

**Millers Meadow, Grimstone End
Pakenham
PKM 099**

Archaeological Evaluation Report

SCCAS Report No. 2014/102

Client: Topiary Art Designs

Author: Andy Beverton

August 2014

© Suffolk County Council Archaeological Service

Millers Meadow, Grimstone End
Pakenham
PKM 099

Archaeological Evaluation Report

SCCAS Report No. 2014/102

Author: Andy Beverton

Illustrator: Beata Wieczorek-Olesky

Report Date: 08/2014

HER Information

Site Code: PKM 099
Site Name: Millers Meadow
Report Number 2014/102
Planning Application No: DC/13/0167/FUL
Date of Fieldwork: 11/08/2014
Grid Reference: TL 937 693
Oasis Reference: Suffolkc1-186749
Curatorial Officer: Jude Plouviez
Project Officer: Andy Beverton
Client/Funding Body: Topiary Art Designs

Digital report submitted to Archaeological Data Service:
<http://ads.ahds.ac.uk/catalogue/library/greylit>

Disclaimer

Any opinions expressed in this report about the need for further archaeological work are those of the Field Projects Team alone. Ultimately the need for further work will be determined by the Local Planning Authority and its Archaeological Advisors when a planning application is registered. Suffolk County Council's archaeological contracting services cannot accept responsibility for inconvenience caused to the clients should the Planning Authority take a different view to that expressed in the report.

Prepared By: Andy Beverton
Date: August 2014

Approved By:
Position:
Date:
Signed:

Contents

Summary

1. Introduction	1
2. Geology and topography	1
3. Archaeology and historical background	1
4. Methodology	4
5. Results	4
7. Conclusion and recommendations for further work	6
9. Archive deposition	7
10. Acknowledgements	7
11. Bibliography	7

List of Figures

Figure 1. Trench location map with HER entries listed in text (blue).	3
---	---

List of Plates

Plate 1. Trench 1 plan, looking north-west. 2m vertical and 1m horizontal scales.	5
Plate 2. Trench 1 profile, looking south-west. 1m scale.	5

List of Appendices

Appendix 1.	Written Scheme of Investigation
Appendix 2.	Archaeological Brief
Appendix 3.	Context list
Appendix 4.	OASIS

Summary

A single 10m evaluation trench was excavated across the foot print of a proposed building at Millers Meadow, Grimstone End on the 11th of August 2014. No evidence of archaeological horizons was present.

Grimstone End is a large multi-period site (PKM 028) whose core is located to the west of the development and contains a number of Roman kilns and occupation evidence as well as prehistoric and Saxon archaeology.

Given the relatively large portion of the development area uncovered by the evaluation trench and the lack of an identifiable archaeological horizon it is suggested that no further work be required.

1. Introduction

A single evaluation trench was excavated at land at Millers Meadow, Grimstone End, Pakenham. The trench was excavated across the footprint of a proposed building and following a Written Scheme of Investigation (WSI, App.1) written by Suffolk County Council Archaeology Service Field Team (SCCAS/FT) issued in response to an Archaeological brief (App.2) written by Judith Plouviez of Suffolk County Council Archaeology Service Curatorial Team (SCCAS/CT).

2. Geology and topography

The development is situated towards the north-eastern portion of Grimstone End slightly away from the main road (Fig.1). At the time of evaluation the site status was level grass/garden at a height of approximately 31.7m above the Ordnance Datum (AOD).

The geology within the trench was identified to be sand and gravels. A shallow, mixed 'interface' layer was identified between the subsoil (0002) and natural geology.

3. Archaeology and historical background

The core of Grimstone End (PKM 028) is situated less than 50m west of the PDA and comprises a rich multi-period landscape that includes prehistoric, Roman, Saxon and medieval and post-medieval evidence. Most prominent is the identification of a number of Roman pottery kilns towards amongst occupation evidence spanning the 1st or 2nd century through to the 3rd or 4th (Plouviez 1995).

The large Roman settlement at Pakenham (PKM 007) is situated c.270m north-west of the PDA and represents a core of activity for this period from which the Roman horizons at Grimstone End are doubtless directly linked. The recovery of a Roman intaglio mounted on a gold ring at PKM 036 highlights the continuation of activity outside of the defined core.

The discovery of a quartz pebble mace-head from PKM 008 (115m north-west) indicates prehistoric activity in the vicinity whilst PKM 064 (c.90m north) denotes the location of the 18th Century Pakenham water mill.

In 1953 excavations were carried out at Grimstone End identifying the 6th century Anglo-Saxon settlement at PKM 028 recovered numerous clay loom weights including an *in-situ* series of weights measuring eight feet in total length. Interpreted as evidence of a hitherto dismissed large scale loom and stated to be of 'international significance' (Plunkett 1995).

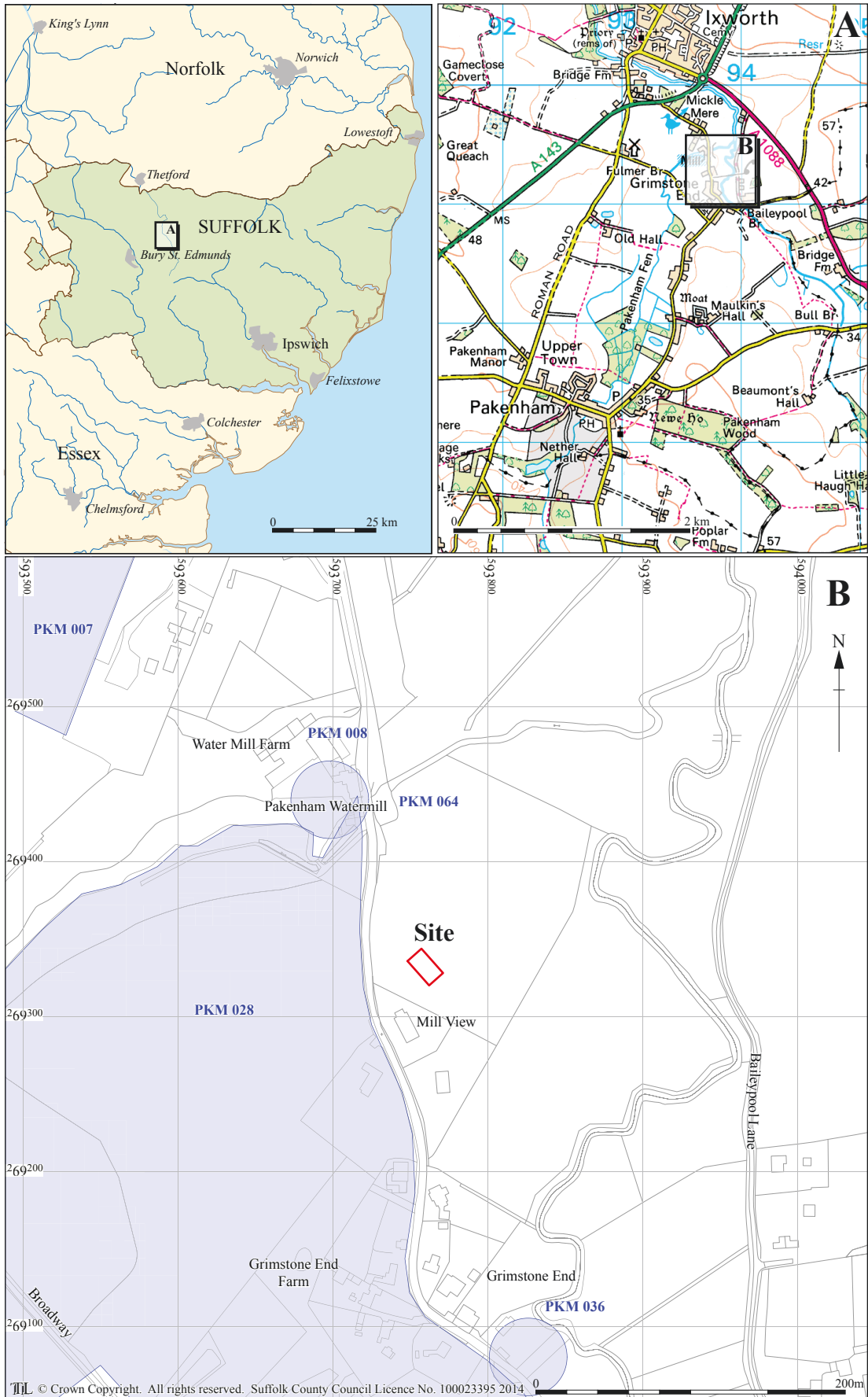


Figure 1. Trench location map with HER entries listed in text (blue).

4. Methodology

The 10m trench was aligned north-west to south-east across the development area (Fig. 1) and positioned to run through the centre of the proposed buildings footprint. The trench location was laid out using a Leica System 1200 RTK GPS and subsequently excavated with a 6 ton mechanical excavator fitted with a 1.8m wide ditching bucket under the direct supervision of a Suffolk County Council Archaeology Service Field Team (SCCAS/FT) Project officer.

The trench was excavated through topsoil, subsoil and a shallow interface layer to the top of the undisturbed geology (Plate 1). The trench and layers identified in trench profile were assigned unique context numbers and recorded according to accepted guidelines (Gurney 2003).

The site archive has been entered into a MS Access database under the HER code PKM 099.

An OASIS form was initiated ahead of the fieldwork and will be completed with a digital submission of this report and a synopsis of the site. A summary of this form is attached to this report (App.4).

5. Results

The excavated trench measured 10m in length and ran north-west to south-east across the middle of the development area with a maximum depth of 0.46m.

The trench possessed a uniform soil profile comprising modern topsoil (0.29m deep) over 0.08m of mid-light greyish-brown sandy-silt (0002) which was on top of a mixed interface layer (0003) of the subsoil and orangey-brown sandy-gravel geology with a maximum depth of 0.09m (Pl.1). A full context list can be found in Appendix 3 of this report.

Striations derivative of ploughing action were occasionally observed running north-south across the geology but no archaeological features were identified.



Plate 1. Trench 1 plan, looking north-west. 2m vertical and 1m horizontal scales.

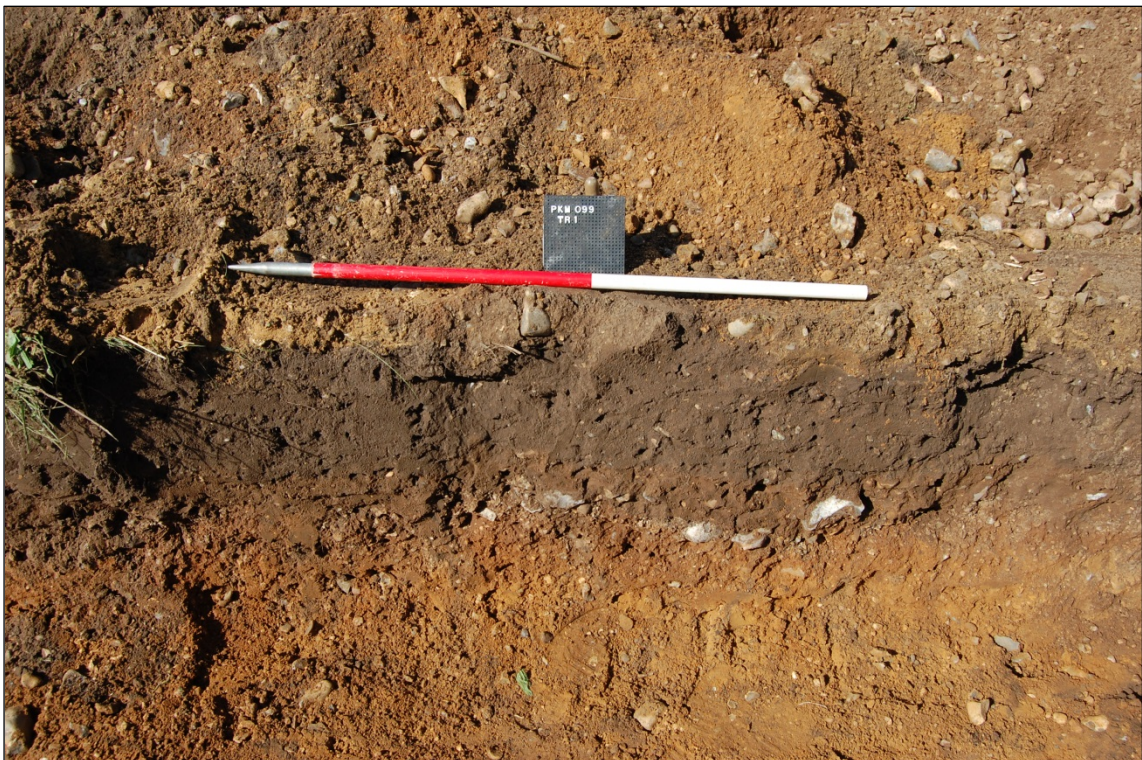


Plate 2. Trench 1 profile, looking south-west. 1m scale.

7. Conclusion and recommendations for further work

The trench did not contain an archaeological horizon although given the small area observed (17m²) it is clearly plausible that archaeological features in the vicinity may have been missed. The recorded soil profile (Pl.2) appears to suggest that the area has not suffered truncation with the result that archaeological horizons were simply not present rather than having been lost.

Given the lack of an archaeological horizon within a trench and the comparatively small development area it seems unlikely that any further work would yield advantageous results.

9. Archive deposition

Paper and photographic archive: SCCAS Bury St Edmunds

Digital archive: SCCAS R:\Environmental Protection\Conservation\Archaeology\
Archive\Pakenham\PKM 099

Digital photographic archive: SCCAS R:\Environmental Protection\Conservation\
Archaeology\Catalogues\Photos

10. Acknowledgements

The fieldwork was carried out by Andy Beverton and Timothy Carter. Project management was undertaken by Andrew Tester.

The report illustrations were created by Beata Wieczorek-Olesky and the report was edited by Andrew Tester.

11. Bibliography

Gurney, D., 2003, Standards of Field Archaeology in the East of England. *EAA occasional paper 12*. ALGAO.

Plouviez, J., 1995, 'A hole in the distribution map: the characteristic of small towns in Suffolk', in Brown, AE (ed), *Roman Small Towns in Eastern England and beyond*, Oxford: Oxbow Books 1995, pp69-80

Plunkett, S. J., 1995, 'The Anglo-Saxon loom from Pakenham, Suffolk', *Proceedings of the Suffolk Institute for Archaeology and History*, vol XXXIX Part 3. Pp 277-283.

Appendix 1. Written Scheme of Investigation



Miller's Meadow, Grimstone End Pakenham PKM 099

**Written Scheme of Investigation and Risk Assessment
Archaeological Evaluation**

Client: Topiary Art Designs

Suffolk County Council Archaeological Service Field Team

Author: J Sims

August 2014

Contents

Project details

Project Contacts

1. Introduction	6
2. The site	6
3. Archaeological and historical background	7
4. Project Objectives	9
5. Archaeological method statement	10
5.1 Management	10
5.2 Project preparation	10
5.3 Fieldwork	10
5.4 Post-excavation	14
5.5 Report	15
5.6 Project archive	16
6. Project Staffing	19
6.1 Management	19
6.2 Fieldwork	19
6.3 Post-excavation and report production	19
7. Health and safety	21
7.1 Introduction	21
7.2 Specific site issues	22
Welfare facilities	22
First Aid	22

Site access and security	22
Deep excavation	22
Contaminated ground	23
Hazardous Substances	23
Underground services	23
Overhead Powerlines	23
Personal Protective Equipment (PPE)	23
Environmental impact/constraints	24
8. Bibliography	26

List of Figures

Figure 1. Location plan	7
Figure 2. Local map	8
Figure 3. Proposed trench location	8

List of Appendices

Appendix 1. Brief and specification	
Appendix 2. Risk Assessments	

Project details

Planning Application No: DC/13/0167/FUL

Curatorial Officer: Jude Plouviez

Grid Reference: TL 937 693

Area: 216m²

HER Event No/Site Code: PKM 099

Oasis Reference: Suffolkc1-186749

Project Start date: 11th August 2014

Project Duration: 1 day

Client/Funding Body: Topiary Art Designs

SCCAS/FT Project Manager: David Gill

SCCAS/FT Project Officer: Andrew Beverton

SCCAS/FT Job Code: PAKEGRI001

Glossary of abbreviations

EAA	East	Anglian Archaeology
HER	Historic	Environment Record
IFA		Institute for Archaeologists
NPPF		National Planning Policy Framework
SCCAS/FT		Suffolk Archaeological Service Field Team
SCCAS/CT		Suffolk Archaeological Service Curatorial Team
LPA	Local	Planning Authority
ICON	The	Institute of Conservation
OD	Ordnance	Datum

Project Contacts

SCCAS/FT

SCCAS/FT Service manager	Dr Rhodri Gardner	01473 581473
SCCAS/FT Project Manager	David Gill	01284 741248
SCCAS/FT Finds Dept	Richenda Goffin	01284 741233
SCCAS/FT H&S	Stuart Boulter	01473 583290
SCCAS/FT EMS	Jezz Meredith	01473 583288
SCCAS/FT Outreach Officer	Duncan Allan	01473 583288

Emergency services

Local Police	Ixworth	01473 613 500
Local GP	Peddar's close	01359 230252
Location of nearest A&E	Hardwick Lane, Bury St Edmunds, Suffolk, IP33 2QZ	01284 713000
Environment Agency	Customer Services Line (8am to 6pm) 24 hour Emergency Hotline	03708 506 506 0800 807060
Essex and Suffolk Water	24 hour Emergency Hotline	0845 782 0999
National Gas Emergency Service	Gas emergency hotline	0800 111 999
UK Power Networks	East England electricity emergency hotline	0800 783 8838
Anglian Water	24 hour Emergency Hotline	08457 145 145

Client contacts

Mr Steve Manning	Topiary Art Designs Ltd, Millers Meadow, Grimstone End, Pakenham, IP31 2LZ
------------------	---

Archaeological contacts

Curator	Jude Plouviez	01284 741235
Consultant		
EH Regional Science Advisor	Dr Zoe Outram	01223 582707

Sub-contractors

Plant hire	Elmswell Plant
Misc. Equipment hire	N/A
Toilet/facilities hire	N/A

Other

SCC Press Office	Andrew St Ledger (Chief Press Officer)	01473 264398
SCC Fleet Maintenance		01359 270777
SCC Environment Strategy Manager	Emma Flint	01473 264810
SCC Health and Safety Advisor (ESE)	Mark Ranson	01473 261494
SCC Corporate H&S Manager	Dave Atkinson	01473 260513

1. Introduction

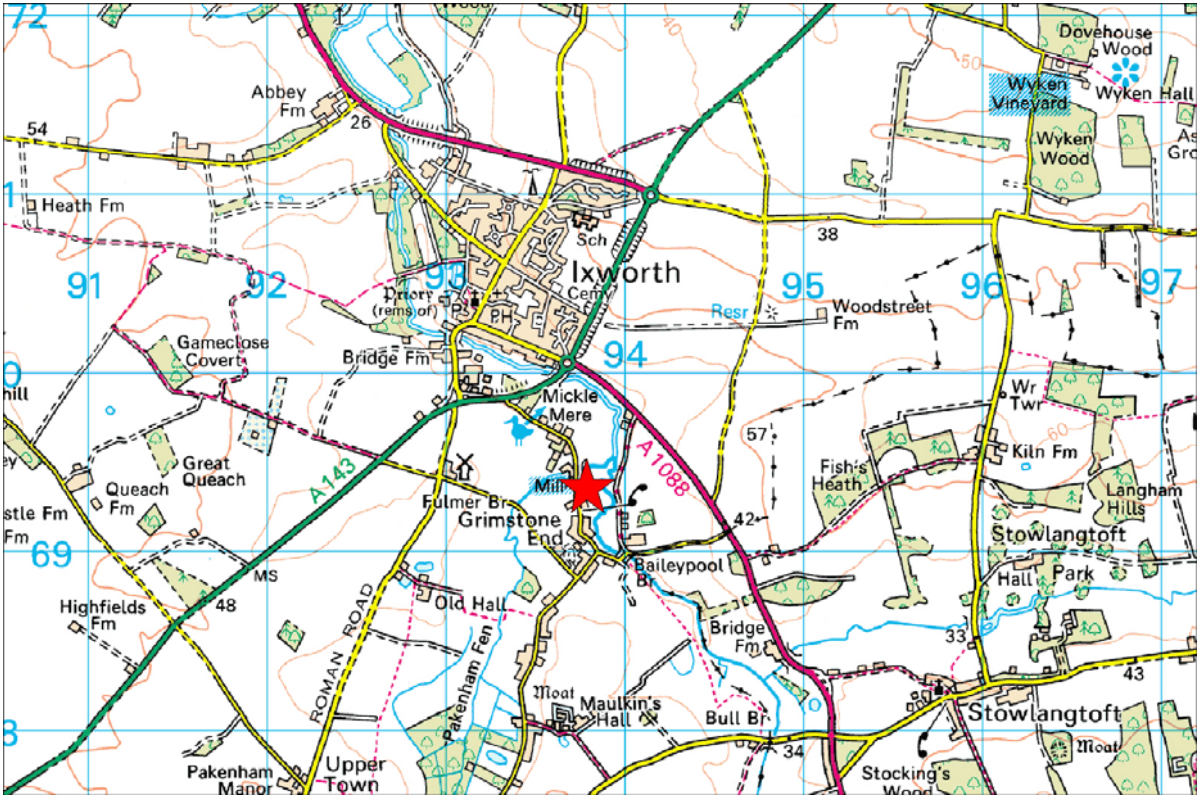
- A program of archaeological evaluation is required for a new building at Millers Meadow, Grimstone End, Pakenham (Fig. 1), accordance with the *National Planning Policy Framework* (Paragraph 141), as there is thought to be high potential for heritage assets of archaeological interest in the area.
- The work required is detailed in a Brief and Specification (dated 14/07/2014), produced by the archaeological adviser to the local planning authority, Jude Plouviez of SCCAS/CT, and is included in Appendix 1.
- The proposed development is for the erection of a steel workshop in the parish of Pakenham.
- SCCAS/FT has been contracted to carry out the project. This document details how the requirements of the Brief and general SCCAS/CT guidelines (SCCAS/CT 2011) will be met, and has been submitted to SCCAS/CT for approval on behalf of the LPA. It provides the basis for measurable standards and will be adhered to in full, unless otherwise agreed with SCCAS/CT.
- It should be noted by the client that the evaluation is only a first stage in a potential program of works and that further fieldwork, reporting and publication may be required if archaeological deposits are identified. Such works could have considerable time and cost implications for the development and the client is advised to consult with SCCAS/CT as to their obligations following receipt of the evaluation report. SCCAS/FT will provide quotes for any further works required on request.

2. The site

- The site is currently an area on the grounds of the Topiary Art Designs workshop.
- The geology consists of Cretaceous chalk formations beneath superficial deposits of sand and gravel (British Geological Survey 2013).

3. Archaeological and historical background

The condition has been placed as the proposed development lies in an area archaeological potential, as indicated by the Suffolk HER. The site is on the west side of the Black Bourne valley and the multiperiod site PKM 028 was recorded on the Suffolk HER immediately to the east. A number of features were recorded at PKM 028, including a Bronze Age Barrow, Roman pottery kilns and an early Anglo-Saxon settlement.



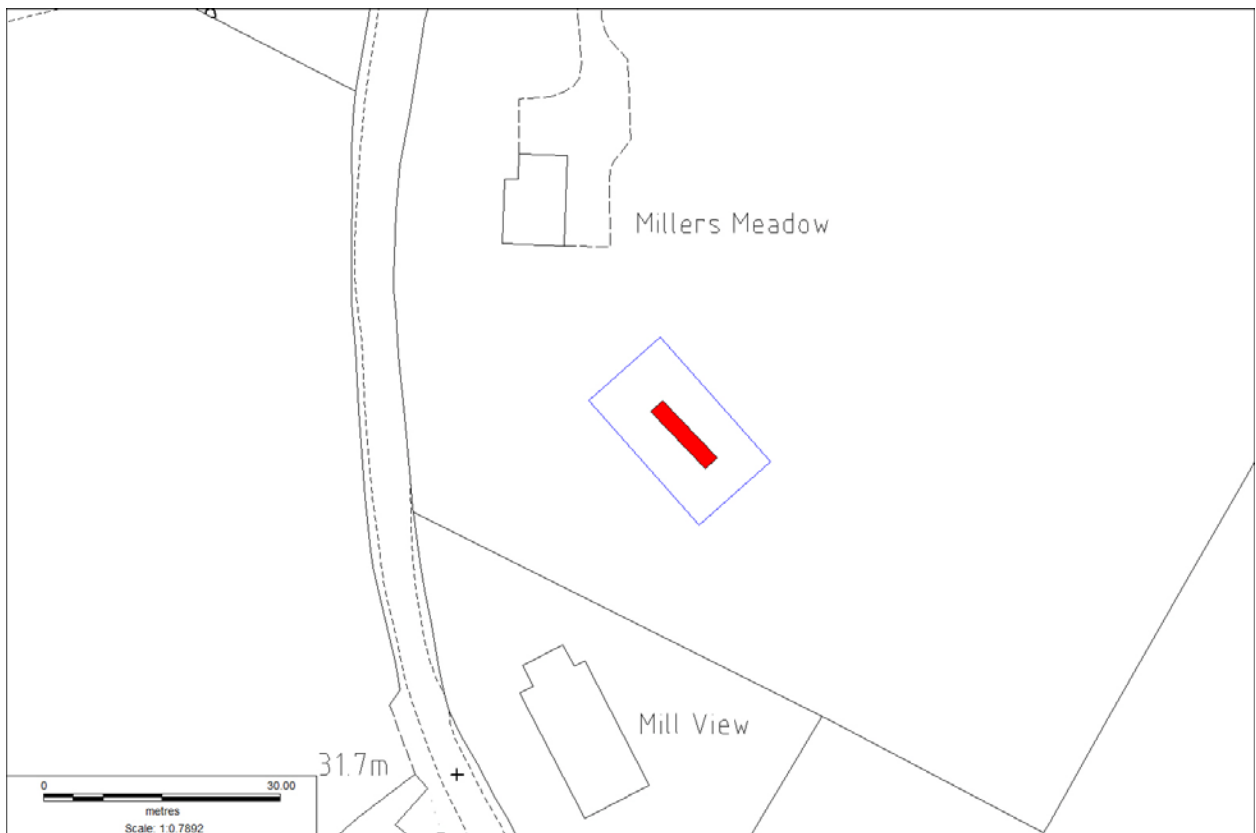
© Crown Copyright. All rights reserved. Suffolk County Council Licence No. 10023395 2014.

Figure 1. Location plan



© Crown Copyright. All rights reserved. Suffolk County Council Licence No. 100023395 2014.

Figure 2. Local map



© Crown Copyright. All rights reserved. Suffolk County Council Licence No. 100023395 2014.

Figure 3. Proposed trench location

4. Project Objectives

- The aim of the evaluation is to accurately quantify the quality and extent of the sites archaeological resource so that an assessment of the developments impact upon heritage assets can be made.
- The evaluation will:
 - Establish whether any archaeological deposits exist in the application area, with particular regard to any which are of sufficient importance to merit preservation *in situ*.
 - Identify the date, approximate form and function of any archaeological deposits within the application area.
 - Establish the extent, depth and quality of preservation of any archaeological deposits within the application area.
 - Evaluate the likely impact of past land uses and whether masking alluvial or colluvial deposits are present.
 - Establish the potential for the survival of environmental evidence.
 - Assess the potential of the site to address research aims defined in the Regional Research Framework for the Eastern Counties (Brown and Glazebrook 2000, Medlycott 2011).
 - Provide sufficient information for SCCAS/CT to construct an archaeological conservation strategy dealing with preservation or the further recording of archaeological deposits.
 - Provide sufficient information for the client to establish time and cost implications for the development regarding the application areas heritage assets.

5. Archaeological method statement

5.1 Management

- The project will be managed by SCCAS/FT Project Officer David Gill in accordance with the principles of *Management of Research in the Historic Environment* (MoRPHE, English Heritage 2006).
- SCCAS/CT will be given five days' notice of the commencement of the fieldwork and arrangements made for SCCAS/CT visits to enable the works to be monitored effectively.
- Full details of project staff, including sub-contractors and specialists are given in section 6 below.

5.2 Project preparation

- An event number has been obtained from the Suffolk HER PKM 099 and will be included on all future project documentation.
- An OASIS online record will be initiated and key fields in details, location and creator forms will be completed.
- A pre-site inspection and Risk Assessment for the project has been completed (see Appendix 2).

5.3 Fieldwork

- Fieldwork standards will be guided by 'Standards for Field Archaeology in the East of England', EAA Occasional Papers 14, and the IFA paper 'Standard and Guidance for archaeological field evaluation', revised 2008.
- The archaeological fieldwork will be carried out by members of SCCAS/FT led by Project Officer Andrew Beverton. The fieldwork team will be drawn from a pool of suitable staff at SCCAS/FT and will include an experienced metal detectorist/excavator.

- The project Brief requires 5% of the application area to be evaluated by the placement of approximately 12m of trenching 1.8m wide and a proposed trench plan is included below (Fig. 3). If necessary minor modifications to the trench plan may be made onsite to respect any previously unknown buried services, areas of disturbance/contamination or other obstacles.
- The trench locations will be marked out by hand/using a RTK GPS system or a Total Station Theodolite.
- The trenches will be excavated using a machine equipped with a back-acting arm and toothless ditching bucket (measuring at least 1.6m wide), under the supervision of an archaeologist. This will involve the removal of an estimated 0.3m-0.5m of topsoil until the first visible archaeological surface or subsoil surface is reached.
- Spoilheaps will be created adjacent to each trench and topsoil and subsoil will be kept separate if required. Spoilheaps will be examined and metal-detected for archaeological material.
- The trench sides, base and archaeological surfaces will be cleaned by hand as necessary to identify archaeological deposits and artefacts and allow decisions to be made on the method of further investigation by the Project Officer. Further use of the machine, i.e. to investigate thick sequences of deposits by excavation of test pits etc, may be undertaken as necessary after consultation with SCCAS/CT.
- There will be a presumption that a minimum of disturbance will be caused whilst achieving adequate evaluation of the site, i.e. establishing the period, depth and nature of archaeological deposits. Typically 50% of discrete features such as pits and 1m slots across linear features will be sampled by hand excavation, although in some instances 100% may be removed, with the aim of establishing date and function. All identified features will be investigated by excavation unless otherwise agreed with SCCAS/CT. Significant archaeological features such as solid or bonded structural remains, building slots or postholes will be preserved intact if possible.

- Sieving of deposits using a 10mm mesh will be undertaken if they clearly appear to be occupation deposits or structurally related. Other deposits may be sieved at the judgement of the excavation team or if directed by SCCAS/CT.
- Any fabricated surface (floors, yards etc) will be fully exposed and cleaned.
- The depth and nature of colluvial or other masking deposits across the site will be recorded.
- Metal detector searches of trenches and archaeological deposits will take place throughout the evaluation by an experienced SCCAS/FT metal-detectorist.
- An overall site plan showing trench locations, feature positions, sections and levels will be made using an RTK GPS or Total Station Theodolite. Individual detailed trench or feature plans etc will be recorded by hand at 1:10, 1:20 or 1:50 as appropriate to complexity. All excavated sections will be recorded at a scale of 1:10 or 1:20, also as appropriate to complexity. All such drawings will be in pencil on A3 pro forma gridded permatrace sheets.
- All trenches, archaeological features and deposits will be recorded using standard pro forma SCCAS/FT registers and recording sheets and numbering systems. Record keeping will be consistent with the requirements of the Suffolk HER and will be compatible with its archive.
- A photographic record, consisting of high resolution digital images, will be made throughout the evaluation. A photographic register will be maintained.
- All pre-modern finds will be kept and no discard policy will be considered until all the finds have been processed and assessed. Finds on site will be treated following appropriate guidelines (Watkinson & Neal 2001) and a conservator will be available for on-site consultation as required.
- All finds will be brought back to the SCCAS/FT finds department at the end of each day for processing, quantifying, packing and, where necessary, preliminary conservation. Finds will be processed and receive an initial assessment during the fieldwork phase and this information will be fed back to site to inform the on-site evaluation methodology.

- Environmental sampling of archaeological contexts will, where possible, be carried out to assess the site for palaeoenvironmental remains and will follow appropriate guidance (English Heritage 2011). In order to obtain palaeoenvironmental evidence, bulk soil samples (of at least 40 litres each, or 100% of the context) will be taken using a combination of judgement and systematic sampling from selected archaeological features or natural environmental deposits, particularly those which are both datable and interpretable. All samples will be retained until an appropriate specialist has assessed their potential for palaeoenvironmental remains. Decisions will be made on the need for further analysis following these assessments.
- If necessary, for example if waterlogged peat deposits are encountered, then advice will be sought from the English Heritage Regional Advisor for Archaeological Science (East of England) on the need for specialist environmental techniques such as coring or column sampling.
- If human remains are encountered guidelines from the Ministry of Justice will be followed. Human remains will be treated at all stages with care and respect, and will be dealt with in accordance with the law and the provisions of Section 25 of the Burial Act 1857. The evaluation will attempt to establish the extent, depth and date of burials whilst leaving remains *in situ*. If human remains are to be lifted, for instance if analysis is required to fully evaluate the site, then a Ministry of Justice license for their removal will be obtained in advance. In such cases appropriate guidance (McKinley & Roberts 1993, Brickley & McKinley 2004) will be followed and, on completion of full recording and analysis, the remains, where appropriate, will be reburied or kept as part of the project archive.
- In the event of unexpected or significant deposits being encountered on site, the client and SCCAS/CT will be informed. Such circumstances may necessitate changes to the Brief and hence evaluation methodology, in which case a new archaeological quotation will have to be agreed with the client, to allow for the recording of said unexpected deposits. If an evaluation is aborted, i.e. because unexpected deposits have made development unviable, then all exposed archaeological features will be recorded as usual prior to backfilling and a report produced.

- Trenches will not be backfilled without the prior approval of SCCAS/CT. Trenches will be backfilled, subsoil first then topsoil, and compacted to ground-level, unless otherwise specified by the client. Original ground surfaces will not be reinstated but will be left as neat as practicable.

5.4 Post-excavation

- The post-excavation finds work will be managed by the SCCAS/FT Finds Team Manager, Richenda Goffin, with the overall post-excavation managed by David Gill. Specialist finds staff, whether internal SCCAS/FT personnel or external specialists, are experienced in local and regional types and periods for their field.
- All finds will be processed and marked (HER site code and context number) following ICON guidelines and the requirements of the Suffolk HER. For the duration of the project all finds will be stored according to their material requirements in the SCCAS Archaeological Stores at Bury St. Edmunds or Ipswich. Metal finds will be stored in accordance with ICON) guidelines, *initially recorded and assessed for significance* before dispatch to a conservation laboratory within 4 weeks of the end of the excavation. All pre-modern silver, copper alloy and ferrous metal artefacts and coins will be x-rayed if necessary for identification. Sensitive finds will be conserved if necessary and deposited in bags/boxes suitable for long term storage to ICON standards. All coins will be identified to a standard acceptable to normal numismatic research.
- All on-site derived site data will be entered onto a digital (Microsoft Access) SCCAS/FT database compatible with the Suffolk HER.
- Bulk finds will be fully quantified and the subsequent data will be added to the digital site database. Finds quantification will fully cover weights and numbers of finds by context and will include a clear statement for specialists on the degree of apparent residuality observed.
- Reports for all categories of collected bulk finds will be prepared in-house or commissioned as necessary and will meet appropriate regional or national standards. Specialist reports will include sufficient detail and tabulation by context

of data to allow assessment of potential for analysis and will include non-technical summaries.

- Representative portions of bulk soil samples will be processed by wet sieving and flotation in-house in order to recover any environmental material which will be assessed by external specialists. The assessment will include a clear statement of potential for further analysis either on the remaining sample material or in future fieldwork.
- All raw data from GPS or TST surveys will be uploaded to the project folder, suitably labelled and kept as part of the project archive.
- Selected plan drawings will then be digitised as appropriate for combination with the results of digital site survey to produce a full site plan, compatible with MapInfo GIS software.
- All hand-drawn sections will be digitised using autocad software.
- Digital photographs will be allocated and renumbered with a code from the Suffolk HER photographic index.

5.5 Report

- A written report on the fieldwork will be produced, consistent with the principles of MoRPHE (English Heritage 2006), to a scale commensurate with the archaeological results. The report will contain a description of the project background, location plans, evaluation methodology, a period by period description of results, finds assessments and a full inventory of finds and contexts. The report will also include scale plans, sections drawings, illustrations and photographic plates as required.
- The objective account of the archaeological evidence will be clearly separated from an interpretation of the results, which will include a discussion of the results in relation to relevant known sites in the region that are recorded in the Suffolk HER and other readily available documentary or cartographic sources.

- The report will include a statement as to the value, significance and potential of the site and its significance in the context of the Regional Research Framework for the East of England (Brown and Glazebrook, 2000, Medlycott 2011). This will include an assessment of potential research aims that could be addressed by the site evidence.
- The report will contain sufficient information to stand as an archive report should further work not be required.
- The report may include SCCAS/FT's opinion as to the necessity for further archaeological work to mitigate the impact of the sites development. The final decision as to whether any recommendations for further work will be made however lies solely with SCCAS/CT and the LPA.
- The report will include a summary in the established format for inclusion in the annual '*Archaeology in Suffolk*' section of the Proceedings of the Suffolk Institute of Archaeology and History.
- A copy of this Written Scheme of investigation will be included as an appendix in the report.
- The report will include a copy of the completed project OASIS form as an appendix.
- An unbound draft copy of the report will be submitted to SCCAS/CT for approval within 4 weeks of completion of fieldwork.

5.6 Project archive

- On approval of the report a printed and bound copy will be lodged with the Suffolk HER. A digital .pdf file will also be supplied, together with a digital and fully georeferenced vector plan showing the application area and trench locations, compatible with MapInfo software.
- The online OASIS form for the project will be completed and a .pdf version of the report uploaded to the OASIS website for online publication by the Archaeological Data Service. A paper copy of the form will be included in the project archive.

- A second bound copy of the report will be included with the project archive (see below).
- Two printed and bound copies of the approved report will be supplied to the client, together with our final invoice for outstanding fees. A digital .pdf copy will be supplied on request.
- The project archive, consisting of the complete artefactual assemblage, and all paper and digital records, will be deposited in the SCCAS Archaeological Store at Bury St Edmunds within 6 months of completion of fieldwork. The project archive will be consistent with MoRPHE (English Heritage 2006) and ICON guidelines. The project archive will also meet the requirements of SCCAS (SCCAS/CT 2010).
- All physical site records and paperwork will be labelled and filed appropriately. Digital files will be stored in the relevant SCCAS archive parish folder on the SCC network site.
- The project costing includes a sum to meet SCCAS archive charges. A form transferring ownership of the archive to SCCAS will be completed and included in the project archive.
- If the client, on completion of the project, does not agree to deposit the archive with, and transfer to, SCCAS, they will be expected to either nominate another suitable depository approved by SCCAS/CT or provide as necessary for additional recording of the finds archive (such as photography and illustration) and analysis. A duplicate copy of the written archive in such circumstances would be deposited with the Suffolk HER.
- Exceptions from the deposition of the archive described above include:
 - Objects that qualify as Treasure, as detailed by the Treasure Act 1996. The client will be informed as soon as possible of any such objects are discovered/identified and the find will be reported to SCCAS/CT and the Suffolk Finds Liaison Officer and hence the Coroner within 14 days of discovery or identification. Treasure objects will immediately be moved to secure storage at SCCAS and appropriate security measures will be taken on site if required. Any material which is eventually declared as Treasure by a Coroners Inquest will, if not acquired by a museum, be

returned to the client and/or landowner. Employees of SCCAS, or volunteers etc present on site, will not be eligible for any share of a treasure reward.

- Other items of monetary value in which the landowner or client has expressed an interest. In these circumstances individual arrangements as to the curation and ownership of specific items will be negotiated.
- Human skeletal remains. The client/landowner by law will have no claim to ownership of human remains and any such will be stored by SCCAS, in accordance with a Ministry of Justice licence, until a decision is reached upon their long term future, i.e. reburial or permanent storage.

6. Project Staffing

6.1 Management

SCCAS/FT Service Manager	Dr Rhodri Gardner
SCCAS/FT Project Manager	David Gill
SCCAS/FT Finds Dept	Richenda Goffin
SCCAS/FT Graphics Dept	Beata

6.2 Fieldwork

The fieldwork team will be derived from the following pool of SCCAS/FT staff.

Name	Job Title	First Aid	Other skills/qualifications
Kieron Heard	Project Officer		
Simon Cass	Project Officer	Yes	
Robert Brooks	Assistant Project Officer	Yes	Surveyor
Andrew Beverton	Assistant Project Officer	Yes	Surveyor
John Sims	Supervisor		
Simon Picard	Supervisor		Surveyor
Phil Camps	Senior Project Assistant	Yes	Shoring. 360 machine and dumper driver. Mobile tower.
Tony Fisher	Senior Project Assistant		Mobile tower.
Steve Manthorpe	Senior Project Assistant		
Alan Smith	Project Assistant		Metal detectorist
Preston Boyle	Project Assistant		
Tim Carter	Project Assistant		Metal detectorist
Rebecca Smart	Project Assistant		

6.3 Post-excavation and report production

The production of the site report and submission of the project archive will be carried out by the field Project Officer. The post-excavation finds analysis will be managed by Richenda Goffin. The following SCCAS/FT specialist staff will contribute to the report as required.

Graphics	Beata	
Graphics	Eleano	r Hillen
Illustration	Don	na Wreathall
Post Roman pottery and CBM		Richenda Goffin
Roman Pottery	Cathy	Tester, Stephen Benfield
Environmental sample processing		Anna West
Finds Processing	Jon	athan Van Jennians

SCCAS also uses a range of external consultants for post-excavation analysis who will be sub-contracted as required. The most commonly used of these are listed below.

Sue Anderson	Human skeletal remains	SCCCT
Sarah Bates	Lithics	Freelance
Julie Curl	Animal bone	Freelance
Val Fryer	Plant macrofossils	Freelance
SUERC	Radiocarbon dating	Scottish Universities Environmental Research Centre

7. Health and safety

7.1 Introduction

- The project will be carried out following Suffolk County Council Health and Safety Policies at all times.
- All staff will be aware that they have a responsibility to:
 - Take care of their own health and safety and that of others who maybe affected by what they do, or fail to do, at work.
 - Follow safe systems of work and other precautions identified in the risk assessment.
 - Report any changes to personal circumstances that may affect their ability to work safely.
 - Report potential hazards, incidents and near misses to the Project Officer/supervisor.
- A pre-site inspection has been made of the site and applicable SCCAS/FT Risk Assessments for the project are included in Appendix 3.
- All SCCAS/FT staff are experienced in working on a variety of archaeological sites and permanent staff all hold a CSCS (Construction Skills Certification Scheme) card. All staff have been shown the SCCAS Health and Safety Manual, copies of which are held at the SCCAS/FT offices in Ipswich and Bury St Edmunds. All staff will read the site WSI and Risk Assessments (see below), will receive a site safety induction from the Project Officer prior to starting work, and sign the site induction register (Appendix 3). All staff will be issued with appropriate PPE.
- From time to time it may be necessary for site visits by other SCCAS/FT staff, external specialists, SCCAS/CT staff or other members of the public. All such staff and visitors will be issued with the appropriate PPE and will undergo the required inductions.

- Site staff, official visitors and volunteers are all covered by Suffolk County Council insurance policies. SCC also has professional negligence insurance. Copies of these policies are available on request.

7.2 Specific site issues

Welfare facilities

- Due to the limited nature of the project, it is proposed that SCCAS/FT staff will work from their vehicle and use client welfare facilities if available. If not staff will be able to travel to public facilities. Additional facilities, toilet, site accommodation etc, will be provided if the project is extended. Fresh, clean water for drinking and hand washing is carried in SCCAS vehicles. A vehicle will be on site at all times.

First Aid

- A member of staff with the First Aiders at Work qualification will be on site at all times. A First Aid kit and a fully charged mobile will also be in vehicle/on site at all times.

Site access and security

- The site is in the control of the client, a key to the target field has been supplied.

Deep excavation

- Due to Health and Safety considerations, excavations will be limited to a maximum depth of 1.2m below existing ground level unless the trench is stepped or shored. In practice the trench is likely to be c.0.5m deep unless deep alluvial sequences are encountered.
- If the trenches are to be left unattended before being backfilled (i.e. overnight) they will be enclosed with high visibility temporary barrier fencing. On completion of the

project trenches will be backfilled to ground-level although pre-existing ground surfaces will not be reinstated.

Contaminated ground

- Details of any ground contamination have not been provided by the client. If any such is identified then groundworks will cease until adequate safety and environmental precautions are in place.
- Advice will be sought from HSE and relevant authorities if required concerning any of these issues.

Hazardous Substances

- No hazardous substances are specifically required in order to undertake the archaeological works.

Underground services

- Details of known services have not been provided by the client. Trench positions will be laid out in advance with reference to any service plan supplied and a CAT scanner used prior to excavation.

Overhead Powerlines

- No overhead powerlines cross the site.

Personal Protective Equipment (PPE)

- The following PPE is issued to all site staff as a matter of course. Additional PPE will be provided if deemed necessary.

- P Hard Hat (to EN397).
- High Visibility Clothing (EN471 Class 2 or greater).
- Safety Footwear (EN345/EN ISO 20346 or greater – to include additional penetration-resistant midsole).
- Gloves (to EN388).
- Eye Protection (safety glasses to at least EN 166 1F).

Environmental impact/constraints

- Suffolk County Council maintains an internal Environmental Management System run in accordance with the ISO14001 standard by a dedicated EMS officer. The council has a publicly available [Environment Policy](#), which commits us to meeting all relevant regulatory, legislative and other requirements, preventing pollution, and to continually improving our environmental performance.
- All existing and new SCCAS subcontractors are issued annually with the SCC Environmental Guidance Note For Contractors.
- On site the SCCAS Project Officer will monitor environmental issues and will alert staff to possible environmental concerns. In the event of spillage or contamination, e.g. from plant or fuel stores, EMS reporting and procedures will be carried out in consultation with Jez Meredith (SCCAS/FT EMS Officer).
- The plant machinery will be well serviced and be as quiet a model as is practicable. It will come equipped with appropriate spill kit and drip trays. It will only refuel in a single designated area, as defined by the SCCAS. All refuelling will be carried out using electrically operated pumps and will only be done when drip trays are deployed.
- The client and/or landowner has not informed SCCASFT of any environmental constraints upon the development area.

- All rubbish will be bagged and removed either to areas designated by the client or returned to SCCAS for disposal.
- Water will not be pumped into any water course, storm drain etc without prior consent from the Environment Agency. Procedures for dealing with contamination from fuel spills or sediments will be closely followed.
- Trenching will be placed to minimise damage to sensitive flora and fauna or their habitats.
- All trenching will avoid the 'precautionary area' of any trees, this being the distance from the tree equal to 4 times the circumference of the tree at a height of 1.5m above ground level (National Joint Utilities Group 1995).

8. Bibliography

- Brickley, M., and McKinley, J. I., 2004, *Guidelines to the Standards for Recording Human Remains*. IFA Professional Practice Paper No 7.
- Brown, N and Glazebrook, J. (Eds), 2000, *Research and Archaeology: a Framework for the Eastern Counties, 2. Research Agenda and Strategy*. East Anglian Archaeology Occasional Paper No. 8.
- English Heritage, 2006, *Management of Research in the Historic Environment (MoRPHE)*.
- English Heritage, 2011, *Environmental archaeology, A Guide to the Theory and Practice of Methods, from Sampling and Recovery to Post-excavation (2nd Ed)*.
- Gurney, D., 2003, *Standards for Field Archaeology in the East of England*. East Anglian Archaeology Occasional Paper No 14.
- Institute for Archaeologists, 2008, *Standard and Guidance for archaeological field evaluation*.
- McKinley, J., I and Roberts, C., 1993, *Excavation and post-excavation treatment of cremated and inhumed human remains*. IFA Technical Paper No 13.
- Medlycott, M. (Ed), 2011, *Research and Archaeology Revisited: A revised framework for the East of England*. EAA Occasional Paper 24.
- National Joint Utilities Group, 1995, *Guidelines for the planning, installation and maintenance of utility services in proximity to trees*.
- SCCAS/CT, 2010, *Deposition of Archaeological Archives in Suffolk*.
- SCCAS/CT, 2011, *Requirements for Trenched Archaeological Evaluation 2011, ver 1.2*.
- Watkinson, D. and Neal, V., 2001, *First Aid for Finds*. Third Edition, revised. Rescue/UKIC Archaeology Section, London.



Archaeological Service
Field Projects Team

Delivering a full range of archaeological services

- Desk-based assessments and advice
- Site investigation
- Outreach and educational resources
- Historic Building Recording
- Environmental processing
- Finds analysis and photography
- Graphics design and illustration

Contact:

Rhodri Gardner

Tel: 01473 265879

rhodri.gardner@suffolk.gov.uk

www.suffolk.gov.uk/business/business-services/archaeological-services

Appendix 2. Archaeological Brief

Economy, Skills and Environment
9–10 The Churchyard, Shire Hall
Bury St Edmunds
Suffolk
IP33 1RX

Brief for a Trenched Archaeological Evaluation

Topiary Art Designs, Grimstone End, Pakenham

PLANNING AUTHORITY:	St Edmundsbury District Council
PLANNING APPLICATION NUMBER:	DC/13/0167/FUL
SHER NO. FOR THIS PROJECT:	To be arranged
GRID REFERENCE:	TL937693
DEVELOPMENT PROPOSAL:	Erection of steel workshop
THIS BRIEF ISSUED BY:	Jude Plouviez Tel. 01284 741235 E-mail: jude.plouviez@suffolk.gov.uk
Date:	14 July 2014

Summary

- 1.1 The Local Planning Authority (LPA) has been advised that any planning consent should be conditional upon an agreed programme of archaeological investigation in accordance with a Written Scheme of Investigation (WSI) which has been submitted to and approved in writing by the LPA.
- 1.2 This brief stipulates the minimum requirements for the first stage of archaeological investigation, and should be used in conjunction with SCCAS/CT's Requirements for Archaeological Evaluation 2012 Ver 1.1. These should be used to form the basis of a WSI.
- 1.3 The archaeological contractor, commissioned by the applicant, must submit a copy of their WSI to SCCAS/CT for scrutiny.
- 1.4 Following acceptance by SCCAS/CT, it is the commissioning body's responsibility to submit the WSI to the LPA for formal approval. No fieldwork should be undertaken on site without the written approval of the LPA.
- 1.5 The WSI should be approved before costs are agreed with the commissioning client, in line with Institute for Archaeologists' guidance. Failure to do so could result in additional and unanticipated costs.
- 1.6 Decisions on the need for any further archaeological investigation (e.g. excavation) will be made by SCCAS/CT, in a further brief, based on the results presented in the evaluation report. Any further investigation must be the

subject of a further WSI, submitted to SCCAS/CT for scrutiny and formally approved by the LPA.

Archaeological Background

- 2.1 This site lies in an area of high archaeological potential on the west side of the valley of the Black Bourne, just to the east of a multiperiod complex recorded on the Suffolk Historic Environment Record as PKM 028. Features recorded during mid-20th century gravel extraction at PKM 028 included a Bronze Age barrow, Roman pottery kilns and early Anglo-Saxon settlement.

Fieldwork Requirements for Archaeological Investigation

- 3.1 A linear trenched evaluation is required of the development area, which consists of a new building 12 x 18m, covering at least 5% by area.
- 3.2 Trial Trenching is required to:
- Identify the date, approximate form and purpose of any archaeological deposit, together with its likely extent, localised depth and quality of preservation.
 - Establish the potential for the survival of environmental evidence.
 - Provide sufficient information to construct an archaeological conservation strategy, dealing with preservation, the recording of archaeological deposits, working practices, timetables and orders of cost.
- 3.3 A scale plan showing the proposed location of the trial trenches should be included in the WSI and the detailed trench design must be approved by SCCAS/CT before fieldwork begins.

Arrangements for Archaeological Investigation

- 4.1 The composition of the archaeological contractor's staff must be detailed and agreed by SCCAS/CT, including any subcontractors/specialists. Ceramic specialists, in particular, must have relevant experience from this region, including knowledge of local ceramic sequences.
- 4.2 All arrangements for the evaluation of the site, the timing of the work and access to the site, are to be defined and negotiated by the archaeological contractor with the commissioning body.
- 4.3 The project manager must also carry out a risk assessment and ensure that all potential risks are minimised, before commencing the fieldwork. The responsibility for identifying any constraints on fieldwork (e.g. designated status, public utilities or other services, tree preservation orders, SSSIs, wildlife sites and other ecological considerations rests with the commissioning body and its archaeological contractor.

Reporting and Archival Requirements

- 5.1 The project manager must consult the Suffolk HER Officer to obtain an event number for the work before fieldwork commences. This number will be unique for each project or site and must be clearly marked on all documentation relating to the work.

- 5.2 An archive of all records and finds is to be prepared and must be adequate to perform the function of a final archive for deposition in the Archaeological Service's Store or in a suitable museum in Suffolk.
- 5.3 It is expected that the landowner will deposit the full site archive, and transfer title to, the Archaeological Service or the designated Suffolk museum, and this should be agreed before the fieldwork commences. The intended depository should be stated in the WSI, for approval.
- 5.4 The project manager should consult the intended archive depository before the archive is prepared regarding the specific requirements for the archive deposition and curation, and regarding any specific cost implications of deposition. The intended depository must be prepared to accept the entire archive resulting from the project (both finds and written archive) in order to create a complete record of the project. A clear statement of the form, intended content, and standards of the archive is to be submitted for approval as an essential requirement of the WSI.
- 5.5 A report on the fieldwork and archive must be provided. Its conclusions must include a clear statement of the archaeological value of the results, and their significance. The results should be related to the relevant known archaeological information held in the Suffolk HER.
- 5.6 An opinion as to the necessity for further evaluation and its scope may be given, although the final decision lies with SCCAS/CT. No further site work should be embarked upon until the evaluation results are assessed and the need for further work is established.
- 5.7 Following approval of the report by SCCAS/CT, a single hard copy of the report as well as a digital copy of the approved report should be marked for the attention of the archaeological officer, who will deposit it with the HER.
- 5.8 Where appropriate, a copy of the approved report should be sent to the local archaeological museum, whether or not it is the intended archive depository. A list of local museums can be obtained from SCCAS/CT or online (<http://www.suffolkmuseums.org/suffolk1/cgi-bin/index.cgi>).
- 5.9 All parts of the OASIS online form <http://ads.ahds.ac.uk/project/oasis/> must be completed and a copy must be included in the final report and also with the site archive. A digital copy of the report should be uploaded to the OASIS website.
- 5.10 Where positive results are drawn from a project, a summary report must be sent to the archaeological officer, suitable for inclusion in the annual 'Archaeology in Suffolk' section of the *Proceedings of the Suffolk Institute of Archaeology and History*. This summary should be included in the project report, or submitted to SCCAS/CT by the end of the calendar year in which the work takes place, whichever is the sooner.

Standards and Guidance

Detailed requirements are to be found in our Requirements for Archaeological Evaluation 2012 Ver 1.1 and in SCCAS Archive Guidelines 2010. These can be downloaded from: <http://www.suffolk.gov.uk/libraries-and-culture/culture-and-heritage/archaeology/>

Standards, information and advice to supplement this brief are to be found in *Standards for Field Archaeology in the East of England*, East Anglian Archaeology Occasional Papers 14, 2003. This can be downloaded from: <http://www.eaareports.org.uk/Regional%20Standards.pdf>

The Institute for Archaeologists' *Standard and Guidance for archaeological excavation* (revised 2008) should be used for additional guidance in the execution of the project and in drawing up the report. This can be downloaded from: <http://www.archaeologists.net/codes/ifa>

Notes

There are a number of archaeological contractors that regularly undertake work in the County and SCCAS will provide advice on request. SCCAS/CT does not give advice on the costs of archaeological projects. The Institute for Archaeologists maintains a list of registered archaeological contractors (<http://www.archaeologists.net> or 0118 378 6446).

This brief remains valid for one year. If work is not carried out in full within that time this document will lapse; the brief may need to be revised and re-issued to take account of new discoveries, changes in policy and techniques.

Appendix 3. Context list

Context Number	Category	Length (m)	Width (m)	Depth (m)	Description	Interpretation
0001	Layer	--	--	0.34	Modern topsoil layer of mid to light greyish-brown sandy-silt that contains occasional unsorted flint pebbles (0.01-0.03m diameter). The layer is soft and friable and has a clear horizon with subsoil layer 0002.	The modern topsoil layer.
0002	Layer	--	--	0.13	A shallow layer of light orangey-greyish-brown silty-sand containing moderate inclusions of unsorted flint nodules (0.01-0.05m diameter). The layer is fairly soft and friable and has a mixed lower horizon with interface layer 0003. In large part this is due to ploughing as several plough scars, filled with this context, were observed in 0003.	Subsoil layer across development area.
0003	Layer	--	--	0.20	A mid to light greyish-orangey-brown slightly silty-gravelly-sand of a friable nature	An interface layer between the subsoil (0002) and natural gravels. Multiple plough scars are cutting this layer and are filled with the subsoil layer.

Appendix 4. OASIS

Project details	
Project name	Millers Meadow, Grimstone End, Pakenham
Short description of the project	A single 10m evaluation trench was excavated across the foot print of a proposed building at Millers Meadow, Grimstone End on the 11th of August 2014. No evidence of archaeological horizons was present within the. Grimstone End is a large multi-period site (PKM 028) whose core is located to the west of the development and contains a number of Roman kilns and occupation evidence as well as prehistoric and Saxon archaeology on the periphery of the settlement. Given the relatively large portion of the development area uncovered by the evaluation trench and the lack of an identifiable archaeological horizon it is suggested that no further work be required.
Project dates	Start: 11-08-2012 End: 15-08-2014
Previous/future work	No / No
Any associated project reference codes	PKM 099 - HER event no.
Type of project	Field evaluation
Current Land use	Other 5 - Garden
Methods & techniques	"Targeted Trenches"
Development type	Housing estate
Prompt	Direction from Local Planning Authority - PPS
Position in the planning process	After full determination (eg. As a condition)
Project location	
Country	England
Site location	SUFFOLK ST EDMUNDSBURY PAKENHAM Millers Meadow, Grimstone End, Pakenham,
Postcode	IP31 2LZ
Study area	216.00 Square metres
Site coordinates	TL 937 693 52.2871713493 0.840315254782 52 17 13 N 000 50 25 E Point
Height OD / Depth	Min: 31.70m Max: 31.70m
Project creators	
Name of Organisation	Suffolk County Council Archaeological Service
Project brief originator	Local Authority Archaeologist and/or Planning Authority/advisory body
Project design originator	Jude Plouviez
Project director/manager	David Gill
Project supervisor	A Beverton
Name of sponsor/funding body	Topiary Garden Designs
Project archives	
Physical Archive Exists?	No
Digital Archive recipient	Suffolk County Council Archaeological Service
Digital Media available	"Database", "Images raster / digital photography", "Text"
Paper Archive recipient	Suffolk County Council Archaeological Service
Paper Contents	"Stratigraphic"
Paper Media available	"Plan", "Report", "Section"
Project bibliography 1	
Publication type	Grey literature (unpublished document/manuscript)
Title	Millers Meadow, Grimstone End, Pakenham
Author(s)/Editor(s)	Beverton, A. V.,.
Other bibliographic details	SCCAS Report 2014/102
Date	2014
Issuer or publisher	SCCAS
Place of issue or publication	Bury St Edmunds
Description	Short, ringbound report on white paper following SCCAS Evaluation template 2014.
Entered by	Andy Beverton (andy.beverton@suffolk.gov.uk)
Entered on	15 August 2014

Archaeological services Field Projects Team

Delivering a full range of archaeological services

- Desk-based assessments and advice
- Site investigation
- Outreach and educational resources
- Historic Building Recording
- Environmental processing
- Finds analysis and photography
- Graphics design and illustration

Contact:

Rhodri Gardner

Tel: 01473 265879

rhodri.gardner@suffolk.gov.uk

www.suffolk.gov.uk/Environment/Archaeology/