

Plot 5000, Hatfield Business Park Hatfield Hertfordshire

*Written Scheme of Investigation for a
Strip, Map and Record Excavation*



for
Goodman UK Ltd

CA Project: 660875
Site Code: tbc

April 2017

DRAFT



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1. INTRODUCTION

1.1 Outline planning permission has been granted by Welwyn Hatfield Borough Council (WHBC planning ref: 6/2015/2043/OUTLINE) for the commercial development of a plot of land (Plot 5000) at Hatfield Business Park, which is located on the north-western outskirts of Hatfield, Hertfordshire (site centred on NGR: SP 2126 0910).

1.2 Archaeological remains of prehistoric and later date have been identified and investigated in the immediate vicinity, so in line with paragraph 141 of the *National Planning Policy Framework* (NPPF; DCLG 2012) and Policy GP59 of the Local Plan, Hertfordshire County Council's Historic Environment Team (HCCHET), archaeological advisors to WHBC, requested that a condition should be attached to outline planning consent. Condition 8 of outline planning consent reads:

'No development shall take place on any plot hereby permitted until an Archaeological Written Scheme of Investigation has been submitted to and approved in writing by the Local Planning Authority for that plot. The development must not be carried out other than in accordance with the approved Scheme. The Scheme must include an assessment of archaeological significance and research questions; and:

- (i) The programme and methodology of site investigation and recording;*
- (ii) The programme and methodology of site investigation and recording as suggested by the archaeological evaluation;*
- (iii) The programme for post investigation assessment;*
- (iv) Provision to be made for analysis of the site investigation and recording;*
- (v) Provision to be made for publication and dissemination of the analysis and records of the site investigation;*
- (vi) Provision to be made for archive deposition of the analysis and records of the site investigation;*
- (vii) Nomination of a competent person or persons/organisation to undertake the works set out within the Archaeological Written Scheme of Investigation.*

- 1.3 Goodman UK Ltd has commissioned Cotswold Archaeology (CA) to prepare the *Written Scheme of Investigation* (WSI) for the archaeological work, which will be submitted with a detailed planning application for the development of the site. Following discussions between CA and Andy Instone, HCCHE, it has been agreed that this will comprise a strip, map & record (SMR) excavation to investigate archaeological remains identified by an evaluation of the site (CAT 1999b).
- 1.4 This WSI has been guided in its composition by the Chartered Institute for Archaeologists' (CIfA) *Standard and Guidance for Archaeological Excavation* (CIfA 2014a) and the Historic England (formerly English Heritage) procedural documents *Management of Archaeological Projects 2* (EH 1991) and *Management of Research Projects in the Historic Environment (MoRPHE): Project Manager's Guide* (HE 2015), and any other relevant standards or guidance contained within Appendix A.

2. SITE BACKGROUND

Site location, topography and geology

- 2.1 The site comprises a plot of land, approximately 1.3ha in extent, near the centre of Hatfield Business Park, which is located on the north-western outskirts of Hatfield, to the west of the A1 (M). The business park occupies the site of the former Hatfield Aerodrome.
- 2.2 The site, which occupies the south-western part of an irregular plot of land that is currently under grass, is bounded by Mosquito Way to the south-east and industrial/commercial units and associated landscaping to the south-west and north-west. The topography of the site and the surrounding area is generally flat, with ground level within the site lying at c. 74m above Ordnance Datum (aOD). In its wider landscape setting, the site is situated within the Vale of St Albans.
- 2.3 The solid geology of the site comprises undifferentiated Cretaceous rocks of the Lewes Nodular Chalk Formation and Seaford Chalk Formation (BGS 2017), overlain by superficial chalky glacial till (diamicton) deposits of the Lowestoft Formation.

Archaeological background

- 2.4 The site of Plot 5000 was encompassed by the study area for the desk-based assessment (DBA) prepared for the wider business park development (CAT 1999a). The following summary has been taken from the DBA and has been updated with

the results of more recent archaeological investigations within the business park, carried out by Museum of London Archaeology (MOLA).

- 2.5 The current site (Plot 5000) was evaluated by CA in 1999, with seven trenches lying partly or wholly within or just beyond the redline boundary (Trenches 55–58, 61 and 71–72; CAT 1999b). Undated archaeological remains were identified in three trenches (Trenches 55, 57 and 58); although undated, they appear to predate the layout of the post-medieval field system shown on historic mapping, so they may be medieval or earlier in date. The remains of a 19th-century path, corresponding with a path shown leading from Harpsfield Hall on the First Edition Ordnance Survey map of 1879, were encountered in Trench 61.

Prehistoric (pre AD 43)

- 2.6 Archaeological investigations within the area of the business park over the last two decades have revealed the extensive remains of a Late Bronze Age or Early Iron Age field system, with some evidence for contemporary settlement and funerary remains. Initially identified by the evaluation undertaken by CA (CAT 1999b), subsequent mitigation work by MOLA confirmed the presence of the field system within the site of Plot 5600, along with several groups of postholes that appeared to form a possible small rectangular structure and a series of straight-sided enclosures.
- 2.7 Further settlement remains of Middle Bronze Age date were recorded at the University of Hertfordshire Bus Garage site, c. 500m to the north of the site. The remains comprised three or possibly four ditches and a number of small pits; worked flint flakes and a sherd of Middle Bronze Age Deveril-Rimbury pottery were recovered from these features.
- 2.8 Three unurned cremation burials were found during the evaluation; although undated, they are considered to be Bronze Age or Iron Age in date (CA 1999b).

Late Iron Age and Roman (100 BC to AD 410)

- 2.9 Two Late Iron Age or early Roman field boundary ditches and an urned cremation burial were identified in trial trenches close to the western edge of the business park, approximately 400m to the west of the site (CAT 1999b, 17–18). Two pits, a posthole and a small quantity of Roman pottery were also recovered during mitigation works for the development of the residential area in the same area (MOLA 2004).

- 2.10 To-date, no evidence has been identified for Late Iron Age or Roman settlement within the business park, suggesting that the area was predominately farmland in the Roman period. However, a residual fragment of box flue tile and a small assemblage of Roman finds were recovered from the site of Plot 5600, suggesting that there may have been a heated Roman building in the vicinity (MOLA 2015).

Saxon AD 410 to 1066

- 2.11 Approximately 300m to the north-east of the site, nine sherds of Anglo-Saxon pottery were recovered during an archaeological watching brief at the LM Solutions site (MOLA 2001). The pottery has been dated to the Early to Middle Saxon period (AD 400–750). More recently, several Saxon pits yielding a large assemblage of early Saxon pottery were investigated within the site of Plot 5600, c. 500m to the north-east of the site (MOLA 2015).

Medieval (1066 to 1485)

- 2.12 During the medieval period the site lay within an area of open fields and woodland, interspersed with small farmsteads, at a distance from local centres. No archaeological remains of medieval date have been identified within the area of the business park.
- 2.13 The site of Harpsfield Hall, which is located approximately 300m to the north-west of the site, was a post-medieval building constructed on the site of an earlier medieval manor house. In a charter drawn up during the reign of King John (1199–1215), the manor was recorded as belonging to the Abbot of St Albans and it was held from the Abbey by Ralph de Harpsfield. The Harpsfields retained the manor until its return to the Abbey in 1429 (CAT 1999a).

Post-medieval and modern (1485 to present)

- 2.14 During the post-medieval period the site and the surrounding area lay within the estate of Harpsfield Hall, which was rebuilt in the 17th century on the site of the medieval manor. Excavations at the site of Harpsfield Hall have indicated five major phases of development at the hall, dating from the 17th to the 19th centuries.
- 2.15 Reference to historic mapping shows that the site was farmland or parkland from the mid-18th century, with a number of paths radiating out from the hall complex.

2.16 Hatfield Aerodrome was opened in 1930 and the de Havilland Aircraft Company moved its main headquarters and factory there in 1934. Expansion of the aerodrome led to the demolition of Harpsfield Hall in 1938. During WWII the factory developed and produced the Mosquito fighter bomber. A concrete runway was built at the aerodrome in 1947 and during the Cold War years the Blue Streak rocket was developed by BAe Dynamics at the aerodrome in specially constructed buildings.

3. AIMS AND OBJECTIVES

3.1 The general aim of the archaeological investigation will be to determine and understand the nature, function and character of the archaeological remains identified by the evaluation (CAT 1999b) in their cultural and environmental setting. The following is a summary of the archaeological remains (CAT 1999b) targeted by the SMR areas (Fig. 1):

Area 1 (Trench 55): a small, undated ditch on a north-west to south-east alignment;

Area 2 (Trench 57): an undated sub-circular pit or posthole.

3.2 The archaeological remains within the site are currently poorly understood and there is no dating evidence from the evaluation. The initial aims of the project will be to:

- recover artefactual evidence to date any evidence of past settlement or land-use in the investigation areas;
- identify, through a programme of environmental sampling and the collection of ecofacts, any activities that may have been carried out in the vicinity of the sites in order to determine the function of the ditches and the general nature of the environment immediately surrounding the site;
- determine how the ditches, pits and postholes relate to other known areas of prehistoric and Roman settlement in the vicinity.

3.3 Subject to the results of the fieldwork, the specific research aims of the project will be reviewed and updated to incorporate new findings. The results will be examined with reference to *Research and Archaeology Revisited: A Revised Framework for the East of England* (Medlycott 2011).

4. METHODOLOGY

- 4.1 The SMR excavations will cover an area of 0.35ha (Area 1, 0.15ha; Area 2, 0.2ha), encompassing the locations of Trenches 55 and 57 (Fig. 1). Should archaeological features or deposits extend beyond the limits of the designated SMR areas shown in Figure 1, the areas will be extended to determine their full extent so that they can be investigated and recorded in accordance with the methodology outlined in this section. Stripping will continue until a c. 10m wide 'buffer' of clear ground is exposed beyond the archaeological remains to ensure that their full extent has been correctly established. Any extensions to the designated SMR areas and their final extent will be determined through consultation with HCCHET.
- 4.2 The areas will be marked out using a Leica GPS, with the co-ordinates related to OS National Grid (NGR). The areas will be scanned for live services by trained staff using CAT and Genny equipment, in accordance with the CA's *Safe System of Work for Avoiding Underground Services*. The position and size of the excavation areas may be adjusted on site to account for services and other constraints, with the approval of HCCHET. The final 'as dug' areas will be recorded with GPS.
- 4.3 The areas will be excavated, under archaeological supervision, by 360-degree tracked excavators fitted with a 1.8m wide toothless ditching bucket. The overburden will be removed to the top of archaeologically significant deposits or to the top of the geological substrate, whichever is encountered first, and the spoil will be placed in bunds in designated areas nearby. No plant or any other site vehicles will be permitted to track or drive over the stripped areas until they have been signed off by HCCHET.
- 4.4 Following machining, the archaeological horizons will be cleaned, planned and recorded in accordance with *Technical Manual 1: Fieldwork Recording Manual* (CA 2007). Modern features (19th-century or later) will be cleaned and recorded, but will only be excavated if they are of particular interest or form part of excavated sections into earlier features.
- 4.5 Each context will be recorded on a *pro forma* context sheet by written and measured description. Principal deposits will be recorded on drawn plans (scale 1:20 or 1:50), and electronically using Leica GPS (as appropriate). Sections will be drawn at 1:10 or 1:20 scale, as appropriate. Where detailed feature planning is undertaken using

GPS, this will be carried out in accordance with *Technical Manual 4: Survey Manual* (CA 2009). A photographic record will be maintained using 35mm black & white negative film (Ilford HP5) and high resolution digital images (minimum 10 megapixels). Finds and samples will be bagged separately and related to the context record. Artefacts will be recovered and retained for processing and analysis, in accordance with *Technical Manual 3: Treatment of Finds Immediately After Excavation* (CA 2010).

- 4.6 For features where stone by stone detail is required (i.e. cobbled or flag floored surfaces and wall elevations), these will be recorded using a technique known as multi-image photogrammetry or Structure-in-motion, which will involve the capturing of overlapping images of the feature. These images will be processed in Agisoft Photoscan Pro software to produce scaled ortho-rectified images. We would expect the accuracy of the images to be within 0.01-0.03m. A GPS or Total Station survey will be used in order to scale, quality assure and georeference the images produced.
- 4.7 Examination of features will concentrate on recovering the plan and any structural sequences. Particular emphasis will be placed upon retrieving a stratigraphic sequence and upon obtaining details of the phasing of the site. All funerary/ritual deposits will be 100% excavated. All discrete features (postholes, pits) will be sampled by hand-excavation (minimum of 50%) unless their common/repetitious nature suggests they are unlikely to yield significant new information. Discrete features that form part of recognisable structures, contain deposits of particular value or significant artefact or environmental assemblages will be fully excavated.
- 4.8 All excavated sections through linear features will be at least 1m wide. Boundary ditches will be sample excavated to a minimum of 5% by length away from intersections and all intersections will be investigated, unless a particular relationship between features has already been established. Linear features associated with settlement, industrial structures or areas of specific activity will be sample excavated to a minimum of 25% by length away from intersections and all intersections will be investigated. A further 25% by length will be excavated if significant patterns of deposition occur within linear features, namely dumps of industrial waste (pottery wasters etc.) or animal carcass waste (butchery, tanning etc.). The sampling strategy, which will be dependent on the nature and extent of the deposits, will be agreed with HCCHET prior to implementation.

- 4.9 All industrial features, including domestic ovens and hearths, will be 100% excavated. Bulk horizontal deposits will as a minimum be 10% by area hand-excavated, after which a decision may be taken, with the agreement of HCCHET, to remove the remainder by machine. Priority will be attached to features which yield sealed assemblages which can be related to the chronological sequence of the site.
- 4.10 If potentially deep features are identified (e.g. wells, large pits), HCCHET will be notified at the earliest opportunity so that a suitable excavation strategy can be devised to investigate them. Deep features will be excavated to their full depth, where possible. In most cases to achieve this, the features will be hand-excavated to a safe depth (c. 1.1m) and then a machine will be used to reduce the surrounding ground to the excavated level. Hand excavation will then continue, with this procedure repeated as necessary. Where this approach is not possible, due to unstable ground, groundwater or the excessive depth of very deep features, an auger may be used to recover samples for palaeoenvironmental investigation.
- 4.11 Due care will be taken to identify deposits that may have environmental research potential and may contribute to fulfilling the research aims of the project. Samples, normally not less than 40 litres in volume (where obtainable), will be taken, processed and assessed in accordance with *Technical Manual 2: The Taking and Processing of Environmental and Other Samples from Archaeological Sites* (CA 2003) and *Environmental Archaeology: a guide to the theory and practice of methods from sampling and recovery to post-excavation* (HE 2015). CA's environmental specialist will be consulted throughout the course of the project and a detailed environmental strategy will be developed, in consultation with HCCHET. If appropriate, further scientific advice (e.g. for scientific dating) may be sought from Historic England's regional science advisor.
- 4.12 In the event that human remains are encountered, the Coroners Unit in the Ministry of Justice will be notified and a licence obtained to excavate them. The local coroner and environmental health officer will also be notified.
- 4.13 CA will comply fully with the provisions of the *Treasure Act 1996* and the *Code of Practice* referred to therein. The spoil heaps and features will be scanned with a metal detector to maximise the recovery of archaeologically significant metal objects.

5. STAFF AND TIMETABLE

- 5.1 The project will be under the management of Simon Carlyle, MCI fA, Principal Fieldwork Manager and the fieldwork will be directed by Peter Boyer, MCI fA, Project Officer, assisted in the field by experienced Archaeologists drawn from CA's fieldwork team.
- 5.2 The start date for the project has not been determined. It is estimated that the fieldwork will take 3–4 weeks to complete, including the stripping of the site.
- 5.3 Specialists who may be invited to advise and report on specific aspects of the project as necessary are:

Ed McSloy (CA), ceramics, metalwork

Jacky Somerville (CA), ceramics, worked flint

Andy Clarke (CA), animal bone

Dr Sylvia Warman (freelance specialist), animal and human bone

Sarah Cobain (CA), environmental remains

- 5.4 Depending upon the nature of the deposits and artefacts encountered it may be necessary to consult other specialists not listed here. A full list of specialists currently used by CA is contained within Appendix B.

6. POST-EXCAVATION, ARCHIVING AND REPORTING

- 6.1 Following completion of fieldwork, all artefacts and environmental samples will be processed, assessed, conserved and packaged in accordance with CA Technical Manuals and the collecting museum's guidelines.
- 6.2 The scope of reporting for the project will depend on the nature and significance of the archaeological remains recorded on the site.
- 6.3 If significant archaeological remains are encountered, a post-excavation assessment will be undertaken following completion of all site works. This will be prepared in accordance with the specification given in Appendices 4 and 5 of *Management of Archaeological Projects 2* (EH 1991) and *Management of Research Projects in the Historic Environment (MoRPHE): Project Manager's Guide* (HE 2015). Any

variations to these post-excavation requirements will require the written approval of HCCHET. The post-excavation assessment will be completed within six months of the completion of fieldwork.

- 6.4 Should the post-excavation assessment identify the potential for further analysis, an updated project design will be prepared for agreement with HCCHET, prior to the commencement of the detailed analysis and reporting. Arrangements will be made for an appropriate level of academic publication of the results of the excavations.
- 6.5 Should the results of the project be of insufficient scale to merit post-excavation assessment and an UPD, subject to the agreement of HCCHET the project will proceed directly to post-excavation analysis and reporting. This will be an illustrated report compiled on the results of the fieldwork and assessment of the artefacts and palaeoenvironmental samples. The report will include: a non-technical summary; an archaeological and historical background to the site, supported by relevant historical maps; a description of the methodology employed; plans and sections showing the location and extent of any archaeology encountered; and a site narrative, with a discussion of the archaeological results.
- 6.6 Draft copies of reports resulting from the project (either in .pdf or .doc format) will be submitted to the client for review prior to submission to HCCHET. On approval by HCCHET, three hard copies and a digital version of the final report (either in .pdf or .doc format) will be issued to HCCHET.
- 6.7 It is anticipated that a copy of the final report (paper copy and .pdf/a) is to be lodged with the Hertfordshire Historic Environment Record (HER), on the understanding that it will become a public document after an appropriate period of time (generally not exceeding six months). A summary account of the work will be submitted to *CBA East Archaeology* and relevant period journals (e.g. *Proceedings of the Prehistoric Society*) by 31st March of the year following completion of fieldwork in any given area. A summary of information from the project will also be entered onto the OASIS online database of archaeological projects in Britain.
- 6.8 Should no further work be required, an ordered, indexed, and internally consistent site archive will be prepared and deposited in accordance with *Archaeological Archives: A Guide to Best Practice in Creation, Compilation, Transfer and Curation* (Archaeological Archives Forum 2007) and the collecting museum's guidelines. The

archive will be held temporarily at CA's offices in Milton Keynes until arrangements have been made for its deposition with the collecting museum. Once the archive has been consolidated, a security copy of the archive will be made in an appropriate medium.

7. HEALTH AND SAFETY

7.1 CA will conduct all works in accordance with the Health and Safety at Work Act 1974 and all subsequent Health and Safety legislation, CA Health and Safety and Environmental policies and the CA Safety, Health and Environmental Management System (SHEMS), as well as any Principal Contractor's policies or procedures. A site-specific Project Health & Safety Plan will be prepared prior to fieldwork commencing.

8. INSURANCES

8.1 CA holds Public Liability Insurance to a limit of £10,000,000 and Professional Indemnity Insurance to a limit of £10,000,000. No claims have been made or are pending against these policies in the last three years.

9. MONITORING

9.1 CA will be responsible for liaising with will HCCHET and for notifying them of the commencement of fieldwork and for arranging monitoring meetings.

10. QUALITY ASSURANCE

10.1 CA is a Registered Organisation (RO) with the Chartered Institute for Archaeologists (RO Ref. No. 8). As a RO, CA endorses the *Code of Conduct* (CIfA 2014) and the *Code of Approved Practice for the Regulation of Contractual Arrangements in Field Archaeology* (CIfA 2014). All CA Project Managers and Project Officers hold either full Member or Associate status within the CIfA.

10.2 CA operates an internal quality assurance system in the following manner. Projects are overseen by a Project Manager who is responsible for the quality of the project. The Project Manager reports to the Chief Executive who bears ultimate

responsibility for the conduct of all CA operations. Matters of policy and corporate strategy are determined by the Board of Directors, and in cases of dispute recourse may be made to the Chairman of the Board.

11. REFERENCES

BGS (British Geological Survey) 2017 *Geology of Britain Viewer* http://maps.bgs.ac.uk/geology_viewer_google/googleviewer.html Accessed 12th April 2017

CAT (Cotswold Archaeological Trust) 1999a *Hatfield Business Park Stage 2, Hertfordshire: Archaeological Assessment*, report **991015**

CAT (Cotswold Archaeological Trust) 1999b *Hatfield Aerodrome, Hertfordshire: Archaeological Evaluation*, report **991093**

DCLG (Department of Communities and Local Government) 2012 *National Planning Policy Framework*

MOLA (Museum of London Archaeology) 2001 *LM Solutions: An Interim Report on the Archaeological Investigation*, unpublished report

MOLA (Museum of London Archaeology) 2004 *Residential Development, Hatfield Aerodrome: A Post-excavation Assessment and Updated Project Design*, unpublished report

MOLA (Museum of London Archaeology) 2015 *Plot 5600 and Borrow Pit Area: A Post-excavation Assessment and Updated Project Design*, unpublished report

APPENDIX A: ARCHAEOLOGICAL STANDARDS AND GUIDELINES

- AAF 2007 *Archaeological Archives. A guide to best practice in creation, compilation, transfer and curation*. Archaeological Archives Forum
- AAI&S 1988 *The Illustration of Lithic Artifacts: A guide to drawing stone tools for specialist reports*. Association of Archaeological Illustrators and Surveyors Paper 9
- AAI&S 1994 *The Illustration of Wooden Artifacts: An Introduction and Guide to the Depiction of Wooden Objects*. Association of Archaeological Illustrators and Surveyors Paper 11
- AAI&S 1997. *Aspects of Illustration: Prehistoric pottery*. Association of Archaeological Illustrators and Surveyors Paper 13
- AAI&S nd *Introduction to Drawing Archaeological Pottery*. Association of Archaeological Illustrators and Surveyors, Graphic Archaeology Occasional Papers 1
- ACBMG 2004 *Draft Minimum Standards for the Recovery, Analysis and Publication of Ceramic Building Material*. (third edition) Archaeological Ceramic Building Materials Group
- AEA 1995 *Environmental Archaeology and Archaeological Evaluations. Recommendations concerning the environmental archaeology component of archaeological evaluations in England*. Working Papers of the Association for Environmental Archaeology No. 2
- BABAO and IFA, 2004 *Guidelines to the Standards for Recording Human Remains*. British Association for Biological Anthropology and Osteoarchaeology and Institute of Field Archaeologists. Institute of Field Archaeologists Technical Paper 7 (Reading)
- Barber, B., Carver, J., Hinton, P. and Nixon, T. 2008 *Archaeology and development. A good practice guide to managing risk and maximising benefit*. Construction Industry Research and Information Association Report C672
- Bayley, J. (ed) 1998 *Science in Archaeology. An agenda for the future*. English Heritage (London)
- Bewley, R., Donoghue, D., Gaffney, V., Van Leusen, M., Wise, M., 1998 *Archiving Aerial Photography and Remote Sensing Data: A guide to good practice*. Archaeology Data Service
- Blake, H. and P. Davey (eds) 1983 *Guidelines for the processing and publication of Medieval pottery from excavations, report by a working party of the Medieval Pottery Research Group and the Department of the Environment*. Directorate of Ancient Monuments and Historic Buildings Occasional Paper 5, 23-34, DoE, London
- Brickley, M. and McKinley, J.I., 2004 *Guidelines to the Standards for Recording Human Remains*. IFA Paper No 7, Institute of Field Archaeologists (Reading)
- Brickstock, R.J. 2004 *The Production, Analysis and Standardisation of Romano-British Coin Reports*. English Heritage (Swindon)
- Brown, A. and Perrin, K. 2000 *A Model for the Description of Archaeological Archives*. English Heritage Centre for Archaeology/ Institute of Field Archaeologists (Reading)
- Brown, D.H. 2007 *Archaeological Archives: A guide to best practice in creation, compilation, transfer and curation*. IFA Archaeological Archives Forum (Reading)
- Buikstra, J.E. and Ubelaker D.H. (eds) 1994 *Standards for Data Collection from Human Skeletal Remains*. (Fayetteville, Arkansas)
- CIfA, 2014, *Code of Approved Practice for the Regulation of Contractual Arrangements in Field Archaeology*. Chartered Institute for Archaeologists (Reading)
- CIfA, 2014, *Standard and Guidance for Archaeological Desk-based Assessment*. Chartered Institute for Archaeologists (Reading)
- CIfA, 2014, *Standard and Guidance for Archaeological Watching Brief*. Chartered Institute for Archaeologists (Reading)
- CIfA, 2014, *Standard and Guidance for Archaeological Excavation*. Chartered Institute for Archaeologists (Reading)
- CIfA, 2014, *Standard and Guidance for Archaeological Investigation and Recording of Standing Buildings or Structures*. Chartered Institute for Archaeologists (Reading)
- CIfA, 2014, *Standard and Guidance for the Collection, Documentation, Conservation and Research of Archaeological Materials*. Chartered Institute for Archaeologists (Reading)
- CIfA, 2014, *Standard and Guidance for the Creation, Compilation, Transfer and Deposition of Archaeological Archives*. Chartered Institute for Archaeologists (Reading)
- CIfA, 2014, *Standard and Guidance for Archaeological Field Evaluation*. Chartered Institute for Archaeologists (Reading)
- Clark, J., Darlington, J. and Fairclough, G. 2004 *Using Historic Landscape Characterisation*. English Heritage (London)
- Coles, J.M., 1990 *Waterlogged Wood: guidelines on the recording, sampling, conservation and curation of structural wood*. English Heritage (London)
- Cowton, J., 1997 *Spectrum. The UK Museums Documentation Standard*. Second edition. Museums Documentation Association
- Cox, M., 2002 *Crypt Archaeology: an approach*. Institute of Field Archaeologists Technical Paper 3 (Reading)
- Darvill, T. and Atkins, M., 1991 *Regulating Archaeological Works by Contract*. IFA Technical Paper No 8, Institute of Field Archaeologists (Reading)

- Davey P.J. 1981 *Guidelines for the processing and publication of clay pipes from excavations*. Medieval and Later Pottery in Wales, IV, 65-87
- Eiteljorg, H., Fernie, K., Huggett, J. and Robinson, D. 2002 *CAD: A guide to good practice*. Archaeology Data Service (York)
- EA 2005 *Guidance on Assessing the Risk Posed by Land Contamination and its Remediation on Archaeological Resource Management*. English Heritage/ Environment Agency Science Report P5-077/SR (Bristol)
- EH 1991 *The Management of Archaeological Projects*. Second Edition (MAP2) English Heritage (London)
- EH, 1995a, *Archaeometallurgy in Archaeological Projects*. English Heritage Scientific and Technical Guidelines No 2
- EH 1995b, *Guidelines for the Care of Waterlogged Archaeological Leather*. English Heritage Scientific and Technical Guidelines No 4
- EH 1995c, *A Strategy for the Care and Investigation of Finds*. English Heritage Ancient Monuments Laboratory (London)
- EH 1998a, *Dendrochronology. Guidelines on producing and interpreting dendrochronological dates*. English Heritage (London)
- EH 1998b, *Identifying and Protecting Palaeolithic Remains*. Archaeological guidance for planning authorities and developers. English Heritage (London)
- EH 1999, *Guidelines for the Conservation of Textiles*. English Heritage (London)
- EH 2000, *Managing Lithic Scatters. Archaeological guidance for planning authorities and developers*. English Heritage (London)
- EH, 2002a *Human Bones from Archaeological Sites*. Guidelines for producing assessment documents and analytical reports. English Heritage (London)
- EH 2002b *With Alidade and Tape: graphical and plane table survey of archaeological earthworks*. English Heritage (Swindon)
- EH 2003a *Where on Earth Are We? The Global Positioning System (GPS) in archaeological field survey*. English Heritage (London)
- EH, 2003b (revised 2008), *Metric Survey Specifications for English Heritage*. English Heritage (Swindon)
- EH 2003c *Twentieth-Century Military Sites. Current approaches to their recording and conservation* English Heritage (Swindon)
- EH 2003d *Archaeological Science at PPG16 interventions: Best Practice Guidance for Curators and Commissioning Archaeologists*. English Heritage (Swindon)
- EH 2004a *Dendrochronology. Guidelines on producing and interpreting dendrochronological dates*. English Heritage (Swindon)
- EH 2004b *Human Bones from Archaeological Sites: Guidelines for producing assessment documents and analytical report*. English Heritage Centre for Archaeology Guidelines
- EH 2006a *Guidelines on the X-radiography of Archaeological Metalwork*. English Heritage (Swindon)
- EH 2006b *Archaeomagnetic Dating*. English Heritage (Swindon)
- EH 2006c *Science for Historic Industries: Guidelines for the investigation of 17th- to 19th-century industries*. English Heritage (Swindon)
- EH 2006d *Our Portable Past: a statement of English Heritage policy and good practice for portable antiquities/surface collected material in the context of field archaeology and survey programmes (including the use of metal detectors)*. English Heritage (Swindon)
- EH, 2006e, *Management of Research Projects in the Historic Environment. The MoRPHE Project Managers' Guide*. English Heritage (Swindon)
- EH 2007a *Understanding the Archaeology of Landscapes. A guide to good recording practice*. English Heritage (Swindon)
- EH 2007d *Geoarchaeology. Using earth sciences to understand the archaeological record*. (London)
- EH 2008a *Luminescence Dating. Guidelines on using luminescence dating in archaeology*. English Heritage (Swindon)
- EH 2008b *Geophysical Survey in Archaeological Field Evaluation. English Heritage Research and Professional Services Guidelines No 1* (second edition). English Heritage (Swindon)
- EH 2008c *Research and Conservation Framework for the British Palaeolithic*. English Heritage/Prehistoric Society (Swindon)
- EH 2008d *Investigative Conservation. Guidelines on how the detailed examination of artefacts from archaeological sites can shed light on their manufacture and use*. English Heritage (Swindon)
- EH 2010 *Waterlogged Wood: Guidelines on the recording, sampling, conservation and curation of archaeological wood*. English Heritage (London)
- EH 2011 *Environmental Archaeology: A guide to the theory and practice of methods, from sampling and recovery to post-excavation*. English Heritage Centre for Archaeology Guidelines (London)
- EH and Church of England, 2005, *Guidance for Best Practice for Treatment of Human Remains Excavated from Christian Burial Grounds in England*. English Heritage (London)
- Ferguson, L. and Murray, D., 1997, *Archaeological Documentary Archives*. IFA Paper 1, Institute of Field Archaeologists (Reading)
- Gaffney, C. and Gater, J., with Ovenden, S., 2002, *The Use of Geophysical Techniques in Archaeological Evaluations*. IFA Technical Paper 9, Institute of Field Archaeologists (Reading)
- Gillings, M. and Wise, A., 1999, *GIS: A guide to good practice*. Archaeology Data Service (York)

- Gurney, D.A., 1985, *Phosphate Analysis of Soils: A Guide for the Field Archaeologist*. IFA Technical Paper 3, Institute of Field Archaeologists (Reading)
- Handley, M., 1999, *Microfilming Archaeological Archives*. IFA Technical Paper 2, Institute of Field Archaeologists (Reading)
- IFA, 1992, *Guidelines for Finds Work*. Institute of Field Archaeologists (Reading)
- IFA, 2004, *Guidelines to the Standards for Recording Human Remains*. Institute of Field Archaeologists Paper No 7 (Reading)
- Mays, S., 1991, *Recommendations for Processing Human Bone from Archaeological Sites*. Ancient Monuments Lab Report 124/91 (London)
- Mays, S., Brickley, M. and Dodwell, N., 2002, *Human Bones from Archaeological Sites. Guidelines for Producing Assessment Documents and Analytical Reports*. Centre for Archaeology Guidelines, English Heritage (Portsmouth)
- McKinley, J.I. and Roberts, C., 1993, *Excavation and Post-excavation Treatment of Cremated and Inhumed Human Remains*. Institute of Field Archaeologists Technical Paper No. 13 (Reading)
- MGC, 1992, *Standards in the Museum Care of Archaeological Collections*. Museums and Galleries Commission
- Murphy, P.L. and Wiltshire, P.E.J. 1994, *A Guide to Sampling Archaeological Deposits for Environmental Analysis*. English Heritage (London)
- MPRG 2000, *A Guide to the Classification of Medieval Ceramics*. Medieval Pottery Research Group Occasional Papers No. 1.
- MPRG 2001, *Minimum Standards for the Processing, Recording, Analysis and Publication of Post-Roman Ceramics*. Medieval Pottery Research Group
- Owen, J., 1995, *Towards an Accessible Archaeological Archive. The Transfer of archaeological archives to museums: guidelines for use in England, Northern Ireland, Scotland and Wales*. Society of Museum Archaeologists
- PCRG 1997, *The Study of Later Prehistoric Pottery: General policies and guidelines for analysis and publication*. Prehistoric Ceramics Research Group Occasional Paper 12
- Philo, C. and Swann, A., 1992, *Preparation of Artwork for Publication*. Institute of Field Archaeologists Technical Paper No. 10 (Reading)
- RCHME 1999, *Recording Archaeological Field Monuments: A descriptive specification*. RCHME (Swindon)
- RCHME 2007, *MIDAS: A manual and data standard for monuments inventories*. RCHME (Swindon)
- Schofield, A J, (ed) 1998, *Interpreting Artefact Scatters*. Oxbow Monograph 4 (Oxford)
- Richards, J. and Robinson, D. (eds), 2001, *Digital Archives From Excavation and Fieldwork: A guide to good practice*. Archaeology Data Service
- Robinson, W., 1998, *First Aid for Underwater Finds*. Archetype Books (London)
- RFG and FRG, 1993, *Guidelines for the Preparation of Site and Assessments for all Finds other than Fired Clay Vessels*. Roman Finds Group And Finds Research Group
- Schmidt, A., 2001, *Geophysical Data in Archaeology: A guide to good practice*. Archaeology Data Service
- SGRP, 1994, *Guidelines for the Archiving of Roman Pottery*. Study Group for Roman Pottery
- SMA, 1993, *Guidelines on the Selection, Retention and Dispersal of Archaeological Collections*. Society of Museum Archaeologists
- UKIC, 1983, *Packaging and Storage of Freshly Excavated Artefacts from Archaeological Sites*. (United Kingdom Institute for Conservation, Conservation Guidelines No 2)
- UKIC, 1984, *Environmental Standards for Permanent Storage of Excavated material from Archaeological Sites*. (United Kingdom Institute for Conservation, Conservation Guidelines No 3)
- UKIC, 1990, *Guidance for Conservation Practice*. United Kingdom Institute for Conservation
- UKIC, 1990, *Guidelines for the Preparation of Excavation Archives for Long-term Storage*. United Kingdom Institute for Conservation Archaeology Section
- UKIC, 2001, *Excavated Artefacts and Conservation*. (United Kingdom Institute for Conservation, Conservation Guidelines No 1, revised)
- Watkinson, D.E., and Neal, V., 1998, *First Aid for Finds*. (3rd edition) RESCUE/United Kingdom Institute for Conservation, Archaeology Section and Museum of London
- Willis, S., 1997, (ed) *Research Frameworks for the Study of Roman Pottery*. Study Group for Roman Pottery
- World Archaeology Congress 1989, *The Vermillion Accord – Human Remains*. Motion Approved at the First Inter-Congress on the Disposal of the Dead (Vermillion)
- Young C., 1980, *Guidelines for the Processing and Publication of Roman Pottery*. Department of the Environment

APPENDIX B: COTSWOLD ARCHAEOLOGY SPECIALISTS***Ceramics***

Neolithic/Bronze Age	Ed McSloy (CA) Emily Edwards (freelance) Dr Ros Cleal (freelance)
Iron Age/Roman (Samian) (Amphorae stamps)	Ed McSloy (CA) Gwladys Montell (freelance) David Williams (freelance)
Anglo-Saxon	Paul Blinkhorn (freelance) Dr Jane Timby (freelance)
Medieval/post-medieval (Clay pipe)	Ed McSloy (CA) Duncan Brown (freelance) Paul Blinkhorn (freelance) Reg Jackson (freelance)
Ceramic Building Material	Ed McSloy (CA) Phil Mills (freelance)

Other Finds

Small Finds	Ed McSloy (CA)
Metal Artefacts	Dr Jörn Schuster (freelance) Dr Hilary Cool (freelance)
Lithics (Palaeolithic)	Ed McSloy (CA) Jackie Sommerville (CA) Francis Wenban-Smith (University of Southampton)
Worked Stone	Ruth Shaffrey (freelance)
Inscriptions	Dr Roger Tomlin (Oxford)
Glass	Ed McSloy (CA) Dr Hilary Cool (freelance) Dr David Dungworth (freelance; English Heritage)
Coins	Ed McSloy (CA) Dr Peter Guest (Cardiff University) Dr Richard Reece (freelance)
Leather	Quita Mould (freelance)
Textiles	Penelope Walton Rogers (freelance)
Iron slag/metal technology	Dr Tim Young (Cardiff University) Dr David Dungworth (English Heritage)
<i>Biological Remains</i>	
Animal bone	Philip Armitage (freelance)
Human Bone	Sharon Clough (freelance) Annsophie Witkin (freelance)
Environmental sampling	Sarah Cobain (CA) Dr Keith Wilkinson (ARCA)
Pollen	Rob Batchelor (QUEST, University of Reading)
Diatoms	Nigel Cameron (UCL)

Charred Plant Remains	Sarah Cobain (CA)
Wood/Charcoal	Sarah Cobain (CA)
Insects	David Smith (Birmingham University) Enid Allison (Canterbury Archaeological Trust)
Mollusca	Dr Keith Wilkinson (ARCA)
Fish bones	Philip Armitage (freelance)
Geoarchaeology	Dr Keith Wilkinson (ARCA)
Scientific Dating	
Dendrochronology	Robert Howard (NTRDL Nottingham)
Radiocarbon dating	SUERC (East Kilbride) Beta Analytic (USA)
Archaeomagnetic dating	Neil Suttie (University of Liverpool) Cathy Batt (University of Bradford)
TL/OSL Dating	Phil Toms (University of Gloucestershire)
Conservation	Karen Barker (freelance) Wiltshire Conservation Services



- site boundary
- trenches (CA Project 0908)
- proposed SMS areas



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PROJECT TITLE
Land off Mosquito Way, Hatfield Business Park

FIGURE TITLE
Trench Location Plan

DRAWN BY	JSJ	PROJECT NO.	660875	FIGURE NO.
CHECKED BY	JSJ	REVISION	00	01
DATE	13.04.17	SCALE@A3	1:1000	

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