Archaeological Deskbased Assessment of Land

WEST OF TUDDENHAM ROAD IPSWICH

For The Landscape Partnership

John Duffy MA

Archaeological Deskbased Assessment of Land

WEST OF TUDDENHAM ROAD IPSWICH

Client:	The Landscape Partnership
Local Authority:	Ipswich Borough Council
NGR:	617888, 247133
Planning App:	N/A
Author(s):	J. Duffy
Doc Ref:	LP0789E-DBA-vI

Date: November 08

A trading name of the L P: Partnership Ltd.

The Compound | 79 Cowley Road | Cambridge, CB4 0DN | +44 [0] 1223 423 969

www.lparchaeology.com

TABLE OF CONTENTS

Table of Figures

Table of Plates

Table of Appendices

Abstract

- I. Introduction and Scope of Study
- 2. Planning Background
- 3. Geology and Topography
- 4. Archaeological and Historical Background
- 5. Proposed Redevelopment and Archaeological Impact
- 6. Summary and Conclusions

TABLE OF FIGURES

- Figure 1 Site Location General
- Figure 2 Site Location Detail
- Figure 3 Suffolk HER Results
- Figure 4 Westerfield Tithe Map 1849
- Figure 5 1st Edition OS Map 1890
- Figure 6 Aerial Photographic Results

TABLE OF PLATES

- Plate I General view of site, looking north-west
- Plate 2 General view of site, looking east

TABLE OF APPENDICES

- Appendix I Sources Consulted
- Appendix 2 Brief and Specification
- Appendix 3 Summary of Suffolk Historic Environment Record Search
- Appendix 4 Documentary and Cartographic Search Report
- Appendix 5 Aerial Photographic Assessment
- Appendix 6 Proposed Development Plan
- Appendix 7 OASIS Summary

Abstract

This desk based assessment covers the land to the West of Tuddenham Road, Ipswich between the Felixstowe and Lowestoft railway lines. Contained within the report are the results of a 1km Suffolk Historic Environment Record (SHER) search, a specialist documentary and cartographic survey and a specialist aerial photographic survey.

The proposed development site contains evidence for Roman, Saxon and Medieval activity along with multi-period activity in the surrounding area. Documentary and cartographic sources suggest the site has been in agricultural use, mainly arable from the Medieval period through to the modern day.

The proposed redevelopment will create new school playing fields for Ipswich School which would require some intrusive earthworks and regrading of the ground which may impact on any preserved archaeological deposits.

Due to the high potential for archaeological remains from several periods it is considered likely that some form of further archaeological work will be required by the Local Authority.

1. Introduction and Scope of Study

- 1.1.This archaeological desk based assessment has been researched and prepared by John Duffy of L P: Archaeology on behalf of The Landscape Partnership to accompany the future submission of a planning application. The assessment is undertaken in accordance with the brief provided by Will Fletcher of Suffolk County Council Archaeological Service, Conservation Team.
- **1.2.**The report considers land north of Ipswich and south-east of Westerfield, Suffolk. The local planning authority is Ipswich Borough Council who take archaeological advice from Suffolk County Council Archaeological Service, Conservation Team.
- **1.3.**The Landscape Partnership are currently considering the site as the location for new playing fields on behalf of Ipswich School.
- **1.4.**The site occupies an area of approximately 49 acres and is centred at National Grid Reference 617888, 247133 (FIGURE 1).
- **1.5.**The site is bounded on the north and west by the Ipswich to Lowestoft and Felixstowe railway lines with Tuddenham Road to the east and to the south by Millennium Cemetery (FIGURE 2).
- **1.6.**The assessment comprises of an examination of the Suffolk Historic Environment Record (SHER), which includes previous archaeological work, metal detected and other findspots and listed buildings within a radius of 1km of the site.
- 1.7. The assessment also comprises of a specialist documentary and cartographic search, undertaken by A. Breen, and a specialist aerial photographic search and mapping, undertaken by R. Palmer (Air Photo Services). The full reports for both specialist searches are included as Appendices 4 and 5.
- **1.8.**The assessment seeks to address the following issues:
 - To assess the potential archaeology and its survival on this site
 - To assess the possible impact of the proposed development on the archaeology

2. Planning Background

- 2.1.In November 1990 the Department of the Environment issued PPG 16, "Archaeology and Planning". This document provides guidance for planning authorities, property owners, developers and others on the preservation and investigation of archaeological remains.
- 2.2.In considering any planning application for development the local planning authority, Ipswich Borough Council, is bound by the policy frameworks provided by the government in Planning Policy Guidance Note 16 (PPG 16), and the policies within the Ipswich Local Plan (2001), which will soon be superseded by the Ipswich Local Development Framework. The currently relevant policies are as follows:

POLICY BE41 The Council will seek to preserve Scheduled Ancient Monuments and other remains of national importance and their settings. On important archaeological sites the Council will seek mitigation of damage through physical preservation in situ as the preferred solution. When the balance of other factors is in favour of physical destruction of the archaeological site, the Council will wish to be satisfied that adequate provision is made for the excavation and recording of archaeological remains.

POLICY BE42 Where research indicates that archaeological remains may exist, the Council will require that a developer submits an archaeological assessment or if necessary a field evaluation prior to the determination of a planning application. Planning permission will not be granted without adequate assessment of the nature, extent and significance of the remains present and the extent to which the proposed development is likely to affect them. Where proposals are considered acceptable these conservation/preservation arrangements will be secured by a condition of planning permission and/or a planning obligation agreement.

- **2.3.**The site does not contain any Scheduled Monuments and does not fall within any Conservation Areas.
- 2.4. In accordance with best practice and government guidance, the client has requested this report at the earliest stage in order to be fully informed of any archaeological issues that may be encountered during any planning application process and subsequent development.

3. Geology and Topography

3.1.GEOLOGY

- **3.1.1.** The Soil Survey of England and Wales (1983) shows that the site has clay soils over a chalky till (Melford and Ashley Series). This map only provides a general indication of the geology present on site.
- **3.1.2.** The Ground Investigation Report (RICHARD JACKSON PLC 2008) identified a 0.3m to 0.4m deep topsoil consisting of a gravelly sandy clay or a gravelly clayey sand. Identified below this, in the majority of boreholes, was a glacial till varying in depth (up to 2.7m) and consisted of a firm or stiff gravelly clay. The topsoil, or glacial till where it was identified, overlay glacial sand and gravel consisting of silty or clayey gravelly sands or sands and gravels.

3.2.TOPOGRAPHY

- **3.2.1.** The site is arable farmland with a small area of pasture at its eastern limit and a concrete surface at its western limit. It covers an area of approximately 49 acres.
- **3.2.2.** The site is bounded to the north by the Ipswich to Lowestoft railway line (built in 1859) and to the west by the Ipswich to Felixstowe railway line (built in 1877). The southern limit of the site is defined by Millennium Cemetery with Tuddenham Road forming the eastern boundary of the area (FIGURE 2).
- **3.2.3.** The eastern half of the field is undulating with a slight slope to the west and south. The western half of the fields slopes down significantly to the west as it heads towards Westerfield train station.



Plate 1 - General view of site, looking north-west



Plate 2 - General view of site, looking east

4. Archaeological and Historical Background

TIMESCALES USED IN THIS REPORT:

PERIOD	FROM	TO
PREHISTORIC		
PALAEOLITHIC	450,000	12,000 BC
MESOLITHIC	12,000	4,000 BC
NEOLITHIC	4,000	1,800 BC
BRONZE AGE	1,800	600 BC
IRON AGE	600	43 AD
HISTORIC		
ROMAN	43	410 AD
SAXON	410	1066 AD
MEDIEVAL	1066	1485 AD
POST MEDIEVAL	1485	PRESENT

- **4.1.**The site does not contain any scheduled monuments or listed buildings. The site does not fall within a Council designated conservation area. The area is considered as an area of high archaeological importance (WILL FLETCHER PERS COMM).
- **4.2.**A search of the Suffolk Historic Environment Record (SHER) for a 1km radius from the edge of the study site revealed activity from the Bronze Age through to the Post Medieval period. When sites are referred to from the SHER both the Parish Code and Monument ID numbers are listed. The results of the SHER search are also presented in Figure 3 and Appendix 3.
- **4.3.**Included within the SHER search results, presented below, are the results of the documentary and aerial photographic searches. These results are summarised from the full reports by A. Breen and R. Palmer respectively. Both reports are included in full as Appendices 4 and 5.
- **4.4.**It is not the aim of this assessment to present a complete history of the North Ipswich area and Westerfield from earliest times, nor is it the intention of this report to examine every artefact or archaeological report found in the local area. Rather,

the aim of this assessment is to review the data available and to use this to construct a model of the potential archaeology of the specific study site.

4.5.PREHISTORIC

4.5.1. There is limited evidence from the area surrounding the study site from the early prehistoric periods. The only recorded archaeological activity in the SHER are findspots of Bronze Age and Iron Age date and a 'general scatter' of prehistoric finds were recorded during fieldwalking 650m to the east of the site, recorded as TDM Misc (MSF22474). Prehistoric activity in this area appears largely confined to areas with easy access to water sources such as the small valley at Dales Road to the south-west (DUFFY 2008).

PALAEOLITHIC

4.5.2. The SHER has no records of Palaeolithic activity within the search radius of the site.

MESOLITHIC

4.5.3. The SHER has no records of Mesolithic activity within the search radius of the site.

NEOLITHIC

4.5.4. The SHER has no records of Neolithic activity within the search radius of the site.

BRONZE AGE

4.5.5. A single Bronze Age find, a small unlooped bronze Palstave-form chisel with developed shield pattern, has been recorded in the SHER from metal detector survey though it is located 800m to the north-west (IPS 393 - MSF20285).

IRON AGE

4.5.6. An Iron Age bronze mirror has been recorded in the SHER from a metal detector survey, along with the Bronze Age chisel previously mentioned, 800m to the north-west (IPS 393 – MSF19867).

4.5.7. A Iron Age coin has also been recorded in the vicinity of an undated rectangular enclosure (IPS 256 – MSF15193).

4.6.ROMAN

- **4.6.1.** Within the limits of the site a Roman finds scatter has been recorded in the SHER (IPS 243 MSF12410). The finds were identified during metal detecting of the field in the 1980's. Finds included two bronze brooches with samian, mortarium and grey ware pottery sherds.
- **4.6.2.** Located 340m to the east of the site a single Roman grey ware urn was recorded in 1906 during drainage works (IPS 023 MSF4754).
- 4.6.3. Several Roman finds were recovered during the metal detector survey of the Medieval site at Mill Farm to the west of the study area (IPS 092 MSF11208). These included bronze and silver coins, bronze brooches and a gold finger ring.
- **4.6.4.** Roman pottery and associated animal bone within an 'ash' layer were recorded 880m to the south of the site (IPS 047 MSF4779).
- **4.6.5.** The site appears to be part of a Roman landscape that extends to the west and includes two possible cemeteries and a possible settlement (DUFFY 2008). The location of this site, the quantity of material and the lack of Roman evidence recorded to the north and east suggest that although there is Roman activity on this site it is on the north-eastern limit of the main focus of Roman occupation.

4.7.SAXON

- 4.7.1. Saxon activity has been recorded within the site boundaries at its eastern and western limits. At the west edge of the site between the Felixstowe and Lowestoft railway lines several ditches were identified in a pipe trench with three dated to the Saxon period and the rest remaining undated (IPS 124 MSF4915).
- **4.7.2.** A Saxon bronze girdle hanger has also been recorded near the eastern limit of the site area (IPS 430 MSF19869). The artefact was recovered in 2001 during metal detecting.

- 4.7.3. Several Saxon metal detected findspots have been recorded in the SHER to the north of the site. A middle to late Saxon coin (WRF 002 MSF3981), a late Saxon brooch (WRF 011 MSF22513) and a middle Saxon bronze caterpillar brooch (IPS 091 MSF4875). These findspots all appear around the Medieval village of Westerfield.
- **4.7.4.** Further Saxon findspots were recorded within the 1km search radius of the site and were located to the north of the village of Westerfield. These were a bronze brooch (WRF 004 MSF19871) and a decorated bronze fragment (WRF 012 MSF22518).
- 4.7.5. Saxon artefacts, including a bronze buckle and several fragments of bronze strap fittings, have been recorded along with Roman and Medieval artefacts on the site to the west of the study area (IPS 092 MSF11209). A single sherd of Saxon Thetford ware has also been recorded in the SHER 770m to the south of the site (IPS 126 MSF4918).
- **4.7.6.** Saxon evidence exists on the site and this maybe associated with a new settlement pattern and the creation of the village at Westerfield. The proposed development site is located on the southern limit of the village in which several Saxon findspots have been recorded. This site has the potential to identify the edge of an early settlement in this area or recover evidence of the immediate landscape.

4.8.MEDIEVAL

- **4.8.1.** At the western limit of the site two pits containing Medieval material are recorded within the SHER (IPS 124 MSF4916) and were identified between the two railways bounding the site during the excavation of a pipe trench. Three ditches dated to the Saxon period were also recorded.
- 4.8.2. The site is located to the south-east of the Medieval village of Westerfield of which certain elements are recorded in the SHER and is mentioned in the Domesday Book, compiled in 1086, as 'Westrefelda'. The Medieval Church of St Mary Magdelene (IPS 125 MSF4917) and the Medieval village green (WRF010 MSF22184) are recorded. Medieval findspots are also recorded around the village green (WRF Misc MSF22524 and MSF22540). With

- further Medieval metal work recorded from a metal detector survey further to the north (WRF004 MSF22529).
- **4.8.3.** Located to the west of the study area was a site at Mill Farm which was metal detected from 1979 to 1987 from which a large quantity of pottery and metal finds were recovered (IPS 092 MSF4876). It has been suggested that this area was the site of a possible Medieval fair or market.
- **4.8.4.** A scatter of Medieval pottery and a single Edward I penny were recovered during a metal detector survey located 430m to the east of the site (TDM 022 MSF21489).
- **4.8.5.** The site lies at the southern edge of the village of Westerfield to the south of the Medieval church. There has been recorded Medieval activity on the site and evidence of the Medieval village and its landscape may extend further into the site. However, beyond the limits of the village there has been very little identified Medieval archaeological remains.

4.9.POST MEDIEVAL

- 4.9.1. The Ipswich Corporation Maps and Plans dated 1723 and 1799 record the site as fields, though it is not stated if they are arable or pasture (FIGURE 4). A similar picture is evidenced from the Westerfield Tithe Map (dated 1839) where the site is shown as fields. Early editions of the OS maps, including the 1st Edition (dated 1890), show the site as arable farm land though subdivided into smaller fields than the present day with a pond to the west (FIGURE 5). Plans showing the proposed railway lines also show series of fields as arable land.
- **4.9.2.** During the 19th century the layout of the site was altered by the construction of the two railway lines. The earlier line was from Ipswich to Lowestoft, completed in 1859, and forms the northern site boundary. The second line was from Ipswich to Felixstowe, completed in 1877, and forms the western site boundary. Both lines cut through existing field boundaries causing a reorganisation of the fields.
- 4.9.3. Two listed buildings are close to the site with Westerfield House to the east

- and The Red House to the south-east. Both are Grade II listings and are not affected by the development.
- **4.9.4.** Metal detected and other miscellaneous finds dating to the Post Medieval period have been recorded around Westerfield village green to north WRF Misc (MSF22539) and WRF 014 (MSF22522).
- 4.9.5. During the Post Medieval period the site continued on from the Medieval period as farm land. The only change to the site was the building of the railway lines in the 19th century which altered the layout of the fields followed by an opening up of the area into one large field. This interpretation is supported by the aerial photographic results as well as the documentary and cartographic results.

4.10.UNDATED

- **4.10.1.**The aerial photographic search identified several possible features in the centre and on the eastern areas of the site. The date of these features are unknown and it remains unclear if these are archaeological (FIGURE 6).
- **4.10.2.**A rectangular enclosure was recorded on the SHER after identification from an aerial photograph (IPS 256 MSF15193). The date of the enclosure is unknown though Iron Age coins have been recovered in its vicinity and it is located within the same area as a Medieval finds scatter (IPS 092 MSF4876) and also with finds from the Roman and Saxon periods (IPS 092 MSF11208 and MSF11209).

5. Proposed Redevelopment and Archaeological Impact

5.1.PROPOSED REDEVELOPMENT

- **5.1.1.** Proposed redevelopment at the site is for school playing fields (APPENDIX 6).
- **5.1.2.** The redevelopment requires some earthworks and regrading of the ground for the playing fields.

5.2.ARCHAEOLOGICAL IMPACT

- **5.2.1.** The redevelopment of the site will have a high impact on any buried archaeological deposits, especially with the regrading of the ground.
- **5.2.2.** The exact details of the extent of the earthworks and regrading is not known though any lowering of the ground level would likely destroy any preserved archaeological deposits.
- **5.2.3.** Based on the evidence from the Ground Investigation Report (RICHARD JACKSON PLC 2008) the preserved archaeology will be below the topsoil at a depth between 0.3m and 0.4m and overlying the glacial till.
- **5.2.4.** Archaeological deposits on the site are expected to be well preserved with the site in use as arable land from the Medieval period to the present day. As there has been no development on the site there is likely to be only minimal ground disturbance through ploughing. There is no evidence for any landscaping of the site either as it retains its natural slope down to the west.

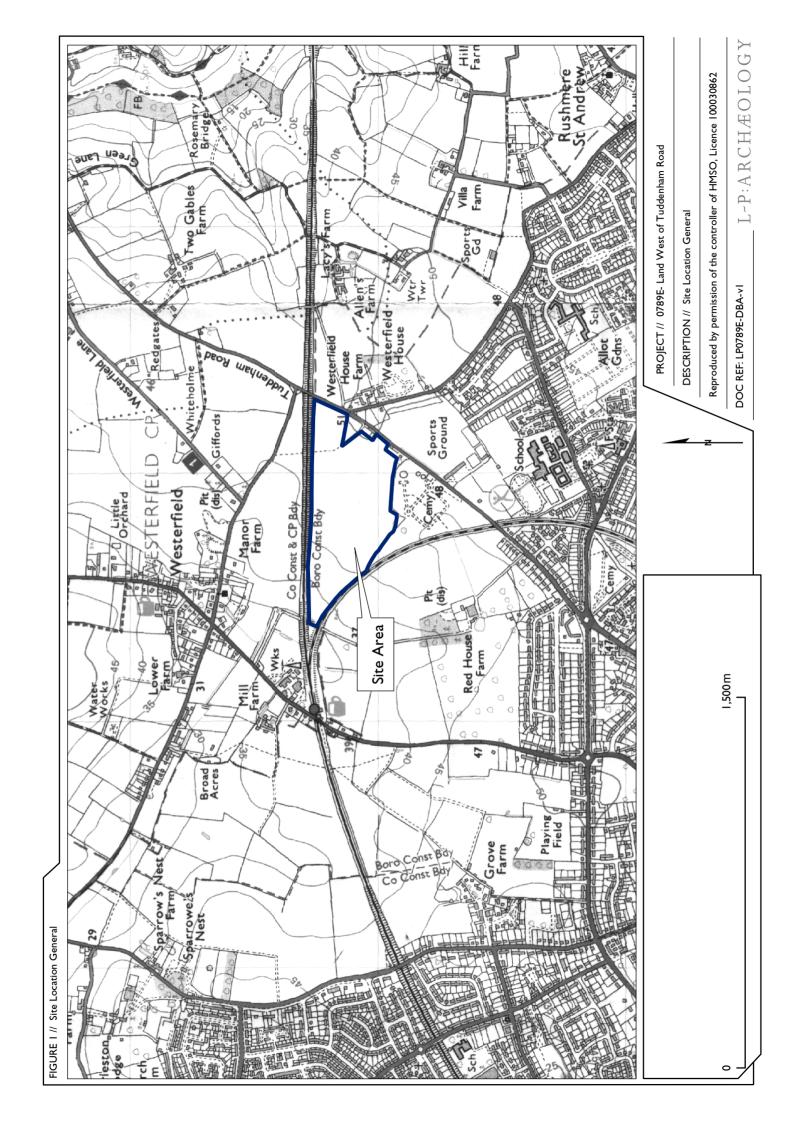
6. Summary and Conclusions

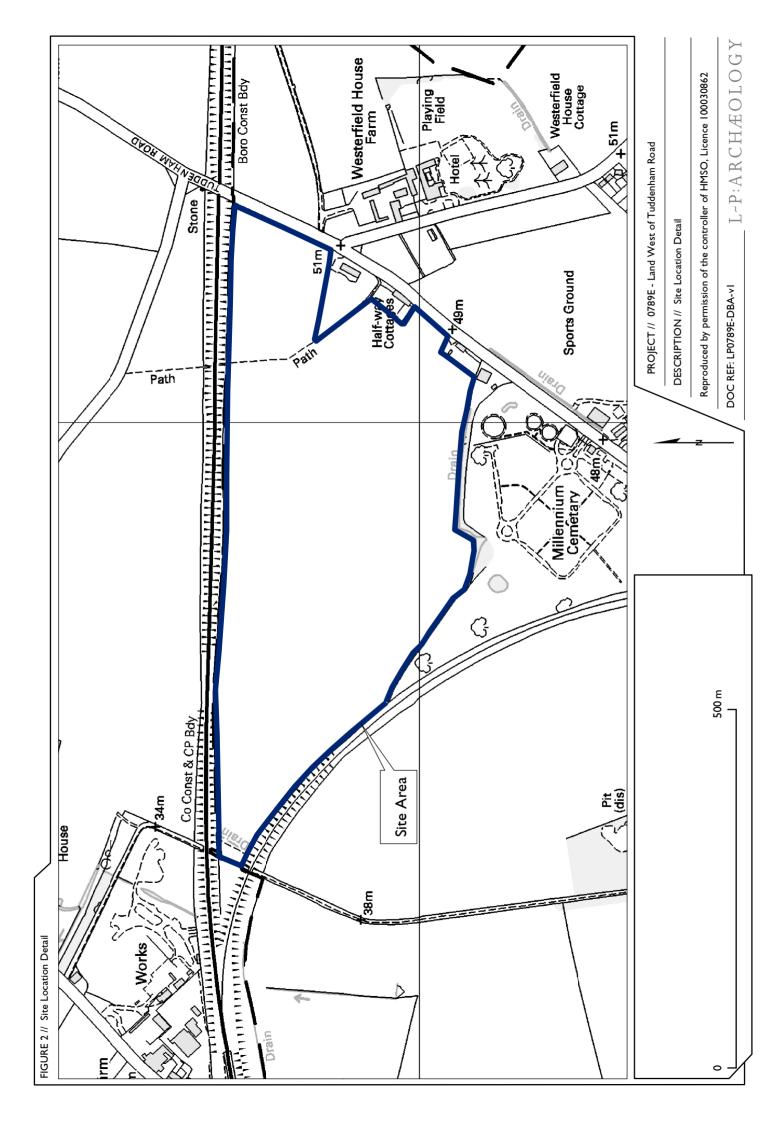
- **6.1.**A site to the west of Tuddenham Road, Ipswich is proposed for redevelopment. The site is currently in use as arable fields.
- **6.2.**The proposed development is to regrade the site for use as school playing fields.
- **6.3.**Examination of the available data indicates that the site does not contain any Scheduled Monuments and is not in any Conservation area. There are also no Listed Buildings within the site boundary.
- **6.4.**There is evidence of activity on and around the site from the prehistoric periods onwards. Multi-period sites have been identified to the west and the Medieval village of Westerfield to the north.
- **6.5.**Only limited Prehistoric activity has been recorded in the vicinity of the site with a single Bronze Age and two Iron Age finds recovered by metal detector and a general scatter of Prehistoric finds from fieldwalking.
- **6.6.**The potential for Prehistoric activity on the site is low as no evidence has been identified in the vicinity.
- **6.7.**Roman artefacts have been recovered from within the site boundaries during a metal detector survey (IPS 243) and further scattered finds have been recorded in the vicinity.
- **6.8.**The potential for preserved archaeological deposits from the Roman period are high as artefacts have already been recovered from the plough soil during metal detecting.
- **6.9.**Saxon activity has also been identified within the site boundaries including a series of ditches (IPS 124), of which some were dateable to the Saxon period, and a Saxon girdle hanger recovered during metal detecting in the field (IPS 430). Further Saxon findspots have been recorded in the vicinity of the site.
- **6.10.**The potential for preserved Saxon period archaeological deposits are medium to high with features already excavated at the western edge of the site and the proximity of Westerfield village.
- 6.11. Recorded Medieval activity on the site was in the form of two dateable pits at the

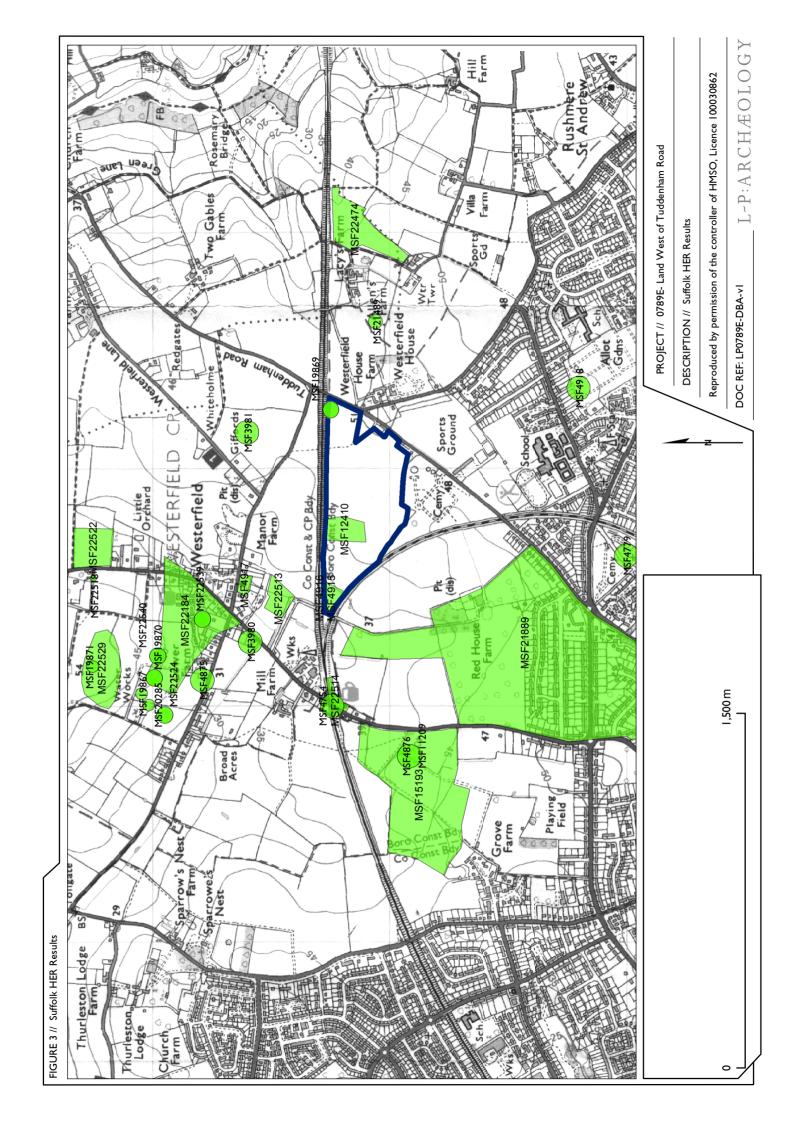
western limit of the site (IPS 124). The site is also located on the southern edge of the Medieval village of Westerfield and there is the possibility that the village or associated features could extend to the site. Medieval activity has also been recorded to the west (IPS 092) were a large quantity of pottery and metal finds have been recovered.

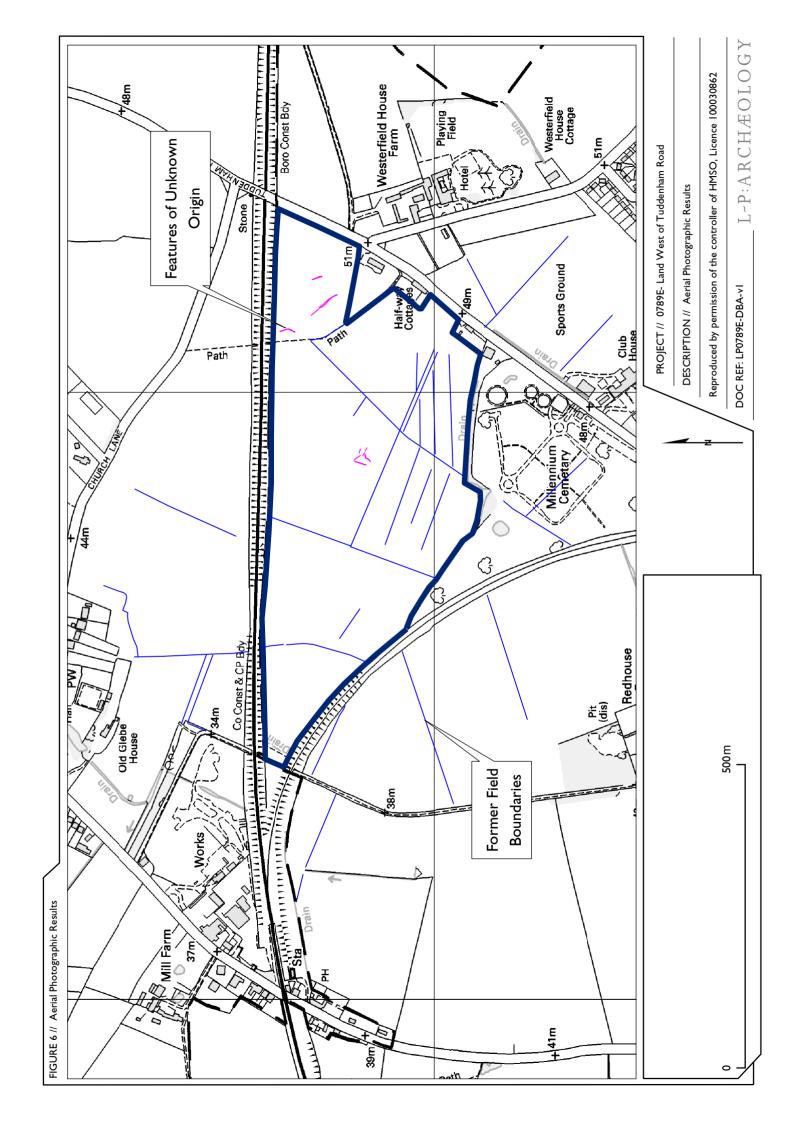
- **6.12.**The potential for preserved Medieval archaeology is medium to high with features previously excavated at the western edge of the site and with the proximity of the Medieval village of Westerfield.
- **6.13.**The Post Medieval period saw the site in agricultural use with small fields giving way to much larger ones. The construction of the railways in the 19th century saw the landscape altered into its present form creating the site boundaries to the north and west.
- **6.14.**The potential for archaeological deposits from the Post Medieval period are low as the site was in use as agricultural land throughout this period.
- **6.15.**The proposed redevelopment consists regrading to form new school playing fields. This covers the majority of the site with a few open areas. There is a high potential of archaeological remains on the site with a good level of preservation with no known areas of disturbance except for plough damage.
- **6.16.**It is therefore likely that the Local Planning Authority, under advice of Suffolk County Council Archaeological Service, Conservation Team, will require further archaeological work. This could take the form of a programme of trial trenching in order to determine the nature of any archaeological deposits and their level of preservation. The results of this work will determine any further planning conditions and mitigation strategies for the surviving archaeology. The specification and methodologies for any further work will need to be agreed in a separate document.

FIGURES









SOURCES CONSULTED

APPENDIX I

BIBLIOGRAPHIC

- BROWN N AND GLAZEBROOK J, 2000. Research and Archaeology: A Framework for the Eastern Counties 2: research agenda and strategy. East Anglian Archaeology Occasional Paper 8.
- DUFFY J, 2008. Land to West of Tuddenham Road, Ipswich. Archaeological Deskbased Assessment Report.
- DYMOND D AND MARTIN E, 1999. An Historical Atlas of Suffolk.
- GLAZEBROOK J, 1997. Research and Archaeology: A Framework for the Eastern Counties 1: a resource assessment. East Anglian Archaeology Occasional Paper 3.
- RICHARD JACKSON PLC, 2008. Project George, Tuddenham Road Site, Ipswich. Ground Investigation Report.
- SOIL SURVEY OF ENGLAND AND WALES, 1983. Soils of England and Wales: sheet 4: Eastern England (1:250,000).

CARTOGRAPHIC

Corporation Plan, 1723. C/3/10/8/1/12 Martin's Charity Estate in Westerfield.

Corporation Plan, 1799. C/3/10/8/2/1 Martin's Charity estate in Westerfield.

Ordnance Survey, 1890. 1:10,560 Sheet Number LXXV NE First Edition.

Tithe Map, 1839. P 461/169 Westerfield.

BRIEF AND SPECIFICATION

APPENDIX 2



The Archaeological Service

Environment and Transport Service Delivery Shire Hall Bury St Edmunds Suffolk IP33 2AR

Brief and Specification for Desk-Based Assessment

ON LAND BELONGING TO IPSWICH SCHOOL, AREA ONE - KNOWN AS NOTCUTT'S, IPSWICH AND AREA TWO – OFF TUDDENHAM ROAD, IPSWICH, SUFFOLK

1. Background

- 1.1 A pre-planning enquiry has been made by The Landscape Partnership on behalf of Ipswich School about two areas of land in Ipswich. Area one is known as Notcutts (TM 1646 4640) and Area two is on land adjacent to Tuddenham Road (TM 1766 4715).
- Area one measures 12 ha and is situated on land to the north of Valley Road. It is between 45 and 50.00 m AOD, with clay soils of the Milford series over chalky till. It is currently playing fields but may have been part of a former brickworks. Area two is 19.8 ha is size and is situated to the west of Tuddenham Road. Again at between 40 and 50.00 m AOD in height with clay soils of the Ashley series over chalky till. This area is currently arable.
- 1.3 Both sites are recognised as areas of high archaeological importance recorded in the County Historic Environment Record. Area one may have been part of a former brickworks and remains relating to this and earlier periods may be present within the application area. Area two is known as the location of a number of find spots of the Saxon and medieval date, providing potential for settlement of both periods. There is a strong possibility that further archaeological deposits will be encountered given the landscape setting and the size of the development areas. Neither of these areas has, however been subject to a systematic archaeological survey. Any proposal which will cause significant ground disturbance therefore has the potential to damage any archaeological deposit that exists.
- 1.4 A desk-based assessment of the known and potential archaeology for the application area has been commissioned. Further information concerning the location, extent, survival and significance of the known archaeological remains on the site, which includes standing buildings, as well as the potential for further archaeological remains to survive, is required. This brief sets out the requirement for an archaeological desk-based assessment and walk-over survey.

2. Objectives

- 2.1 To collate and assess the existing information regarding archaeological and historical remains within and adjacent to the site (please contact the developer for a plan). It is important that a sufficiently large area around the target area is studied in order to give adequate context; in this instance an area with boundaries 1 km beyond the parcel boundaries will be the minimum appropriate.
- 2.2 To identify any known archaeological sites, including existing buildings, which are of sufficient potential importance to require an outright constraint on development (i.e. those that will need preservation *in situ*).
- 2.3 To assess the potential for unrecorded archaeological sites within the application area.

- 2.4 To assess the likely impact of past land uses and the potential quality of preservation of below ground deposits, and where possible to model those deposits.
- 2.5 To assess the potential for the use of particular investigative techniques in order to aid the formulation of any mitigation strategy.
- 2.6 To assess the known documentary sources relating to the site in order to aid interpretation of former land use and to provide information relating to the history of the site and of relevance to the interpretation.
- 2.7 The results will inform the location and method of subsequent stages of evaluation.
- 2.7 An outline specification, which defines certain minimum criteria, is set out below. 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 (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.

3. Specification

- 3.1 The assessment shall be undertaken by a professional team of field archaeologists. The archaeological contractor is expected to follow the Code of Conduct of the Institute of Field Archaeologists.
- 3.2 Collation and assessment of the County Historic Environment Record to identify known sites and to assess the potential of the application area.
- 3.2 Collation and assessment of all cartographic sources relevant to the site to identify historic landuse, the siting of old boundaries and any earlier buildings. Where it is possible, copies should be included in the report. Draft guidelines on appropriate cartographic sources to be used desk-based assessments are available from this office.
- 3.3 Collation and assessment of historic documentation relevant to the site that would contribute to the archaeological investigation of the site. Draft guidelines on appropriate archive and documentary sources to be used desk-based assessments are available from this office.
- 3.4 Assess the historical significance of existing industrial buildings on the site.
- 3.5 Re-assessment of aerial photographic evidence and, where relevant, a re-plotting of archaeological and topographic information by a suitably qualified specialist with relevant experience at a scale of 1:2500. It should be possible to obtain residual errors of less than ± 2m. Rectification of extant mapped features such as field boundaries and buildings shall be undertaken in order to give additional indication of accuracy of the transcription.
- 3.6 Examination of available geotechnical information to assess the condition and status of buried deposits and to identify local geological conditions. Relevant geotechnical data should be included as appendices to the report.
- 3.7 Ascertain whether there are other constraints on the site (e.g. SSSI, County Wildlife Site, AONB, etc).
- 3.8 A site visit to determine any constraints to archaeological survival.

4. Report Requirements

- 4.1 The report shall be submitted within a length of time (but not exceeding 1 month) from the end of fieldwork, to be agreed between the developer and archaeological contractor, with a copy supplied to the County Historic Environment Record. A full digital copy of the report will be supplied to Suffolk County Council Archaeological Service Conservation Team (SCCAS/CT).
- 4.2 Assemble, summarise and order the available evidence.
- 4.2 Synthesise the evidence and place it in its local and/or regional context.
- 4.3 The Report must include a discussion and an assessment of the archaeological evidence within the regional context. The conclusions must include a clear statement of the archaeological potential of the site, highlighting any research priorities, and the significance of that potential in the context of the Regional Research Framework (*East Anglian Archaeology*, Occasional Papers 3 & 8, 1997 and 2000).
- 4.4 Comment on the reliability of the evidence and give an opinion on the necessity and scope for further assessment including field evaluation.
- 4.5 A comprehensive list of all sources consulted (with specific references) should be included.
- 4.6 A copy of the report should be deposited with the County Historic Environment Record within six months.
- 4.7 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.
- 4.8 All parts of the OASIS online form must be completed for submission to the County Historic Environment Record. This should include an uploaded .pdf version of the entire report (a paper copy should also be included with the archive).
- 4.9 A digital copy of the air photographic evidence should be supplied with the report for inclusion in the County Historic Environment Record; AutoCAD files should be exported and saved into a format that can be can be imported into MapInfo (for example, as a Drawing Interchange File or .dxf) or already transferred to .TAB files and ArcView.
- 4.10 The IFA Standard and Guidance for Archaeological Desk-Based Assessments (1999) should be used for additional guidance in the execution of the project and in drawing up the report.
- 4.11 Publication of the results, at least to a summary level (i.e. round up of archaeology in the annual 'Archaeology in Suffolk' section of the *Proceedings of the Suffolk Institute for Archaeology*), shall be undertaken in the year following the archaeological field work. An allowance shall be made within the costs for full publication in an appropriate journal.
- 4.12 The involvement of SCCAS/CT shall be acknowledged in any report or publication generated by this project.

5. Monitoring

5.1 SCCAS/CT will be responsible for monitoring progress and standards throughout the project. This will include the fieldwork, post-excavation and publication stages.

- 5.2 Notification of the start of work shall be given to SCCAS/CT one week in advance of its commencement.
- 5.3 Any variations to the written scheme of investigation shall be agreed with SCCAS/CT prior to them being carried out.

References

Brown, N. and 2000 Research and Archaeology: A Framework for the Eastern

Glazebrook, J. Counties 2: research agenda and strategy E. Anglian Archaeol.

Occ. Pap. 8

Glazebrook, J. 1997 Research and Archaeology: A Framework for the Eastern

Counties 1: a resource assessment. E. Anglian Archaeol. Occ.

Pap. 3

Specification by: William Fletcher

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

Suffolk IP33 2AR Tel: 01284 352199

Email: William.fletcher@et.suffolkcc.gov.uk

Date: 06th October 2008 Reference: / Pre | IpswichSchool2008

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.

SUMMARY OF SUFFOLK HISTORIC ENVIRONMENT RECORD SEARCH

APPENDIX 3

Suffolk County Council Archaeological Service Sites and Monuments Record

	ounty Council Archaeologic	cal Sei			
06/10/2008				IPSWICH, IPSWIC WESTERFIELD, S SUFFOLK	CH, SUFFOLK, SUFFOLK COASTAL,
Ref IPS 023	Site Name		Summary Description Pottery urn of grey ware linear decoration found operations pre 1903 in r railway crosses road (S	during drainage meadow where	NGR Centroid TM 1705 4725 (MBR: 100m by 100m)
	MSF4754				
IPS 047	Rose Hill Cemetery MSF4779	Rom	C1 sherds found at deptl and sheep bones "in a la		Centroid TM 1763 4600 (MBR: 10m by 10m)
IPS 091	MSF4875	Sax	Bronze caterpillar brooch metal detecting. Also Roand unidentified object.		Centroid TM 1715 4785 (MBR: 100m by 100m)
IPS 092	Mill Farm MSF11208	Rom	Various scattered Rom fi detecting on mainly Med 1979 and 1987, include I from steelyard, two C1/C brooches, junction of sar fragment and intaglio of bezel (Rom?), sestertius denarius of Septimus Se	site, between balancing arm 22 spines of ne, disc brooch Mars(?) in gold of Hadrian and	Centroid TM 1685 4695 (MBR: 100m by 100m)
IPS 092	Mill Farm MSF11209	Sax	Late Saxon metal detect mainly Med site.	ed finds from	Centroid TM 1685 4696 (MBR: 10m by 10m)
IPS 092	Westerfield MSF4876	Med	See Arttype for full list of	finds.	Centroid TM 1685 4695 (MBR: 100m by 100m)
IPS 124	MSF4915	Sax	Ditch with three sherds T 8401 0004), seen in AW.		Centroid TM 1745 4725 (MBR: 100m by 100m)
IPS 124	MSF4916	Med	Two pits containing Med between Lowestoft and Frailways.		Centroid TM 1745 4725 (MBR: 100m by 100m)
IPS 125	Church of St Mary Magdelene, Westerfield MSF4917	Med	St Mary Magdelene Chu	rch.	Centroid TM 1751 4761 (MBR: 10m by 10m)
IPS 126	Sidegate Lane Allotments MSF4918	Sax	One Thetford type ware	sherd.	Centroid TM 1835 4625 (MBR: 100m by 100m)
IPS 243	Westerfield MSF12410	Rom	Scatter of Roman metalved detecting by M Seager, 7 Wright, between TM 177 473.	Γ Syme and R	Centroid TM 1775 4725 (MBR: 100m by 300m)
IPS 256	MSF15193	Un	Aerial photograph of rect enclosure, circa 60m E-V S of railway line (S1). A found metal detecting.	N by 35m N-S, just	Centroid TM 1664 t4710 (MBR: 10m by 10m)
IPS 393	MSF19867	IA	Bronze mirror found met 2001.	al detecting in July	TM 1705 4804 (point)
IPS 393	Westerfield Water Works MSF20285	BA	Small unlooped bronze F chisel with developed sh		Centroid TM 1705 4806 (MBR: 100m by 100m)

Ref IPS 430	Site Name 'Westerfield' MSF19869	Period Sax	Summary Description Findspot: girdle hanger found metal detecting in June 2001.	NGR Centroid TM 1830 4730 (MBR: 100m by 100m)
IPS 459	The Red House; Redhouse Park; Redhouse Farm MSF21889	PMed	The Red House and park to south, shown on Hodskinson's Map of Suffolk in 1783.	TM 1725 4639 (point)
TDM 022	MSF21489	Med	Scatter of medieval pottery, found whilst metal detecting.	TM 1862 4706 (point)
TDM Misc	Field F774 MSF22474	Preh	General scatter of finds found over field during SE Suffolk fieldwalking survey.	TM 1903 4708 (point)
WRF 001	MSF3980	Rom	Five sestertii: Two Augustus, Vespasian, Hadrian, and Gordian III.	Centroid TM 1727 4759 (MBR: 10m by 10m)
WRF 002	MSF3981	Sax	Northumbrian styca (base sceat) of Aethelred II, second reign circa AD 844- 849.	Centroid TM 1815 4765 (MBR: 100m by 100m)
WRF 004	MSF19871	Sax	Lead brooch found while metal detecting in Oct 2001.	TM 1716 4825 (point)
WRF 004	MSF22529	Med	Med metalwork found whilst metal detecting in 2002 & 2003.	TM 1716 4822 (point)
WRF 009	Westerfield Railway Station MSF22514	Pmed	Station at TM 1707 4724 shown on 1880's OS map. Also adjacent pump and Railway Hotel.	
WRF 010	Westerfield Village Green MSF22184	Med	Village Green seen on Hodskinsons map of 1783.	TM 1733 4783 (point)
WRF 011	MSF22513	Sax	Lead sax brooch found whilst metal detecting. Also Rom pottery, pmed bell and flint flake.	TM 1746 4746 (point)
WRF 012	MSF22518	Sax	Decorated bronze fragment, probably foot of an ornate cruciform brooch, found metal detecting in Dec 1996.	
WRF 014	MSF22522	Pmed	Various metalwork finds found whilst metal detecting in Dec 1996.	TM 1766 4825 (point)
WRF Misc	MSF19870	Med	Buckle and bird feeder found metal detecting in Dec 2000.	TM 1711 4799 (point)
WRF Misc	MSF22524	Med	Harness fitting (bronze) found whilst metal detecting in 2003	TM 1696 4795 (point)
WRF Misc	MSF22539	Pmed	Worked quern stone found 'in garden' in 2003.	TM 1736 4779 (point)
WRF Misc	MSF22540	Med	Med strap fitting and bronze unidentified object found metal detecting in 2003.	TM 1721 4798 (point)

DOCUMENTARY AND CARTOGRAPHIC SEARCH REPORT

APPENDIX 4

Site Tuddenham Road, Westerfield, Ipswich

Introduction

The research for this report has been carried out at the Suffolk Record Office in Ipswich. The references to the documents mentioned in this report can be found in the existing catalogues. The record office's computerised index CALM is not presently available and though a request was made to a member of staff to search the indexes for property records relating to the Plestow and Collett families, no appropriate record sources were identified. Much of the site history has been traced through the Ipswich Borough Archives.

Maps

The site is shown on the 1958 Provisional Edition of the 1:10,000 Ordnance Survey map sheet number TM 14 NE as a five small fields located between the two branches of the railways. The line to the north forming the site boundary leads to Woodbridge and Lowestoft that to the west forming part of the site boundary leads to Felixstowe. Tuddenham Road forms part of the southern eastern boundary of the site. A footpath is marked on the map within the northeastern corner of the site and crosses the railway to the north to join with Church Lane. There are no buildings within the site itself, though two house plots are shown at the southern end of the footpath on the modern edition of the map. The house to the northeast was built after 1958 within an area of former grassland. Of the principle dwellings in the immediate area Westerfield House is situated to the east of Tuddenham Road and Redhouse Farm to the west of the Felixstowe Branch of the railway line. The parish church of St Mary Magdalene, Westerfield is to the northwest beyond the railway line to Woodbridge. The 'Millennium Cemetery' to the south of this site is not shown on the 1958 edition of the map. The 150-foot contour line is to the west of this site and two bench marks of 167 & 168 feet to the northwest of Westerfield House indicate that the land slopes to the west. On this edition of the map the County Borough boundary was to the north of the railway line to Woodbridge and follows the course of Church Lane.

There are no significant changes in this landscape on the earlier editions of the 1:10,560 maps sheet number 75 NE. The first edition of published in 1890 and based on a survey of 1880-81. The borough's boundary is the same on this map as on the 1958 edition. On the 1890 map the railway to the north is marked as the 'Great Eastern Railway' and the second edition of 1905 as 'G.E.R. East Suffolk Line' and on the 1928 edition and 1947 'Provisional Edition' as 'L.N.E.R. East Suffolk Line'.

Railway Plans

Felixstowe Railway and Pier was first proposed in 1875 and opened in 1877. Plans of the line were deposited with the clerk of peace at the County's Quarter Sessions and the owners of the adjoining properties listed in a separate schedule. The owner of the land was then Elizabeth Edgar and it was in the occupation of her then tenant John Garrod (ref. B150/2/5/93B). The Eastern Union Railway's extension to Woodbridge was first proposed in 1853 and opened in 1859 (ref. B150/2/5/75B). The schedule names the owners of the adjoining lands as the 'Trustees of Ipswich Corporation Charities' and in the occupation of their tenant Thomas Bird. The schedule also notes

the state of cultivation of each piece. The railway company appears to have purchased the lands from the corporation and from Elizabeth Edgar and their name is superimposed in the schedule above those of the previous owners. The deposited plans also include section of the line though these have not been copied for this report.

Tithe Map

The tithe map for Westerfield is dated 1839 (ref. P461/277) and the land described in the separate apportionment bearing the Tithe Commission's date stamp of 28 March 1840 (ref. FDA277/1A/1a). Most of the lands forming this site were then the property of the 'Trustees of Martins and Burroughs Charity' one of Ipswich Corporation's charities and in the occupation of the tenant William Walford. The lands totalling 107 acres and 23 perches forming this farm were not in a single block. The field within the area of this site included part of 112 'Broom Field' 11 acres and 15 perches, 125 'Eleven Acres' though measured at 13 acres 12 perches, 127 'Five Acres' 5 acres 3 roods and 37 perches, part of 141 'Brakey Field' measured as 12 acres 2 roods 15 perches, 142 Church Field measured as 9 acres 1 rood 22 perches and 146 Swans Nest measured at 4 acres 2 roods 20 perches. Unlike most apportionment the then state of cultivation arable or pasture is not given. The remaining parts of this site were then the property of Margaret Plestowe and in the occupation of her tenant Thomas Bird. The lands included the fields 126 'Stormy Hill' 7 acres 3 roods 27 perches, 128 'Sallow Field' 12 acres and 15 perches and 129 also 'Church Field' measured at 10 acres 2 roods 28 perches. There were 40 perches to a rood and 4 roods to an acre.

Though the record office does not hold any records indexed under the surname Plestowe, they do hold the records of Ipswich Corporation.

Ipswich Corporation Maps and Plans: Martin's and Burroughs Gifts

Amongst the Ipswich Corporation's archives, there are a series of plans showing the various lands given for charitable purposes to the care of the borough. The earliest plan of this site is that of Richard Tallemach dated 1723 (ref. C/3/10/8/1/12). The legend bears the inscription 'A mapp of an estate given by Mr Martin, one of the Portmen of the Corporation of Ipswich, for charitable uses, being in Westerfield in Suffolk and now in the occupation of Mr Francis Brook'. The map is orientated South-North instead of the modern convention. The fields are listed on the map in a separate schedule and these include 'Broom Field' 9 acres 2 roods 28 perches, 'Eleven Acre Field' 13 acres 1 rood 13 perches, 'Leach Pightle' 1 acres 1 rood 18 perches, 'Five Acre Field' 5 acres 1 rood 1 perch, 'Swan's Neast' 4 acres 27 perches, 'Church Field' 9 acres 2 roods 6 perches and then 'Stormy Hill' measured as 4 acres 1 rood 19 perches. The other parts of the farm are shown as two detached portions and the total acreage was then 93 acres 3 roods 6 perches. The owner of the remaining lands forming this site were then the property of Mr Collett.

The next plan the work of the surveyor John Bransby is dated 1799 (ref. C/3/10/8/2/1). The arrangement of the fields is the same as in 1723. The map shows that with the exception of 'Leach Pightle' all the other lands were in arable use. The name of the owner of the remaining lands forming this site was then the Reverend John Plestow. In 1808 Westerfield Green was the subject of an Inclosure Act (ref. EG2/A1/1). No parts of this site were enclosed at that date though a field to the west

and measured on a map of the parish as 8 acres 1 rood 7 perches was subject to an exchange of lands between the Corporation and Miles Edgar the owner of lands to the south. The exchange is described on page 29 of the award with the field named as 'part of an Inclosure belonging to the said Miles Edgar called Brakey Hill situate in the parish of Westrfield and bounded by land belonging to the said John Davis Plestow in part'. John Bransby again surveyed the farm in 1809 (ref. C/3/10/8/2/2). This 1809 plan shows the addition of 'Brakey Hill' to the lands forming this farm. Other details are similar to 1799 with the same distribution of arable and pasture. The total acreage given for the farm of 107 acres 1 rood 38 perches is close to that given in the tithe apportionment. The acreages of the fields are given as 6 acres 1 rood 32 perches for Braky Hill, 5 acres 3 roods 9 perches for Stormy Hill, 9 acres 1 rood 15 perches for Church Field, 4 acres 2 roods for Swan's Nest, 5 acres 1 rood 16 perches for Five Acre, 1 acres 1 rood 19 perches for Leach Pightle 12 acres 1 rood 10 perches for Eleven Acres and 10 acres 1 rood 21 perches for Broom Field.

A final plan of the farm is undated though is probably close to the date of the tithe map (ref. C/3/10/8/2/10). There are a number of changes to the field boundaries between the date of this and the tithe map compared with the earlier maps of 1809 with some evidence of a further minor exchange of lands between the Borough and the Plestow family in the area of the field known as Stormy Hill. On this plan the acreage for the entire farm is given as 107 acres 23 perches as in the tithe apportionment.

On these maps a gravel pit is marked in the same position as the rough grassland on the 1958 Ordnance Survey map and is now outside the present boundaries of the site.

Deeds and Evidence of Title

The deeds and evidence of title for the property in Westerfield dating from 1508 are also in the Borough's archives. The borough purchased part of the property from Richard Martin in 1621 with money bequeathed to them in the will of John Burroughs of London. The fields called 'Church Croft' and 'Swannes Neast' mentioned in an earlier deed dated 11 January 1615. Some of the other lands forming the farm were copyhold lands held of the manors of Tuddenham and Westerfield. In 1622 Richard Martin granted further lands to the borough (ref. C/3/10/2/9/1). Several of the 39 documents are written in Latin and most are not of immediate interest to this report. Various members of the Collett family are mentioned in these deeds.

In 1635 the farm was leased to Edward Garrett of Henley for a period of 11 years on an initial payment of £20 and an annual rent of £30 and then in October 1646 the lands were leased to Edmond Ketteridge (ref. C/3/10/5/5/1 & 2). The deeds themselves do not list the individual fields, though they do contain fairly standard clauses stipulating the rights of the trustees to timber and underwood, their various sporting rights; fishing and hunting and access to the lands. The tenants were charged with maintenance of the property including an amount of planting of 'young oake ashe or elme likelie to growe according to the aptness of the soyle' and also ditching work and planting hedges of 'whitethorn quicksett' to a length of 20 rods for each year of the term of the lease.

Conclusion

Much of the site's history can be traced through the readily available manuscript maps. There were changes in the field boundaries between 1809 and 1839 and the original field pattern was later cut through due to the construction of the two railway lines. There is no evidence on the maps of any area of occupation within these fields. The field names do not suggest any former area of occupation and in the case of Swan's Nest the property deeds show that the name had been in used before 1615.

There are no specific search has been made for records relating to the manor of Westerfield. These might contain further references to either the Plestow or Collett families and to their property in the area of this site.

Anthony M Breen October 2008

References

Maps

Ordnance Survey maps

1:10,000 Sheet Number TM 14 NE Provisional Edition 1958

1:10,560 Sheet Number LXXV NE Provisional Edition 1947

1:10,560 Sheet Number LXXV NE Third Edition 1928

1:10,560 Sheet Number LXXV NE Second Edition 1905

1:10,560 Sheet Number LXXV NE First Edition 1890

Deposited Railway Plans

B150/2/5/93B Felixstowe Railway and Pier 1875 B 150/2/5/75B Eastern Union Railway 1853

Tithe Map

P 461/169 Tithe Map Westerfield 1839 FDA169/1A/1a Tithe Apportionment 1840

Westerfield Civil Parish Collection

EG2/A1/1 Westerfield Green Enclosure Map and Award 1809

Ipswich Borough Archives

Plans

C/3/10/8/1/12 Martin's Charity Estate in Westerfield 1723

C/3/10/8/2/1 Martin's Charity estate in Westerfield 1799 C/3/10/8/2/2 Martin's Charity estate in Westerfield 1809 C/3/10/8/2/10 Martin's Charity estate in Westerfield n.d. circa 1840

Evidence of Title Martin's and Burroughs's Gift

C/3/10/2/9/1 Deeds 1508 – 1622 (37 documents) C/3/10/5/5/1 & 2 Leases 1635 & 1646

AERIAL PHOTOGRAPHIC ASSESSMENT

APPENDIX 5

AIR PHOTO SERVICES

21 GUNHILD WAY CAMBRIDGE CB1 8QZ PHONE 01223 572063

NOTCUTT'S (TM165463) AND TUDDENHAM ROAD (TM179471), IPSWICH, SUFFOLK:

AERIAL PHOTOGRAPHIC ASSESSMENT

REPORT No: 2008/21

OCTOBER 2008

Commissioned by: L-P: Archaeology The Compound 79 Cowley Road Cambridge CB4 0DN

NOTCUTT'S (TM165463) AND TUDDENHAM ROAD (TM179471), IPSWICH,

SUFFOLK:

AERIAL PHOTOGRAPHIC ASSESSMENT

SUMMARY

This assessment of aerial photographs examined two areas of land north of Ipswich (Notcutt's: TM165463: 7.35 hectares and Tuddenham Road: TM179471: 12.08 hectares) in order to identify and accurately map archaeological, recent and natural features.

Notcutt's:

All archaeological features identified are all of World War Two vintage and comprise gun emplacements and associated structures of a heavy anti-aircraft battery.

After levelling of the military features (by 1955), the land has been in use as a playing field. This also seems likely to have been its pre-war use.

Tuddenham Road:

A small number of unidentified objects were identified on photographs taken in 1992 and have been mapped. These are suspect as of archaeological origin but *may* be so.

This land has been in arable use on all dates of photography, initially as several smaller fields, but since the 1960s as much larger units.

Original photo interpretation was undertaken at 1:2500 level but mapped on a 1:10000 base map.

NOTCUTT'S (TM165463) AND TUDDENHAM ROAD (TM179471), IPSWICH,

SUFFOLK:

AERIAL PHOTOGRAPHIC ASSESSMENT

Rog Palmer MA MIFA

INTRODUCTION

This assessment of aerial photographs was commissioned to examine two areas of land north of Ipswich (Notcutt's: TM165463: 7.35 hectares and Tuddenham Road: TM179471: 12.08 hectares) in order to identify and accurately map archaeological, recent and natural features and thus provide a guide for field evaluation. The level of interpretation was to be at 1:2500 but has been mapped on a 1:10000 base.

ARCHAEOLOGICAL AND NATURAL FEATURES FROM AERIAL PHOTOGRAPHS

In suitable cultivated soils, sub-surface features – including archaeological ditches, banks, pits, walls or foundations – may be recorded from the air in different ways in different seasons. In spring and summer these may show through their effect on crops growing above them. Such indications tend to be at their most visible in ripening cereal crops, in June or July in this part of Britain, although their appearance cannot accurately be predicted and their absence cannot be taken to imply evidence of archaeological absence. In winter months, when the soil is bare or crop cover is thin (when viewed from above), features may show by virtue of their different soils. Upstanding remains, which may survive in unploughed grassland, are also best recorded in winter months when vegetation is sparse and the low angle of the sun helps pick out slight differences of height and slope.

Grass sometimes shows sub-surface features through the withering of the plants above them. This may occur towards the end of very dry summers and usually indicates the presence of buried walls or foundations. Such dry summers occurred in Britain in 1949, 1959, 1975, 1976, 1984, 1989 and 1990 (Bewley 1994, 25) and more recently in 1995, 1996 and 2006. This does not imply that every grass field will reveal its buried remains on these dates as local variations in weather and field management will affect parching. However, it does provide a list of years in which photographs taken from, say, mid July to the end of August may prove informative.

Such effects are not confined only to archaeological features as any disturbance of soil and bedrock can produce its own range of shadow, crop and soil differences that may be visible from the air. Most of these features can be identified with a high degree of confidence although there may remain some features of unknown origin that cannot be classified without specialist knowledge or input from field investigation.

PHOTO INTERPRETATION AND MAPPING

Photographs examined

The most immediately informative aerial photographs of archaeological subjects tend to be those resulting from observer-directed flights. This activity is usually undertaken by an experienced archaeological observer who will fly at seasons and times of day when optimum results are expected. Oblique photographs, taken using a hand-held camera, are the usual products of such investigation. Although oblique photographs are able to provide a very detailed view, they are biased in providing a record that is mainly of features noticed by the observer, understood, and thought to be of archaeological relevance. To be able to map accurately from these photographs it is necessary that they have been taken from a sufficient height to include surrounding control information.

Vertical photographs cover the whole of Britain and can provide scenes on a series of dates between (usually) 1946-7 and the present. Many of these vertical surveys were not flown at times of year that are best to record the archaeological features sought for this Assessment and may have been taken at inappropriate dates to record crop and soil responses that may be seen above sub-surface features. Vertical photographs are taken by a camera fixed inside an aircraft and with its exposures timed to take a series of overlapping views that can be examined stereoscopically. They are often of relatively small scale and their interpretation requires higher perceptive powers and a more cautious approach than that necessary for examination of obliques. Use of these small-scale images can also lead to errors of location and size when they are rectified or re-scaled to match a larger map scale.

Cover searches were obtained from the Cambridge University Collection of Aerial Photographs (CUCAP) and the National Monuments Record: Air Photographs (NMRAP), Swindon. Photographs included those resulting from observer-directed flights and routine vertical surveys. Images current on Google Earth and Flashearth at the time of this work (October 2008) were also examined.

Photographs identified and consulted are listed in the Appendix to this report.

Base maps

A base map at a scale of 1:10000 was provided by the client.

Study area

Photographs were examined in detail for an area extending about one modern field beyond the assessment area (see Figure 1).

Photo interpretation and mapping

A selection of photographs was ordered as laser copies from NMRC on the basis of the NGRs provided and the date and quality of the listed photographs (emboldened in Appendix 1). The most informative of those were scanned and transformed to match the calibrated 1:10000 base map data using the specialist program AirPhoto (Scollar 2002). Transformed files were set as

background layers in AutoCAD Map, where features were overdrawn, making reference to the original prints, using standard conventions. Layers from this final drawing have been used to prepare the figures in this report and have been supplied to the client in digital form.

Images in Google Earth were initially viewed and selected from within AirPhoto which automatically geo-references saved files (Scollar and Palmer 2008). Those from Flashearth were treated as 'normal' air photographs and transformed to match the base map after screen crops had been saved. Those of relevance were then imported into AutoCAD, interpreted and overdrawn.

Accuracy

AirPhoto computes values for mismatches of control points on the photograph and map. In all transformations prepared for this assessment the mean mismatches were less than ± 2.00 m, a value that is smaller (and therefore suspect) than the survey accuracy of the 1:10000 base map. Users should be aware of the published figures for the accuracy of large scale maps and thus the need to relate these mismatches to the Expected Accuracy of the Ordnance Survey maps from which control information was taken. Mapping originally undertaken using a 1:10000 base does not have the inherent accuracy to be used to locate features on the ground with precision.

COMMENTARY

Soils

The Soil Survey of England and Wales (SSEW 1983) shows the Notcutt's site to be located on chalky till (soil association 571o: MELFORD). Most of Tuddenham Road is on the same soil but may have a different deposit of chalky till (soil association 572q: ASHLEY) in its south-eastern part. [The scale of the Soil Survey map (1:250,000) is too small to be precise about the location of the boundary between the two soils.] Both soils are noted as overlying a clay base which, in general terms, may handicap the ability of crops to indicate variations in sub-surface depth, although cut features are visible on some photographs.

Figure 1 provides an overview of both development areas and shows the Study Areas around those along with the features identified on the photographs examined. The areas are discussed in more detail below:

Notcutt's (TM165462) (Figure 2)

Archaeological features

No features were identified other than those of Second World War origin. These comprise a heavy anti-aircraft battery with its attendant structures. An aerial photograph taken in 1944 shows the battery to be active and to have four near-square gun emplacements – earthen ramparts with a central gun (not mapped) – with a rectangular magazine to their south. The ground in the vicinity shows frequent use (it is bare and white) and the gun emplacements are approached by a metalled track from the west that links the battery, via an extant road/track,

with a series of huts northeast of the Development Area. A second metalled track runs east from the gun emplacements to a circular area (perhaps a turning point). South of this, shown as a green U-shaped structure may be the location of the gun-laying radar.

Temporary buildings have been placed against, or close to, extant field boundaries on the east, north and west sides of the battery and are parts of a normal functioning gun battery (Lowry 1995, 48-50; fig 19a). Southwest of the gun emplacements is an arrangement of what seem most likely to be tents – rows of bell tents with a larger (?mess tent) near their centre. Other tents have been identified by the north and east field boundaries. The date of the photograph and the evidence of activity suggest this gun battery to be one of the DIVER series, established to counter the V1 threat.

Extract from the photograph taken on 27 May 1944 showing the active heavy anti-aircraft battery at Notcutt's.

Source photograph: US/7GR/LOC/349: 4011

English Heritage USSAF (NMR) photograph



In July 1946 the gun emplacement earthworks remained extant and the hard-standing for the guns was visible. The two parts of the track (as mapped) could be seen to be continuous and passed between the emplacements. Huts remained standing along the west side of the field. No worn grass was evident and the site was probably abandoned.

Those features remained visible in January 1947 although the lighter-toned features – the gun platforms and the tracks – were much harder to distinguish. By February 1955 all emplacements, tracks and huts had been removed and the site had been levelled and the grass had regenerated leaving no visible traces of the wartime activity.

Non-archaeological features

A small group of 'former buildings' have been mapped close by the western field boundary. These seem likely to remain from a former farm – the house and its outbuildings. They were extant features in the 1940s photographs but had been levelled and grassed over by 1955.

Land use

Other than its use as the site of a gun battery, the field appears to have been used as a playing field throughout the span of aerial photographs (from 1944 to the early 2000s). The 1944 photographs show there to have been playing fields in the spaces not occupied by the gun battery so it may be suggested that pre-war use of the whole Development Area was also as playing fields. Other than the fact that grass requires conditions of extreme drought before it indicates sub-surface features, this may also mean that a certain amount of levelling may have occurred in the field with the possibility of damage (or cover, if the soil was built up) to buried archaeological contexts. In sum, land use in the Development Site may conceal archaeological features.

Tuddenham Road (TM179471) (Figure 3)

Archaeological features

No archaeological features have been identified within the area examined although it is clear that some crops are responding to sub-surface features.

The few objects that have been mapped as 'of unknown origin' have a suspect appearance in ripening cereal (ie they do not look as definite as 'normal' archaeological features nor do they make readily identifiable shapes). They are thought likely to be traces of recent farming activity but may be of archaeological origin. They were identified on one date only (27 June 1992).

Non-archaeological features

Most of the features mapped as 'former field boundaries' were extant boundaries (hedges) in the 1940s and 50s. Some boundaries had been removed by 1966 and almost all by the 1990s.

The closer-spaced features in the southern part of the Development Area were best visible in the Microsoft layer of Flashearth (probably photographs taken in the 2000s) and may indicate a system of field drains.

Land use

All fields in the Development Area have been in arable use on all dates of photography.

REFERENCES

- Bewley, R. H., 1994. Prehistoric Settlements. Batsford/English Heritage, London.
- Lowry, B. (ed), 1995. 20th Century Defences in Britain: an introductory guide. Practical Handbooks in Archaeology **12**. CBA, York.
- Scollar, I., 2002. Making things look vertical, in Bewley, R.H. and Rączkowski, W., (ed). *Aerial archaeology: developing future practice*. NATO Science Series, Vol **337**, 166-172.
- Scollar, I. and Palmer, R., 2008. Using Google Earth Imagery. AARGnews 37, 15-21.
- SSEW, 1983. Soils of England and Wales: sheet 4: Eastern England (1:250,000). Soil Survey of England and Wales, Harpenden.

APPENDIX

Aerial photographs examined

Source: Cambridge University Collection of Aerial Photographs (searched 8 October 2008)

No photographs of this area

Source: National Monuments Record: Air Photographs (cover search 32310) [emboldened photographs ordered and examined as laser copies]

Specialist collection

TM1646/1/196-197 19 July 1979TM1747/1/192-193
19 July 1979

Vertical collection

Sortie number	Library number	Camera position	Frame number	Held	Centre point	Date	Sortie quality	Scale 1:
RAF/106G/UK/1365	336	V	5018	P	TM 180 469	03 APR 1946	Α	9800
RAF/106G/UK/1365	336	V	5019	Р	TM 174 469	03 APR 1946	Α	9800
RAF/106G/UK/1365	336	V	5020	Р	TM 167 469	03 APR 1946	Α	9800
RAF/106G/UK/1635	423	FS	2341	Р	TM 179 471	09 JUL 1946	AC	10000
RAF/106G/UK/1635	423	FS	2342	Р	TM 173 471	09 JUL 1946	AC	10000
RAF/106G/UK/1635	423	FS	2343	Р	TM 168 471	09 JUL 1946	AC	10000
RAF/CPE/UK/1937	566	RS	4231	Р	TM 179 461	18 JAN 1947	Α	10000
RAF/CPE/UK/1937	566	RS	4232	Р	TM 173 462	18 JAN 1947	Α	10000
RAF/CPE/UK/1937	566	RS	4233	Р	TM 168 462	18 JAN 1947	Α	10000
RAF/CPE/UK/2302	708	V	5089	Р	TM 181 465	10 SEP 1947	Α	4800
RAF/CPE/UK/2302	708	V	5090	Р	TM 179 465	10 SEP 1947	Α	4800
RAF/CPE/UK/2302	708	V	5091	Р	TM 176 465	10 SEP 1947	Α	4800
RAF/CPE/UK/2302	708	V	5092	Р	TM 174 465	10 SEP 1947	Α	4800
RAF/CPE/UK/2302	708	V	5093	Р	TM 171 465	10 SEP 1947	Α	4800
RAF/CPE/UK/2302	708	V	5094	Р	TM 169 465	10 SEP 1947	Α	4800
RAF/CPE/UK/2302	708	V	5095	Р	TM 166 465	10 SEP 1947	Α	4800
RAF/CPE/UK/2302	708	V	5096	Р	TM 164 465	10 SEP 1947	Α	4800
RAF/CPE/UK/2340	727	V	5102	Р	TM 164 456	01 OCT 1947	Α	4800
RAF/CPE/UK/2340	727	V	5103	Р	TM 168 457	01 OCT 1947	Α	4800
RAF/CPE/UK/2340	727	V	5104	Р	TM 171 457	01 OCT 1947	Α	4800
RAF/CPE/UK/2340	727	V	5105	Р	TM 175 458	01 OCT 1947	Α	4800
RAF/CPE/UK/2340	727	V	5106	Р	TM 178 458	01 OCT 1947	Α	4800
RAF/CPE/UK/2340	727	V	5107	Р	TM 182 459	01 OCT 1947	Α	4800
RAF/CPE/UK/2340	727	V	5114	Р	TM 172 461	01 OCT 1947	Α	4800
RAF/CPE/UK/2340	727	V	5115	Р	TM 176 461	01 OCT 1947	Α	4800

RAF/CPE/UK/2340	727	V	5116	l P	TM 179 462	01 OCT 1947	Α	4800
RAF/CPE/UK/2340	727	V	5117	P	TM 183 462	01 OCT 1947	A	4800
RAF/CPE/UK/2446	761	V	5044	P	TM 182 463	09 FEB 1948	AC	4800
RAF/CPE/UK/2446	761	V	5045	P	TM 179 463	09 FEB 1948	AC	4800
RAF/CPE/UK/2446	761	V	5046	N	TM 177 464	09 FEB 1948	AC	4800
RAF/CPE/UK/2446	761	V	5047	N	TM 174 464	09 FEB 1948	AC	4800
RAF/CPE/UK/2446	761	V	5048	N	TM 172 464	09 FEB 1948	AC	4800
RAF/CPE/UK/2446	761	V	5049	N	TM 169 464	09 FEB 1948	AC	4800
RAF/CPE/UK/2446	761	V	5050	N	TM 167 464	09 FEB 1948	AC	4800
RAF/CPE/UK/2446	761	V	5051	N	TM 164 464	09 FEB 1948	AC	4800
RAF/CPE/UK/2446	761	V	5094	P	TM 182 470	09 FEB 1948	AC	4800
RAF/CPE/UK/2446	761	V	5095	P	TM 179 470	09 FEB 1948	AC	4800
RAF/CPE/UK/2446	761	V	5096	N .	TM 177 470	09 FEB 1948	AC	4800
RAF/CPE/UK/2446	761	V	5097	N	TM 177 470	09 FEB 1948	AC	4800
		V		N		1		
RAF/CPE/UK/2446	761	V	5098		TM 172 469	09 FEB 1948 09 FEB 1948	AC	4800
RAF/CPE/UK/2446	761		5099	N	TM 169 469		AC	4800
RAF/CPE/UK/2534	806	V1	5023	P	TM 183 456	25 MAR 1948	Α	5000
RAF/CPE/UK/2534	806	V1	5024	P	TM 179 456	25 MAR 1948	Α	5000
RAF/CPE/UK/2534	806	V1	5025	P	TM 176 456	25 MAR 1948	Α	5000
RAF/CPE/UK/2534	806	V1	5026	P	TM 172 456	25 MAR 1948	Α	5000
RAF/CPE/UK/2534	806	V1	5027	Р	TM 169 456	25 MAR 1948	Α	5000
RAF/CPE/UK/2534	806	V1	5028	P	TM 165 456	25 MAR 1948	Α	5000
RAF/CPE/UK/2534	806	V1	5029	P	TM 162 456	25 MAR 1948	Α	5000
RAF/82/1088	1620	F21	43	P	TM 178 473	17 FEB 1955	Α	8500
RAF/82/1088	1620	F21	44	Р	TM 172 473	17 FEB 1955	Α	8500
	1620 1620	F21	44 45	P P		17 FEB 1955 17 FEB 1955	A A	8500 8500
RAF/82/1088					TM 172 473			
RAF/82/1088 RAF/82/1088	1620	F21	45	Р	TM 172 473 TM 166 472	17 FEB 1955	Α	8500
RAF/82/1088 RAF/82/1088 RAF/82/1088	1620 1620	F21 F22	45 59	P	TM 172 473 TM 166 472 TM 177 460	17 FEB 1955 17 FEB 1955	A	8500 8500
RAF/82/1088 RAF/82/1088 RAF/82/1088 RAF/82/1088	1620 1620 1620	F21 F22 F22	45 59 60	Р Р	TM 172 473 TM 166 472 TM 177 460 TM 171 461	17 FEB 1955 17 FEB 1955 17 FEB 1955	A A	8500 8500 8500
RAF/82/1088 RAF/82/1088 RAF/82/1088 RAF/82/1088 RAF/58/5506	1620 1620 1620 1620	F21 F22 F22 F22	45 59 60 61	Р Р Р	TM 172 473 TM 166 472 TM 177 460 TM 171 461 TM 165 463	17 FEB 1955 17 FEB 1955 17 FEB 1955 17 FEB 1955	A A A	8500 8500 8500 8500
RAF/82/1088 RAF/82/1088 RAF/82/1088 RAF/82/1088 RAF/58/5506	1620 1620 1620 1620 2112	F21 F22 F22 F22 F22 F22	45 59 60 61 69	P P P P	TM 172 473 TM 166 472 TM 177 460 TM 171 461 TM 165 463 TM 166 476	17 FEB 1955 17 FEB 1955 17 FEB 1955 17 FEB 1955 04 OCT 1962	A A A A AC	8500 8500 8500 8500 11000
RAF/82/1088 RAF/82/1088 RAF/82/1088 RAF/82/1088 RAF/58/5506 RAF/58/5506 RAF/58/5506	1620 1620 1620 1620 2112 2112	F21 F22 F22 F22 F22 F22 F22	45 59 60 61 69 70	P P P P	TM 172 473 TM 166 472 TM 177 460 TM 171 461 TM 165 463 TM 166 476 TM 175 476	17 FEB 1955 17 FEB 1955 17 FEB 1955 17 FEB 1955 04 OCT 1962 04 OCT 1962	A A A A AC AC	8500 8500 8500 8500 11000
RAF/82/1088 RAF/82/1088 RAF/82/1088 RAF/82/1088 RAF/58/5506 RAF/58/5506 RAF/58/5506 RAF/58/5506	1620 1620 1620 1620 2112 2112 2112	F21 F22 F22 F22 F22 F22 F22 F22	45 59 60 61 69 70 97	P P P P	TM 172 473 TM 166 472 TM 177 460 TM 171 461 TM 165 463 TM 166 476 TM 175 476 TM 176 457	17 FEB 1955 17 FEB 1955 17 FEB 1955 17 FEB 1955 04 OCT 1962 04 OCT 1962 04 OCT 1962	A A A AC AC AC	8500 8500 8500 8500 11000 11000
RAF/82/1088 RAF/82/1088 RAF/82/1088 RAF/58/5506 RAF/58/5506 RAF/58/5506 RAF/58/5506 RAF/58/5506 RAF/58/5506	1620 1620 1620 1620 2112 2112 2112 2112	F21 F22 F22 F22 F22 F22 F22 F22 F22 F22	45 59 60 61 69 70 97 98	P P P P P	TM 172 473 TM 166 472 TM 177 460 TM 171 461 TM 165 463 TM 166 476 TM 175 476 TM 176 457 TM 168 456	17 FEB 1955 17 FEB 1955 17 FEB 1955 17 FEB 1955 04 OCT 1962 04 OCT 1962 04 OCT 1962 04 OCT 1962	A A A AC AC AC	8500 8500 8500 8500 11000 11000 11000
RAF/82/1088 RAF/82/1088 RAF/82/1088 RAF/82/1088 RAF/58/5506 RAF/58/5506 RAF/58/5506 RAF/58/5506 RAF/58/5506 RAF/58/5506 RAF/543/1879	1620 1620 1620 1620 2112 2112 2112 2112	F21 F22 F22 F22 F22 F22 F22 F22 F22 F22	45 59 60 61 69 70 97 98 82	P P P P P P N	TM 172 473 TM 166 472 TM 177 460 TM 171 461 TM 165 463 TM 166 476 TM 175 476 TM 176 457 TM 168 456 TM 179 472	17 FEB 1955 17 FEB 1955 17 FEB 1955 17 FEB 1955 04 OCT 1962 04 OCT 1962 04 OCT 1962 04 OCT 1962 25 SEP 1962	A A A A A A A A A A A C A A C A A C A A C A A C A B	8500 8500 8500 8500 11000 11000 11000 10000
RAF/82/1088 RAF/82/1088 RAF/82/1088 RAF/58/5506 RAF/58/5506 RAF/58/5506 RAF/58/5506 RAF/58/5506 RAF/543/1879 RAF/543/1879	1620 1620 1620 1620 2112 2112 2112 2112	F21 F22 F22 F22 F22 F22 F22 F22 F22 F21 F21	45 59 60 61 69 70 97 98 82 83	P P P P P R N N	TM 172 473 TM 166 472 TM 177 460 TM 171 461 TM 165 463 TM 166 476 TM 175 476 TM 176 457 TM 168 456 TM 179 472 TM 171 472	17 FEB 1955 17 FEB 1955 17 FEB 1955 17 FEB 1955 04 OCT 1962 04 OCT 1962 04 OCT 1962 04 OCT 1962 25 SEP 1962 25 SEP 1962	A A A A A A C A C A C A C A C A C A C A	8500 8500 8500 8500 11000 11000 11000 10000
RAF/82/1088 RAF/82/1088 RAF/82/1088 RAF/58/5506 RAF/58/5506 RAF/58/5506 RAF/58/5506 RAF/543/1879 RAF/543/1879 RAF/543/1879	1620 1620 1620 1620 2112 2112 2112 2112	F21 F22 F22 F22 F22 F22 F22 F22 F21 F21	45 59 60 61 69 70 97 98 82 83 84	P P P P P P N N N	TM 172 473 TM 166 472 TM 177 460 TM 171 461 TM 165 463 TM 166 476 TM 175 476 TM 176 457 TM 168 456 TM 179 472 TM 171 472 TM 164 473	17 FEB 1955 17 FEB 1955 17 FEB 1955 17 FEB 1955 04 OCT 1962 04 OCT 1962 04 OCT 1962 04 OCT 1962 25 SEP 1962 25 SEP 1962 25 SEP 1962	A A A A AC AC AC AC AC AB AB AB	8500 8500 8500 11000 11000 11000 10000 10000
RAF/82/1088 RAF/82/1088 RAF/82/1088 RAF/82/1088 RAF/58/5506 RAF/58/5506 RAF/58/5506 RAF/58/5506 RAF/543/1879 RAF/543/1879 RAF/543/1879 RAF/543/1879	1620 1620 1620 1620 2112 2112 2112 2112	F21 F22 F22 F22 F22 F22 F22 F21 F21 F21	45 59 60 61 69 70 97 98 82 83 84 114	P P P P P P N N N N	TM 172 473 TM 166 472 TM 177 460 TM 171 461 TM 165 463 TM 166 476 TM 175 476 TM 176 457 TM 168 456 TM 179 472 TM 171 472 TM 164 473 TM 166 454	17 FEB 1955 17 FEB 1955 17 FEB 1955 17 FEB 1955 04 OCT 1962 04 OCT 1962 04 OCT 1962 04 OCT 1962 25 SEP 1962 25 SEP 1962 25 SEP 1962 25 SEP 1962	A A A A A A A A A A A A A A A A A A A	8500 8500 8500 8500 11000 11000 11000 10000 10000 10000
RAF/82/1088 RAF/82/1088 RAF/82/1088 RAF/82/1088 RAF/58/5506 RAF/58/5506 RAF/58/5506 RAF/58/5506 RAF/543/1879 RAF/543/1879 RAF/543/1879 RAF/543/1879 RAF/543/1879	1620 1620 1620 1620 2112 2112 2112 2112 2113 2113 2113 2113	F21 F22 F22 F22 F22 F22 F22 F21 F21 F21	45 59 60 61 69 70 97 98 82 83 84 114 115	P P P P P P N N N N	TM 172 473 TM 166 472 TM 177 460 TM 171 461 TM 165 463 TM 166 476 TM 175 476 TM 176 457 TM 168 456 TM 179 472 TM 171 472 TM 164 473 TM 166 454 TM 173 454	17 FEB 1955 17 FEB 1955 17 FEB 1955 17 FEB 1955 04 OCT 1962 04 OCT 1962 04 OCT 1962 04 OCT 1962 25 SEP 1962 25 SEP 1962 25 SEP 1962 25 SEP 1962 25 SEP 1962 25 SEP 1962	A A A A A A A A A A A A A A A A A A A	8500 8500 8500 8500 11000 11000 11000 10000 10000 10000 10000
RAF/82/1088 RAF/82/1088 RAF/82/1088 RAF/82/1088 RAF/58/5506 RAF/58/5506 RAF/58/5506 RAF/543/1879 RAF/543/1879 RAF/543/1879 RAF/543/1879 RAF/543/1879 RAF/543/1879 RAF/543/1879 RAF/543/1879 RAF/543/1879	1620 1620 1620 1620 2112 2112 2112 2112 2113 2113 2113 2113 2113	F21 F22 F22 F22 F22 F22 F22 F21 F21 F21	45 59 60 61 69 70 97 98 82 83 84 114 115 116	P P P P P P N N N N N N	TM 172 473 TM 166 472 TM 177 460 TM 171 461 TM 165 463 TM 166 476 TM 175 476 TM 176 457 TM 168 456 TM 179 472 TM 171 472 TM 164 473 TM 166 454 TM 173 454 TM 181 454	17 FEB 1955 17 FEB 1955 17 FEB 1955 17 FEB 1955 04 OCT 1962 04 OCT 1962 04 OCT 1962 04 OCT 1962 25 SEP 1962 27 SEP 1962	A A A A A A A A A A A A A A A A A A A	8500 8500 8500 8500 11000 11000 11000 10000 10000 10000 10000
RAF/82/1088 RAF/82/1088 RAF/82/1088 RAF/82/1088 RAF/58/5506 RAF/58/5506 RAF/58/5506 RAF/58/5506 RAF/543/1879 RAF/543/1879 RAF/543/1879 RAF/543/1879 RAF/543/1879 RAF/543/1879 RAF/543/1879 RAF/543/1883 RAF/543/1883	1620 1620 1620 1620 2112 2112 2112 2112 2113 2113 2113 2113 2113 2113 2116 2116	F21 F22 F22 F22 F22 F22 F22 F21 F21 F21	45 59 60 61 69 70 97 98 82 83 84 114 115 116 251 252	P P P P P P N N N N N N N N	TM 172 473 TM 166 472 TM 177 460 TM 171 461 TM 165 463 TM 166 476 TM 175 476 TM 176 457 TM 168 456 TM 179 472 TM 171 472 TM 164 473 TM 166 454 TM 173 454 TM 170 479 TM 177 479	17 FEB 1955 04 OCT 1962 04 OCT 1962 04 OCT 1962 25 SEP 1962 27 SEP 1962 27 SEP 1962	A A A A A A A A A A A A A A A A A A A	8500 8500 8500 8500 11000 11000 11000 10000 10000 10000 10000 12000 12000
RAF/82/1088 RAF/82/1088 RAF/82/1088 RAF/82/1088 RAF/58/5506 RAF/58/5506 RAF/58/5506 RAF/543/1879 RAF/543/1879 RAF/543/1879 RAF/543/1879 RAF/543/1879 RAF/543/1879 RAF/543/1883 RAF/543/1883 RAF/543/1883	1620 1620 1620 1620 2112 2112 2112 2113 2113 2113 2113 2113 2113 2116 2116 2116	F21 F22 F22 F22 F22 F22 F22 F21 F21 F21	45 59 60 61 69 70 97 98 82 83 84 114 115 116 251 252 251	P P P P P P N N N N N N N N N	TM 172 473 TM 166 472 TM 177 460 TM 171 461 TM 165 463 TM 166 476 TM 175 476 TM 176 457 TM 168 456 TM 179 472 TM 171 472 TM 164 473 TM 166 454 TM 173 454 TM 170 479 TM 177 479 TM 169 463	17 FEB 1955 17 FEB 1955 17 FEB 1955 17 FEB 1955 04 OCT 1962 04 OCT 1962 04 OCT 1962 04 OCT 1962 25 SEP 1962 27 SEP 1962 27 SEP 1962 27 SEP 1962 27 SEP 1962	A A A A A A A A A A A A A A A A A A A	8500 8500 8500 8500 11000 11000 11000 10000 10000 10000 10000 12000 12000 12000
RAF/82/1088 RAF/82/1088 RAF/82/1088 RAF/82/1088 RAF/82/1088 RAF/58/5506 RAF/58/5506 RAF/58/5506 RAF/58/5506 RAF/543/1879 RAF/543/1879 RAF/543/1879 RAF/543/1879 RAF/543/1879 RAF/543/1883 RAF/543/1883 RAF/543/1883 RAF/543/1883 RAF/543/1883 RAF/543/1883	1620 1620 1620 1620 2112 2112 2112 2112 2113 2113 2113 2113 2113 2116 2116 2116 2116	F21 F22 F22 F22 F22 F22 F22 F21 F21 F21	45 59 60 61 69 70 97 98 82 83 84 114 115 116 251 252 251 252	P P P P P P N N N N N N N N N N N N N N	TM 172 473 TM 166 472 TM 177 460 TM 171 461 TM 165 463 TM 166 476 TM 175 476 TM 176 457 TM 168 456 TM 179 472 TM 164 473 TM 166 454 TM 173 454 TM 170 479 TM 177 479 TM 169 463 TM 177 463	17 FEB 1955 17 FEB 1955 17 FEB 1955 17 FEB 1955 04 OCT 1962 04 OCT 1962 04 OCT 1962 04 OCT 1962 25 SEP 1962 27 SEP 1962	A A A A A A A A A A A A A A A A A A A	8500 8500 8500 8500 11000 11000 11000 10000 10000 10000 10000 12000 12000 12000
RAF/82/1088 RAF/82/1088 RAF/82/1088 RAF/82/1088 RAF/58/5506 RAF/58/5506 RAF/58/5506 RAF/543/1879 RAF/543/1879 RAF/543/1879 RAF/543/1879 RAF/543/1879 RAF/543/1879 RAF/543/1879 RAF/543/1883 RAF/543/1883 RAF/543/1883	1620 1620 1620 1620 2112 2112 2112 2113 2113 2113 2113 2113 2113 2116 2116 2116	F21 F22 F22 F22 F22 F22 F22 F21 F21 F21	45 59 60 61 69 70 97 98 82 83 84 114 115 116 251 252 251	P P P P P P N N N N N N N N N	TM 172 473 TM 166 472 TM 177 460 TM 171 461 TM 165 463 TM 166 476 TM 175 476 TM 176 457 TM 168 456 TM 179 472 TM 171 472 TM 164 473 TM 166 454 TM 173 454 TM 170 479 TM 177 479 TM 169 463	17 FEB 1955 17 FEB 1955 17 FEB 1955 17 FEB 1955 04 OCT 1962 04 OCT 1962 04 OCT 1962 04 OCT 1962 25 SEP 1962 27 SEP 1962 27 SEP 1962 27 SEP 1962 27 SEP 1962	A A A A A A A A A A A A A A A A A A A	8500 8500 8500 8500 11000 11000 11000 10000 10000 10000 10000 12000 12000 12000

RAF/58/80	2977	V	5247	P	TM 183 476	28 JUL 1948	Α	7500
RAF/58/80	2977	V	5270	Р	TM 176 476	28 JUL 1948	Α	7500
RAF/58/80	2977	V	5271	Р	TM 181 471	28 JUL 1948	Α	7500
RAF/58/80	2977	V	5272	Р	TM 186 467	28 JUL 1948	Α	7500
RAF/58/113	2987	V	5336	Р	TM 181 465	30 AUG 1948	В	7680
RAF/58/113	2987	V	5337	Р	TM 175 470	30 AUG 1948	В	7680
RAF/58/113	2987	V	5338	Р	TM 170 475	30 AUG 1948	В	7680
RAF/58/113	2987	V	5360	Р	TM 164 473	30 AUG 1948	В	7680
RAF/58/113	2987	V	5361	Р	TM 170 469	30 AUG 1948	В	7680
RAF/58/113	2987	V	5362	Р	TM 175 464	30 AUG 1948	В	7680
RAF/58/115	2991	V	5026	Р	TM 168 460	30 AUG 1948	Α	7700
RAF/58/115	2991	V	5027	Р	TM 162 465	30 AUG 1948	Α	7700
RAF/58/115	2991	V	5054	Р	TM 158 460	30 AUG 1948	Α	7700
RAF/58/115	2991	V	5055	Р	TM 163 456	30 AUG 1948	Α	7700
MAL/65094	4164	V	97	Р	TM 170 460	03 NOV 1965	Α	12000
MAL/65094	4164	V	98	Р	TM 181 460	03 NOV 1965	Α	12000
MAL/65094	4164	V	147	Р	TM 173 481	03 NOV 1965	Α	12000
MAL/65094	4164	V	148	Р	TM 163 481	03 NOV 1965	Α	12000
US/7GR/LOC349	8214	RP	3011	Р	TM 174 469	27 MAY 1944	Α	6500
US/7GR/LOC349	8214	RP	3012	Р	TM 179 458	27 MAY 1944	Α	6500
US/7GR/LOC349	8214	RS	4011	Р	TM 167 465	27 MAY 1944	Α	6500
US/7GR/LOC349	8214	RS	4012	Р	TM 173 454	27 MAY 1944	Α	6500
RAF/HLA/686	8588A	RS	4174	Р	TM 156 464	02 MAR 1944	AC	10500
RAF/HLA/686	8588A	RS	4175	Р	TM 157 470	02 MAR 1944	AC	10500
OS/66189	11657	V	202	Р	TM 166 477	23 JUL 1966	Α	7500
OS/66189	11657	V	203	Р	TM 173 476	23 JUL 1966	Α	7500
OS/66189	11657	V	204	Р	TM 180 476	23 JUL 1966	Α	7500
OS/89045	13415	V	185	Р	TM 182 460	18 MAR 1989	Α	5200
OS/89045	13415	V	186	Р	TM 178 460	18 MAR 1989	Α	5200
OS/89045	13415	V	187	Р	TM 174 461	18 MAR 1989	Α	5200
OS/89045	13415	V	188	Р	TM 169 461	18 MAR 1989	Α	5200
OS/89045	13415	V	189	P	TM 165 461	18 MAR 1989	Α	5200
OS/89045	13415	V	190	P	TM 161 461	18 MAR 1989	A	5200
OS/89045	13415	V	211	Р	TM 164 469	18 MAR 1989	Α	5200
OS/89045	13415	V	212	P	TM 169 469	18 MAR 1989	Α	5200
OS/89045	13415	V	213	P	TM 173 469	18 MAR 1989	A	5200
OS/89045	13415	V	214	P	TM 177 469	18 MAR 1989	A	5200
OS/89045	13415	V	215	P	TM 182 469	18 MAR 1989	A	5200
OS/89045	13415	V	220	P	TM 171 477	18 MAR 1989	A	5200
OS/89045	13415	V	221	P	TM 166 477	18 MAR 1989	A	5200
OS/89045	13415	V	222	P	TM 160 477	18 MAR 1989	A	5200
OS/92363	14137	V	32	P	TM 162 477	27 JUN 1992	A	5100
OS/92363	14137	V	33	P	TM 166 477	27 JUN 1992 27 JUN 1992	A	5100
OS/92363	14137	V	34	Р	TM 100 477	27 JUN 1992 27 JUN 1992	A	5100
OS/92363	14137	V	42	P	TM 182 470	27 JUN 1992 27 JUN 1992	A	5100
	14131	_ ¥	74	F	1 W 104 4/U	41 JUN 1334	_ ^	1 3100

OS/92363	14137	V	44	P	TM 174 469	27 JUN 1992	Α	5100
OS/92363	14137	V	45	Р	TM 170 469	27 JUN 1992	Α	5100
OS/92363	14137	V	46	Р	TM 166 470	27 JUN 1992	Α	5100
OS/92363	14137	V	47	Р	TM 161 470	27 JUN 1992	Α	5100
OS/92363	14137	V	131	Р	TM 180 462	27 JUN 1992	Α	5100
OS/92363	14137	V	132	Р	TM 176 462	27 JUN 1992	Α	5100
OS/92363	14137	V	133	Р	TM 172 462	27 JUN 1992	Α	5100
OS/92363	14137	V	134	Р	TM 168 462	27 JUN 1992	Α	5100
OS/92363	14137	V	135	Р	TM 164 462	27 JUN 1992	Α	5100
OS/92364	14138	V	54	Р	TM 169 481	27 JUN 1992	Α	7600
OS/92364	14138	V	55	Р	TM 175 481	27 JUN 1992	Α	7600
OS/92364	14138	V	56	Р	TM 181 481	27 JUN 1992	Α	7600
OS/95160	14844	V	89	N	TM 165 457	19 JUN 1995	Α	7700
OS/95160	14844	V	90	N	TM 172 457	19 JUN 1995	Α	7700
OS/95160	14844	V	91	N	TM 179 457	19 JUN 1995	Α	7700
OS/95160	14844	V	98	Р	TM 178 469	19 JUN 1995	Α	7700
OS/95160	14844	V	99	Р	TM 171 469	19 JUN 1995	Α	7700
OS/95160	14844	V	100	Р	TM 164 469	19 JUN 1995	Α	7700
OS/95160	14844	V	149	Р	TM 165 481	19 JUN 1995	Α	7700
OS/95160	14844	V	150	Р	TM 172 481	19 JUN 1995	Α	7700
OS/95160	14844	V	151	Р	TM 178 481	19 JUN 1995	Α	7700
OS/63003	20587	V	5	Р	TM 183 455	17 MAR 1963	Α	8500
OS/63003	20587	V	6	Р	TM 191 461	17 MAR 1963	Α	8500
MAL/61474	21275	V	91209	Р	TM 172 478	12 MAY 1961	Α	10500
MAL/61474	21275	V	91210	Р	TM 164 474	12 MAY 1961	Α	10500
MAL/61465	21285	V	89614	Р	TM 173 479	03 MAR 1961	Α	10500
MAL/61465	21285	V	89615	Р	TM 167 476	03 MAR 1961	Α	10500
MAL/61465	21285	V	89616	Р	TM 161 474	03 MAR 1961	Α	10500

Most informative photographs

Notcutt's:

US/7GR/LOC/349: 4011

Tuddenham Road:

RAF/82/1088/F21: 0043

OS/92363: 43

Microsoft layer in www.flashearth.com

TERMS AND CONDITIONS

Air Photo Services have produced this assessment for their clients, L-P: Archaeology, subject to the following conditions:

Air Photo Services will be answerable only for those transcriptions, plans, documentary records and written reports that it submits to the clients, and not for the accuracy of any edited or re-drawn versions of that material that may subsequently be produced by the clients or any other of their agents.

That transcriptions, documentation, and textual reports presented within this assessment report shall be explicitly identified as the work of Air Photo Services.

Air Photo Services has consulted only those aerial photographs specified. It cannot guarantee that further aerial photographs of archaeological significance do not exist in collections that were not examined.

Due to the nature of aerial photographic evidence, Air Photo Services cannot guarantee that there may not be further archaeological features found during ground survey which are not visible on aerial photographs or that apparently 'blank' areas will not contain masked archaeological evidence.

We suggest that if a period of 6 months or more elapses between compilation of this report and field evaluation new searches are made in appropriate photo libraries. Examination of any newly acquired photographs is recommended.

That the original working documents (being interpretation overlays, control information, and digital data files) will remain the property of Air Photo Services and be securely retained by it for a period of three years from the completion date of this assessment after which only the digital files may be retained.

It is requested that a copy of this report be lodged with the relevant Sites and Monuments Record within six months of the completion of the archaeological evaluation.

12

Copyright of this report and the illustrations within and relevant to it is held by Air Photo Services © 2008 who reserve the right to use or publish any material resulting from this assessment.

Original photo interpretation based on photographs from NMRC. Figure 1. Location and Study Areas Sports Ground Playing Field Club G Old Glebe House 9° P ing Field Study Areas are outlined by blue polygons. 47

Notcutt's and Tuddenham Road, Ipswich, Suffolk: Figure 1. Location and Study Areas

Air Photo Services Cambridge October 2008 Drawing: 0821map.dwg

Background map © Crown copyright. All rights reserved. Licence number AL100028850

See Figures 2 and 3 for emlarged maps and full

Notcutt's and Tuddenham Road, Ipswich, Suffolk: Figure 2. Detail at Notcutt's



Military earthworks
Military track
Military buildings
Possible military features
Former buildings
Recent field boundary
Hand-dug quarry

Original photo interpretation at 1:2500 level based on photographs from NMRC and mapped using 1:10,000 control information.

Air Photo Services Cambridge October 2008 Drawing: 0821map.dwg

Background map $\ \ \$ Crown copyright. All rights reserved. Licence number AL100028850

/48m Westerfield House Farm Original photo interpretation at 1:2500 level based on Boro Const Bdy Stone 51m Sports Ground Half-way Cottages 749m Club Path 44m Co Const & CP Bdy Redhouse Pit (dis) 34m Old Glebe House 38m Mill Farm H 17 47 ΙM

Notcutt's and Tuddenham Road, Ipswich, Suffolk: Figure 3. Tuddenham Road Study Area

photographs from NMRC and mapped using 1:10,000 control information.

Air Photo Services Cambridge
October 2008
Drawing: 0821map.dwg

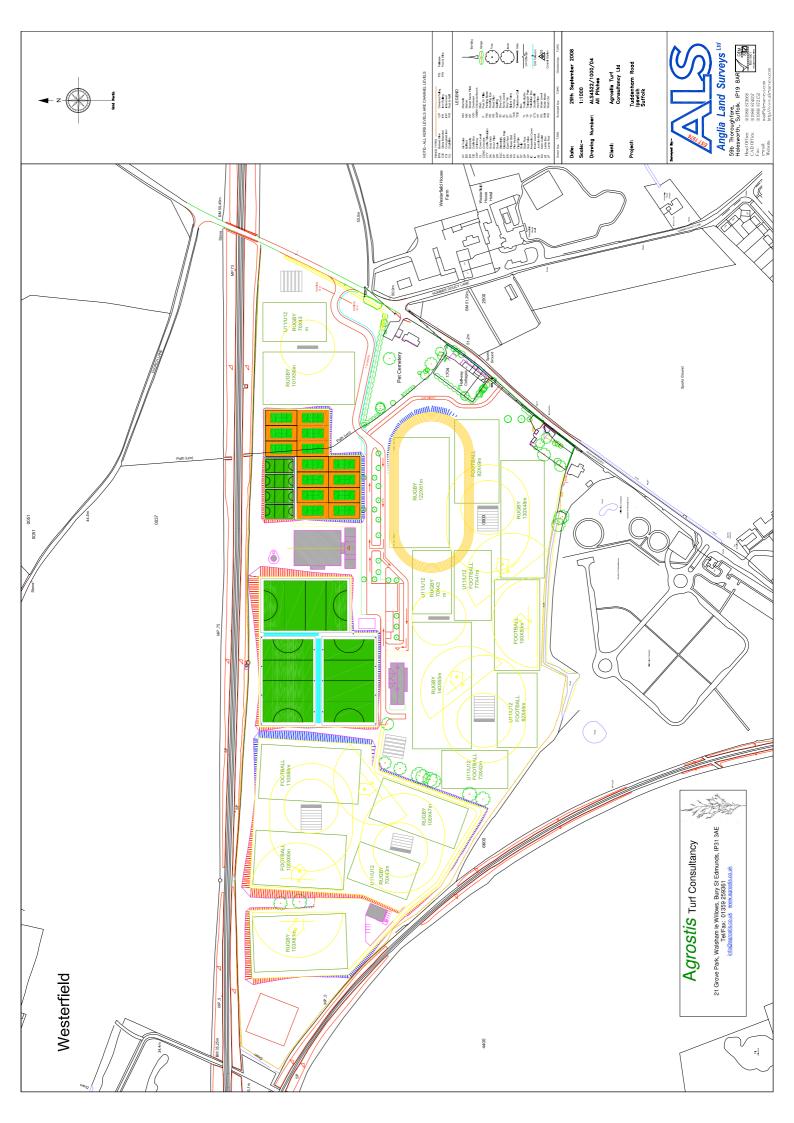
Former field boundary Features of unknown origin

Study Area

Background map © Crown copyright. All rights reserved. Licence number AL100028850

PROPOSED DEVELOPMENT PLAN

APPENDIX 6



OASIS SUMMARY

APPENDIX 7

OASIS DATA COLLECTION FORM: England

List of Projects | Search Projects | New project | Change your details | HER coverage | Change country | Log out

Printable version

OASIS ID: lparchae1-50969

Project details

Project name Land West of Tuddenham Road

A desk based assessment was undertaken on land west of Tuddenham Short Road ahead of a planning application for new school playing fields on description of

the site. Evidence for Roman, Saxon and Medieval activity was the project

identified on the site and within its immediate vicinity.

Start: 03-10-2008 End: 29-10-2008 Project dates

Previous/future

Yes / Not known work

Type of project Desk based assessment

Current Land

Cultivated Land 4 - Character Undetermined use

Monument type PIT Medieval

Monument type DITCH Early Medieval

Significant

POT Early Medieval Finds

Significant

GIRDLE HANGER Early Medieval Finds

Significant

POT Roman **Finds**

Significant

BROOCH Roman Finds

Methods & 'Aerial Photography - interpretation', 'Documentary Search', 'Visual

techniques Inspection'

Development

type

Amenity area (e.g. public open space)

Direction from Local Planning Authority - PPG16 **Prompt**

Project location

Country England

SUFFOLK IPSWICH IPSWICH Land West of Tuddenham Road Site location

Study area 20.00 Hectares

TM 17888 47133 52.0790655340 1.180191519480 52 04 44 N 001 10

48 E Point

Height OD /

Site coordinates

Min: 38.00m Max: 50.00m Depth

Project creators

Name of L - P: Archaeology

Organisation Project brief

Local Authority Archaeologist and/or Planning Authority/advisory body

Project design

originator

L - P: Archaeology originator

Project director/

manager

Stuart Eve

Project

John Duffy supervisor

funding body

Type of sponsor/ The Landscape Partnership

Project archives

Physical Archive No

Exists?

Digital Archive

Suffolk County Council Archaeology Service recipient

Digital Contents 'other'

Digital Media

available

'GIS', 'Images raster / digital photography', 'Images vector', 'Text'

Paper Archive

recipient

Suffolk County Council Archaeology Service

Paper Contents 'other'

Paper Media

'Aerial

available

Photograph', 'Correspondence', 'Map', 'Photograph', 'Report', 'Unpublished

Text'

Project

bibliography 1

Grey literature (unpublished document/manuscript) Publication type

Archaeological Deskbased Assessment of Land West of Tuddenham

Title Road, Ipswich

Author(s)/Editor

(s)

Duffy, J.

Other

bibliographic

LP0789E-DBA-v1

details

Date 2008 Issuer or publisher L - P : Archaeology

Place of issue or

publication

Cambridge

Description A4 Spiral bound

Entered by John Duffy (john.duffy@lparchaeology.com)

Entered on 5 December 2008

OASIS:

Please e-mail English Heritage for OASIS help and advice

© ADS 1996-2006 Created by Jo Gilham and Jen Mitcham, email Last modified Friday 3 February 2006

Cite only: /dl/export/home/web/oasis/form/print.cfm for this page