

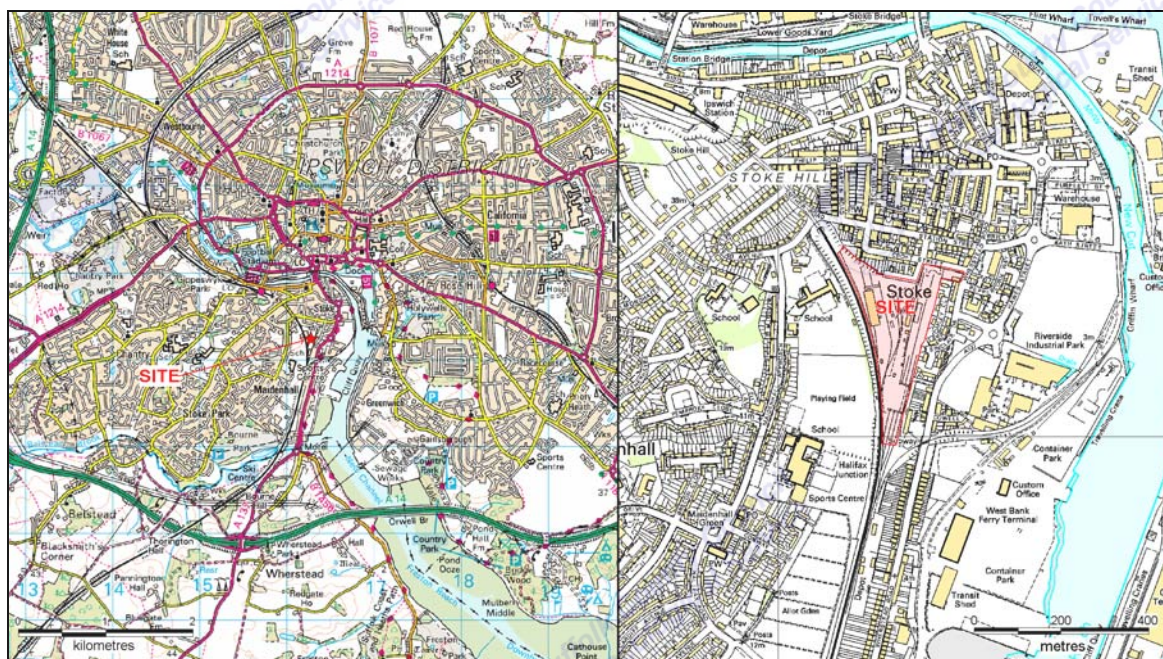
ARCHAEOLOGICAL MONITORING REPORT

RESIDENTIAL DEVELOPMENT OF FORMER BRITISH RAIL LAND, WHERSTEAD ROAD AND CROFT STREET, IPSWICH (SMR ref. IPS 468)

A REPORT ON THE ARCHAEOLOGICAL MONITORING OF
GROUNDWORK ASSOCIATED WITH A RESIDENTIAL DEVELOPMENT
(Application No. IP/04/0105/FUL)

Suffolk County Council Archaeological Service Report No. 2005/145
(OASIS Ref. suffolkc1-10412)

Summary: Archaeological monitoring of the groundwork associated with the construction of a residential development on land to the south of Croft Street, Ipswich (NGR TM 1628 4320), was undertaken during the summer of 2005. The site is notable due to the 19th century discovery of important Pleistocene deposits known as the 'Stoke Bone Bed' (SMR ref. IPS 163). The monitoring followed on from an evaluation which revealed that much of the site has suffered from truncation that had probably destroyed the levels containing the bone bed although an area on the southeast side was untruncated. No evidence of the bone bed was identified in this area although a buried soil layer was recorded indicating there was the potential for later archaeological deposits to survive. The initial stage of works entailed site clearance and the removal of buried footings and slabs associated with the site's use as a railway depot and yard. This work was monitored but no archaeological features were noted although this is not entirely unexpected as the areas monitored were primarily within the zone of truncation and the methods employed to grub out remains were not particularly conducive to identifying archaeological features or deposits. Monitoring of some groundworks associated with the new construction work during the summer of 2006 also failed to identify any archaeological features or deposits. This monitoring event is recorded on the Sites and Monuments Record under the reference IPS 468. The archaeological monitoring was undertaken by the Suffolk County Council Archaeological Service, Field Projects Team, who were commissioned and funded by CgMs Consultants on behalf of their client, Abbey New Homes.



Introduction

An application for the construction of a residential development on land south of Croft Street, Ipswich (application no. IPS/04/0105/FUL), was approved but with an attached condition requiring a programme of archaeological works to be put in place prior to any construction work.

Within the development area is the site of the first railway station in Ipswich, built as a terminus for the line from London in the 1840s. This station remained in use until c.1860 when, upon completion of the railway tunnel that passes under Stoke Hill immediately northeast of the site, and the mainline to Norwich, a new station was constructed on the northern side of Stoke Hill. The development area continued in railway use becoming the site of a large railway engine depot servicing the London-Norwich mainline with numerous sheds, sidings and associated facilities. It was closed as a motive power depot in the 1980s although the repair of rolling stock continued on the site until its final closure in the late 1990s. It was notable for being the first motive power depot in the UK to be fully converted from steam to diesel power in the early 1950s.

The main archaeological interest in the site is due to it being located within the area of an important Pleistocene deposit known as the 'Stoke Bone Bed', discovered during the construction of the railway tunnel through Stoke Hill in the late 1840s, and the first stage of the programme of archaeological works was to undertake an evaluation in order to establish if any of the Bone Bed survived within the development area. The evaluation (Boulter 2005) revealed that severe truncation of the natural ground surface which had probably destroyed the levels containing the Bone Bed occurred over the majority of the site although it was recorded that an area in the southeast of the site had not suffered from truncation and buried soil horizon was noted. Although there was no evidence that the Bone Bed had extended this far the presence of a buried soil layer demonstrated that later archaeological deposits could potentially survive in this area. The truncation noted over much of the site was likely to be the result of the construction of the railway line, the tunnel approach and the depot, which appeared to have been built on a terrace cut into the south-facing slope of Stoke Hill and extended to the south and east through the building up of ground levels, presumably with material from the tunnel excavations.

In the light of the results of the evaluation a Brief and Specification was issued by the Suffolk County Council Conservation Team calling for monitoring of all groundworks within the development area (Appendix I) with the aim of identifying any surviving pockets of the bone bed as well as later archaeological features or deposits.

The National Grid Reference for the approximate centre of the site is TM 1628 4320; for a location plan see figure 1 above. This monitoring event is recorded on the Suffolk County Sites and Monuments Record under the reference IPS 468. The archaeological monitoring was undertaken by the Suffolk County Council Archaeological Service, Field Projects Team, who were commissioned and funded by CgMs Consultants on behalf of their client, Abbey New Homes.

Methodology

The initial groundworks at the site comprised preparation of the site for construction. This entailed the removal of any remaining structures, concrete road surfaces and floor slabs and the grubbing out of buried remains such as old footings, tanks, servicing pits etc. which involved moderately deep excavation over of a large proportion of the site. In order to monitor these works the site was visited on a fairly regular basis to inspect these works.

During each visit the entire site was walked and all freshly worked areas were visually examined for archaeological features, deposits and significant artefacts. Occasional digital photographs were taken of the various aspects of the works and other than the production of a plan of the areas affected, this comprised the main record of the monitoring.

The clearance work was undertaken by large 360° tracked excavators which could be fitted with a breaker to break up the concrete *in-situ* or a toothed bucket which was used to place the broken concrete into six-wheeled dumpers. All material was stockpiled on site and fed through a crusher before being trucked off-site.

Following the site clearance visits were made to examine groundworks associated with the new construction. These entailed visual examination for archaeological features or deposits within any open excavations at the time of a visit.

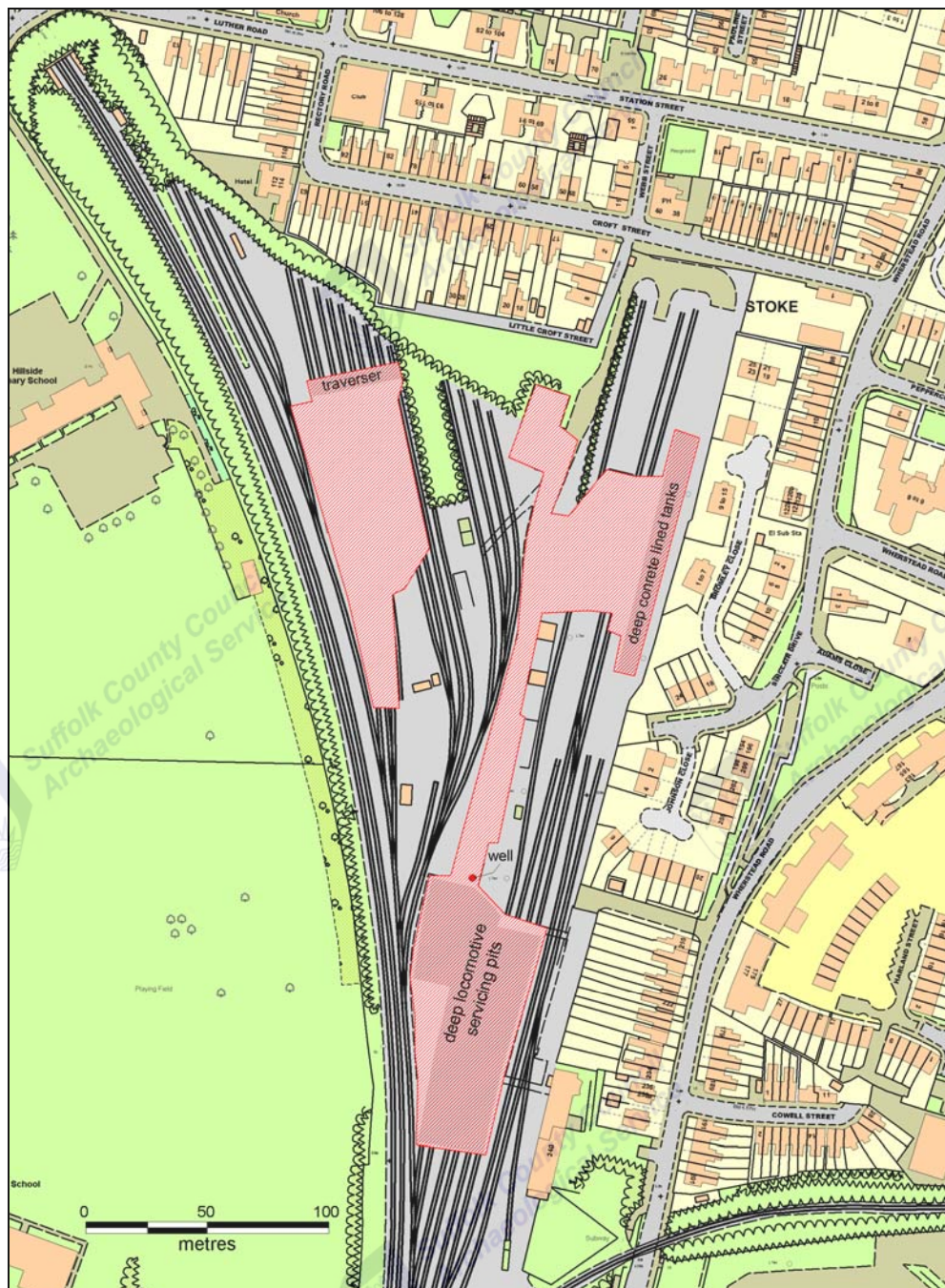


Figure 2: Areas Monitored During Site Preparation Works

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Results

Site Preparation Works: A total of twelve visits were made to the site during May, June, July and August of 2005 to observe the groundworks then underway. As these works primarily involved removal of floor slabs and roadways, much of which appeared to be located within made or heavily disturbed ground, no deposits related to either the 'Stoke Bone Bed' or any later historical occupation were seen.

In a number of areas it was necessary to undertake particularly deep excavations to remove underground tanks and other disturbances but unfortunately the methods employed were not conducive to the identification of archaeological features or deposits. The work was carried out amongst spoil loosened as the concrete was broken so as the concrete chunks and fragments were removed from the ground the spoil immediately fell back obscuring whatever lay beneath with any resultant holes being swiftly backfilled as the work progressed. Only in a limited number of areas, primarily within the edges of deep excavations, was the natural subsoil cleanly exposed giving an opportunity to observe for cut features but again no archaeological deposits were identified.

Areas of loose spoil were examined for significant artefacts but only debris related to the 20th century use of the site was recovered, none of which was retained.

See Figure 2 for a plan of the areas monitored during the site preparation works. The areas examined during the monitoring visits are marked in red. Over much of this area only floor slabs and road surfaces were removed involving excavations less than c.1m in depth. A number of areas within the monitored area entailed deeper excavations and these are shaded darker on the plan. These are; a series of deep tanks running along the eastern boundary (Plates I & II), the site of a traverser at the northern end of the western area and a collection of service pits within and in front of the former diesel shed close to the southern end of the site (Plate III).

A large (c.3m diameter), deep well was also noted. This has not been removed as part of this site clearance as one presumes it will require controlled backfilling in order to render safe. At the time of the last visit it had been capped by a large slab of concrete.

The rectangular area of the site located on the corner of Croft Street and Wherstead Road was also cleared having formerly been the site of a block of offices and a garage (servicing) unconnected with the railway depot. This area was walked after demolition and removal of the floor slabs but with negative results although from observation of the adjacent property and land to the west, which was noticeably higher, it would appear that this corner site has suffered from truncation (see Plate IV).

Although figure 2 is of the areas monitored during the site preparation phase of the works it also indicative of the areas most heavily disturbed by the construction of the depot and yard and within this zone it appears that any archaeological deposits or features that may have existed have been entirely destroyed.

Monitoring of New Construction Groundworks: During May and June 2006 further visits were made to the site to monitor the groundworks associated with the construction of residential units. The footings for Plot 11 through to Plot 22 were examined (see figure 3).

For plots 11 to 14 the footings, which were c. 1.4m deep, revealed c. 1m of disturbed ground which immediately overlaid the natural subsoil. The interface between the two was very abrupt indicating the surface of the natural subsoil had been previously truncated.

Within part of the area of Plots 15 to 22 the natural subsoil was visible on the surface and as such was likely to have been truncated. Elsewhere the natural subsoil lay beneath a deposit of grey brown sand and silt which appeared to be a poor topsoil. These footings were cut to a depth of c. 1.3m. Occasional modern disturbances in the form of old services associated with the former rail depot were present but no earlier archaeological features or deposits were noted.

Archive: The monitoring archive from this project will be deposited at the Suffolk County Council Archaeological Service offices in Bury St Edmunds under the reference IPS 468, it is also recorded on the OASIS, online database, reference: suffolkc1-10412.

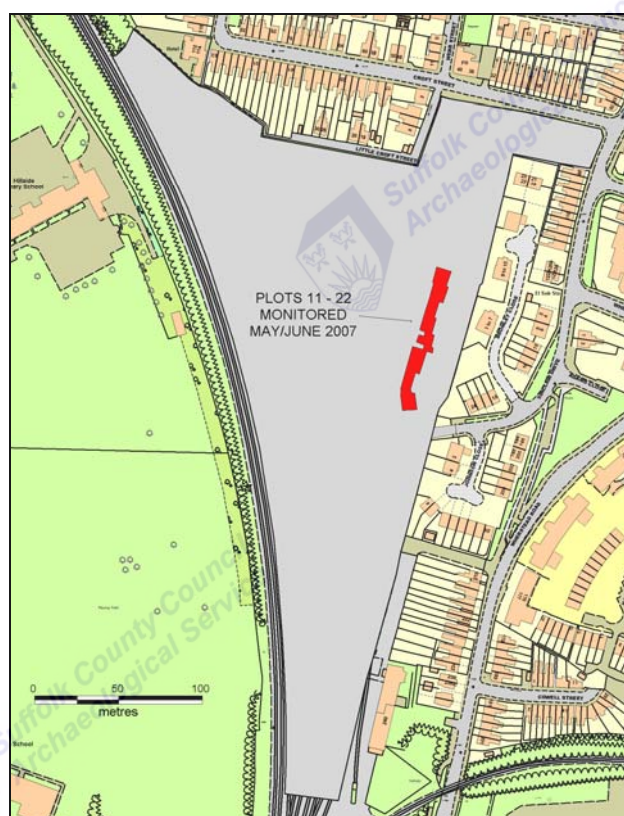


Figure 3: Location of Monitored Plots

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Conclusion

No deposits relating to the 'Stoke Bone Bed' or any other significant archaeological deposits or features were identified during any of the monitoring visits. This is probably due to the fact that the areas examined were those that had been most heavily disturbed by the construction of the railway depot and yard, hence the need for grubbing their out remains, and were primarily situated within the zone identified during the evaluation as having been previously truncated.

Although the methods employed by the contractors were not the most beneficial to identifying archaeological remains the author feels that had any substantial deposits or features been present they would have been identified during the monitoring.

It must be noted that no undisturbed areas within the untruncated zone identified in the evaluation were seen during the archaeological monitoring of the site clearance and preparation works.

The footings monitored during the new construction phase in the zone that was thought to be untruncated did not reveal any archaeological features or deposits although a possible topsoil layer was identified within the area of Plots 15 to 22.

Mark Sommers
Suffolk County Council Archaeological Service

21st August 2007

Field Projects Team

References

Boulter, S. 2005

Archaeological Service: Land to the South of Croft Street, Ipswich (IPS 468), Record of an Archaeological Evaluation, Suffolk County Council Archaeological Service

Plates



Plate I: Large tank adjacent eastern edge of site
(18/7/2005)



Plate II: final grubbing out of tank
(10/8/2005)



Plate III: Removal of locomotive servicing pits within the former diesel shed (8/6/2005)



Plate IV: Corner of Croft Street and Wherstead Road
(8/6/2005)



Plate V: View of the cleared site from the window of the off-site depot offices (22/9/2005)



Plate VI: Sample of Monitored Footings (Plots 15-18)
(20/6/2006)

APPENDIX I

SUFFOLK COUNTY COUNCIL

ARCHAEOLOGICAL SERVICE - CONSERVATION TEAM



Brief and Specification for Archaeological Monitoring of Development

**Residential development of former British Rail Land,
Wherstead Road and Croft Street, Ipswich**

Although this document is fundamental to the work of the specialist archaeological contractor the developer should be aware that certain of its requirements are likely to impinge upon the working practices of a general building contractor and may have financial implications, for example see paragraphs 2.3 & 4.3. The commissioning body should also be aware that it may have Health & Safety responsibilities, see paragraph 1.5.

1. Background

- 1.1 Planning permission to develop on this site has been granted conditional upon an acceptable programme of archaeological work being carried out (consent IP/04/0105/FUL). Assessment of the available archaeological evidence indicates that the area affected by development can be adequately recorded by archaeological monitoring.
- 1.2 This area is notable for the important Pleistocene deposits found in the 19th century during the construction of the Stoke railway tunnel and known as the 'Stoke Bone Bed' (Suffolk Sites and Monuments Record no. IPS 163). The known surviving part of this is now protected as an S.S.S.I. The remainder of the site became the first railway station in Ipswich (operational 1849-60) and later was used as a railway yard.
An archaeological evaluation of the site was carried out by the Archaeological Service of Suffolk County Council in 2005 (report no. 2005/1; Oasis ID no. Suffolkc1-5823). This revealed that most of the proposed development area had suffered truncation and that in those areas the level containing the Bone Bed had disappeared. There was however an untruncated area on the south-east side that, although lacking evidence for the Bone Bed, might contain later archaeological deposits.
- 1.3 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 Project Design or Written Scheme of Investigation (PD/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 (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 PD/WSI as satisfactory. The PD/WSI will *provide the basis for measurable standards* and will be used to establish whether the requirements of the planning condition will be adequately met.
- 1.4 Detailed standards, information and advice to supplement this brief are to be found in "Standards for Field Archaeology in the East of England" Occasional Papers 14, East Anglian Archaeology, 2003.
- 1.5 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 this office before execution.

2. Brief for Archaeological Monitoring

- 2.1 To provide a record of archaeological deposits which are damaged or removed by any development [including services and landscaping] permitted by the current planning consent.
- 2.2 The main academic objective will centre upon the potential of this development to produce evidence for small surviving areas of the Stoke Bone Bed and for the presence of later archaeological deposits on the east side of the site.
- 2.3 The significant archaeologically damaging activities in the development proposal are likely to be the site preparation works involving the construction of access roads and the excavation of building footings and service trenches.
The excavation of these items and the resulting upcast soil, are to be observed during and/or after their excavation by the building contractor. Adequate time is to be allowed for the recording of archaeological deposits during excavation, and of soil sections following excavation (see 4.3).

3. Arrangements for Monitoring

- 3.1 To carry out the monitoring work the developer will appoint an archaeologist (the archaeological contractor) who must be approved by the Conservation Team of Suffolk County Council's Archaeological Service (SCCAS) - see 1.3 above.
- 3.2 The developer or his archaeologist will give the Conservation Team of SCCAS 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. The method and form of development will also be monitored to ensure that it conforms to previously agreed locations and techniques upon which this brief is based.
- 3.3 Allowance must be made to cover archaeological costs incurred in monitoring the development works by the contract archaeologist. The size of the contingency should be estimated by the approved archaeological contractor, based upon the outline works in paragraph 2.3 of the Brief and Specification and the building contractor's programme of works and time-table.
- 3.4 If unexpected remains are encountered the Conservation Team of SCCAS must be informed immediately. Amendments to this specification may be made to ensure adequate provision for archaeological recording.

4. Specification

- 4.1 The developer shall afford access at all reasonable times to both the County Council Conservation Team archaeologist and the contracted 'observing archaeologist' to allow archaeological observation of building and engineering operations which disturb the ground.
- 4.2 Opportunity must be given to the 'observing archaeologist' to hand excavate any discrete archaeological features which appear during earth moving operations, retrieve finds and make measured records as necessary.
- 4.3 In the case of topsoil stripping for access roads unimpeded access to the stripped area at the rate of one hour per 100 square metres must be allowed for archaeological recording at the interface between topsoil and clean sub-soil surface before the area is further deepened, traversed by machinery or sub-base deposited.

In the case of footing trenches unimpeded access at the rate of one and a half hours per 10 metres of trench must be allowed for archaeological recording before concreting or building begin. Where it is necessary to see archaeological detail one of the soil faces is to be trowelled clean.
- 4.4 All archaeological features exposed must be planned at a minimum scale of 1:50 on a plan showing the proposed layout of the development.
- 4.5 All contexts must be numbered and finds recorded by context.
- 4.6 The data recording methods and conventions used must be consistent with, and approved by, the County Sites and Monuments Record.

5. Report Requirements

- 5.1 An archive of all records and finds is to be prepared consistent with the principles of *Management of Archaeological Projects (MAP2)*, particularly Appendix 3. This must be deposited with the County Sites and Monuments Record within 3 months of the completion of work. It will then become publicly accessible.
- 5.2 Finds must be appropriately conserved and stored in accordance with *UK Institute of Conservators Guidelines*. The finds, as an indissoluble part of the site archive, should be deposited with the County SMR if the landowner can be persuaded to agree to this. If this is not possible for all or any part of the finds archive, then provision must be made for additional recording (e.g. photography, illustration, analysis) as appropriate.
- 5.3 A report on the fieldwork and archive, consistent with the principles of *MAP2*, particularly Appendix 4, must be provided. The report must summarise the methodology employed, the stratigraphic sequence, and give a period by period description of the contexts recorded, and an inventory of finds. The objective account of the archaeological evidence must be clearly distinguished from its interpretation. The Report must include a discussion and an assessment of the archaeological evidence. Its conclusions must include a clear statement of the archaeological value of the results, and their significance in the context of the Regional Research Framework (*East Anglian Archaeology*, Occasional Papers 3 & 8, 1997 and 2000).
- 5.4 A summary report, in the established format, suitable for inclusion in the annual 'Archaeology in Suffolk' section of the *Proceedings of the Suffolk Institute of Archaeology*, must be prepared and included in the project report.
- 5.5 County Sites and Monuments Record sheets must be completed, as per the county SMR manual, for all sites where archaeological finds and/or features are located.
- 5.6 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.
- 5.7 All parts of the OASIS online form must be completed for submission to the SMR. This should include an uploaded .pdf version of the entire report (a paper copy should also be included with the archive).

Specification by: Edward Martin

Suffolk County Council
Archaeological Service Conservation Team
Environment and Transport Department
Shire Hall
Bury St Edmunds
Suffolk IP33 2AR

Date: 3 March 2005

Reference: IpsCroftSt.doc

This brief and specification remains valid for 12 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.