

ARCHAEOLOGICAL EVALUATION REPORT

SCCAS REPORT No. 2011/024

Erection of Two Wind Turbines, Eye Airfield Industrial Estate EYE 101

S. Cass
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HER Information

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Summary

An archaeological evaluation was carried out on land at Eye Airfield Industrial Estate in advance of the construction of two wind turbines at the Roy Humphrey site. Two trenches, totalling 51.5m, were excavated in order to investigate the site of the second (southerly) turbine and the temporary construction compound. The northerly turbine is located within an already developed area of the site which was considered to have little prospect of surviving archaeological remains. No archaeological deposits or artefacts were located during the course of this evaluation and no further work is recommended for this development.

1. Introduction

Planning permission was granted by Mid Suffolk District Council for the construction of two wind turbines on land at Roy Humphrey Group (formerly Eye Airfield), Ipswich Road, Eye. A condition was placed on this development relating to archaeology requiring an acceptable scheme of investigation and mitigation to be carried out prior to the commencement of any development.

2. Geology and topography

The site lies at a height of approximately 46.8m - 47.2m AOD, on deep loam to clay above chalky till deposits. Although the site itself is generally flat, this may well have been at least partially resultant from the creation of Eye Airfield during WW2.

3. Archaeological and historical background

This site lies in an area of archaeological importance, recorded in the County Historic Environment Record. It lies adjacent to the route of a known Roman road (believed to follow the course of the modern A140) and further Roman settlement sites are known 400m west and 600m south-east. In addition, a number of smaller medieval sites are known to exist between 100-400m to the west of this development, including the remains of the medieval Goswold Hall. Due to this there was believed to be a high possibility of encountering Roman or medieval deposits within this site. An evaluation carried out in 2010 within the airfield found traces of modern disturbance/landscaping likely to relate to either farming or the construction of the WWII airfield (Cass, 2010)

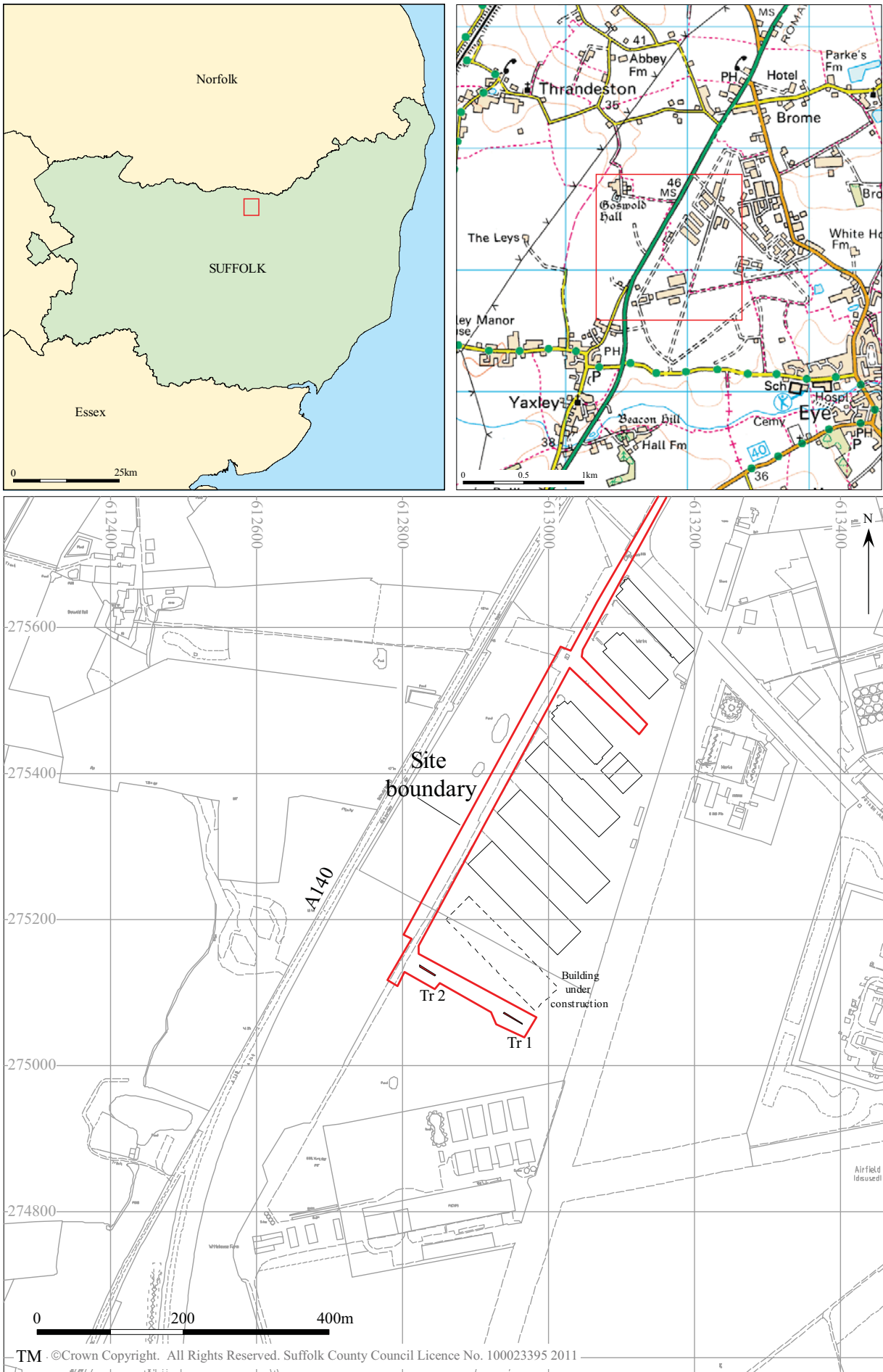


Figure 1. Site location, showing development area (red) and trenches (black)

4. Methodology

Two trenches were excavated by a 360 degree tracked mechanical excavator using a toothless 'ditching' bucket under constant archaeological supervision. The trenches were intended to be 1.8m wide and 25m long. These trenches were laid out according to an approved location plan, intended to investigate the area around the foundation of turbine 2 and the footprint of the temporary construction compound nearby.

A record was made of the stratigraphy encountered in each trench, and where archaeological features were encountered they were hand-cleaned and a selection of them was excavated in order to characterise the site without causing undue disturbance. All features were planned and a full written, drawn and photographic (with a 6.2 megapixel digital SLR camera) record made of those which were excavated. The unexcavated features were all planned, though no further record has been made at this time.

5. Results

5.1 Trench 1

This trench was 25m long, 1.8m wide and 0.3m deep, orientated approximately north-west/south-east. The stratigraphy encountered consisted of 0.3m of mid greyish brown silty clay topsoil with frequent modern inclusions (brick fragments, corroded metallic fragments, wood, plastic, etc) directly above an orangey brown silty clay, interpreted as natural geology. The natural geology was encountered at 46.5m AOD.



Plate 1. Trench 1, facing north-west (2m and 1m scales)

5.2 Trench 2

This trench was 25m long, 1.8m wide and 0.35m deep, orientated approximately north-west/south-east. The stratigraphy encountered consisted of 0.3m of mid greyish brown silty clay topsoil with frequent modern inclusions (brick fragments, corroded metallic fragments, wood, plastic, etc) directly above an orangey brown silty clay with patches of degraded chalk, interpreted as natural geology. The natural was encountered at 46.85m.



Plate 2. Trench 2, facing south-east (2m and 1m scales)

6. Finds and environmental evidence

No finds of archaeological relevance were observed, and the modern finds noted in the topsoil were not retained. It is suspected that most of the area had been affected by landscaping/levelling in the recent past.

7. Discussion

The stratigraphy encountered in this evaluation suggests that, similarly to the area evaluated in 2010, this part of the old airfield has likely been levelled and/or disturbed during the relatively recent past. It is believed likely that this was connected to either the construction or destruction of the airfield ground-structures (ancillary runway structures etc) in the mid-20th century.

8. Conclusions and recommendations for further work

No further works are recommended to be undertaken in connection with this project and it seems increasingly likely that the majority of the old airfield area has been significantly disturbed with the probable poor survival of any potential archaeological remains that may have been present.

9. Archive deposition

Paper and photographic archive: SCCAS Ipswich

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Finds and environmental archive: SCCAS Bury St Edmunds.

Store Location: None.

10. List of contributors and acknowledgements

The evaluation was carried out by Simon Cass and Andy Beverton from Suffolk County Council Archaeological Service, Field Team.

The project was managed and directed by Rhodri Gardner, who also provided advice during the production of the report.

The production of site plans was carried out by Simon Cass, and the report was checked by Richenda Goffin.

11. Bibliography

Cass, S., 2010 Roy Humphrey Site, Eye Airfield EYE 096, SCCAS Report No. 2010/144.

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.

Appendix 1. Brief and Specification

Brief and Specification for Archaeological Evaluation**ERECTION OF TWO WIND TURBINES, AIRFIELD INDUSTRIAL
ESTATE, EYE, SUFFOLK**

The commissioning body should be aware that it may have Health & Safety responsibilities.

1. The nature of the development and archaeological requirements

- 1.1 Planning permission has been approved by Mid Suffolk District Council for the erection of a two wind turbines and associated works at Airfield Industrial Estate, Eye (TM 129 750). **Please contact the applicant for an accurate plan of the site.**
- 1.2 The Planning Authority has been advised that any consent should be conditional upon an agreed programme of work taking place before development begins in accordance with PPS5 *Planning for the Historic Environment* (Policy HE12.3) to record and advance understanding of the significance of the heritage asset before it is damaged or destroyed.
- 1.3 The site is located to the east of the A140 at c.45.00m OD. The soils are deep loam to clay of the Beccles Series, derived from the underlying chalky till.
- 1.4 In order to inform the archaeological mitigation strategy, the following work will be required:
 - A linear trenched evaluation is required of the area relating to the erection of Turbine 2 (the southern turbine), which includes the area of the turbine base, temporary access and construction compound.
- 1.5 The results of this evaluation will enable the archaeological resource, both in quality and extent, to be accurately quantified. Decisions on the need for and scope of any mitigation measures, should there be any archaeological finds of significance, will be based upon the results of the evaluation and will be the subject of an additional specification.
- 1.6 All arrangements for the field evaluation of the site, the timing of the work, access to the site, the definition of the precise area of landholding and area for proposed development are to be defined and negotiated with the commissioning body.

In addition, archaeological monitoring will be required for other areas of ground disturbance relating to this planning application (erection of Turbine 1 and cutting of cable routes). A separate specification will be issued for these works.
- 1.8 Detailed 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.
- 1.9 In accordance with the standards and guidance produced by the Institute of Field Archaeologists this brief should not be considered sufficient to enable the total execution of the project. A Written Scheme of Investigation (WSI) based upon this brief and the accompanying outline specification of minimum requirements, is an essential requirement. This must be submitted by the developers, or their agent, to the Conservation Team of the Archaeological Service of Suffolk County Council (9-10 The Churchyard, Shire Hall, Bury St

Edmunds IP33 2AR; telephone/fax: 01284 352443) for approval. The work must not commence until this office has approved both the archaeological contractor as suitable to undertake the work, and the WSI as satisfactory. The WSI will provide the basis for measurable standards and will be used to satisfy the requirements of the planning condition.

- 1.10 Neither this specification nor the WSI, however, is a sufficient basis for the discharge of the planning condition relating to archaeological investigation. Only the full implementation of the scheme, both completion of fieldwork and reporting based on the approved WSI, will enable SCCAS/CT to advise Mid Suffolk District Council that the condition has been adequately fulfilled and can be discharged.
- 1.11 Before any archaeological site work can commence it is the responsibility of the developer to provide the archaeological contractor with either the contaminated land report for the site or a written statement that there is no contamination. The developer should be aware that investigative sampling to test for contamination is likely to have an impact on any archaeological deposit which exists; proposals for sampling should be discussed with the Conservation Team of the Archaeological Service of SCC (SCCAS/CT) before execution.
- 1.12 The responsibility for identifying any constraints on field-work, e.g. Scheduled Monument status, Listed Building status, public utilities or other services, tree preservation orders, SSSIs, wildlife sites &c., ecological considerations rests with the commissioning body and its archaeological contractor. The existence and content of the archaeological brief does not over-ride such constraints or imply that the target area is freely available.
- 1.13 Any changes to the specifications that the project archaeologist may wish to make after approval by this office should be communicated directly to SCCAS/CT and the client for approval.

2. Brief for the Archaeological Evaluation

- 2.1 Establish whether any archaeological deposit exists in the area, with particular regard to any which are of sufficient importance to merit preservation *in situ*.
- 2.2 Identify the date, approximate form and purpose of any archaeological deposit within the application area, together with its likely extent, localised depth and quality of preservation.
- 2.3 Evaluate the likely impact of past land uses, and the possible presence of masking colluvial/alluvial deposits.
- 2.4 Establish the potential for the survival of environmental evidence.
- 2.5 Provide sufficient information to construct an archaeological conservation strategy, dealing with preservation, the recording of archaeological deposits, working practices, timetables and orders of cost.
- 2.6 This project will be carried through in a manner broadly consistent with English Heritage's *Management of Archaeological Projects*, 1991 (*MAP2*), all stages will follow a process of assessment and justification before proceeding to the next phase of the project. Field evaluation is to be followed by the preparation of a full archive, and an assessment of potential. Any further excavation required as mitigation is to be followed by the preparation of a full archive, and an assessment of potential, analysis and final report preparation may follow. Each stage will be the subject of a further brief and updated project design; this document covers only the evaluation stage.
- 2.7 The developer or his archaeologist will give SCCAS/CT (address as above) five working days notice of the commencement of ground works on the site, in order that the work of the archaeological contractor may be monitored.

- 2.8 If the approved evaluation design is not carried through in its entirety (particularly in the instance of trenching being incomplete) the evaluation report may be rejected. Alternatively the presence of an archaeological deposit may be presumed, and untested areas included on this basis when defining the final mitigation strategy.
- 2.9 An outline specification, which defines certain minimum criteria, is set out below.

3. Specification: Trenched Evaluation

- 3.1 Trial trenches are to be excavated to cover 5% by area, which is c.95.00m². These shall be positioned to sample all parts of the area to be evaluated. Linear trenches are thought to be the most appropriate sampling method in a systematic grid array. Trenches are to be a minimum of 1.80m wide unless special circumstances can be demonstrated; this will result in a minimum of 53.00m of trenching at 1.80m in width.
- 3.2 If excavation is mechanised a toothless 'ditching bucket' at least 1.80m wide must be used. A scale plan showing the proposed locations of the trial trenches should be included in the WSI and the detailed trench design must be approved by SCCAS/CT before field work begins.
- 3.3 The topsoil may be mechanically removed using an appropriate machine with a back-acting arm and fitted with a toothless bucket, down to the interface layer between topsoil and subsoil or other visible archaeological surface. All machine excavation is to be under the direct control and supervision of an archaeologist. The topsoil should be examined for archaeological material.
- 3.4 The top of the first archaeological deposit may be cleared by machine, but must then be cleaned off by hand. There is a presumption that excavation of all archaeological deposits will be done by hand unless it can be shown there will not be a loss of evidence by using a machine. The decision as to the proper method of excavation will be made by the senior project archaeologist with regard to the nature of the deposit.
- 3.5 In all evaluation excavation there is a presumption of the need to cause the minimum disturbance to the site consistent with adequate evaluation; that significant archaeological features, e.g. solid or bonded structural remains, building slots or post-holes, should be preserved intact even if fills are sampled. For guidance:
- For linear features, 1.00m wide slots (min.) should be excavated across their width;
- For discrete features, such as pits, 50% of their fills should be sampled (in some instances 100% may be requested).
- 3.6 There must be sufficient excavation to give clear evidence for the period, depth and nature of any archaeological deposit. The depth and nature of colluvial or other masking deposits must be established across the site.
- 3.7 Archaeological contexts should, where possible, be sampled for palaeoenvironmental remains. Best practice should allow for sampling of interpretable and datable archaeological deposits and provision should be made for this. The contractor shall show what provision has been made for environmental assessment of the site and must provide details of the sampling strategies for retrieving artefacts, biological remains (for palaeoenvironmental and palaeoeconomic investigations), and samples of sediments and/or soils (for micromorphological and other pedological/sedimentological analyses. Advice on the appropriateness of the proposed strategies will be sought from Helen Chappell, English Heritage Regional Adviser for Archaeological Science (East of England). A guide to sampling archaeological deposits (Murphy, P.L. and Wiltshire, P.E.J., 1994, *A guide to sampling archaeological deposits for environmental analysis*) is available for viewing from SCCAS.

- 3.8 Any natural subsoil surface revealed should be hand cleaned and examined for archaeological deposits and artefacts. Sample excavation of any archaeological features revealed may be necessary in order to gauge their date and character.
- 3.9 Metal detector searches must take place at all stages of the excavation by an experienced metal detector user.
- 3.10 All finds will be collected and processed (unless variations in this principle are agreed SCCAS/CT during the course of the evaluation).
- 3.11 Human remains must be left *in situ* except in those cases where damage or desecration are to be expected, or in the event that analysis of the remains is shown to be a requirement of satisfactory evaluation of the site. However, the excavator should be aware of, and comply with, the provisions of Section 25 of the Burial Act 1857.
- 3.12 Plans of any archaeological features on the site are to be drawn at 1:20 or 1:50, depending on the complexity of the data to be recorded. Sections should be drawn at 1:10 or 1:20 again depending on the complexity to be recorded. All levels should relate to Ordnance Datum. Any variations from this must be agreed with SCCAS/CT.
- 3.13 A photographic record of the work is to be made, consisting of both monochrome photographs and colour transparencies and/or high resolution digital images.
- 3.14 Topsoil, subsoil and archaeological deposit to be kept separate during excavation to allow sequential backfilling of excavations.
- 3.15 Trenches should not be backfilled without the approval of SCCAS/CT. Suitable arrangements should be made with the client to ensure trenches are appropriately backfilled, compacted and consolidated in order to prevent subsequent subsidence.

4. General Management

- 4.1 A timetable for all stages of the project must be agreed before the first stage of work commences, including monitoring by SCCAS/CT. The archaeological contractor will give not less than five days written notice of the commencement of the work so that arrangements for monitoring the project can be made.
- 4.2 The composition of the archaeology contractor staff must be detailed and agreed by this office, including any subcontractors/specialists. For the site director and other staff likely to have a major responsibility for the post-excavation processing of this evaluation there must also be a statement of their responsibilities or a CV for post-excavation work on other archaeological sites and publication record. Ceramic specialists, in particular, must have relevant experience from this region, including knowledge of local ceramic sequences.
- 4.3 It is the archaeological contractor's responsibility to ensure that adequate resources are available to fulfill the Brief.
- 4.4 A detailed risk assessment must be provided for this particular site.
- 4.5 No initial survey to detect public utility or other services has taken place. The responsibility for this rests with the archaeological contractor.
- 4.6 The Institute of Field Archaeologists' *Standard and Guidance for archaeological field evaluation* (revised 2001) should be used for additional guidance in the execution of the project and in drawing up the report.

5. Report Requirements

- 5.1 An archive of all records and finds must be prepared consistent with the principles of English Heritage's *Management of Archaeological Projects*, 1991 (particularly Appendix 3.1 and Appendix 4.1).
- 5.2 The report should reflect the aims of the WSI.
- 5.3 The objective account of the archaeological evidence must be clearly distinguished from its archaeological interpretation.
- 5.4 An opinion as to the necessity for further evaluation and its scope may be given. No further site work should be embarked upon until the primary fieldwork results are assessed and the need for further work is established.
- 5.5 Reports on specific areas of specialist study must include sufficient detail to permit assessment of potential for analysis, including tabulation of data by context, and must include non-technical summaries.
- 5.6 The Report must include a discussion and an assessment of the archaeological evidence, including an assessment of palaeoenvironmental remains recovered from palaeosols and cut features. Its conclusions must include a clear statement of the archaeological potential of the site, and the significance of that potential in the context of the Regional Research Framework (*East Anglian Archaeology*, Occasional Papers 3 & 8, 1997 and 2000).
- 5.7 The results of the surveys should be related to the relevant known archaeological information held in the County Historic Environment Record (HER).
- 5.8 A copy of the Specification should be included as an appendix to the report.
- 5.9 The project manager must consult the County HER Officer (Dr Colin Pendleton) to obtain a HER number for the work. This number will be unique for each project or site and must be clearly marked on any documentation relating to the work.
- 5.10 Finds must be appropriately conserved and stored in accordance with *UK Institute of Conservators Guidelines*.
- 5.11 Every effort must be made to get the agreement of the landowner/developer to the deposition of the full site archive, and transfer of title, with the intended archive depository before the fieldwork commences. If this is not achievable for all or parts of the finds archive then provision must be made for additional recording (e.g. photography, illustration, scientific analysis) as appropriate.
- 5.12 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.
- 5.13 If the County Store is the intended location of the archive, the project manager should consult the SCCAS Archive Guidelines 2010 and also the County Historic Environment Record Officer regarding the requirements for the deposition of the archive (conservation, ordering, organisation, labelling, marking and storage) of excavated material and the archive. 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.
- 5.14 The WSI should state proposals for the deposition of the digital archive relating to this project with the Archaeology Data Service (ADS), and allowance should be made for costs incurred to ensure the proper deposition (<http://ads.ahds.ac.uk/project/policy.html>) with ADS or another appropriate archive depository.

- 5.15 Where positive conclusions are drawn from a project (whether it be evaluation or excavation) a summary report, in the established format, suitable for inclusion in the annual 'Archaeology in Suffolk' section of the *Proceedings of the Suffolk Institute for Archaeology*, must be prepared. It should be included in the project report, or submitted to SCCAS/CT, by the end of the calendar year in which the evaluation work takes place, whichever is the sooner.
- 5.16 An unbound hardcopy of the evaluation report, clearly marked DRAFT, must be presented to SCCAS/CT for approval within six months of the completion of fieldwork unless other arrangements are negotiated with the project sponsor and SCCAS/CT.
- Following acceptance, two copies of the report should be submitted to SCCAS/CT together with a digital .pdf version.
- 5.17 Where appropriate, a digital vector trench plan should be included with the report, which must be compatible with MapInfo GIS software, for integration in the County HER. AutoCAD files should be also exported and saved into a format that can be imported into MapInfo (for example, as a Drawing Interchange File or .dxf) or already transferred to .TAB files.
- 5.18 At the start of work (immediately before fieldwork commences) an OASIS online record <http://ads.ahds.ac.uk/project/oasis/> must be initiated and key fields completed on Details, Location and Creators forms.
- 5.19 All parts of the OASIS online form must be completed for submission to the County HER, and a copy should be included with the draft report for approval (see para. 5.16). This should include an uploaded .pdf version of the entire report (a paper copy should also be included with the archive).

Specification by: Dr Jess Tipper

Suffolk County Council
Archaeological Service Conservation Team
9-10 The Churchyard, Shire Hall
Bury St Edmunds
Suffolk IP33 2AR
Tel: 01284 352197
Email: jess.tipper@suffolk.gov.uk

Date: 2 September 2010

Reference: / AirfieldIndustrialEstate_Eye2010

This brief and specification remains valid for six months from the above date. If work is not carried out in full within that time this document will lapse; the authority should be notified and a revised brief and specification may be issued.

If the work defined by this brief forms a part of a programme of archaeological work required by a Planning Condition, the results must be considered by the Conservation Team of the Archaeological Service of Suffolk County Council, who have the responsibility for advising the appropriate Planning Authority.