

ARCHAEOLOGICAL EVALUATION REPORT

Liberty Village, Phase 2, RAF Lakenheath ERL 150

A REPORT ON THE ARCHAEOLOGICAL EVALUATION, 2006
(Planning app. no. F/2004/0092/GOV)

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Field Team
Suffolk C.C. Archaeological Service

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Contents

List of Figures
List of Tables
List of Contributors
Acknowledgements
Summary
SMR information
Key to Sections

1. Introduction
2. Methodology
3. Results
4. Discussion
5. Search of Aerial Photographs by Cain Hegarty
6. Conclusion and Recommendations

References

Appendix 1: Brief and specification

Appendix 2: Sources and Photographs for Aerial Photographic Search

List of Figures

1. Site location
2. Site in relation to Phase 1 and previous excavations
3. Final trench location plan
4. Original trench plan
5. Section and plan of feature 0002
6. Liberty Village development area
7. Archaeological features and Military camps of Second World War date. The survey area is outlined in blue.
8. Aerial photograph of Liberty Village area, 25th October 1946
9. Aerial photograph of Liberty Village area, 25th January 1959
10. Map showing the military camps of Cold War date (pale grey) transcribed from the 1959 aerial photograph and the possible archaeological features
11. Summary of ditches identified around Lord's Walk
12. Cold War buildings and Trench locations

List of Tables

1. Trench descriptions

List of Contributors

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Acknowledgements

This project was funded by MOD Defence Estates (USF) and commissioned by Mansells plc. The archaeological work was specified and monitored by Jude Plouviez (Suffolk County Council Archaeological Service, Conservation Team) and the fieldwork undertaken by Jo Caruth, John Duffy and Jonathan Van Jennians (Suffolk County Council Archaeological Service, Field Team).

Assistance was given on site by Mansells' staff, Gareth and Danny who checked for services and laid out the trenches to avoid hazards and the machine operator Mick who excavated the trenches efficiently and accurately.

The aerial photographic search was carried out by Cain Hegarty of SCCAS with assistance from the National Monuments Record (NMR) and MOD Defence Procurement Agency.

Summary

Evaluation of the second stage of reconstruction at Liberty Village, RAF Lakenheath demonstrated an open chalk heath landscape with little evidence of human occupation. Some truncation during house building in the 1960's was indicated but this was not severe enough to suggest that all evidence of occupation could have been destroyed.

A search of available aerial photographs for the whole Liberty Village area demonstrated some areas under cultivation during the 20th century, but also areas under heathland and military buildings. Only two archaeological features were identified, an E-W aligned ditch in the northeast corner of the development area, which probably formed part of a field system and trackway identified in Phase 1 of the Liberty Village excavations and in earlier archaeological work north of Lord's Walk, and a possible curving bank at the southern edge of the development area.

SMR information

Planning application no. F/2004/0092/GOV

Date of fieldwork: 31st July – 2nd August 2006

Grid Reference: Centred at TL 7270 7950

Funding body: MOD Defence Estates USF commissioned by Mansells plc

Oasis reference Suffolkc1-17268

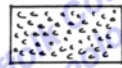
Key to sections



Topsoil



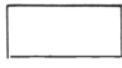
Brown sand with modern debris



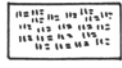
Redeposited chalk



Brown sand with chalk flecks



Orange-red sand with frequent chalk flecks 0004



Fired reddened sand and chalk

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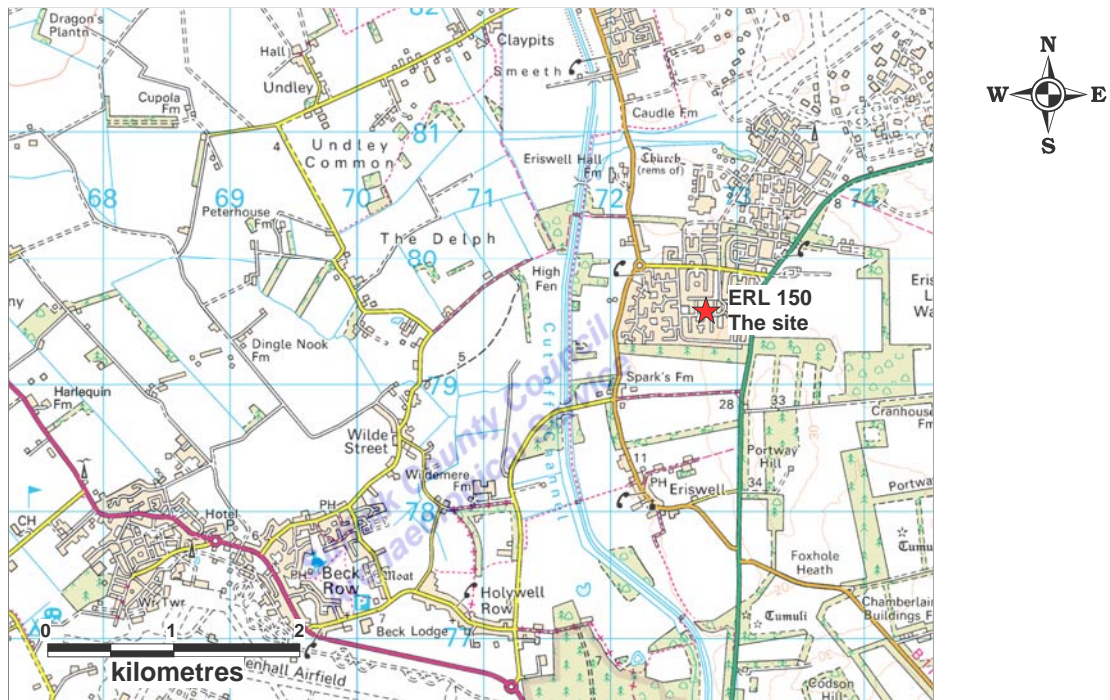
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1. Introduction

An archaeological evaluation was undertaken in the area of the Phase 2 redevelopment at Liberty Village, RAF Lakenheath. The site lies centred on grid ref. TL7270 7950 (Fig. 1) immediately south of Phase 1 (Fig. 2), on a chalk plateau which sloped slightly, rising from c.16m OD in the north-east to c.17.6m OD in the south-west. A Bronze Age ring ditch and associated burials were found during previous work at Phase 1 in October 2006 c.340m NE of the centre of the current area and Iron Age and Roman features and finds along the west side of the Phase 1 development, c.120m north of the north edge of Phase 2 (Fig. 2). No previous archaeological work has been carried out in this area, but no archaeological features had been found in the southern part of the Phase 1 area.



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Figure 1. Site location

2. Methodology

36 trenches 1.6m wide were inserted into available areas of the proposed development (Fig. 3) using a wheeled excavator and ditching bucket. These totalled 810m, 2.9% of the total area, which was less than originally intended, but sampled 4.85% of the soft areas (the total area includes some inaccessible fenced gardens). Proposed trench locations were set out prior to the evaluation (Fig. 4) but it was expected that some of these would have to be altered to avoid services and other hazards. The main changes were that trenches in the north-west corner were shortened or abandoned as that area had already been archaeologically monitored and a road constructed, and was no longer included in Phase 2. An electrical sub-station is sited alongside Bangor Road and no trenches could be excavated along either side of this road or in the area immediately around it because of the presence of high voltage cables. Additional trenches, 34-36 were put in on the east edge of the development where the edge had been extended slightly and Trench 28 where the previous removal of garden fences meant that an additional area was accessible.



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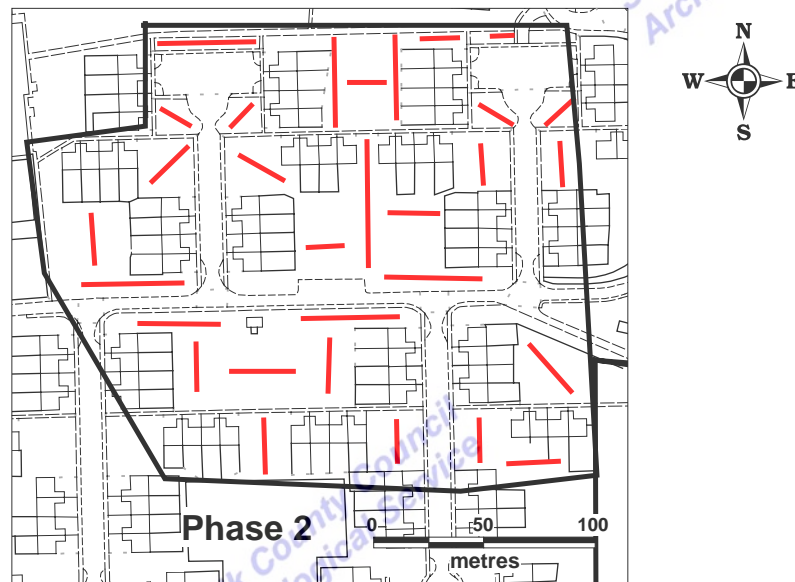
Figure 2. Site in relation to Phase 1 and previous excavations



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Figure 3. Final trench location plan

The trenches were excavated to the top of the natural chalk, removing a clean red-orange silty, chalky sand that lay above it although this was probably also natural. This ensured that no features could be obscured by overlying deposits. At least one sample section was drawn of one face in each trench and digital photographs were taken of each trench. All possible features were sampled, but with exception of one area of burning these were all shown to be modern or geological. Trench locations were plotted using a Total Station Theodolite (TST). Upcast soil was scanned for finds and all pre-modern finds kept. The site is recorded under the Suffolk Sites and Monuments Record (SMR) parish code ERL 150, and a copy of the report lodged with the OASIS on-line database, reference suffolkc1-17268.



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Figure 4. Original trench plan

3. Results

3.1. Summary

The only possible archaeological feature or deposit identified in any of the trenches was a patch of burning, 70cm long x >20cm wide x c.5cm deep, 0002, within the red-orange sand, 0004, in Trench 14 (Fig. 5). It was unclear whether this was the result of a deliberate act and there were no finds with which to date it.

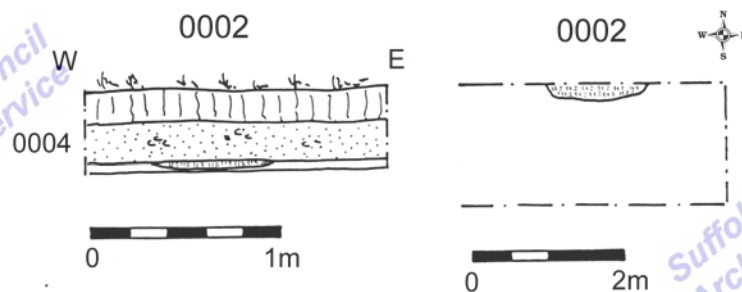


Figure 5. Section and plan of feature 0002

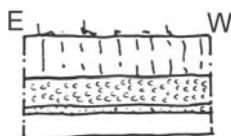


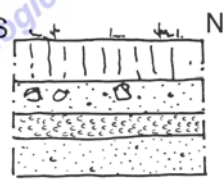
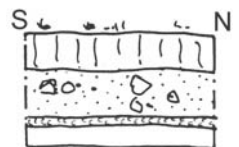
A single find of a fragment of a glazed red earthenware base, 16th-18th century, but probably from the latter part of the period (R.Goffin pers comm) was made from the upcast soil, 0003, of Trench 17.


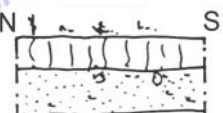
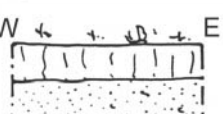
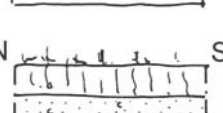



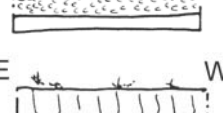


The soil profile was consistent across the site with weathered chalk being largely overlain by a clean red-orange silty sand, 0004, with very frequent chalk flecks, which is probably also a geological deposit. This was of variable depth and was absent where the depth to chalk was at its least. It was in turn overlain by a brown sand layer which was present across the whole site and had few stones and frequent chalk flecks. Modern brick, concrete and redeposited chalk was sometimes found within this layer, indicating either that it was all redeposited or that it had been intermittently disturbed and redeposited. Ploughlines were occasionally visible cutting layer 0004, these were of various alignments, but were not so well preserved as in Phase 1. It is unclear whether the ploughlines were originally present across the entire area or whether parts of this have never been ploughed, but in some places, at least, the red-orange layer, 0004, into which the ploughlines were cut had been truncated. A small group of circular tree holes were found in the centre of the site, in an area with a few small modern trees, Trenches 19 and 25. However this also falls within an area identified on the Suffolk County SMR as site ERL 093 - an avenue of trees marked on the Hodkinson map of Suffolk 1783, and these holes may relate to this earlier tree belt.


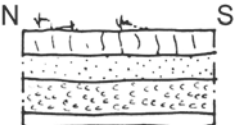
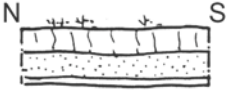

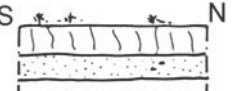
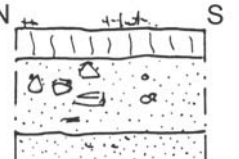
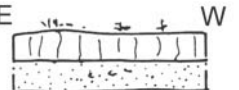

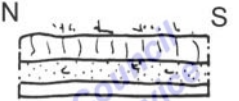
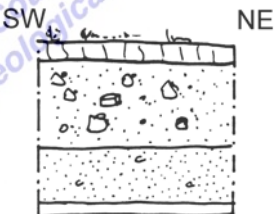

Modern brick rubble and concrete footings were found in Trenches 31 and 33 on the eastern side of the site. These truncated the top of the natural chalk.

3.2. Trench descriptions

A description of the individual trenches is recorded in the table below.

No	Length in m.	Depth to chalk	Orientation	Grass level in m. OD	Description	Section
1	6	NA	E-W	16.3	Redeposited chalky sand seen but not bottomed as BT cable found. Abandoned at 40cm.	No section
2	7.6	50cm	E-W	16.1	20cm topsoil, over 15cm redeposited chalk, over 4cm brown sand, over 11cm orange-red chalky sand over natural weathered chalk. There was a large modern disturbance in the centre of the trench.	
3	18	40cm	NW-SE	16.2	Redeposited brown chalky sand over weathered chalk. A thin layer of red-orange chalky sand was visible at the SE end of the trench, but modern brick and concrete etc. was present throughout both layers.	
4	20	40cm	NE-SW	16.6	Topsoil 16cm deep, over brown sand with chalk flecks, 9cm deep over orange-red sand with chalk, 15cm deep onto weathered chalk. Modern material could be found throughout these layers as with Trench 3. SE-NW aligned ploughlines were just visible cutting into the red-orange sand at c. 30cm below ground level.	
5	15	70cm	N-S	16.8	Topsoil 20cm deep, over brown chalky sand with brick and concrete, 17cm deep, over redeposited chalk, 11cm deep over brown sand with some chalk flecks, 22cm deep onto weathered chalk.	
6	18.5	40-60cm	N-S	16.6	Topsoil, 20cm deep, over brown chalky sand with rubble, 25cm deep, over 5cm of redeposited chalk over 10cm of red-orange chalky sand over weathered chalk and south end. To the north the redeposited chalk, and the red-orange sand layer fade out, leaving brown sand lying directly over chalk at c. 40cm.	

No	Length in m.	Depth to chalk	Orientation	Grass level in m. OD	Description	Section
7	23.5	40cm	E-W	16.1	Topsoil, 20cm deep over, 15cm brown chalky sand over 5cm orange-red chalky sand over weathered chalk. Redeposited chalk was found under topsoil where the trench ran in front of the buildings.	
8	26	45cm	N-S	16.2	Topsoil, 15cm deep over brown sand with chalk, 25cm over red-orange chalky sand, 5cm deep over weathered chalk.	
9	23	40-50cm	E-W	16.2	Topsoil 18cm deep, over brown sand 15-22cm deep over red-orange chalky sand 7-10cm deep over chalk.	
10	34	38cm	N-S	16.2	Topsoil, 15cm deep, over brown sand with chalk flecks, 15cm deep over red-orange sand, 8cm deep, over chalk.	
11	32.5	40cm	E-W	16.2	Topsoil, 16cm deep, over brown sand with chalk flecks, 12cm deep over red-orange sand, 12cm deep, over chalk.	
12	24	50cm	E-W	16.0	Topsoil, 16cm deep, over redeposited chalk, 10cm deep over brown sand with chalk flecks, 14cm deep over red-orange sand, 10cm deep, over chalk.	
13	17	48cm	SW-NE	16.3	Topsoil, 10cm deep, over brown sand, 18cm deep, redeposited chalk, 12cm deep, over orange-red sand 8cm deep over chalk.	
14	15	42cm	E-W	16.3	Topsoil. 15cm, over brown sand, 20cm over red-orange sand 7cm over chalk. There was one small spread of burning, 0002, lying under the brown sand at the east end of this trench. This was only just within the trench at 70cm long, at least 10cm wide and 4cm deep. There were no finds and it was not possible to say whether this was the result of a deliberate act or not. It consisted of an area of burnt red sand, there was no charcoal or burnt flints.	
15	15.5	50cm	WSW-ENE	16.4	Topsoil 14cm, over brown sand, 14cm, over brown sand with modern rubble, 16cm deep over red-orange sand 6cm deep, over chalk. There was a small posthole filled with brown sand and concrete 7.6m from the SW end of the trench, and other ill defined modern disturbances cutting the natural chalk.	
16	18.5	35cm	NW-SE	16.5	Topsoil, 15cm deep, over brown sand with chalk flecks, 15cm deep over red-orange sand, 5cm deep, over chalk. At the SE end of the trench there was redeposited chalk immediately over the natural chalk, indicating truncation.	

No	Length in m.	Depth to chalk	Orientation	Grass level in m. OD	Description	Section
17	30	30-40cm	SE-NW	16.6	Topsoil, 15cm deep, over brown sand with chalk flecks, 10cm deep over red-orange sand, 5cm deep, over chalk at the NW end which deepened to the SE, with the depth of the red-orange increasing to 10cm and the brown sand to 15cm. E-W aligned ploughlines were just visible cutting the red-orange sand in the centre of the trench and again at the extreme SE end.	
18	18.5	50cm	N-S	16.4	Topsoil, 13cm deep, over brown sand, 12cm deep over redeposited chalk, 18cm deep over red-orange sand, 7cm deep, over chalk. The redeposited chalk was solid near the building but more patchy in the southern half.	
19	25	30cm	N-S	16.5	Topsoil, 12cm deep, over brown sand with chalk flecks, 13cm deep over red-orange sand, 5cm deep, over chalk. Two small tree holes, c. 60cm in diameter and with rotted tree remains still visible were seen in the southern end of the trench.	
20	22.5	35cm	E-W	16.4	Topsoil, 15cm deep, over brown sand with chalk flecks, 15cm deep over red-orange sand, 5cm deep, over chalk.	
21	22	35cm	N-S	16.7	Topsoil, 15cm deep, over brown sand with chalk flecks, 15cm deep over red-orange sand, 5cm deep, over chalk.	
22	23	25-70cm	N-S	16.8	This trench runs through the end of a man-made mound. The depth to chalk is 25cm, 12cm of topsoil over 13cm of brown sand for the southern 9m from where there is an increasing depth of brown sand with rubble between the clean brown sand and topsoil up to 45cm deep. N-S aligned ploughlines were just visible in the extreme north end of the trench.	
23	13	30cm	E-W	17.0	Topsoil, 15cm deep, over brown sand with chalk flecks, 15cm deep directly over chalk.	
24	37	25cm	E-W	17.0	Topsoil, 13cm deep, over brown sand with chalk flecks, 12cm deep directly over chalk.	
25	30	30cm	N-S	16.8	Topsoil, 12cm deep, over brown sand with chalk flecks, 13cm deep over red-orange sand, 5cm deep, over chalk at the south end, this changes slightly with depth of the brown sand and red-orange sand equalling out towards the north. Two small modern tree holes were visible within the trench.	
26	14.5	Up to 1m	SW-NE	17.3	This ran diagonally through a man-made mound. Topsoil 10cm deep, over 58cm of brown sand with modern debris over 26cm of cleaner brown sand over 6cm of red-orange sand.	
27	23.5	25cm	N-S	17.2	Topsoil, 13cm deep, over brown sand with chalk flecks, 12cm deep directly over chalk. N-S aligned ploughlines were just visible in places cutting the chalk.	


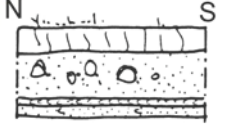

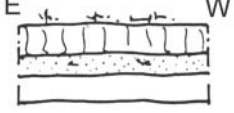
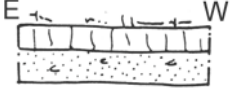
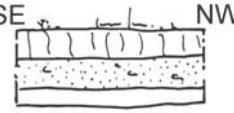
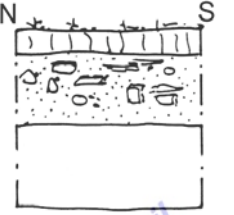
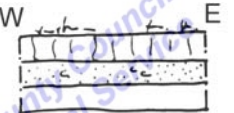

No	Length in m.	Depth to chalk	Orientation	Grass level in m. OD	Description	Section
28	28	30cm	E-W	17.3	Topsoil, 15cm deep, over brown sand with chalk flecks, 15cm deep directly over chalk. There was some patchy redeposited chalk within the brown sand layer. Fine marks apparently from a machine bucket could be seen cutting into the chalk in places.	
29	18	45cm	N-S	17.5	Topsoil, 12cm deep, over brown sand with stones and small modern rubble fragments, 23cm deep, over 5cm of redeposited chalk, over 5cm of brown sand with chalk flecks over chalk.	
30	14	30cm	NW-SE	18.3	Topsoil, 12 cm deep, over 10cm brown sand over 8cm pale dry chalky sand. At the north-west end there are modern deposits directly over the natural chalk.	
31	40	40cm	E-W	18.8	This had a lot of modern disturbance with cables at the east end, and spreads of brick rubble, which looked like a rough surface, at chalk level and sealed by upper deposits between 15 and 16m, 17 and 19m, and concrete footings(?) between 23.3 and 23.8m and 30 and 30.5m (all from the east end). There was extensive modern disturbance of the upper layers but where the soil profile was intact it was 12cm of topsoil, over 14cm of brown sand over 14cm of red-orange sand, over chalk.	
32	17	30cm	E-W	17.7	Mostly topsoil, 15cm deep, over brown sand 15cm deep, over chalk. There were occasional patches of red-orange sand over the chalk and two modern fence holes along the lines of the garden fences.	
33	39	40cm	NW-SE	17.8	This had a lot of deep and extensive modern disturbance, including rubble, a soakaway and some concrete footings. Where the undisturbed profile could be seen it showed topsoil, 15cm deep, over brown sand with chalk flecks, 15cm deep over red-orange sand, 10cm deep, over chalk. Some E-W aligned ploughlines were visible in places.	
34	26.5	50-90cm	N-S	17.5	This was generally deep with modern debris, including redeposited chalk, in the top layers, which cut into the natural chalk in places. The ground level was higher at the south end and this was partly due to the modern deposits but the underlying red-orange sand increased in depth from 25cm at the north end to 40 cm at the south end.	
35	29	35cm	E-W	16.9	Topsoil 15cm deep over 15cm of brown sand over 5cm of red-orange sand to chalk.	
36	23.5	40cm	N-S	16.6	Topsoil 13cm over brown sand, 14cm over orange-red sand, 13cm deep onto chalk. Seven modern stake holes were seen, six in a line running between 11.1m and 17.35m from the south end of the trench and a seventh at right angles at 17.35m, these latter two align with a modern garden fence and it is likely that the rest respect the back edge of these gardens (no longer visible in the grass).	

Table 1. Trench descriptions

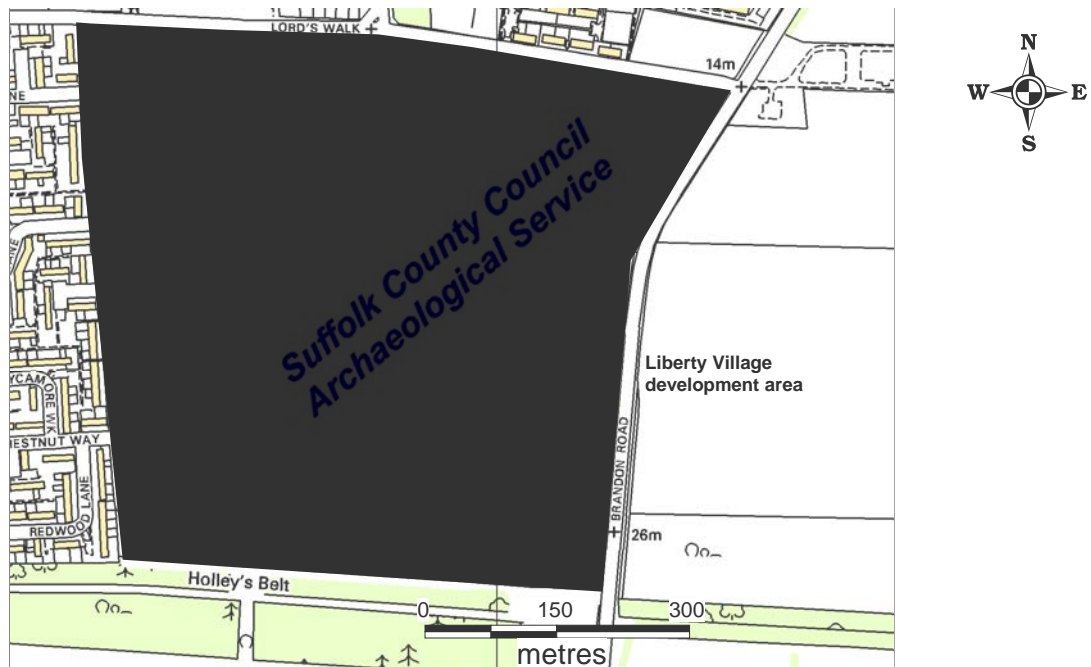
4. Search of Aerial Photographs by Cain Hegarty

4.1. Introduction

An examination of the aerial photographs held by the National Monuments Record (NMR) for the whole of the Liberty Village area, c.36.5ha, was made as a part of the Phase 2 evaluation. The survey and transcription was carried out between 1st and the 5th September 2006. All aerial photographs readily available from the NMR were examined and any visible archaeological features or potentially significant structures were transcribed at 1:2500 scale. Visible features included structures of modern military date associated with Lakenheath Airfield, plus a possible field boundary and track identified as a cropmark and earthwork.

4.2. Objectives

The purpose of the survey was to assess the recent land-use and interpret and transcribe any archaeological features visible on aerial photographs into a MapInfo GIS, to National Mapping Programme Standards, in an area of 36.48ha, centred on circa TL729 796, to the south of Lakenheath Airfield (Fig. 6).



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Figure 6. Liberty Village development area

4.3. Sources

All aerial photographs readily available from the National Monuments Record (NMR) were examined. Coverage of thirty four vertical prints was returned by the cover search for this area, but due to selective print runs and limited archiving, only 17 prints were held by the NMR. No specialist oblique photography was held for this area.

A search of the Cambridge University Unit for Landscape Modelling (formerly CUCAP) online catalogue yielded no additional photographs.

Sources and photographs consulted are listed in Appendix 2.

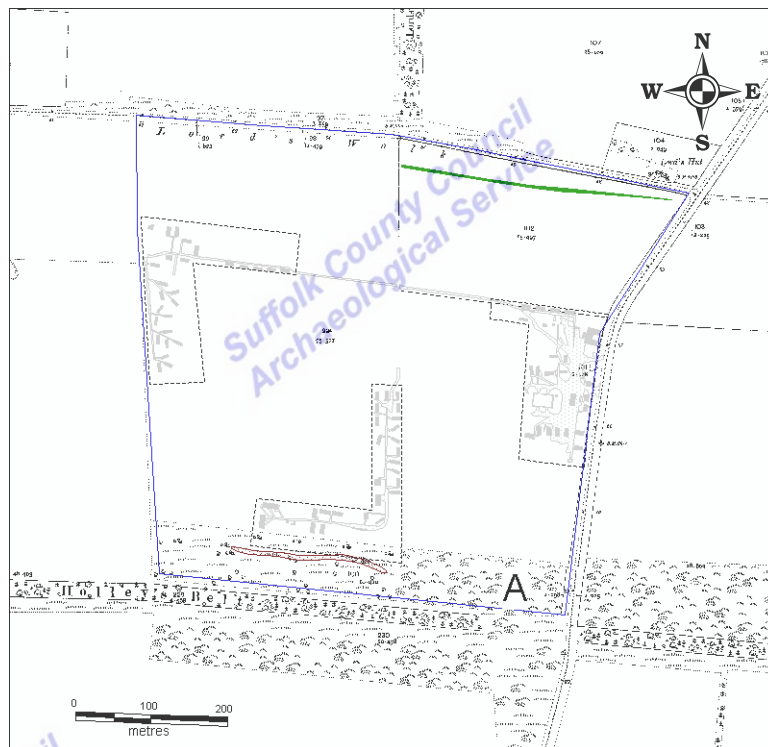
4.4. Methodology

All photographs used were scanned and rectified using Aerial 5.29 rectification software designed by John Haigh of the University of Bradford. Control information was acquired from digital copies of the Ordnance Survey 1:2500 scale maps, with accuracy of +/- three metres. The archaeological features on the rectified images were digitised in MapInfo GIS using NMP conventions where appropriate (Aerial Survey, April 2006; see Appendix 2). The mapped features are accurate to the base map within two metres. For clarity, all archaeological mapping shown here is overlain onto the Second Edition Ordnance Survey map of circa 1904.

4.5. Description and Discussion of Transcribed Features

Landuse

The available aerial photographs demonstrate that from 1944-59 and prior to recent airfield development, the survey area was divided into four sub-rectangular fields, the majority of which was turned over to arable cultivation. The exception to this is a narrow band of grassland to the south of the survey area, circa 4ha in area (Figs. 7 and 8). Although this area of uncultivated land is marked on the Second Edition Ordnance Survey map of circa 1904 and not the First Edition of circa 1884, it appears to be a continuation or survival of the extensive common land in this area.

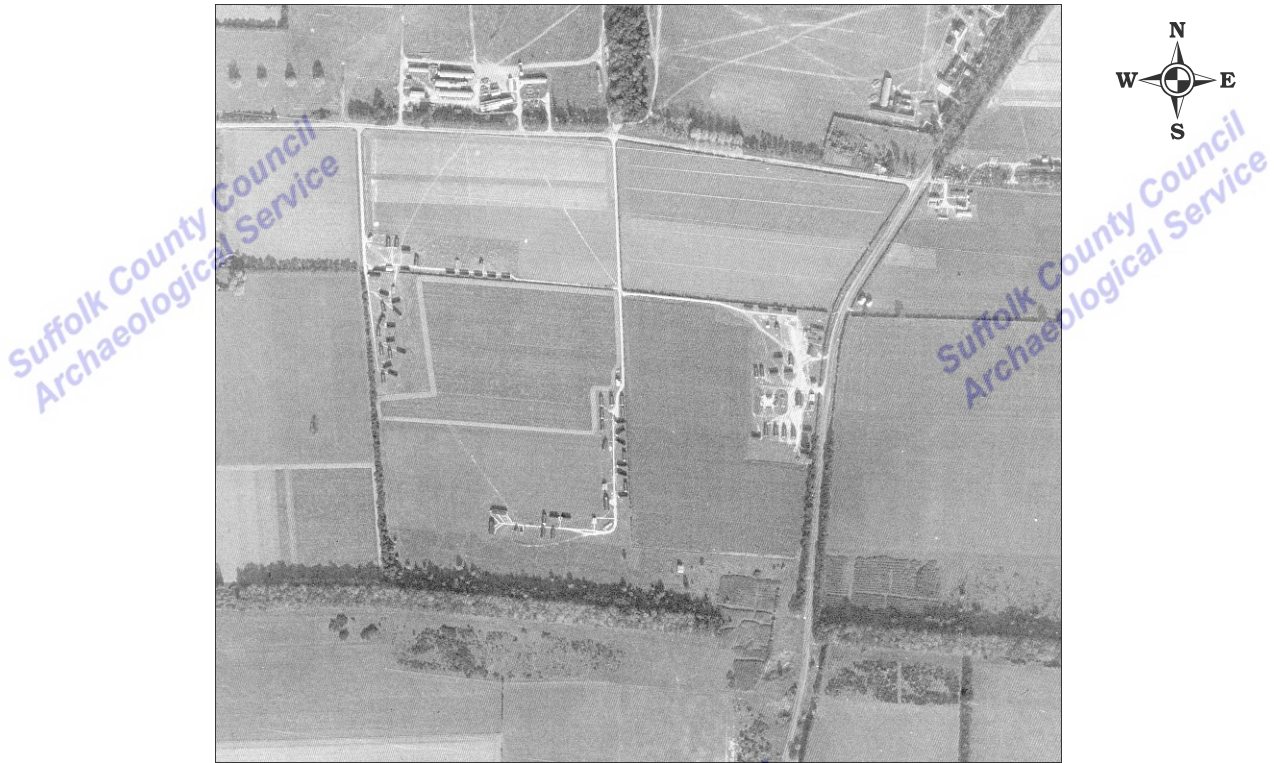


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Figure 7. Archaeological features and Military camps of Second World War date. The survey area is outlined in blue

Modern Military Structures

The survey area is immediately to the south of Lakenheath Airfield which was established in early 1941, currently within an area of modern development including housing and schools associated with the airfield. The main features visible on the aerial photographs are structures undoubtedly associated with the airfield. Three discrete camps connected by metallised trackways and composed of Nissen Hut type structures are visible on aerial photographs from 1944 to 1947 (Figs. 7 and 8). The role of the individual camps is unclear but their dispersed locations may have been intended to limit possible damage in the event of an attack.



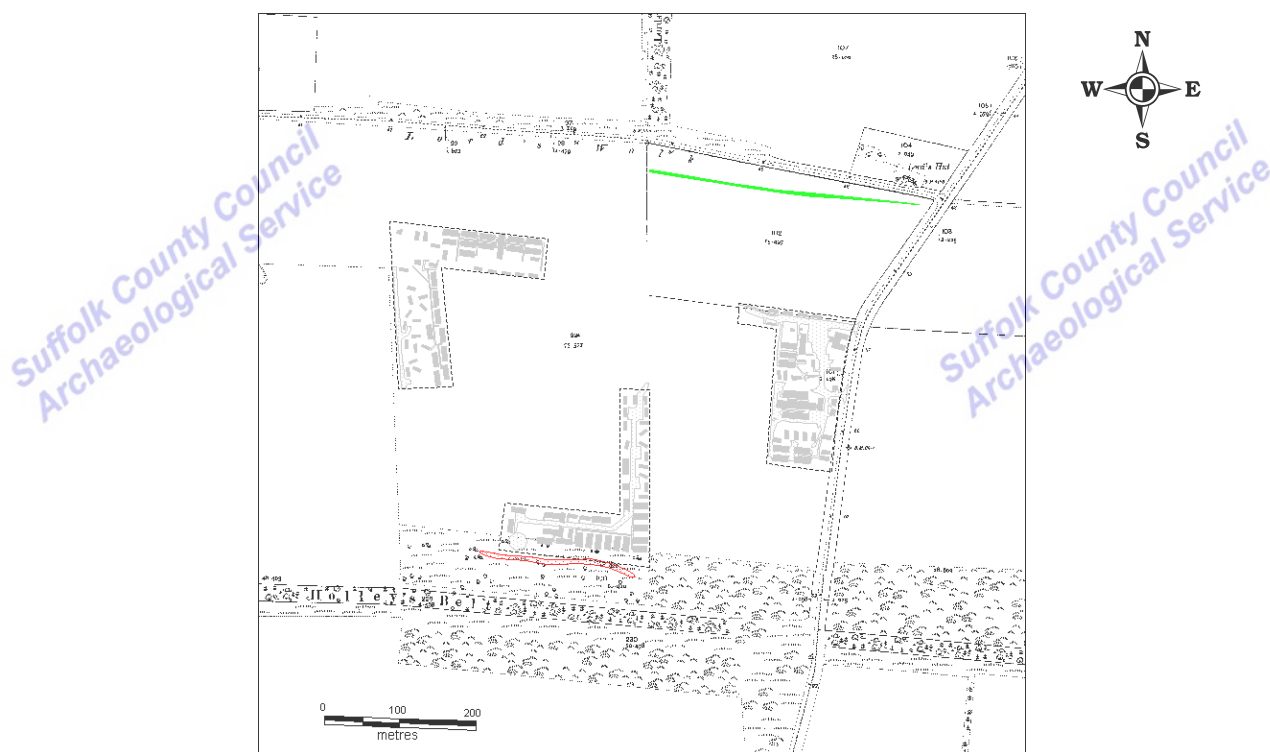
© English Heritage (NMR) RAF Photography
(ref: RAF/CPE/UK/1801 4188 25-OCT-1946)

Figure 8. Aerial photograph of Liberty Village area, 25th October 1946



© Crown copyright/MOD. Reproduced with the
permission of the Controller of Her Majesty's Stationery Office
Ref RAF/CPE/UK/2688 198 25-JAN-1959

Figure 9. Aerial photograph of Liberty Village area, 25th January 1959



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Figure 10. Map showing the military camps of Cold War date (pale grey) transcribed from the 1959 aerial photograph and the possible archaeological features

Nonetheless, the differing arrangements of structures within the camps, particularly the dendritic organisation of the western camp, are suggestive of specialist functions. The erosion of the ground surface and paths indicate that of the three the eastern camp saw the most traffic. Within this camp a rectangular walled and unroofed enclosure with paired entrances appears to have been the focus of much of the traffic. It may have been built to store explosives or volatile substances, the absence of a roof possibly intended to direct any accidental blast upwards rather than outward.

During the Cold War the three camps expanded and a number of additional structures can be seen on the 1959 aerial photographs (Fig. 9). Several earlier structures, including the rectangular walled enclosure describe above, have been removed. Although standard NMP survey methodology currently only records features dating up to 1945, for the sake of a comprehensive survey an exception was made in this instance and the Cold War period camps are shown in Figures 9 and 10.

Since 1959 airfield facilities have expanded into this area and the camp structures have largely been demolished. A probable exception can be seen at TL7283 7937, to the north of Radcliffe Road, where four rectangular structures marked on the current OS base map appear to be survivals from this later camp.

Other Features

Two possibly earlier archaeological features are visible. The first can be seen to the north of the survey area as a curvilinear soilmark approximately 360 metres in length and up to circa four metres wide (Fig. 7). Similarity in alignment to the extant field boundaries may support the interpretation of this as the remains of a grubbed up field boundary, possibly of post medieval date.

A possible curvilinear bank is faintly visible as an earthwork in the area of grassland to the south of the survey area (Fig. 7). The date and function of this feature are unknown, but a tentative interpretation as a possible strip field boundary, potentially of medieval date is suggested.

4.6. Factors Affecting the Survey

The limited number of prints, and therefore archaeological evidence from aerial reconnaissance in this area, is undoubtedly a consequence of restricted civilian aviation in this area following the Second World War, due to the continuing military role of RAF Lakenheath, the largest U.S. Air Force-operated base in England.

5. Discussion

5.1. Evaluation

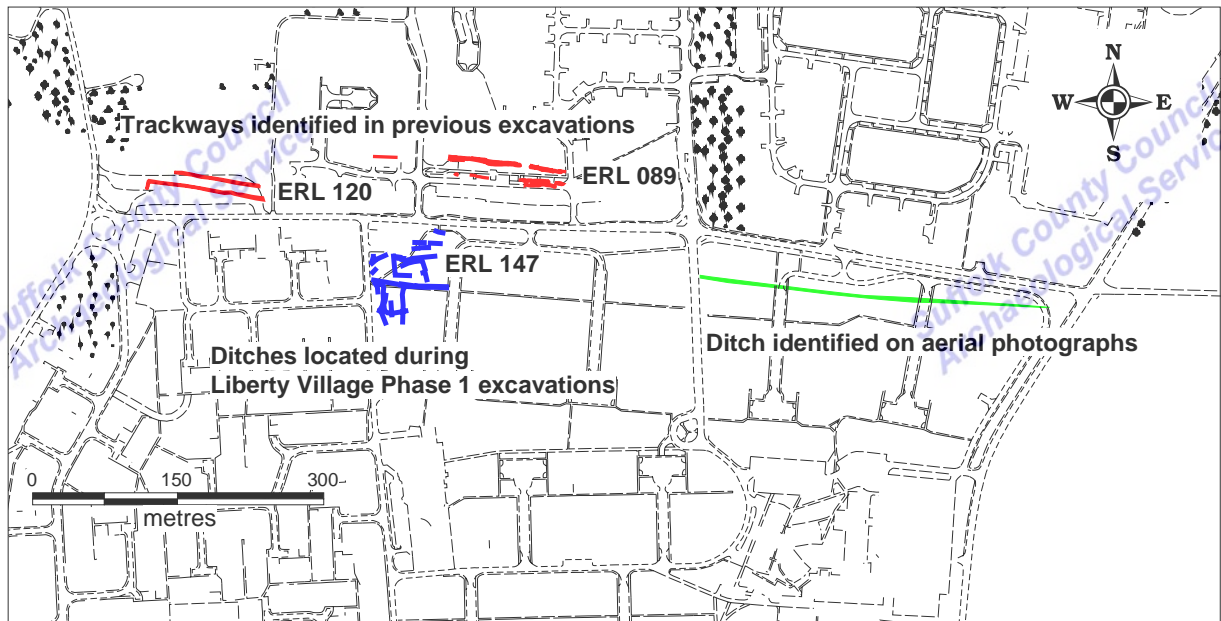
There is no evidence of significant archaeological activity on this site, however the poor preservation of ploughlines compared with the Phase 1 area suggests that there has been some truncation across this site during the housing construction in the 1960's. Nevertheless this truncation is unlikely to have been severe enough to account for the complete absence of archaeological features, and in particular field boundaries, which might suggest that this area has been unenclosed heathland for much of its past. However the results of the aerial photographic survey show that during the middle part of the 20th century most of the Liberty Village area has been under arable cultivation. The brown sand layer found across most of the site may be the remnants of heath topsoil or ploughsoil, although alternatively the ploughsoil may be the same as the modern topsoil, but the presence of modern deposits within these layers particularly around the houses indicates that in places, both have been disturbed and redeposited.

The reduced proportion of the site available for trenching, due to the presence of buildings, roads and services, has meant that it has not been possible to achieve the 5% required by the Brief and Specification (Appendix 1) but the evaluation has been able to sample most of the development area. However the presence of live services, in particular the sub-station and high voltage cables along Bangor Road, has left some areas completely untrenched. There is nothing to suggest that these areas might contain intense archaeological activity but the possibility of isolated features, in particular, stray burials surviving across any part of the site cannot be discounted.

5.2. Aerial photographic evidence

The aerial photographic search identified two possible archaeological features, a bank at the extreme southern end of the Liberty Village area and an east-west ditch to the east of the Phase 1 area (Fig. 7). This ditch roughly aligns with ditches found during the Phase 1 excavations, ERL 147, and fits into a pattern of east-west paired ditches interpreted as marking the edges of a long-standing trackway along the line of Lord's Walk, but whose exact location appears to vary (Fig. 11). The curvilinear bank now lies under Radcliffe Road, and therefore does not survive. Whether the opportunity to investigate its location will arise will depend of the exact layout of the remodelled road lines in a future phase of development.

Trenches 31 and 33 in the evaluation contained extensive modern disturbances consisting of concrete footings, brick rubble and in Trench 31 a rubble spread which was thought to have indicated a rough surface. When compared with the plot of the Cold War military buildings from the aerial photographs it is clear that the disturbances represent these buildings (Fig. 12).



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Figure 11. Summary of ditches identified around Lord's Walk

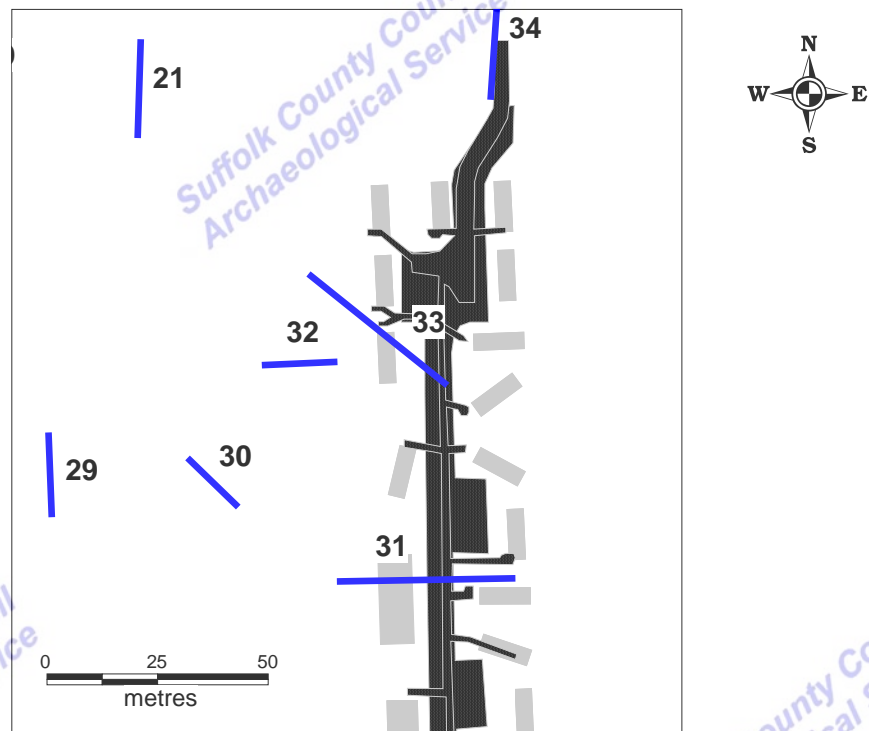


Figure 12. Cold War buildings and trench locations

6. Conclusion and Recommendations

Although this evaluation found no evidence of archaeological activity on the site, the limitations of the evaluation, both in the location of the trenches and the percentage of the total area that it was possible to sample mean that it is not possible to be certain that nothing exists anywhere on the site. A particular feature of the RAF Lakenheath archaeological profile is individual prehistoric and early Roman burials and the possibility of these is still present. However the soil profile was consistent across the site and the nature of the landscape

suggests that otherwise the evaluation results are likely to be broadly representative of the entire area. It is therefore recommended that archaeological monitoring is undertaken during the ground works, in particular the topsoil strip for the new buildings and roads in order to mitigate against the possible presence of isolated features or burials.

The aerial photographic search was carried out for the whole development area and should be referred to prior to each subsequent phase of evaluation trenching.

Jo Caruth
October 2006

Disclaimer

Any opinions expressed in this report about the need for further archaeological work are those of the Field Projects Division alone. 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 service cannot accept responsibility for inconvenience caused to clients should the Planning Authority take a different view to that expressed in the report.

Reference

Aerial Survey (April 2006). *The National Mapping Programme Manual - A methodology for the use of aerial photographs for archaeological landscape mapping and analysis*. English Heritage

Appendix 1

SUFFOLK COUNTY COUNCIL ARCHAEOLOGICAL SERVICE - CONSERVATION TEAM

Brief and Specification for an Archaeological Evaluation

PHASES 2 & 3, LIBERTY VILLAGE, RAF LAKENHEATH

This is the brief for the first part of a programme of archaeological work. There is likely to be a requirement for additional work, this will be the subject of another brief.

The commissioning body should be aware that it may have Health & Safety and other responsibilities, see paragraphs 1.7 & 1.8

1. Background

1.1 Planning consent [F/2004/0092/GOV] has been given for redevelopment of the housing area south of Lords Walk at RAF Lakenheath.

1.2 The planning consent contains a condition requiring the implementation of a programme of archaeological work before development begins (Planning Policy Guidance 16, paragraph 30 condition). An archaeological evaluation of the consent area is required as the first part of that programme of archaeological work; decisions on the need for, and scope of, any further work will be based upon the evaluation and will be the subject of additional briefs.

This brief covers the evaluation of those parts of the total area shown as Phases 2 and 3 on a Masterplan of April 2005 supplied in October 2005.

1.3 The development areas are centred at TL 727 795 (Phase 2) and TL 730 794 (Phase 3); Phase 2 is c.4.5 ha and Phase 3 is c.5.8 ha. The areas are on ground rising gently towards the south-east, between 15m and 25m OD, overlooking the Eriswell Lode valley to the west. The only recorded archaeological site within Phases 2 and 3 is ERL 093, a tree-lined avenue on Hodkinson's map (1783) running east-west across Phase 2. However, there has been little opportunity for archaeological investigation within this area. A general desktop study of the context of the whole Liberty Village area outlines the archaeological potential (Plouviez 2003). Evaluation and excavation of Phase 1 produced evidence for prehistoric, particularly Iron Age and Roman settlement activity, mainly to the west towards the valley, but also a Bronze Age round barrow on the higher chalk ridge to the east. There remains high potential for activity particularly of prehistoric date, throughout the Liberty Village area, although Phase 1 also demonstrates some plough damage.

1.4 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.

1.5 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.

- 1.6 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.
- 1.7 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.
- 1.8 The responsibility for identifying any restraints on field-work (e.g. Scheduled Monument status, Listed Building status, public utilities or other services, tree preservation orders, SSSIs, wildlife sites &c.) rests with the commissioning body and its archaeological contractor. The existence and content of the archaeological brief does not over-ride such restraints or imply that the target area is freely available.

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* [at the discretion of the developer].
- 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 natural soil processes. Define the potential for existing damage to archaeological deposits. Define the potential for colluvial/alluvial deposits, their impact and potential to mask any archaeological deposit. Define the potential for artificial soil deposits and their impact on any archaeological deposit.
- 2.4 Establish the potential for waterlogged organic deposits in the proposal area. Define the location and level of such deposits and their vulnerability to damage by development where this is defined.
- 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 Evaluation is to proceed sequentially: geophysical survey will precede trenching. The results of the geophysics are to be used to inform the trenching design. This sequence will only be varied if benefit to the evaluation can be demonstrated.
- 2.7 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.
- 2.8 The developer or his archaeologist will give the Conservation Team of the Archaeological Service of Suffolk County Council (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.
- 2.9 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.
- 2.10 An outline specification, which defines certain minimum criteria, is set out below.

3. **Field Evaluation**

- 3.1 Geophysical survey (magnetometer and resistance) is to be carried out over sample areas (dictated by gaps in the existing housing pattern) to a maximum of 1 ha area. The objective is both to identify potential archaeology and to assess the usefulness of the methods in this context. Detailed proposals should be included in the PD/WSI (1.6 above).
- 3.2 Trial trenches are to be excavated to cover between 2% and 5% by area of the development area and shall be positioned to sample all parts of the site within the constraints of current use, buildings etc. Linear trenches are thought to be the most appropriate sampling method. Trenches are to be a minimum of 1.8m wide unless special circumstances can be demonstrated. If excavation is mechanised a toothless 'ditching bucket' must be used. The trench design must be approved by the Conservation Team of the Archaeological Service before field work begins.
- 3.3 The topsoil may be mechanically removed using an appropriate machine fitted with toothless bucket and other equipment. 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 further 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.
- 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 The contractor shall 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 J Heathcote, English Heritage Regional Adviser for Archaeological Science (East of England). A guide to sampling archaeological deposits (Murphy and Wiltshire 1994) is available.
- 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 with the Conservation Team of SCC Archaeological Service 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. Any variations from this must be agreed with the Conservation Team.
- 3.13 A photographic record of the work is to be made, consisting of both monochrome photographs and colour transparencies.
- 3.14 Topsoil, subsoil and archaeological deposit to be kept separate during excavation to allow sequential backfilling of excavations.

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 the Conservation Team of SCC Archaeological Service.
- 4.2 The composition of the project staff must be detailed and agreed (this is to include any subcontractors).
- 4.3 A general Health and Safety Policy must be provided, with detailed risk assessment and management strategy for this particular site.
- 4.4 No initial survey to detect public utility or other services has taken place. The responsibility for this rests with the archaeological contractor.
- 4.5 The Institute of Field Archaeologists' *Standard and Guidance for Archaeological Desk-based Assessments* and for *Field Evaluations* 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 data recording methods and conventions used must be consistent with, and approved by, the County Sites and Monuments Record.
- 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 archaeological work 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. 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 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.

- 5.8 The site archive is to be deposited with the County SMR within three months of the completion of fieldwork. It will then become publicly accessible.
- 5.9 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 the Conservation Team, by the end of the calendar year in which the evaluation work takes place, whichever is the sooner.
- 5.10 County SMR sheets must be completed, as per the county SMR manual, for all sites where archaeological finds and/or features are located.
- 5.11 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.
- 5.12 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: Judith Plouviez

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

Tel: 01284 352448

Date: 24 October 2005

Reference: /RAFLak-Liberty2&3-10

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.

Appendix Two

Sources consulted for Aerial Photographic search

1. National Monuments Record (NMR) vertical and oblique collections:

NMR Enquiry and Research Services

English Heritage

National Monuments Record

Kemble Drive

Swindon

SN2 2GZ

01793 414700

2. Unit for Landscape Modelling (formerly Cambridge University Committee for Air Photography (CUCAP)

online catalogue: <http://venus.uflm.cam.ac.uk/>

Vertical photographs consulted

Library Number	Sortie Number	Frame Number	Scale	Repository	Date Flown
386	RAF/106G/UK/1557	1018-1020	9800	MOD	07-JUN-1946
499	RAF/CPE/UK/1801	4188-4189	9840	MOD	25-OCT-1946
499	RAF/CPE/UK/1801	4274-4275	9840	MOD	25-OCT-1946
533	RAF/CPE/UK/1918	3065-3066	10000	MOD	09-JAN-1947
533	RAF/CPE/UK/1918	4017	10000	MOD	09-JAN-1947
1933	RAF/CPE/UK/2688	198-200	9600	NMR	25-JAN-1959
6842	US/7PH/GP/LOC136	5005-5006	14500	FDM	02-JAN-1944
6842	US/7PH/GP/LOC136	5015	14500	FDM	02-JAN-1944
6842	US/7PH/GP/LOC136	5016	14500	FDM	02-JAN-1944

NMP Mapping Conventions

Convention Layer



Ditch

Used for drawing all negative features seen as cropmarks and earthworks, e.g. ditches, hollow ways and pits



Bank

Used when drawing upstanding earthworks or levelled features



Structure

Used for structures e.g. a concrete pillbox or wooden posts



Pits &
Quarries

Used for extraction pits, bomb craters and other cut features