ARCHAEOLOGICAL SERVICES
DURHAM UNIVERSITY

on behalf of
Black Rock UK Property Fund

Burcote Road
Towcester
Northamptonshire

geophysical survey and archaeological evaluation

report 3068
January 2013

Durham University

Contents

Figures

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1. Summary

The project

1.1 This report presents the results of a geophysical survey and archaeological evaluation conducted in advance of a proposed development at Burcote Road, Towcester, Northamptonshire. The works comprised approximately 1ha of geomagnetic survey and the excavation of three evaluation trenches.

1.2 The works were commissioned by Black Rock UK Property Fund and conducted by Archaeological Services Durham University.

Results

1.3 Possible former ridge and furrow cultivation has been identified in Area 1 of the geophysical survey.

1.4 A service has been identified, aligned broadly north/south along the line of the former field boundary in Area 1.

1.5 The only other geophysical anomalies detected reflect fired and ferrous waste, rubble and made-ground across both survey areas.

1.6 No archaeological deposits were encountered during the archaeological evaluation.

1.7 Trench 1 provided evidence for modern ground disturbance in this area, suggesting the potential for archaeological features to be present is low, although it is possible that truncated remains could exist.

1.8 The presence of undisturbed subsoil in trench 2 indicates there is potential for an as yet unidentified archaeological resource to survive in this area.

1.9 The presence of made ground with no underlying subsoil in trench 3 suggests that this area had been levelled prior to the deposition of the redeposited natural. The potential for archaeological deposits to be present is low, although it is possible that heavily truncated remains could exist.

1.10 A single sherd medieval pottery was found, along with another sherd of post-medieval pottery, a modern brick fragment, three animal bones and an oyster shell.

2. Project background

Location (Figure 1)

2.1 The proposed development area is located to the east of Burcote Road, Towcester, Northamptonshire (NGR centre: SP 69705 47880). It is an irregular shape in plan, and covers an area of approximately 3.2 ha; 2.2ha of previously developed land and 1ha of undeveloped land. The site has modern development to the north, east and west and open grassland to the south. The north of the site is occupied by an open space, commercial buildings and car parks; a further industrial building (BAE) lies just to the west.

Development proposal

2.2 The proposal is for a hybrid mixed used development including landscaping to reduce the incline from south to north across the site and associated services and access roads. The planning application reference number is S/2012/1285/MAF.

Objective

2.3 The general aim of the archaeological works was to determine and understand the nature, function and character of the site in its cultural and environmental setting. Specific aims of this scheme of works included:

- establishing the date, nature and extent of activity or occupation in the proposed development area
- recovering artefacts to assist in the development of type series within the region
- recovering palaeoenvironmental remains to determine local environmental conditions

Methods statement

2.4 The survey and evaluation trenching have been undertaken in accordance with a Brief provided by Northamptonshire County Council Archaeology Section (Appendix 3), a Specification provided by Archaeological Services Durham University (reference DH12.488) and approved by the planning authority, and in accordance with national standards and guidance (see para. 5.1 below)

Dates

2.5 Fieldwork was undertaken between the 29th of November 2012 and the 10th of January 2013. This report was prepared for 16th January 2013.

Personnel

2.6 The geophysical survey was conducted by Andy Platell and Richie Villis (Supervisor). Trial trench evaluation was conducted by Jamie Armstrong and Mark Randerson (Supervisor). This report was prepared by Richie Villis, Mark Randerson and Jamie Armstrong, with illustrations by David Graham. The geophysical data were processed by Ashley Hayes. Specialist reporting was conducted by Dr Carrie Drew (animal bones) and Jennifer Jones (other finds). The project manager was Duncan Hale, who also edited this report.

Archive/OASIS

2.7 The site code is **TBR12**, for **T**owcester **B**urcote **R**oad 20**12**. The archive is currently held by Archaeological Services Durham University, and will be transferred to Northamptonshire County Council Archaeology Section in due course.

Archaeological Services Durham University is registered with the **O**nline **A**cces**S** to the **I**ndex of archaeological investigation**S** project (**OASIS**). The OASIS ID number for this project is **archaeol3-140917**.

3. Historical and archaeological background

3.1 An archaeological desk-based assessment has been undertaken for the proposed development area (Archaeological Services 2012). The following summarises the assessment's conclusions.

3.2 No archaeological resource has been identified which requires preservation *in situ*. There are no historic or statutorily protected buildings in the vicinity of the site. The structures on site are of 20th-century date and not considered historically significant. There are no Scheduled Ancient Monuments on or in the near vicinity of the site. The site is to the south of the Grade II* Registered Park and Garden of Easton Neston (RPG No. 2034) and to the south-east of the Towcester Conservation Area.

3.3 There is no direct evidence of prehistoric or Roman activity in the proposed development area. There is evidence that the surrounding area was exploited in prehistory, with the Roman small town of *Lactodorum* (Towcester) to the north-west and a major Roman road to the north-east. An as yet unidentified resource relating to this has the potential to survive within the proposed development area.

3.4 The site lies beyond the south-eastern edge of the medieval village of Towcester, and it is probable that the area was used as agricultural land in the medieval and post-medieval periods. Evidence relating to this, in the form of ridge and furrow cultivation and field boundaries, may survive.

4. Landuse, topography and geology

4.1 At the time of works the south and south-east of the proposed development area comprised an area of open, rough grassland. The north of the site was occupied by late 20th-century industrial buildings, with an extensive open space in the extreme north where a building had been, and car parks. Geophysical survey was conducted on the rough grassland to the south. A metal stave security fence ran broadly east/west across the area, separating a small part of scrub to the north-east, near the car park (Area 2). Metal mesh fencing bounded Area 1 to the east and south, with a wooden fence to the housing estate in the west.

4.2 The proposed development area was predominantly level in the north with a mean elevation of approximately 94m OD. The southern part, including the survey areas, rose steeply to around 101m OD at its highest before dropping to the grazing-land to the south. Towcester lies at the end of a spur of higher ground with the River Tove running to the north and east of the A5 (Watling Street).

4.3 The underlying solid geology of the area comprises early Jurassic mudstone of the Whitby Mudstone Formation with mid Jurassic strata of sandstone, limestone and ironstone of the Northampton Sand Formation at the extreme north-east of the proposed development area (beyond the geophysical survey areas). The drift geology of the area is not recorded.

5. Geophysical survey

Standards

5.1 The surveys and reporting were conducted in accordance with English Heritage guidelines, *Geophysical survey in archaeological field evaluation* (David, Linford & Linford 2008); the Institute for Archaeologists (IfA) *Standard and Guidance for archaeological geophysical survey* (2011); the IfA Technical Paper No.6, *The use of geophysical techniques in archaeological evaluations* (Gaffney, Gater & Ovenden 2002); and the Archaeology Data Service *Guide to Good Practice: Geophysical Data in Archaeology* (Schmidt & Ernenwein 2011).

Technique selection

5.2 Geophysical survey enables the relatively rapid and non-invasive identification of sub-surface features of potential archaeological significance and can involve a suite of complementary techniques such as magnetometry, earth electrical resistance, ground-penetrating radar, electromagnetic survey and topsoil magnetic susceptibility survey. Some techniques are more suitable than others in particular situations, depending on site-specific factors including the nature of likely targets; depth of likely targets; ground conditions; proximity of buildings, fences or services and the local geology and drift.

5.3 In this instance, based on desktop evidence, it was considered likely that cut features such as ditches and pits might be present on the site, and that other types of feature such as trackways, wall foundations and fired structures (for example kilns and hearths) might also be present.

5.4 Given the anticipated depth of targets and the non-igneous geological environment of the study area a geomagnetic technique, fluxgate gradiometry, was considered appropriate for detecting the types of feature mentioned above. This technique involves the use of hand-held magnetometers to detect and record anomalies in the vertical component of the Earth's magnetic field caused by variations in soil magnetic susceptibility or permanent magnetisation; such anomalies can reflect archaeological features.

Field methods

5.5 A 30m grid was established across each survey area and related to known, mapped Ordnance Survey points and the National Grid using a Leica GS15 global navigation satellite system (GNSS) with real-time kinematic (RTK) corrections typically providing 10mm accuracy.

5.6 Measurements of vertical geomagnetic field gradient were determined using Bartington Grad601-2 dual fluxgate gradiometers. A zig-zag traverse scheme was employed and data were logged in 30m grid units. The instrument sensitivity was nominally 0.03nT, the sample interval was 0.25m and the traverse interval was 1m, thus providing 3,600 sample measurements per 30m grid unit.

5.7 Data were downloaded on site into a laptop computer for initial processing and storage and subsequently transferred to a desktop computer for processing, interpretation and archiving.

Data processing

5.8 Geoplot v.3 software was used to process the geophysical data and to produce both continuous tone greyscale images and trace plots of the raw (minimally processed) data. The greyscale images and interpretations are presented in Figures 3-5; the trace plots are provided in Figure 6. In the greyscale images, positive magnetic anomalies are displayed as dark grey and negative magnetic anomalies as light grey. A palette bar relates the greyscale intensities to anomaly values in nanoTesla.

5.9 The following basic processing functions have been applied to each dataset:

clip	clips data to specified maximum or minimum values; to eliminate large noise spikes; also generally makes statistical calculations more realistic
zero mean traverse	sets the background mean of each traverse within a grid to zero; for removing striping effects in the traverse direction and removing grid edge discontinuities
destagger	corrects for displacement of geomagnetic anomalies caused by alternate zig-zag traverses
interpolate	increases the number of data points in a survey to match sample and traverse intervals; in this instance the data have been interpolated to 0.25m x 0.25m intervals

Interpretation: anomaly types

5.10 A colour-coded geophysical interpretation plan is provided. Two types of geomagnetic anomaly have been distinguished in the data:

positive magnetic	regions of anomalously high or positive magnetic field gradient, which may be associated with high magnetic susceptibility soil-filled structures such as pits and ditches
dipolar magnetic	paired positive-negative magnetic anomalies, which typically reflect ferrous or fired materials (including fences and service pipes) and/or fired structures such as kilns or hearths

Interpretation: features

5.11 A colour-coded archaeological interpretation plan is provided.

Area 1

5.12 Very weak positive magnetic anomalies, aligned broadly north/south, have been detected in this area. These anomalies broadly correspond to slight earthwork features noted on the ground during the desk-based assessment (Archaeological Services 2012), and almost certainly reflect the remains of former ridge and furrow cultivation.

5.13 A broadly north/south aligned chain of dipolar magnetic anomalies has been detected in the central part of the survey area, in line with the former field boundary. This almost certainly reflects a service; warning signs for a buried high

voltage electricity cable were noted at the north end of the former field boundary. The former field boundary survives as occasional trees and bushes.

5.14 Concentrations of dipolar magnetic anomalies have been detected across the survey area, especially in the west. These types of anomalies typically reflect items of near surface ferrous and/or fired waste, and the concentrations in this area are likely to reflect dumping and disturbed ground.

5.15 Strong dipolar magnetic anomalies along the edges of the survey area reflect the metal security fence that surrounds the area.

Area 2

5.16 The only anomalies detected here are small discrete dipolar magnetic anomalies which are likely to reflect near surface ferrous and/or fired waste. As in Area 1 to the south the large and strong dipolar magnetic anomy along the southern edge of the area reflects the metal security fence.

6. The evaluation trenches

Introduction

6.1 Three test pits (2m by 1m) were positioned across the site. These pits were excavated in locations where the geophysical data indicated clear ground, away from the concentrations of dipolar magnetic anomalies which suggest disturbed ground. Due to restrictions on access to the site, all three test pits were excavated and cleaned by hand.

Test pit 1 (Figures 7 & 8)

6.2 This test pit was located in survey Area 2, and was positioned in the centre of the area, a location where the geophysical survey indicated the least disturbance to the underlying deposits. An irregular layer of natural subsoil [3] was exposed at a depth of between 0.1 and 0.3m (Figure 8). This was a moderately compact stiff light brownish-yellow silty clay with a rough, uneven surface presumably caused by previous disturbance. It was partially overlain by a deposit of orange-brown moderately compact clayey silt [2: 0.2m thick at the maximum extent], which was concentrated in the south-west part of the test pit and did not extend across the whole of the excavated area. Again, this deposit appeared to have been disturbed, presumably by landscaping and terracing to the north. The test pit was sealed by a layer of brownish-grey moderately compact slightly sandy clayey silt topsoil [1: 0.1m thick]. One piece of bone and a fragment of modern brick were recovered from this layer. No archaeological features were exposed.

Test pit 2 (Figures 7 & 9)

6.3 Test pit 2 was positioned on the east side of Area 1, east of the former field boundary, and was located in the area identified as containing the possible remains of ridge and furrow ploughing. Natural subsoil [6], a moderately compact light brownish-yellow stiff silty clay with occasional grey mottling, was exposed at a depth of 0.5m (Figure 9). This was sealed by a well-developed B horizon of moderately compact orangey-brown clayey silt [5: 0.25m thick]. This contained very frequent inclusions of small angular to sub-rounded gravel and pea grit, and produced one sherd of pottery. This was overlain by a layer of friable dark brown clayey silt topsoil [4: 0.25m]. No archaeological features were uncovered.

Test pit 3 (Figures 7 & 10)

6.4 This test pit was excavated on the west side of Area 1, in the location of the disturbed ground identified by the geophysical survey. Natural subsoil [9] was exposed at a depth of 0.5m (Figure 10). This was a moderately compact stiff light yellow-brown silty clay, flecked and mottled with light grey lenses. It was sealed by a thick deposit of dumped material [8: 0.45m thick], a heavily compact silty clay varying in colour from bluish-grey to light yellow-brown. This was clearly a made-ground deposit, presumably composed of re-deposited natural subsoil, and had probably been cast southwards from the excavation of the terraces which lie to the north. This dump deposit was overlain by a thin horizon of light brown moderately compact clayey silt topsoil [7: 0.05m thick]. No archaeological features were exposed.

7. The finds

Pottery assessment

Results

7.1 Two pieces of pot (43g) were recovered. Context [4] contained a rim sherd from a piece of post-medieval, unglazed horticultural earthenware, and context [5] contained a small abraded body sherd of medieval pottery. This is in a pale buff fabric with a reduced core and has traces of glaze on the outside.

Animal bone assessment

7.2 **Results**

The assemblage comprises three animal bones, which are in relatively good condition. Although all exhibit fine cracking, no part of the surface is flaking, and none of the bones show evidence of gnawing. Context [4] contained a horse middle phalanx (short pastern bone) with no evidence of working. Modern damage to the medial side of the phalange precludes any measurements. A further small, unidentifiable bone fragment and an abraded oyster shell also came from context [4].

7.3 Context [1] has a partial fragment of a horse acetabulum joint, from the right hand side of the pelvis. Acetabulum symphysis fusion is complete, indicating the animal was mature (Silver 1963). Evidence of butchery was identified on the pelvis (pubis) fragment, with a deep chop mark and a cut mark clearly visible. These are likely to represent evidence of disarticulation, from the removal of the hind limb around the acetabulofemoral joint.

Building materials assessment

7.4 **Results**

A single piece of modern brick (211g) was found in context [1]. The piece is hard-fired and factory made in a pale orange/buff fabric. None of its dimensions is intact, but the top surface shows part of a deep frog and a circular stamp with the figures '52' embossed inside it.

Recommendations

7.5 No further work on the finds assemblage is recommended.

8. The archaeological resource

8.1 Possible former ridge and furrow cultivation has been identified in Area 1 of the geophysical survey.

8.2 A service has been identified aligned broadly north/south along the line of the former field boundary in Area 1.

8.3 The only other geophysical anomalies detected reflect fired and ferrous waste, rubble and made-ground across both survey areas.

8.4 No archaeological deposits were encountered during the archaeological evaluation.

8.5 Trench 1 provided evidence for modern ground disturbance in this area, suggesting the potential for archaeological features to be present is low, although it is possible that truncated remains could exist.

8.6 The presence of undisturbed subsoil in trench 2 indicates there is potential for an as yet unidentified archaeological resource to survive in this area.

8.7 The presence of made ground with no developed B horizon in trench 3 suggests that this area had been stripped prior to the deposition of the redeposited natural. The potential for archaeological deposits to be present is low, although it is possible that heavily truncated remains could exist.

8.8 A single sherd medieval pottery was found, along with another sherd of post-medieval pottery, a modern brick fragment, three animal bones and an oyster shell.

9. Impact assessment

9.1 The proposed development will impact upon any surviving archaeological deposits through the proposed landscaping and the creation of the development and its associated roads and services, though none has been identified in the evaluation.

10. Sources

Archaeological Services 2012 *Burcote Road, Towcester, Northamptonshire: archaeological desk-based assessment*. Unpublished report **2853**, Archaeological Services Durham University

David, A, Linford, N, & Linford, P, 2008 *Geophysical Survey in Archaeological Field Evaluation*. English Heritage

Gaffney, C, Gater, J, & Ovenden, S, 2002 *The use of geophysical techniques in archaeological evaluations*. Technical Paper **6**, Institute of Field Archaeologists

IfA 2011 *Standard and Guidance for archaeological geophysical survey*. Institute for Archaeologists

Schmidt, A, & Ernenwein, E, 2011 *Guide to Good Practice: Geophysical Data in Archaeology*. Archaeology Data Service

Silver, I A, 1969 The aging of domestic mammals, in Brothwell, D R & Higgs, E (eds) *Science in Archaeology*. London

Appendix 1: Data table

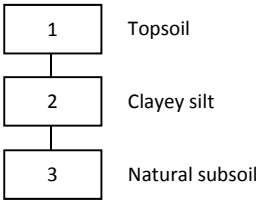
Table 1.1: Context data

The • symbols in the columns at the right indicate the presence of finds of the following types: P pottery, B bone, C ceramic building material, O other materials.

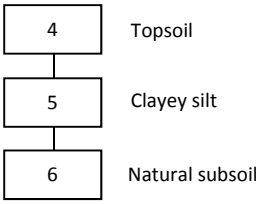
No	Area	Description	P	B	C	O
1	TP1	Topsoil		•	•	
2	TP1	Clayey silt				
3	TP1	Natural subsoil				
4	TP2	Topsoil	•	•		•
5	TP2	Clayey silt	•			
6	TP2	Natural subsoil				
7	TP3	Topsoil				
8	TP3	Made-ground				
9	TP3	Natural subsoil				

Appendix 2: Stratigraphic matrices

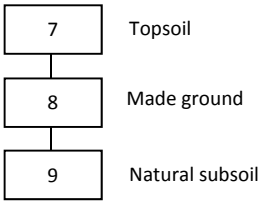
Test pit 1



Test pit 2



Test pit 3



Appendix 3: Project brief from NCC

BRIEF FOR THE ARCHAEOLOGICAL FIELD EVALUATION OF LAND AT BURCOTE ROAD INDUSTRIAL ESTATE, TOWCESTER, NORTHAMPTONSHIRE

CONTENTS:

Planning
Northamptonshire County Council

1 INTRODUCTION

1.1 This Brief is valid for 6 months from the date of issue. If the project it describes is undertaken after that period the Brief should be referred to the Assistant Archaeological Advisor for revision; no work should be undertaken until an updated Brief has been issued.

1.2 The background for this archaeological field evaluation is contained in the *Brief for a Programme of Archaeological Investigation of Land at Burcote Road Industrial Estate, Towcester, Northamptonshire,* (15th Nov 2012) which accompanies this document, and which should be read in conjunction with it.

1.3 The archaeological field evaluation forms Stage I of the programme of archaeological investigation for the site outlined in the above *Brief*.

2. OBJECTIVES

2.1 It is clear that the study area has considerable archaeological potential and could contain remains that would be a significant constraint on the development of the site.

2.2 Further information on the archaeology within the proposed development area is required before a planning application can be determined in line with the National Planning Policy Framework.

2.3 Information on the following is required:

2.3.1 The location, extent, nature, and date of any archaeological features or deposits that may be present.
2.3.2 The integrity and state of preservation of any archaeological features or deposits that may be present.

2.4 The information required will be acquired through a programme of archaeological research and fieldwork as outlined below.

3 FIELD METHODS

3.1 In order to obtain the information outlined in 2.2 a programme of archaeological fieldwork will be undertaken.

3.2 Throughout the project the standards set in: Institute of Field Archaeologists Codes of Conduct and Standards and Guidance documents (specifically *Standard and Guidance for Archaeological Field Evaluation*, revised 2008), English Heritage's *Management of Research Projects* in the Historic Environment (2009) and *Archaeological Archives: A Guide to best practice in creation, compilation, transfer and curation* (Archaeological Archive Forum 2007) will be adhered to.

3.3 The recording system employed will conform to these standards and will be approved by the Assistant Archaeological Advisor before the project commences.

3.4 An integrated project archive (including both artefacts/ecofacts and project documentation) should be prepared upon completion of the project. Archaeological contractors should note that there is currently no archaeological archive depository able to accept material from this part of the county, although the issue is being actively addressed and it is hoped that suitable facilities will be available within 3-5 years. Provision should therefore be made for retaining the project archive until such time as a suitable depository is available and arrangements have been made for the transfer of the archive. Provision should be made for the payment of a 'deposit grant' at the time of archive transfer towards the costs of archive curation in perpetuity. The rates and requirements currently employed by archive stores elsewhere in the country and by Northampton Borough Museum for its archive store should be used for guidance.

3.5 The archaeological contractor must be satisfied that all constraints on archaeological fieldwork are identified and appropriate measures to avoid damaging or illegal impacts must be put in place before the project commences. The constraints include the siting of live services, Tree Preservation Orders, public rights of way, contaminated land, areas of ecological interest and the habitats of protected species.

3.6 The field evaluation will have two stages as outlined below.

3.7 STAGE I – GEOPHYSICAL SURVEY

3.7.1 A recognised professional specialist in the techniques involved will undertake a geophysical survey within the previously undeveloped area of the application site.

3.7.2 A detailed geophysical survey will be undertaken using magnetometry.

3.7.3 The programme for the detailed survey will be agreed with the Assistant Archaeological Advisor.

3.7.4 Provision will be made for preliminary on-site analysis and presentation of the data collected during the geophysical survey.

3.7.5 The geophysical specialist will liaise with the Assistant Archaeological Advisor to ensure the effective integration of the archaeological information into the interpretation of the geophysical survey results, and the geophysical survey results into the evaluation as a whole.

3.7.6 The standards contained in English *Heritage's Geophysical Survey in Archaeological Field Evaluation* (2008) will be adhered to.

3.8 STAGE II – TRIAL TRENCHING

3.8.1 A series of trial trenches will be excavated within the previously undeveloped area. The position of the trenches will be determined by the results of the geophysical survey. It will also test the blank areas to a lesser percentage than those areas with identified activity.

3.8.2 The trench sample area should be sufficient to define the character and extent of sites identified by the non intrusive survey. It should also confirm

the presence and/or absence of significant archaeology in the unresponsive zones. Contingency provision will be made to allow for further investigation of any significant features or deposits that are encountered.

3.8.3 The trial trenches will be located to define and characterise likely areas of archaeological sensitivity and to confirm the absence of features in areas that appear to be blank. The trench layout and the deployment of the contingency allowance will be discussed with and agreed by the Assistant Archaeological Advisor before they are implemented.

3.8.4 The trial trenches will be excavated under archaeological supervision by a suitable machine fitted with a toothless bucket with a minimum width of 1.8m.

3.8.5 Topsoil and other overburden will be removed by machine down to the top of natural subsoil or archaeological deposits, whichever is encountered first.

3.8.6 The spoil will be scanned for artefacts.

3.8.7 The trial trenches will then be cleaned by hand and the location of all features and deposits recorded at a scale of 1:50.

3.8.8 Sufficient of any archaeological features or deposits revealed will be excavated in order to provide the information required. All discrete features will be half sectioned where safe to do so, but in any case the sample should not be less than 50% of the whole. Excavation slots must be at least 1m in width. It should be borne in mind that excavation must not compromise the integrity of the archaeological record. Investigation should be undertaken in such a way as to allow for the protection of the deposits through the application of mitigation procedures or through the opportunity for better excavation under the conditions pertaining to full investigation of a larger area.

3.8.9 Should a significant depth of stratified deposits be encountered it may be necessary for excavation to continue in a restricted area within the trial trenches in order to test the depth and nature of the stratigraphy. The location and scale of the deeper excavation will be dictated by the nature of the archaeological deposits revealed in the opening of the trenches and by other on–site conditions, paying particular regard to health and safety issues. The agreement of the Assistant Archaeological Advisor must be obtained before such a strategy is implemented.

3.8.10 All excavated features and deposits will be fully recorded in accordance with the approved recording system. The primary photographic record will normally be compiled in 35mm black and white format. This will be supplemented by 35mm colour slide/print and digital format. The different mediums have their own strengths and that the use of a combination presents the best way of ensuring the optimum conditions for the survival of archival records. Further information on digital archiving can be obtained from the Technical Advisory Service for Images and Archaeology Data Service.

3.8.11 Guidance on sampling can be obtained from English Heritage (2011). A programme of bulk sampling to retrieve environmental and organic material will be undertaken as appropriate. The strategy for sampling must be outlined in the specification of works, and will be subject to variation as appears necessary during the evaluation, following consultation with the

County/Assistant Archaeological Advisor and the EH Regional Science Advisor or the project's palaeoenvironmentalist.

3.8.12 All finds and other relevant material will be retained and removed from the site for post-fieldwork analysis.

3.8.13 Care must be taken in dealing with human remains and the appropriate Department for Constitutional Affairs and environmental health regulations followed. The Assistant Archaeological Advisor and the local Coroner must be informed immediately upon discovery of human remains. Where human remains are encountered as part of the evaluation, they should be left in situ and only removed if absolutely necessary. If they are removed, it is essential that the post-excavation assessment contains an analysis of the remains and a statement for the final deposition of the assemblage. The qualified statement must address future research potential, where applicable, and the options for reburial.

3.8.14 Project Managers are reminded of the need to comply with the requirements of the Treasure Act 1996 (with subsequent amendments). Advice and guidance on compliance with Treasure Act issues can be obtained from the Historic Environment Record (HER) office, and project managers are recommended to report any finds that could be considered treasure under the terms of the Act made during the process of fieldwork to HER within 48 hours of discovery.

3.8.15 All areas of ground disturbance will be accurately surveyed in and marked out prior to the commencement of work.

3.8.16 The trial trenches will not be back filled before they have been inspected by the Assistant Archaeological Advisor or the agreement of that Officer has otherwise been obtained for the back filling of specific trenches.

4. POST-FIELDWORK

4.1 After completion of the fieldwork programme the data acquired will be analysed to a level which will provide the information required (see 2.2).

4.2 Bulk soil samples taken for environmental purposes (3.8.11) will be sieved and scanned.

4.3 All finds will be cleaned, marked, sorted and analysed in accordance with the approved recording system and the practices and standards described in *Preparation of Archaeological Archives; Selection, Retention and Dispersal of Archaeological Collections* (1993), the IFA *Standards and Guidance for the Collection, Documentation, Conservation and Research of Archaeological Materials* (2008) and *Archaeological Archives: A Guide to best practice in creation, compilation, transfer and curation* (2007).

4.4 All medieval and earlier artefacts should be reported on by a suitably qualified specialist, named in the contractor's method statement or Specification. All Saxon and later ceramics should be classified in accordance with the Northamptonshire Ceramic Type Series. The MPRG's *Minimum Standards for the Processing, Recording, Analysis and Publication of Post-Roman Ceramics* must be adhered to (Slowikowski et al 2001).

4.5 All records and materials produced will be fully archived. The archive will conform to the standards outlined in *MoRPHE Project Planning Note 3: Archaeological Excavation*, Appendix 1.

5 REPORT

5.1 An interim report will initially be prepared on the results of the field evaluation. This will be followed in due course by a full report.

5.2 It will describe the methods employed and outline the results in relation to the areas of information required (see 2.2) and conform to the standards set out in the Association of County Archaeological Officer's *Briefs and Specifications for Archaeological Assessment and Field Evaluation* (1993) and the Institute for Archaeologists *Standard and Guidance for Archaeological Field Evaluation.*

5.3 The report must contain sufficient detail to enable the results to be interpreted without recourse to the site archive. It will include tabulations of contexts and finds by context. It will also include a non-technical summary of the project and its results.

5.4 The results of this evaluation must be related to the archaeological and historical context of the surrounding area.

5.5 The report should also contain a consideration of the significance of the results of the evaluation, putting them into a local and regional context. It must not, however, contain any recommendations for dealing with the archaeological resources in the light of the plans to develop the site.

5.6 Unless other arrangements are made, 6 months after the submission of the report the information it contains will be entered into the Historic Environment Record; a publicly accessible database.

6 GENERAL

6.1 The fieldwork must be undertaken by a team of recognised professional competence and experience in this type of project. The project officer should have IFA membership or equivalent experience. The use of volunteers or unwaged personnel is specifically excluded unless they are additional to the core project staff.

6.2 Before commencing work the Project Manager must carry out a **risk assessment** and liaise with the site owner, Client and Assistant Archaeological Advisor in ensuring that all potential risks are minimised. A copy should be sent to the Assistant Archaeological Advisor.

6.3 The Specification should conform to the outline in *MoRPHE Project Planning Note 3: Archaeological Excavation* and will contain information on the following:

- the size and qualification of the work force including names and experience of key personnel;

- details of staffing levels and the number of person days to be spent on each specific task;

- details of specialists, including qualifications, who are likely to have input into the project, whether they are in-house or contracted in;

- details of the recording system for fieldwork and post-excavation analysis;

- a timetable covering the whole project from setting up on site through report writing to deposition of the archive, including suitable allowance for bad weather or other unforeseen circumstances, the latter must be clearly indicated.

6.4 The Specification will be submitted to the Assistant Archaeological Advisor for vetting to ensure their conformity to this Brief before the contract for the project can be let.

6.5 The appointed archaeological contractor must consult (unless advised otherwise) the Historic Environment Record with the regard to the archaeological and historical background for the development site and surrounding area before submitting the Specification in order to establish the archaeological context for the project.

6.6 Adequate arrangements must be made within a suitable time scale for the conservation of artefacts. Where fragile or unstable finds are recovered appropriate steps must be taken to stabilise them. All conservation, including initial stabilisation must be undertaken by recognised, named specialists.

6.7 The site archive should be organised so as to be compatible with other modern archaeological archives produced in Northamptonshire. Artefacts, environmental and organic material must be labelled, processed and analysed in a manner compatible with the requirements of *Archaeological Archives* (2007).

6.8 Northamptonshire County Council supports the national stage of the Online Access to the Index of Archaeological Investigations (OASIS III) project and would encourage archaeological contractors to support this initiative. In order that a record is made of all archaeological events within the county occurring through planning systems, the archaeological contractor is requested to input details of this project online at the ADS internet site. The OASIS reference ID should be cleared indicated on any reports.

6.9 The responsibility for monitoring the progress of the project throughout its life, to ensure adherence to this Brief and the maintenance of professional standards is undertaken by the Assistant Archaeological Advisor. So that arrangements for monitoring can be made the Assistant Archaeological Advisor will be notified of the archaeological contractor engaged to undertake the work and be given two weeks notification of the start date of the project in writing. Monitoring requirements will also be included in the project timetable with the agreement of the County/Assistant Archaeological Advisor. Two copies of the report (one bound 'hardcopy', one digital) should be submitted to the Assistant Archaeological Advisor. The digital copy should include both the report text and all illustrations, ideally as a single electronic document. After

approval, the report will be passed to the Northamptonshire Historic Environment Record to act as a permanent record of the investigation. Additional copies of the report will be required to support the planning application, and archaeological contractors should confirm the requirements of their client and the Local Planning Authority.

6.10 Any variation to the Brief or Specification must be agreed with the Assistant Archaeological Advisor before a revised programme of work is implemented.

6.11 It should be noted that a charge will normally be made for consulting the Historic Environment Record and the project estimate should include an element for this cost.

6.12 It is the policy of Planning to ensure that the results of archaeological work in Northamptonshire are made available to the public through a variety of media. The Project Manager is encouraged, therefore, to provide a strategy for site presentation, which would include (where appropriate) the issue of press releases, articles to local and national media, an "open day" for visitors or a parish-based presentation of the excavated remains. All public outreach events must be conducted following consultation with and approval by, the Client. Planning request advanced notice of outreach events and reserve the right to publicise them on our website. In relation to the promotion of archaeological research, Project Managers are requested to provide a short article (where appropriate) for the Planning web site. The main aim of the article is to capture the attention and imagination of the general Northamptonshire public. The articles would ideally contain photographs of recognisable archaeological activity, such as settlement, burial and cultural artefacts.

REFERENCES

APP (2007) *Archaeological Archives: A Guide to best practice in creation, compilation, transfer and curation* Archaeological Archive Forum (2007)

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Slowikowski, A. M., Nenk, B., Pearce, J. (2001) *Minimum standards for the processing, recording, analysis and publication of post-Roman ceramics* (MPRG Occ Pap 2)

SOCIETY OF MUSEUM ARCHAEOLOGISTS (1993) *Preparation of Archaeological Archives; Selection, Retention and Dispersal of Archaeological Collections*

Technical Advisory Service for Images Introductory Pack: Image Capture: Hardware and Software available online at www.tasi.ac.uk

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V1 15th November 2012

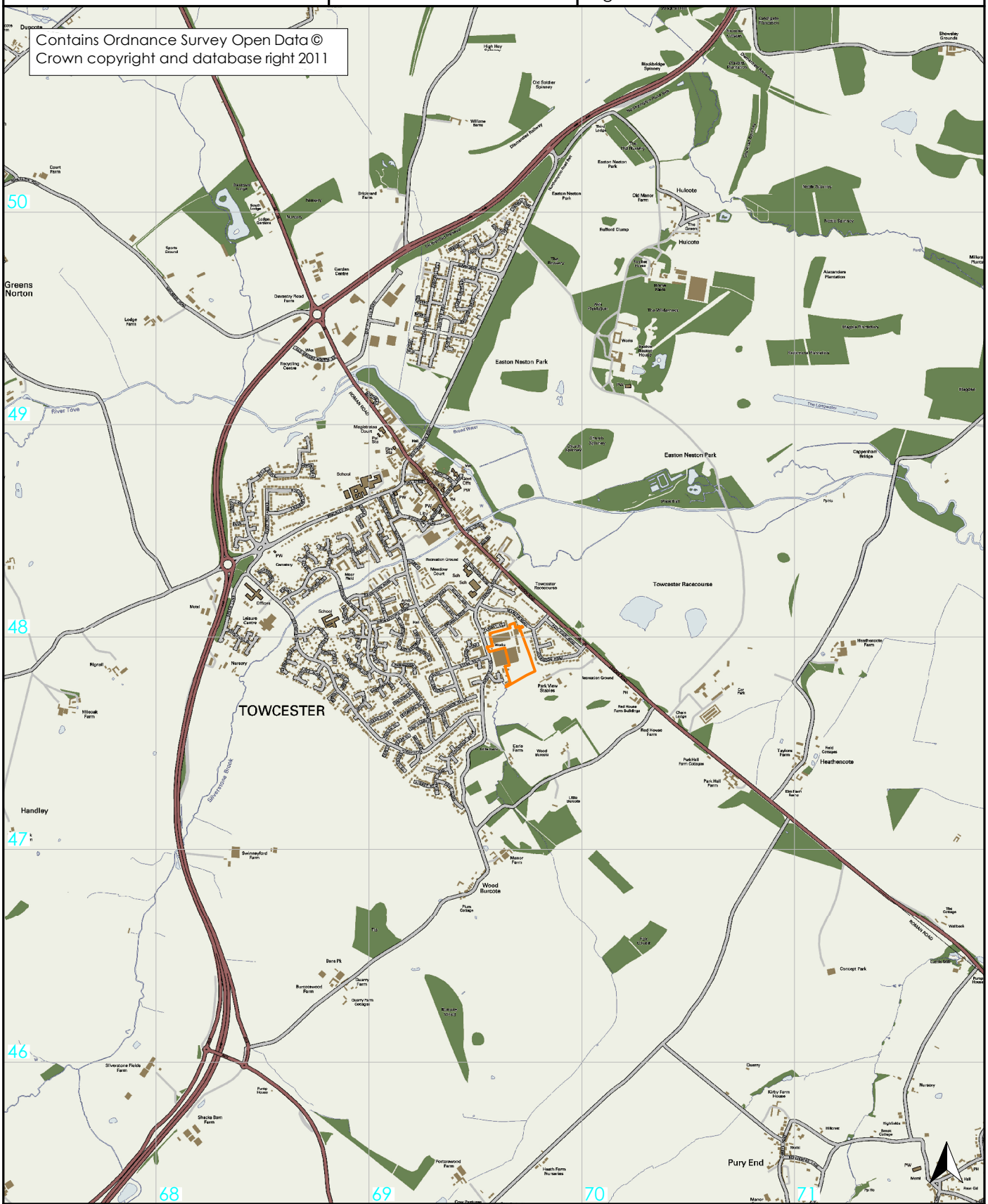
ARCHAEOLOGICAL SERVICES
DURHAM UNIVERSITY

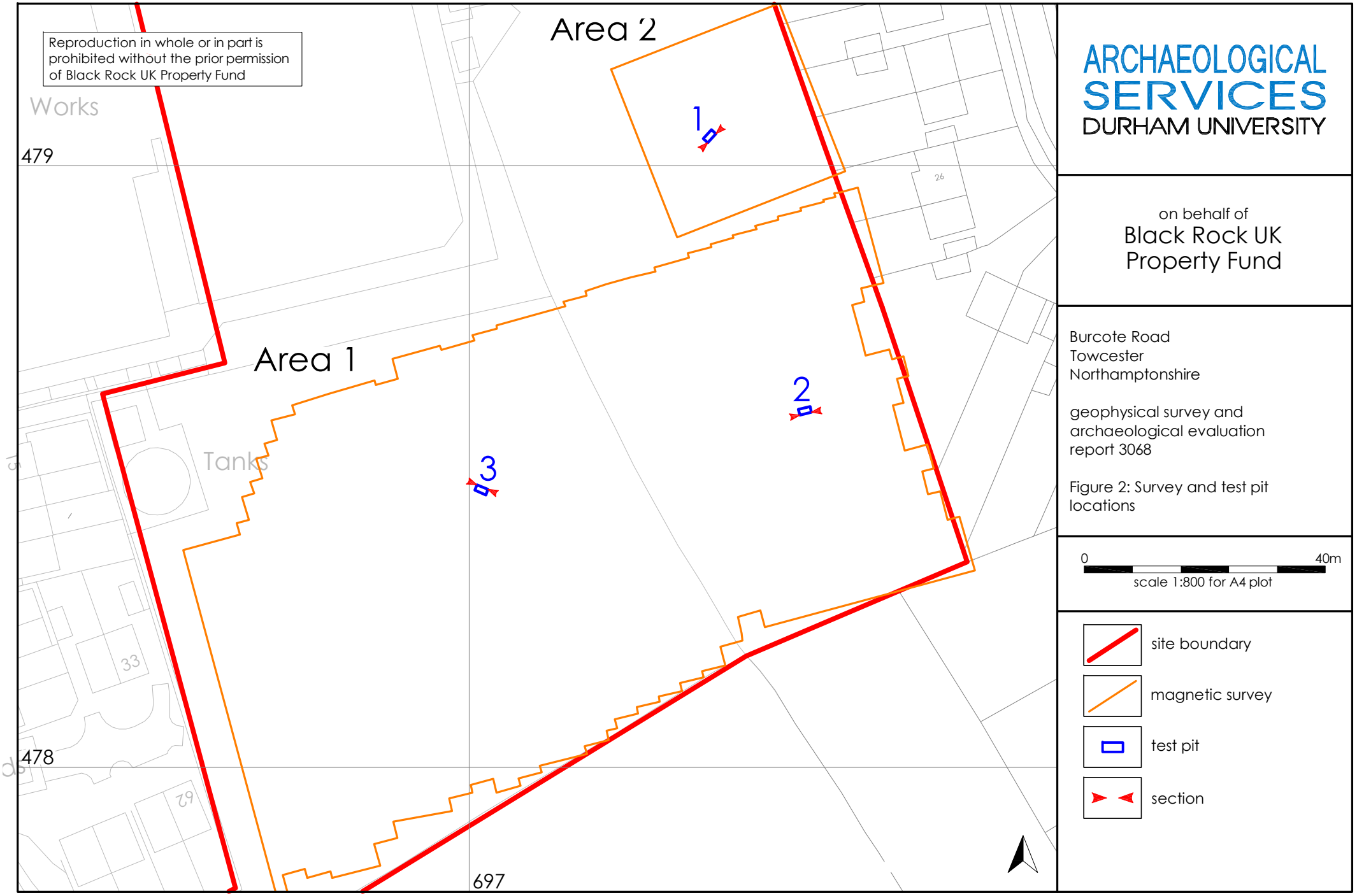
on behalf of
Black Rock UK Property Fund

Burcote Road
Towcester
Northamptonshire

geophysical survey and archaeological evaluation
report 3068

Figure 1: Site location





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Northamptonshire

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Figure 2: Survey and test pit locations

0 40m
scale 1:800 for A4 plot

site boundary
magnetic survey
test pit
section

magnetic survey

site boundary

-10 nT 10

Area 1

Area 2

Tank

Works

Works

Works

Tank

Marlow Road

Burcote Road

Burcote Fields

480

479

478

696

697

698

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0 50m
scale 1:1000 for A3 plot

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Towcester
Northamptonshire

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report 3068

Figure 3: Geophysical surveys

magnetic survey

positive magnetic anomaly

dipolar magnetic anomaly

site boundary

Marlow Road

Burcote Road

Burcote Fields

Tank

Works

Works

Works

Tank

Area 1

Area 2

480

479

478

696

697

698

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0 50m
scale 1:1000 for A3 plot

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Figure 4: Geophysical interpretation

magnetic survey
service
site boundary
section
disturbed area
ridge and furrow
test pit

Marlow Road
Burcote Road
Burcote Fields
Tank
Works
Area 1
Area 2
1
2
3
480
479
478
696
697
698

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0 50m
scale 1:1000 for A3 plot

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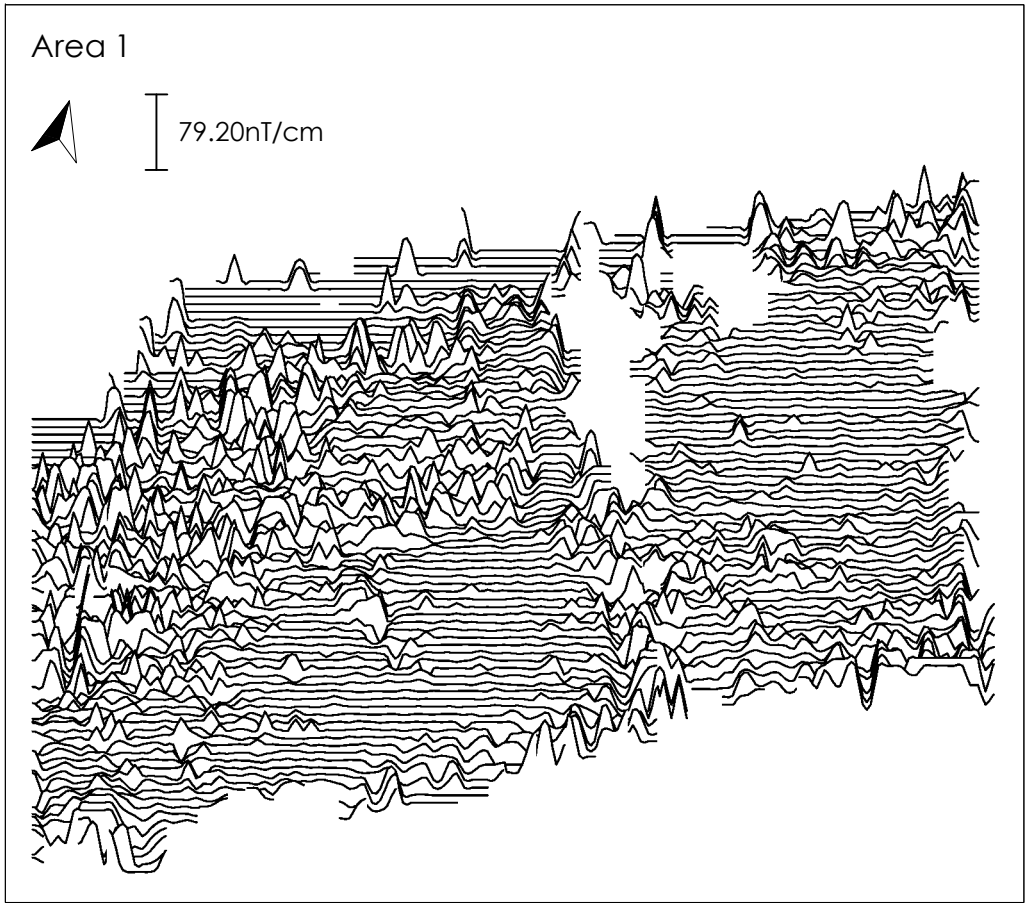
Figure 5: Archaeological interpretation



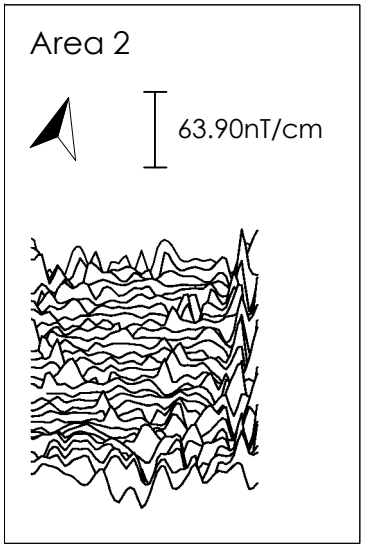


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Figure 6: Trace plots of geomagnetic data

0 50m
scale 1:1000 for A4 plot

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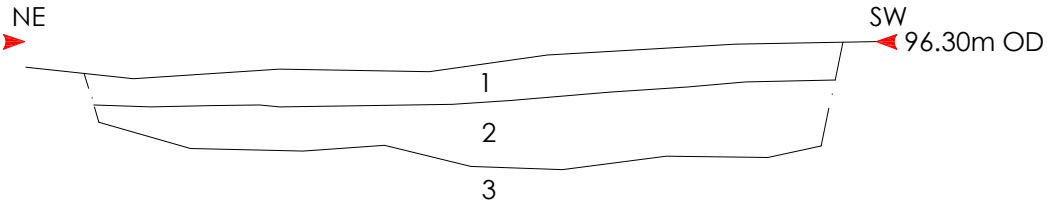
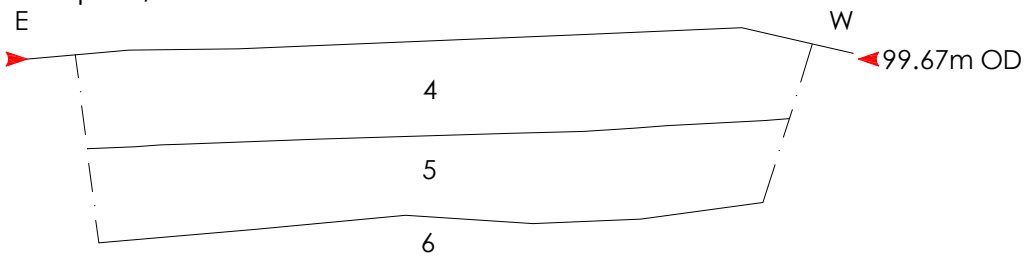
Figure 7: Test pit sections

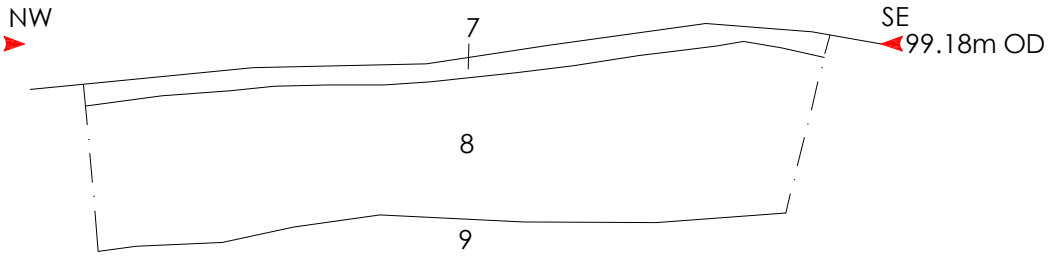
Test pit 1, section



Test pit 2, section



Test pit 3, section



extent of excavation

0 1m
scale 1:20 for A4 plot

Figure 8: Test pit 1, facing south-east

Figure 9: Test pit 2, facing south

Figure 10: Test pit 3, facing north-east