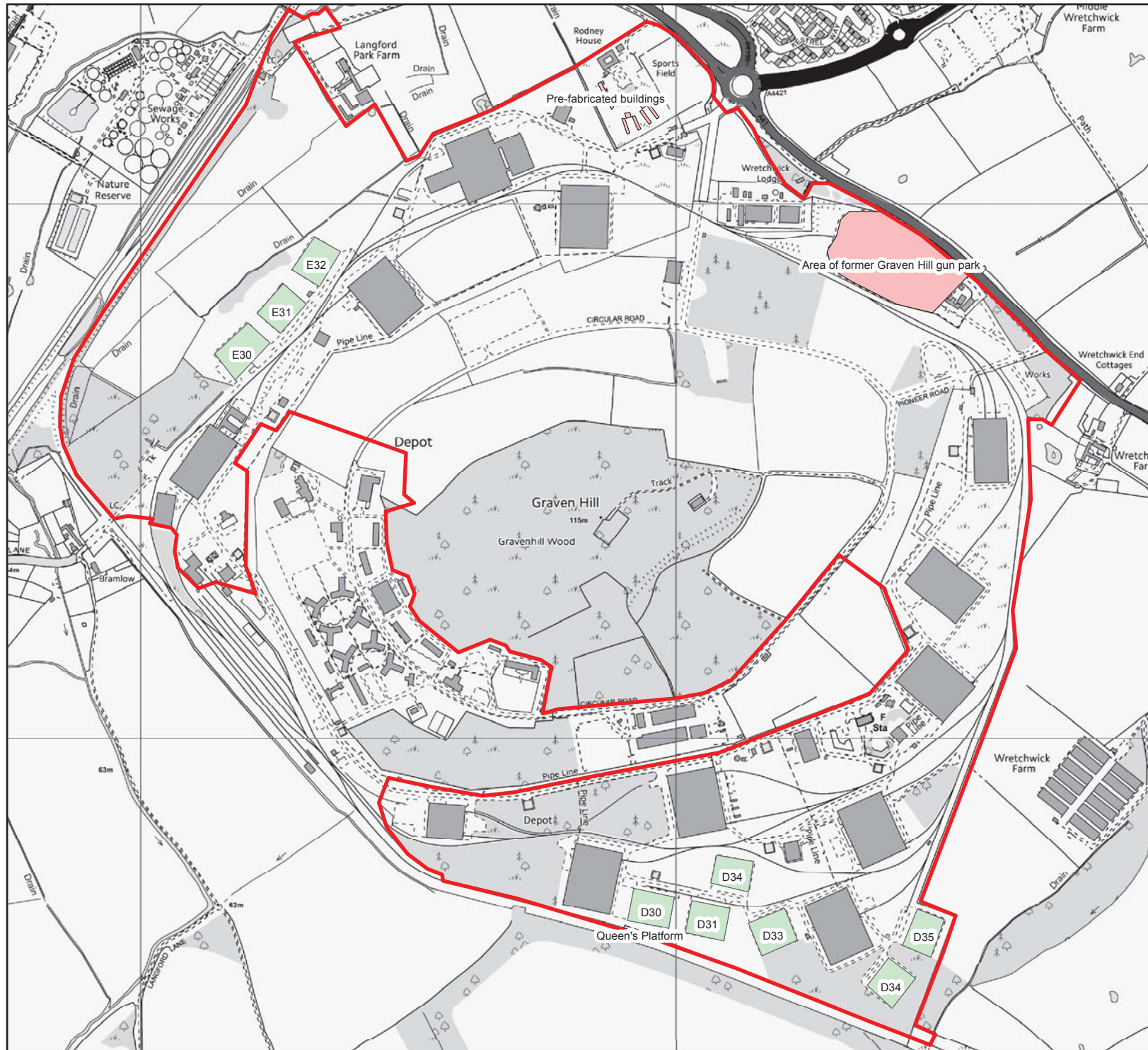


Site Boundary

Location of General Site Photograph

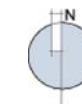
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Project Details	WIB13983-106: MOD Bicester
Figure Title	Drawing 6: Location of General Site Photographs
Figure Ref	WIB13983-106_GR_AR_6A
Date	July 2015
File Location	\\s-inc\swiel\projects\wib13983106\graphics\ar\issued figures



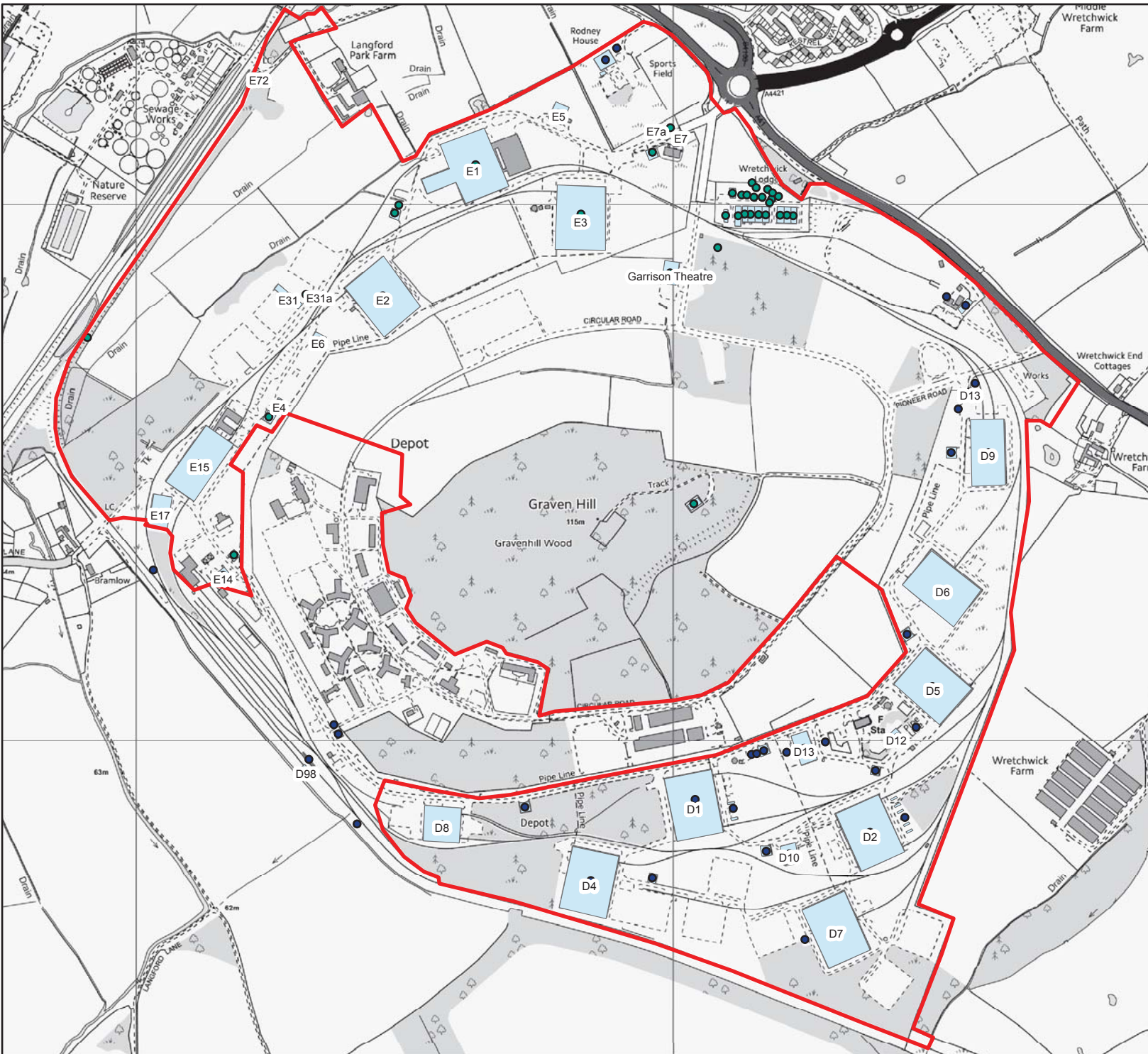
### Legend

- Site Boundary
- Former Romney Huts
- Demolished Features



Project Details	WIB 13983-106: MOD Bicester
Figure Title	Drawing 7: Site plan showing location of demolished features and buildings
Figure Ref Date	WIB13983-106_GR_AR_7A July 2015
File Location	\\s-incls\wiel\projects\wib13983106\graphics\ar\issued figures

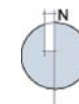




### Legend

- Site Boundary
- Site D Original Structures
- Site E Original Structures
- Original Structures

Original Structures are buildings and structures which date to the 1940s.



Project Details	WIB 13983-106: MOD Bicester
Figure Title	Drawing 8: Site plan highlighting original buildings and features in the Site
Figure Ref Date	WIB13983-106_GR_AR_8A July 2015
File Location	\\s-incls\wiel\projects\wib13983106\graphics\ar\issued figures





**Legend**

 Site Boundary



Project Details	WIB 13983-106: MOD Bicester
Figure Title	Drawing 9: Aerial Photograph 1945
Figure Ref	WIB13983-106_GR_AR_9A
Date	July 2015
File Location	\\s-Incs\wiel\projects\wib13983106\graphics\ar\issued figures
	<a href="http://www.watermangroup.com">www.watermangroup.com</a>

## **H. Written Scheme of Investigation**

### **Appendices**



## **Graven Hill, MOD Bicester, Oxfordshire**

### **Written Scheme of Investigation for Archaeological Building Recording**

December 2014

**Waterman Energy, Environment & Design Limited**

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# Graven Hill, MOD Bicester, Oxfordshire

## Written Scheme of Investigation for Archaeological Building Recording

**Client Name:**

**Document Reference:** EED13983-106\_S\_1\_1\_3\_TM

**Project Number:** EED13986-106

### Quality Assurance – Approval Status

This document has been prepared and checked in accordance with Waterman Group's IMS (BS EN ISO 9001: 2008, BS EN ISO 14001: 2004 and BS OHSAS 18001:2007)

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Issue	Date	Prepared by	Checked by	Approved by
First	November 2014	Tim Murphy Principal Consultant	Susana Parker Senior Heritage Consultant	Richard Stockwell Regional Director

### Comments

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#### Our Markets



Property & Buildings



Transport & Infrastructure



Energy & Utilities



Environment





## Disclaimer

This report has been prepared by Waterman Energy, Environment & Design Limited, with all reasonable skill, care and diligence within the terms of the Contract with the client, incorporation of our General Terms and Condition of Business and taking account of the resources devoted to us by agreement with the client.

We disclaim any responsibility to the client and others in respect of any matters outside the scope of the above.

This report is confidential to the client and we accept no responsibility of whatsoever nature to third parties to whom this report, or any part thereof, is made known. Any such party relies on the report at its own risk.

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## Appendices

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## 1. Introduction

### Project Background

- 1.1. Waterman Energy Environmental & Design Ltd has been commissioned by EC Harris, on behalf of Graven Hill Village Development Company, to provide a Written Scheme of Investigation (WSI) for a programme of archaeological building recording of structures at Graven Hill, MoD Bicester (herein referred to as the 'Site' or 'Study Area'). The Site is located 1.5 km to the south of the centre of Bicester with the northern site boundary formed by the A41 and the boundary to the west being the main (Oxford to Bicester) railway line. Relatively flat agricultural land is located to the south and the village of Ambrosden is located to the south-east. The Site is centred on National Grid Reference SP 58829 20334. The Site is outlined and identified in **Figure 1** in Appendix A.
- 1.2. A scheme of archaeological building recording is required to satisfy Conditions 69 and 70 on a planning application granted by Cherwell District Council (Application Number: 11/01494/OUT) which states:

Condition 69:  
*"No development shall take place on Graven Hill until the applicant, or their agents or successors in title, has secured the implementation of a programme of recording in accordance with a written scheme which has been submitted to and approved by the Local Planning Authority."*

*Reason: To secure the proper recording of buildings which are of national significance, forming part of the former Central Ordnance Depot, to comply with Government advice contained in the National Planning Policy Framework."*

Condition 70:  
*"No development shall be occupied Graven Hill until the programme of recording as set out in condition 69 has been completed and the provision made for publication and dissemination of the results and archive deposition has been secured."*

*Reason: To secure the proper recording of buildings which are of national significance, forming part of the former Central Ordnance Depot, to comply with Government advice contained in the National Planning Policy Framework."*
- 1.3. This WSI provides an outline programme and manner within which the scheme of archaeological building recording will be undertaken. This will include the outline methodology for carrying out an English Heritage 'Levels 1-3' historic building records as defined in *Understanding Historic Buildings: A Guide to Good Recording Practice (English Heritage, 2006)*. An overarching 'Level 1' record will be undertaken for all (military) buildings within the Site. This baseline survey will inform the specification for the more detailed 'Level 2-3' record which will be subject to further consultation with Cherwell District Council and English Heritage. This WSI has been prepared in accordance with best practice and will be provided to Cherwell District Council and English Heritage for consultation. The programme of archaeological building recording shall not commence until approval in writing has been received from Cherwell District Council. Further written approval from the council will also be sought for detailed 'Level 3' building recording specifications. The recording works will be undertaken by a Member of the Institute for Archaeologists (IfA) and it currently envisaged that Waterman will complete these works.



## 2. Aims

### Historic Building Record

- 2.1 The aim of this programme of recording is to provide a long-term sustainable record of the buildings within the Site prior to its redevelopment. This will secure the proper recording of buildings which are of national significance, forming part of the former Central Ordnance Depot, to comply with Government advice contained in the National Planning Policy Framework.
- 2.2 The scheme of building recording aims;
- Detailed documentary research of local and national archives as well as any consultation of any historical documentation held at the Site;
  - Provide an outline history of the buildings and the wider Site, this should include the identification of chronological building phases and uses;
  - A Level 1 record of all (military) buildings within the Site;
  - A Level 2 record of structures D2, D3, D7, D0, E1, E2, E5, E14, E15, the Garrison Theatre and the Ordnance Support Unit Complex;
  - A Level 3 record of the six air raid shelters adjacent to building D2; and
  - Provision of low-level oblique aerial photography of the Site by the English Heritage Aerial Photography Unit.

**Note:** The locations of individual buildings detailed above are noted on **Figure 2**.

### **3. Understanding the Asset**

#### **Site Overview and the Proposed Development**

- 3.1 The Site detailed in this WSI is known as MoD Bicester - Graven Hill. Graven Hill, together with 'C Site' (C Site is outside of the scope of this WSI) have been in use since the establishment of the Central Ordnance Depot in 1941. This was constructed in order to supply the needs of the army during World War Two. On-site accommodation was provided during this period in the form of Nissen huts, organised into self-contained camps, and partly used as a prisoner of war camp. The Site's significance is largely drawn from its operation in World War Two, which included being a key facility in supplying equipment for the D-Day Normandy landings. The Site continued to operate as a depot in the post-war period, although much of the on-site accommodation was removed.
- 3.2 Storage hanger (D2), six associated air raid shelters and the Bolero group of Romney and Iris huts (C30 and C31 respectively) were identified for assessment and designation. The Iris huts are located in C-Site and are not part of this WSI. The recommendation by English Heritage were that they should not be listed. There are no listed buildings within the Site.
- 3.3 Much of the Site has been disturbed by the twentieth century military use, however archaeological surveys have identified possible deposits likely to be associated with earlier occupation within the Site. The scope within this WSI pertains to the recording of the twentieth century structures associated with military use. A WSI considering below ground archaeology is outlined in a separate document.
- 3.4 Approximately two-thirds of the Site is 'brown-field' land, which has been previously developed. The third of the 'green-field' land is formed of Graven Hill Wood, which has been used for military training, although there are no demolition or development proposals for Graven Hill Wood.
- 3.5 The proposed development will result in the demolition of most, and possibly all, MOD buildings within the Site for the construction of a residential development with associated infrastructure and commercial uses.

## 4. Documentary Research

- 4.1 A programme of documentary research will be undertaken to provide an understanding of the Site's history and chronological development. Whilst earlier occupation of the Site may be referenced, the documentary research will likely focus on the twentieth century and military occupation of the Site.
- 4.2 An overview history of the site is provided in *Environmental Statement Volume 2: Main Report*, produced by Amec in September 2011, and *Technical Note: Redevelopment of MoD Bicester – Historic Environment* by Amec in October 2012. The information in these documents will be enhanced and supplemented with additional research and historical information.
- 4.3 Local and National archives will be consulted which will include, but not limited to:
- The National Archives, Kew;
  - Imperial War Museum Archive; and
  - Oxfordshire History Centre.
- 4.4 The aim of the documentary research is to provide:
- An understanding of the Site's twentieth century history;
  - An understanding of the Site's chronological development, including building phases; and
  - An understanding of historical uses of individual buildings.



## 5. Historic Building Recording Methodology

### Scope of Historic Building Recording

- 5.1 The following provides an outline methodology for the required scheme of building recording. This will also form the basis for Waterman, or a contractor to cost the necessary fieldwork and complete a detailed WSI to be agreed with Cherwell District Council and English Heritage.
- 5.2 The scope for the scheme of building recording will include Levels 1-3 as outline in English Heritage publication *Understanding Historic Buildings: A Guide to Good Recording Practice* (2006). The level of survey and the buildings which are included in each level are outlined further below.
- 5.3 A detailed history of the Site will be provided as part of the scheme of building recording. Although record Levels 1-3 require varying levels of historic background to structure, the main historical background (sourced from archival and documentary research) should consider all structures in consistent detail which is commensurate with Level 3. As such the levels of archival and documentary research will not be outlined separately below but should be considered to be the comprehensive level outlined in Section 4 of this WSI. This is to ensure that the whole site is understood and there is no significant dearth of information in the final output.
- 5.4 The names of buildings detailed below are noted on a plan in **Figure 2**, located in Appendix A.

### Level 1 Record

- 5.5 A Level 1 record will be made of all of the (military) buildings within the Site. This record will form the basis of the whole scheme and should be undertaken at the outset of the programme. This will provide a baseline gazetteer of the structures which can be used to confirm the scopes of the Level 3 surveys with particular attention drawn to the measured surveys (if any) which will be required as this is currently unknown.
- 5.6 The Level 1 record will provide a baseline of the (military) building stock within the site. This should be presented in an appropriate manner which for this Site is likely in the form of a gazetteer. A base map should be produced to accompany the record showing the location of all buildings and their relationship within the wider site.
- 5.7 The record for each building should include:
  - Building Name/Unique ID;
  - Building location and NGR;
  - Statutory and non-statutory designations;
  - The date of the record and names of the recorders;
  - Age (date/phase of construction);
  - Known history from research;
  - Type;
  - Form; and
  - Photograph(s). Exterior photography of each building will be required as a minimum.

## Level 2 Record

- 5.8 A Level 2 record will be undertaken pertaining to buildings D2, D3, D7, D0, E1, E2, E5, E14, E15, the Garrison Theatre and the Ordnance Support Unit Complex.
- 5.9 The Level 2 record will comprise:
- A general view or views of the buildings (in their wider setting or landscape);
  - The buildings' external appearance. Typically a series of oblique views will show all external elevations of the building, and give an overall impression of its size and shape. Where an individual elevation embodies complex historical information or a number of phases, views at right angles to the plane of the elevation may also be appropriate;
  - The overall appearance of the principal rooms and circulation areas;
  - Any external or internal detail, structural, functional or decorative which is relevant to the building's design, development or use and which does not show adequately on general views. When photographing details it can be helpful to include a clearly marked and suitably sized scale next to the subject and parallel to one edge of the photograph; and
  - Any dates or other inscriptions, any signage, makers' plates or graffiti which contribute to an understanding of the building or its fixtures or machinery, if not adequately captured by transcription. A contemporaneous transcription should be made whenever characters are difficult to interpret.
- 5.10 The written account will include:
- The buildings' location, as a NGR and in address form;
  - A note of any statutory and non-statutory designations;
  - A date of the record, the name(s) of the recorder(s) and, if an archive has been created, its location;
  - A summary of the buildings' form, function, date and sequence of development. The names of architects, builders, patrons and owners should be given if known;
  - An account of the buildings' overall form (structure, materials, layout) and their successive phases of development, together with evidence supporting this analysis; and
  - An account of the past and present uses of the buildings and their parts, with the evidence of these interpretations. An analysis of any circulation pattern or decorative, iconographic or liturgical scheme. An account of any fixtures, fittings, plant or machinery associated with the buildings, and their purposes.

### Level 3 Record

- 5.11 A Level 3 scheme of historic building recording will be undertaken of the six air raid shelters which are located adjacent to building D2, noted on **Figure 2** in Appendix A.
- 5.12 The scope set out below outlines the work required to meet the criteria of an English Heritage Level 3 survey. A Level 3 historic building record is considered appropriate to fully preserve the form and detail of the building by archive.
- 5.13 A Level 3 survey is described in the English Heritage guidance as follows:  
*“Level 3 is an analytical record, and will comprise an introductory description followed by a systematic account of the building’s origins, development and use. The record will include an account of the evidence on which the analysis has been based, allowing the validity of the record to be re-examined in detail. It will also include all drawn and photographic records that may be required to illustrate the building’s appearance and structure and to support an historical analysis.”*
- 5.14 The Level 3 record of the air raid shelters will include all elements of the Level 2 survey outlined above and also enhanced detail of the following:

#### Level 3: Site Investigation and Recording

- 5.15 Any existing floor plans and elevations will be utilised to guide on site observation and provide a location plan to record the location of photographic viewpoints. All aspects of the building will be recorded photographically and through annotation of existing floor plans/elevations.
- 5.16 Any information, pertaining to the air raid shelters, revealed through research will be detailed and highlighted, especially where this further informs the type of shelters and their use.

#### Level 3: External Record

- 5.17 All elevations of the building will be photographically recorded. Where necessary, detailed photographs will be taken of features of heritage or aesthetic merit. The external record will also detail general character features such as windows, doors and building fabric.

#### Level 3: Internal Record

- 5.18 Each interior space within all the raid shelters will be photographed. The locations of photographs will be noted on plans of the building for easy reference. General descriptions will be provided for each room/space. Character defining features will also be highlighted which can inform general phasing and understanding of use and construction.



## **Measured Survey**

- 5.19 The specification for measured survey will be subject to further consultation and a detailed WSI. This may be informed by the Level 1 survey. Whilst it is unlikely the Level 1 survey requires measured drawings, these may be required for the Level 2 and certainly for the Level 3.
- 5.20 An archive will be made of all sketches and measured drawings. Drawings will be illustrated to scale, typically 1:50. All drawings (located outside of the main body of the site report), shall be allocated drawing numbers and recorded in a drawing register which will be held in the site archive.

## **Photographic Record**

- 5.21 A high quality digital record will be made using a digital SLR camera. Photographs will be taken at 12 million pixel resolution and deposited as a JPEG file, as agreed with the Archaeological Database Service.
- 5.22 An appropriate flash and tripod will be used in poor lighting conditions within the building. A photographic scale of appropriate size will be included in detailed views where appropriate.
- 5.23 All photographic views will be recorded on site on copies of the 'as existing' floor/site plans (where available) of the building/site. These will be complemented by photographic registers which will, as a minimum, give the direction of the view and a brief description of the subject, date, photographer and site reference.
- 5.24 A selection of the photographic record will be used to illustrate the report to provide an understanding of the Site/buildings, its historic use and its context.
- 5.25 The full photographic record, together with copies of the annotated plans and the photographic gazetteer will be included in the site archive.

## 6. Report and Archive

### Report

- 6.1 The written report will provide a description of the site and buildings (including scale and massing, construction, materials, layout and architectural detail), its history and heritage significance.
- 6.2 The report should broadly take the following structure:
- Introduction;
  - Methodology;
  - Understanding (Including results from research and interpretation);
  - The Record (Including material from the onsite surveys/building recording);
  - Survey drawings contained within the main body of the report will be annotated to illustrate the phases within the Site, or individual buildings, to further understand the history, use and development;
  - Statement of Significance taking guidance from English Heritage publication *Conservation Principles* (2008);
  - Summary and Conclusions; and
  - Bibliography.
- 6.3 The report will be produced to guidance set out within *Understanding Historic Buildings, A guide to good recording practice* (English Heritage 2006) and will be illustrated with, as a minimum:
- Site location plan, including plan noting individual building locations;
  - Copies of a selection of historic maps and photographs (where copyright allows);
  - Selection of images from the photographic record;
  - Annotated site plan showing locations of selected photographs;
  - Annotated plans of phasing to aid interpretation and understanding; and
  - Appendix containing measured plans and elevations, illustrated at an appropriate scale, typically 1:50.
- 6.4 The report will be provided in abound copy with an appended CD containing the archive and report in pdf format. Copies of the report will be submitted to Cherwell District Council, Oxfordshire History Centre and any other depositories subject to consultation and detailed WSI.

### Archive

- 6.5 An archive of this scheme of building recording will be completed; this will contain all the raw data from the on-site investigation. The project archive will be deposited with The Archaeological Data Service (ADS). A site code will be obtained from OASIS which will be used for the ADS deposition. The archive should be completed within six months of fieldwork taking place.
- 6.6 The archive will be provided on a memory drive and will include (subject to consultation with ADS):
- Digital photographic record and register;
  - Drawings and drawing register;
  - Site plan annotated with the locations of selected photographic views; and
  - A digital copy of the report.

## **7. Project Management and Staffing**

- 7.1 The fieldwork will be undertaken by a Member of the Institute for Archaeologists (IfA) and it currently envisaged that Waterman will undertake this work. The following guidelines and standards for archaeological fieldwork will be adhered to during the execution of the investigation:
- IfA - Code of Conduct; and
  - IfA - Standard and guidance for the archaeological investigation and recording of standing buildings or structures (2008).

## **8. Health and Safety**

- 8.1 A Risk Assessment for the Site will be prepared in accordance with the organisation's health and safety policy. Health and safety will take priority over archaeological matters. All staff undertaking fieldwork must comply with all relevant Health and Safety Legislation. Appropriate PPE are to be used by all personnel as necessary.
- 8.2 All persons attending site will need to comply with the LCS, Pride & DEMS 4 'C's Site Safety Management System.

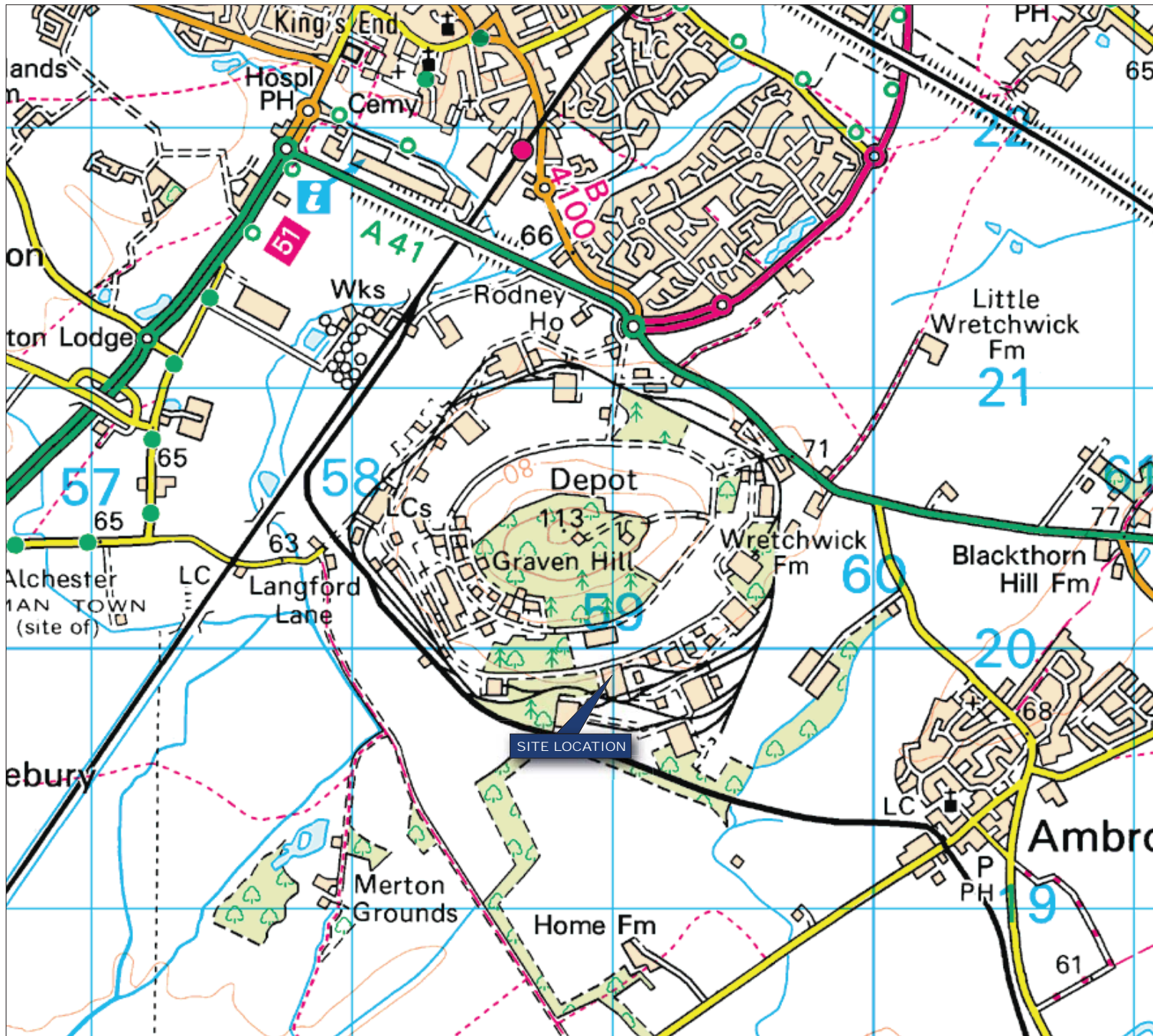


## APPENDICES





## Appendix A      Figures



Project Details	EED13983-106: MOD Bicester
Figure Title	Figure 1: Site Location Plan
Figure Ref	EED13983-106_GR_AR_1A
Date	November 2014
File Location	\\nt-1ncl\weedl\projects\eed13983\106\graphics\ar\issued figures