Hons) – Has worked in professional archaeology since 2014 as a site assistant and supervisor. Experienced in undertaking watching briefs, post-excavation analysis, producing excavation reports ('grey literature'), finds processing and collation of archives.

PROJECT OFFICER/FINDS OFFICER

S. Tibbles, Cert. Arch (Hull), Dip. Arch (Hull) – has worked in professional archaeology since 1991 as a site assistant, supervisor and finds supervisor. Has experience in post-excavation analysis, finds processing/recording, collating archives, producing, compiling and editing excavation reports ('grey literature'), producing assessment reports and publications on Romano-British ceramic building material and finds assemblages to MoRPHE standards.

SITE/FINDS ASSISTANTS

K. Adams, – Has worked in professional archaeology since 1986 as a supervisor, site assistant and finds assistant. Experienced in undertaking watching briefs, post-excavation analysis, finds processing/recording, AutoCAD illustration, producing excavation reports ('grey literature') and collation of archives.

G. Myers, BA (Hons) – Has worked in professional archaeology for over 40 years. Experienced in post-excavation analysis, finds processing/recording and collation of archives.

Other site assistants are experienced staff who have worked within the region on a variety of urban and rural archaeological projects, with experience of on-site fieldwork and post-excavation analysis.

SPECIALISTS

ARCHAEOMAGNETICS – Archaeomagnetism, Division of Archaeological, Geographical & Environmental Sciences, University of Bradford.

ARCHAEOMETALLURGY – Roderick Mackenzie, Archaeometallurgist

CERAMIC BUILDING MATERIALS – J. Tibbles, BA (Hons), Cert. Arch. (Hull), Dip.H.E, AIFA – has extensive experience in producing assessment reports ('grey literature') and publication reports for all periods. Has also developed the regional typology for CBM over recent years.

S. Tibbles, Cert. Arch. (Hull), Dip. Arch. (Hull) – specialises in Romano-British CBM. Experienced in producing assessment reports ('grey literature'), publications and has developed a regional Romano-British *tegulae* typology.

CONSERVATION – York Archaeological Trust Conservation Laboratory.

DENDROCHRONOLOGY – I. Tyers - Dendrochronological Consultancy Ltd.

ENVIRONMENTAL SPECIALIST/SOIL SPECIALIST – Palaeoecology Research Services Ltd.

FAUNAL REMAINS (ANIMAL/BIRD/FISH BONE) – A. Foster, PhD

HUMAN REMAINS – York Osteoarchaeology Ltd.

LITHICS – Spencer Carter BA (Hons).

POTTERY SPECIALISTS – P. Didsbury, MPhil, FSA. – has extensive experience of pottery research on assemblages dating from the prehistoric through to the post-medieval period from East Yorkshire and other regions. Is published widely both regionally and nationally.

T.Manby – has extensive experience of prehistoric pottery from the region and publications on regional assemblages.

RADIOCARBON/AMS – Beta Analytic.

STRUCTURAL STONEWORK – S. Harrison, Ryedale Archaeological Services.

6. REFERENCES

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FIGURE 1: SITE LOCATION (COURTESY OF IAN PICK ASSOCIATES LTD).