

**An Archaeological Watching Brief during ground
investigation at Red Hill Farm, Ratcliffe on Soar,
Nottinghamshire (SK 449 429)**

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For RPS Planning

Checked by Project Manager

Signed:Date.....

Name:

University of Leicester Archaeological Services

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An Archaeological Watching Brief during ground investigation at Red Hill Farm, Ratcliffe on Soar, Nottinghamshire (SK 449 429)

James Patrick and Patrick Clay

Summary

University of Leicester Archaeological Services were commissioned by RPS Planning to undertake an archaeological watching brief during the excavation of ground investigation trial pits at Red Hill Farm, Ratcliffe on Soar, Nottinghamshire (SK 449 429). The area had been identified as being within an area of known Romano-British settlement (Elsdon 1982, Birmingham Archaeology 2002).

The six machine dug test pits revealed two possible, undated linear features, one a possible furrow or ploughed out field boundary and one interpreted as being natural in origin. The archive (ROS06) will be deposited with Nottinghamshire County Council Historic Environment Record.

1. Introduction

University of Leicester Archaeological Services were commissioned by RPS Planning to undertake an archaeological watching brief during the excavation of geotechnical test pits in advance of the proposed construction of a railway station, buildings, car park and access road at Red Hill Farm, Ratcliffe on Soar, Nottinghamshire (SK 449 429). The site is located 250m north of Ratcliffe on Soar and 200m east of the River Soar. The site is bordered to the south by the A453 trunk road, to the west by an access road between the A453 and Red Hill Farm and to the east by the main London to Nottingham railway.

The proposed development area lies immediately south of the Red Hill scheduled ancient monument (Nottinghamshire 141, HER Ref 500; Elsdon 1982) and within an area of known Romano-British settlement revealed in a 2001 evaluation (Birmingham Archaeology 2002). Prehistoric artefacts have also been located from the area (Stephenson 1999).

The proposed development area covers *c.* 14 ha and is at a height between *c.* 29.5m and 37.5m OD and lies on the boundary between Mercian Mudstone group substratum in the higher ground and river terrace gravels within the alluvial floodplain.

Aims

The aims of the watching brief were:

1. To identify the presence/absence of any archaeological deposits.

2. To establish the character, extent and date range for any archaeological deposits to be affected by the proposed ground works.
3. To record any archaeological deposits to be affected by the ground works.
4. To produce an archive and report of any results.

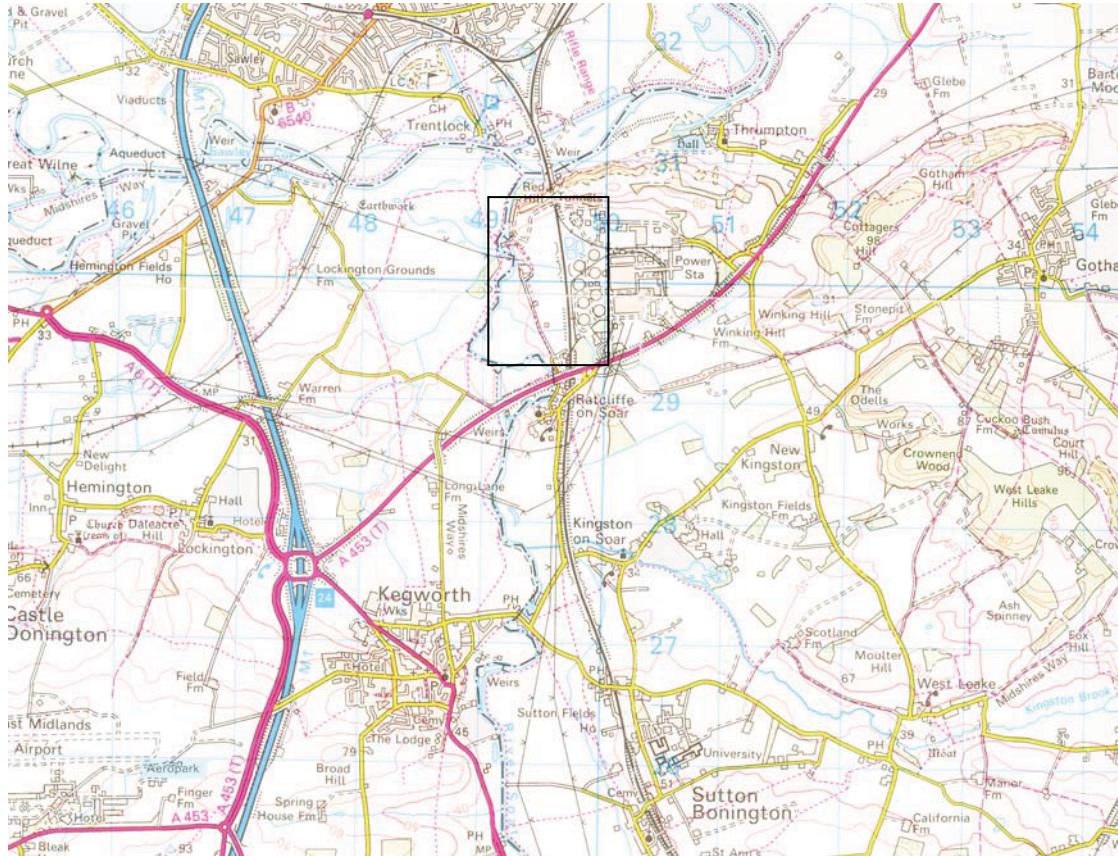


Figure 1 Site Location

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Taken from 1:50 000 Ordnance Survey Map.

3. Methodology

The original scheme for 17 test pits was modified to a total of six test pits, four in the northern field and two in the central one. Test pits measuring 2m long by 0.6m wide were excavated by JCB with a 600mm wide toothed bucket until undisturbed substratum was reached under archaeological supervision (Fig.2). The plan and section of the test pits were recorded and the spoil was examined. The location of these test pits was recorded by Electronic Distance Measurer (EDM). The watching brief took place on September 12th 2006. All archaeological work adhered to the Institute of Field Archaeologist's (IFA) *Code of Conduct* and *Standard and Guidance for Archaeological Watching Briefs* and the *Design Specification for archaeological work* (Appendix). The contexts are listed in round brackets for fills and square brackets for cuts e.g (062); [064].

4 Results

4.1 Test Pit 1

Contexts: (011), (012), (013).

Level Ground surface: 30.20m OD

Test Pit 1 was located in the easternmost section of the proposed development area adjacent to the railway. The uppermost deposit consisted of a *c.* 0.15m depth of fine dark grey-brown clay-silt topsoil (011). Below this was a layer approximately 0.12m deep of plough disturbed sands and gravels (012) above a pebbly yellow mixed clay (013) representing undisturbed river terrace gravels substratum which was encountered at approximately 0.27m below current ground level. There was no evidence of archaeological deposits or finds in this test pit.

4.2 Test Pit 2

Contexts: (021), (022), (023).

Level - Ground surface: 30.11m OD

Test Pit 2 was located to the southwest of TP1 in the central field adjacent to the field boundary with the northern field. The uppermost deposit consisted of a *c.* 0.20m depth of fine dark grey-brown clay-silt topsoil (021). Below this was a layer approximately 0.20m deep of plough disturbed alluvium (022) above the undisturbed red clay substratum (Mercia Mudstone Group) (023) which was encountered at approximately 0.40m below current ground level. There was no evidence of archaeological deposits or finds in this test pit.

4.3 Test Pit 3

Contexts: (031), (032)

Level - Ground surface: 36.90m OD

Test Pit 3 was located to the northwest of TP1 towards the top of the knoll in the northern field. The uppermost deposit consisted of a *c.* 0.18m depth of fine dark grey-brown clay-silt topsoil (031). Immediately below this was the Mercia Mudstone Group substratum (032). There was no evidence of archaeological deposits or finds in this test pit.

4.4 Test Pit 4

Contexts: (041), (042), (043), [044]

Level - Ground surface: 31.60m OD

Test Pit 4 was located to the south of TP3 in the northern field. The uppermost deposit consisted of a *c.* 0.18m depth of fine dark grey-brown clay-silt topsoil (041). Immediately below this was a reddish brown silty clay Mercia Mudstone Group substratum (042). Cutting the substratum was a north south aligned gully [044], 0.18

wide by 0.05m deep with a light orangey grey plastic clayey silt fill (043). This was excavated but no material was recovered

4.5 Test Pit 5

Contexts: (051), (052),

Level - Ground surface: 30.07m OD

Test Pit 5 was located in the south western corner of the central field. The uppermost deposit consisted of a *c.* 0.16m depth of fine mid grey-brown clay-silt topsoil (051). Immediately below this was the sandy alluvium natural substratum (052). There was no evidence of archaeological deposits or finds in this test pit.

4.6 Test Pit 6

Contexts: (061), (062), (063), [064] , (065)

Level - Ground surface: 32.10m OD

Test Pit 6 was located to the west of TP4 in the northern field. The uppermost deposit consisted of a *c.* 0.18m depth of fine dark grey-brown clay-silt topsoil (061) . Below this was a layer approximately 0.10m deep of plough disturbed sands and gravels (062) overlying a yellow-orange silty clay substratum (065). Cutting (062) and sealed by (061) was a very shallow east - west aligned gully [064], 0.18 wide by 0.05m deep with a grey-brown clay-silt fill (063). This was excavated but no material was recovered (Fig. 6). This may be the base of a medieval furrow from their strip field system or a ploughed out boundary ditch.

5. Conclusion

The watching brief revealed topsoil overlying plough disturbed substrata which in turn lay above the undisturbed natural Mercia Mudstone Group (TP 2 and 3) and sands and gravels (TP1; 4-6). Both of the natural substrata exhibited variation in their clay, silt and pebble content.

Two features of possible archaeological origin were revealed. A gully located in TP04 was aligned north - south but no material was present. It is possible that this is of geological origin. The east – west aligned linear feature in TP06 may be the base of a medieval furrow. No other archaeological material was recovered.

6. Acknowledgments

I would like to thank Mr Tim Young and the contractors of White Young Green for their assistance. James Patrick carried out the watching brief and Patrick Clay was the project manager. Leon Hunt assisted with the EDM survey and prepared the figures.

7. Bibliography

Birmingham Archaeology, 2002 *Land to the east of Red Hill Farm, Ratcliffe on Soar, Nottinghamshire: An archaeological evaluation 2001*. Birmingham University Field Archaeology Unit

Elsdon, S.M. 1983. Iron Age and Roman sites at Red Hill, Ratcliffe on Soar, Nottinghamshire: excavations of E. Greenfield, 1963 and previous finds, *Transactions of the Thoroton Society*, **86**, 14-48.

Stephenson, B., 1999 *East Midlands Parkway, Ratcliffe on Soar, Nottinghamshire. Desk based assessment* CPM Environment Planning and Design

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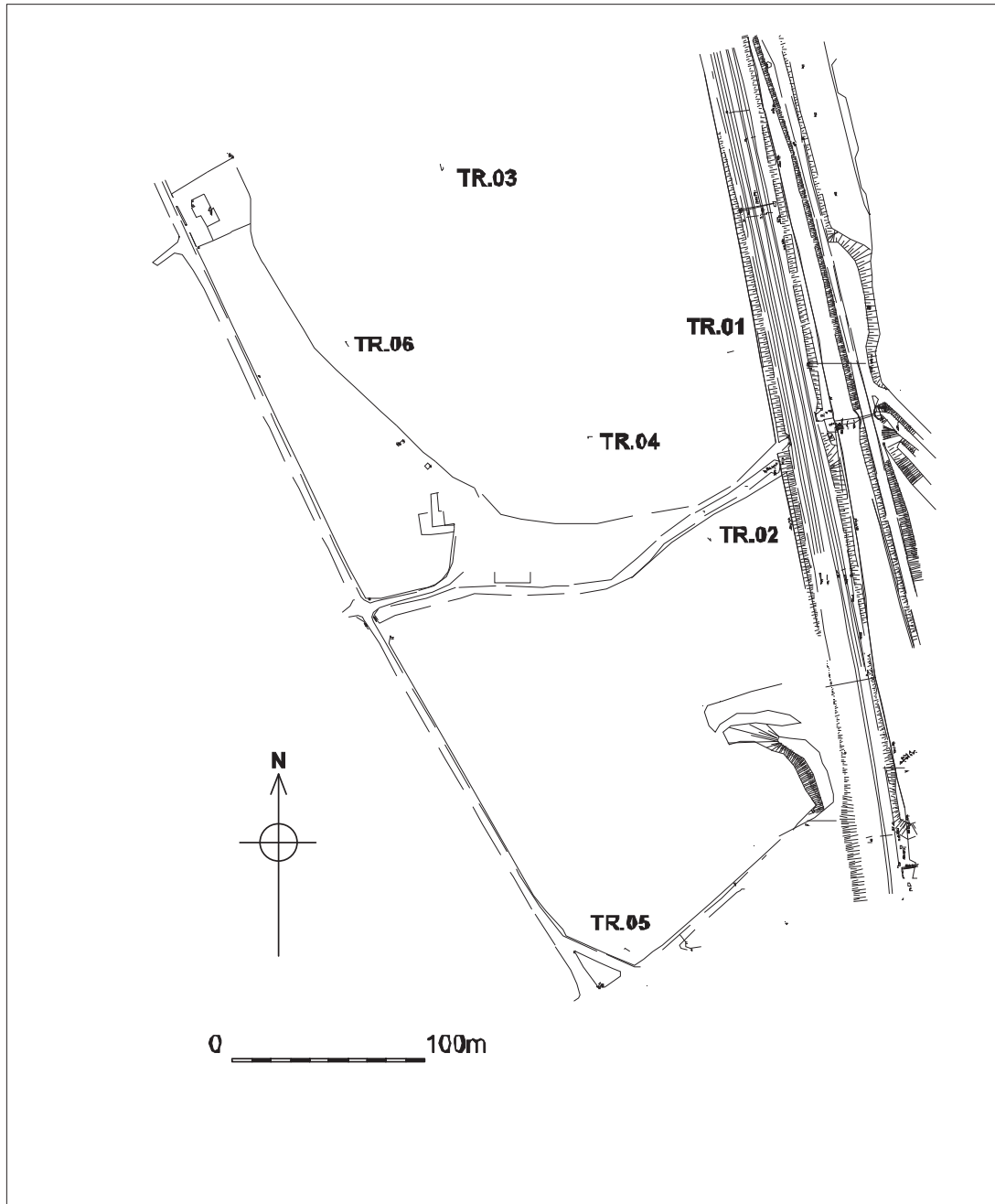


Figure 2 Location of test pits

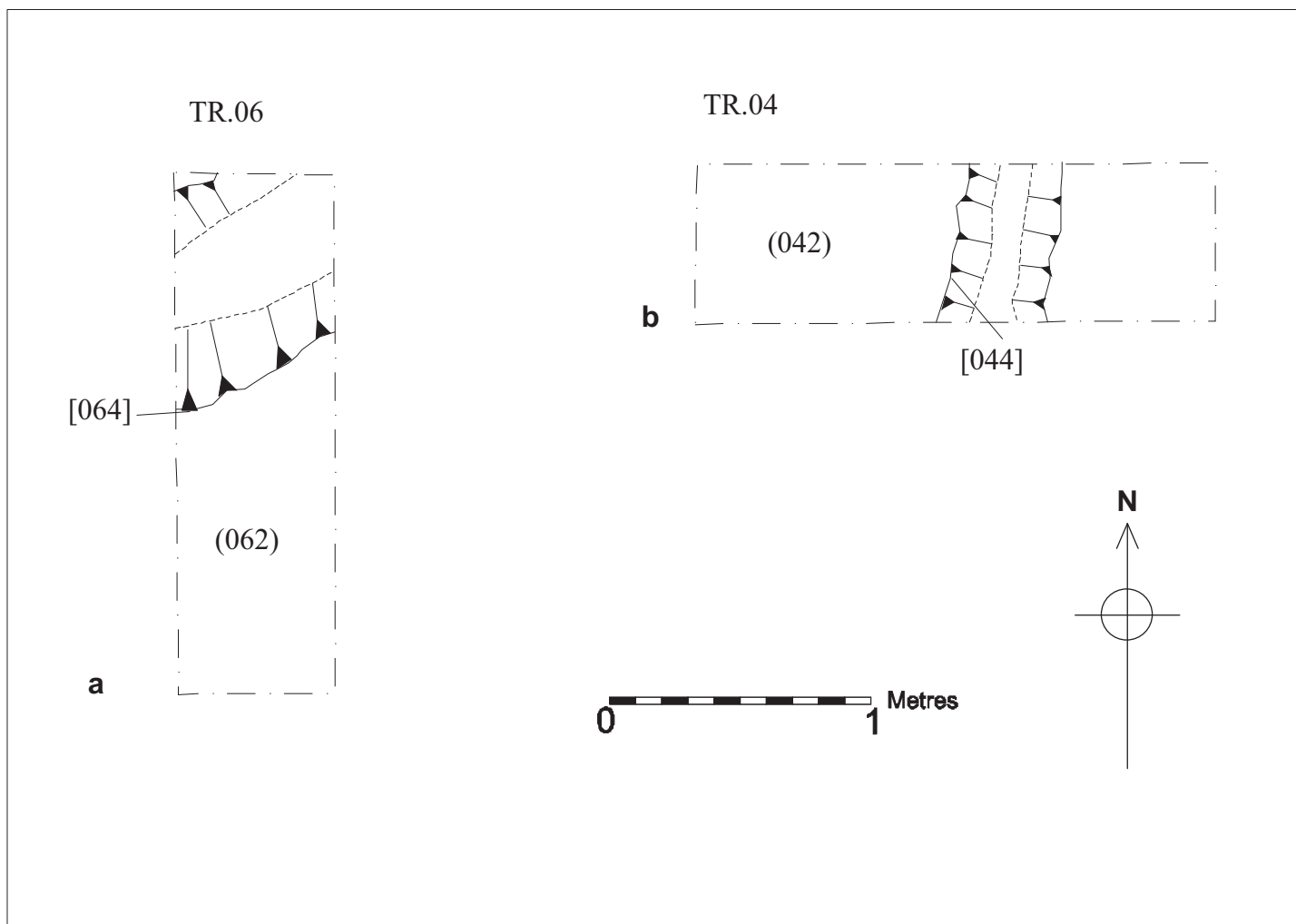


Figure 3 Plans of possible features in Test Pit 4 (left) and Test Pit 6

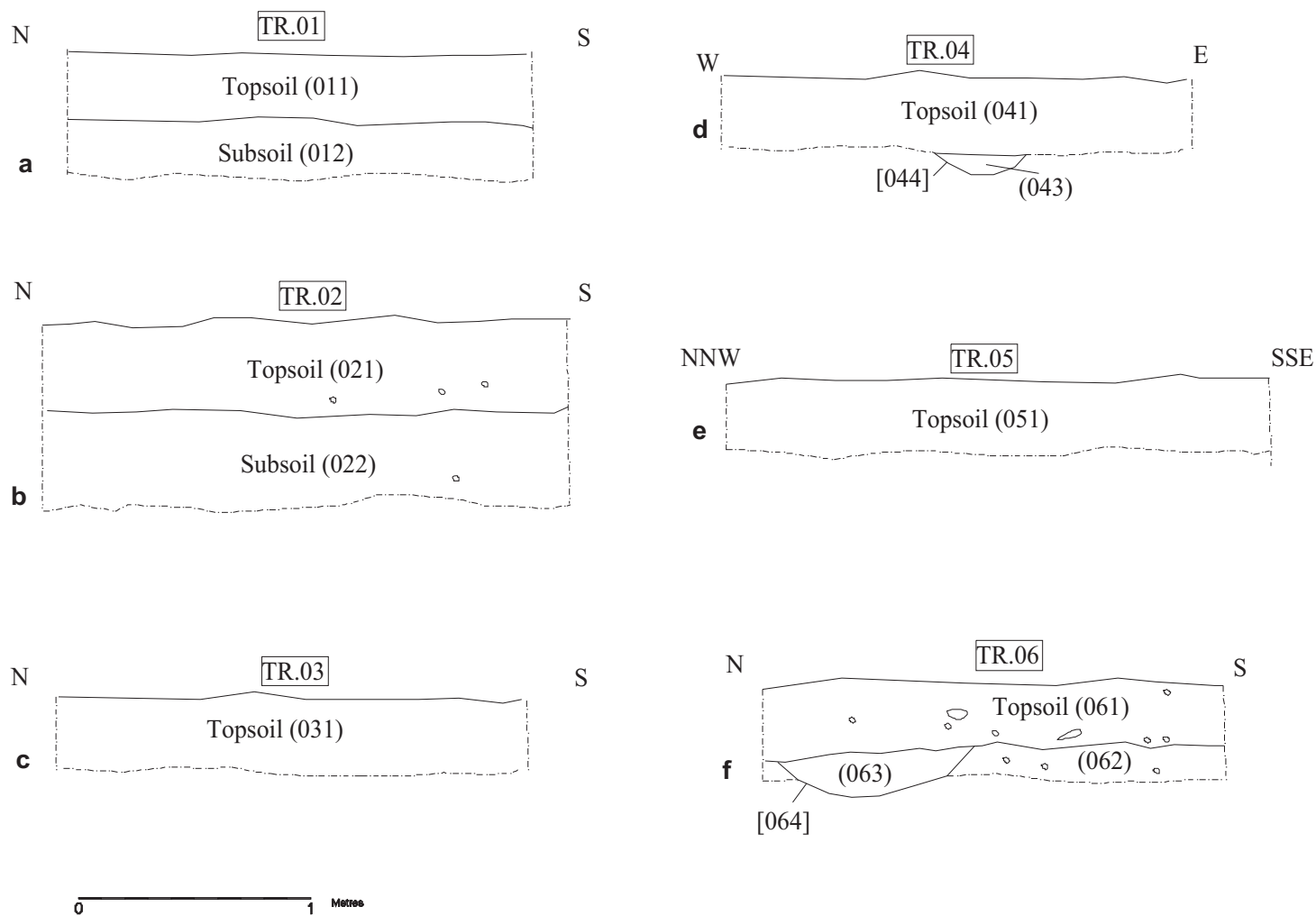


Figure 4 Sections through Test pits 1-6

Appendix 1

UNIVERSITY OF LEICESTER ARCHAEOLOGICAL SERVICES

Design Specification for archaeological work

*Ratcliffe on Soar, Parkway, Nottinghamshire
(SK 4495 4295)*

Planning Authority: Rushcliffe Borough Council

For: RPS Group Ltd

1 Definition and scope of the specification

1.1 This specification provides a written scheme for an archaeological watching brief during geo-technical site investigation works at Red Hill Farm, Ratcliffe on Soar, Nottinghamshire (SK 4495 4295).

1.2 The site is currently pasture and arable fields.

1.3 All archaeological work will adhere to the Institute of Field Archaeologist's (IFA) *Code of Conduct and Standard and Guidance for Archaeological Watching Briefs* .

2 Background

2.1 Requirement for archaeological work

2.1.1 The archaeological watching brief is being undertaken to cover geo-technical site investigation works and identify any deposits of archaeological importance which might be revealed.

2.2 Archaeological potential

2.2.1 The site lies close to a scheduled ancient monument and within an area of known Romano-British settlement.

3 Aims

3.1 Through archaeological observation of trial trench excavation by the client's contractors:

1. To identify the presence/absence of any archaeological deposits.
2. To establish the character, extent and date range for any archaeological deposits and inform future evaluation design proposals.
3. To record any archaeological deposits to be affected by the ground works.
4. To produce an archive and report of any results.

4 Methods

4.1 The project will involve the presence on site of an experienced professional archaeologist during the works specified above. During these groundworks, if any archaeological deposits are seen to be present, the archaeologist will record areas of archaeological interest, subject to safe access and the geo-technical contractor's permission to enter trial pits.

4.2 The archaeologist will co-operate at all times with the contractors on site to ensure the minimum interruption to the work. The watching brief will be conducted in a manner that does not have an impact of the programme of the site investigation works.

4.3 Any archaeological deposits located will be hand cleaned and planned as appropriate (subject to 4.1 and 4.2 above). Samples of any archaeological deposits located will be hand excavated. Measured drawings of all archaeological features will be prepared at a scale of 1:20 and tied into an overall site

plan of 1:100. All plans will be tied into the National Grid using an Electronic Distance Measurer (EDM) where appropriate.

4.4 Archaeological deposits will be excavated and recorded as appropriate (subject to 4.1 and 4.2 above). to establishing the stratigraphic and chronological sequence of deposits, recognising structural evidence and recovering economic, artefactual and environmental evidence.

4.5 All excavated sections will be recorded and drawn at 1:10 or 1:20 scale, levelled and tied into the Ordnance Survey datum. Spot heights will be taken as appropriate. Upon completion of each site investigation pit, at least one section will be drawn or representative part (subject to Health & Safety restrictions on access and recording) including a profile of the top of the natural deposits (extrapolated from cut features etc., if the trench has not been fully excavated).

4.5 Any human remains encountered will be initially left *in situ* and only be removed under a Home Office Licence and in compliance with relevant environmental health regulations. RPS (Project Archaeological Consultants) will be informed immediately on their discovery. RPS will inform their client Nottinghamshire County Council and the coroner. All finds of gold and silver will be recorded, removed to a safe place and reported to the Coroner in accordance with the Treasure Act 1996. Where retrieval cannot be effected the same day, appropriate security measures will be put in place to safeguard the finds. RPS will inform the Employer, Nottinghamshire County Council and the coroner.

4.6 Internal monitoring procedures will be undertaken including visits to the site from the project manager. These will ensure that professional standards are being maintained. RPS Planning will make provision for monitoring visits with representatives of Network Rail and Nottinghamshire County Council, if required.

5 Recording Systems

5.1 Individual descriptions of all archaeological strata and features excavated or exposed will be entered onto prepared pro-forma recording sheets.

5.2 A site location plan based on the current Ordnance Survey 1:1250 map, (reproduced with the permission of the Controller of HMSO) will be prepared. This will be supplemented by a plan at 1:200 (or 1:100), which will show the location of the areas investigated.

5.3 Some record of the full extent in plan of all archaeological deposits encountered will be made on drawing film, related to the OS grid and at a scale of 1:10 or 1:20. Elevations and sections of individual layers of features should be drawn where possible. The OD height of all principal strata and features will be calculated and indicated on the appropriate plans.

5.4 An adequate photographic record of the investigations will be prepared. This will include black and white prints and colour transparencies illustrating in both detail and general context the principal features and finds discovered. The photographic record will also include 'working shots' to illustrate more generally the nature of the archaeological operation mounted.

5.5 This record will be compiled and fully checked during the course of the watching brief.

5.6 All site records and finds will be kept securely.

6 Report and Archive

6.1 A report on the watching brief will be provided following the groundworks.

6.2 Copies will be provided for the client, Sites and Monuments Record and planning Authority. The copyright of all original finished documents shall remain vested in ULAS with Licence granted to the Project Consultant and Employer. ULAS will be entitled as of right to publish any material in any form produced as a result of its investigations, subject to the approval of the Project Archaeological Consultants and Employer.

6.3 A full copy of the archive as defined in the 'Guidelines for the preparation of excavation archives for long-term storage' (UKIC 1990), and Standards in the Museum care of archaeological collections (MGC 1992) and 'Guidelines for the preparation of site archives and assessments for all finds (other than fired clay objects) (Roman Finds Group and Finds Research Group AD 700-1700 1993) will be presented to Nottinghamshire County Council SMR and an appropriate registered within six months of the completion of analysis. This archive will include all written, drawn and photographic records relating directly to the investigations undertaken.

7. Publication

7.1 A summary report will be submitted to a suitable regional or national archaeological journal within one year of completion of fieldwork.

8. Timetable and Staffing

8.1 The watching brief is scheduled to commence at the inception of the contractors groundworks. An experienced archaeologist will be present during this work. It is proposed to watch all works, as specified above, in consultation with the contractors.

9. Health and Safety

9.1 ULAS is covered by and adheres to the University of Leicester Statement of Safety Policy and the ULAS Health and Safety Manual (2005) with appropriate risks assessments for all archaeological work. A draft Health and Safety statement for this project is in the Appendix. The relevant Health and Safety Executive guidelines will be adhered to as appropriate.

10. Insurance

10.1 All ULAS work is covered by the University of Leicester's Public Liability and Professional Indemnity Insurance. The Public Liability Insurance is with St Pauls Travellers Policy No. UCPOP3651237 while the Professional Indemnity Insurance is with Lloyds Underwriters (50%) and Brit Insurances (50%) Policy No. FUNK3605.

11. Bibliography

MAP 2, *The management of archaeological projects* 2nd edition English Heritage 1991

MGC 1992, *Standards in the Museum Care of Archaeological Collections* (Museums and Galleries Commission)

RFG/FRG 1993, *Guidelines for the preparation of site archives* (Roman Finds Group and Finds Research Group AD 700-1700)

SMA 1993, *Selection, retention and Dispersal of Archaeological Collections. Guidelines for use in England, Wales and Northern Ireland* (Society of Museum Archaeologists)

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Appendix 2

Draft Project Health and Safety Policy Statement

*Ratcliffe on Soar, Parkway, Nottinghamshire
(SK 4495 4295)*

Planning Authority: Rushcliffe Borough Council

For: RPS Group Ltd

1 Nature of the work

1.1 This statement is for an archaeological watching brief.

1.2 The work will involve observation of groundworks during daylight hours and recording of any underlying archaeological deposits revealed. Overall depth is likely to be *c.* 0.75 - 1.5m. This will involve the examination of the exposed surface with hand tools (shovels, trowels etc) and excavation of archaeological features. All work will adhere to the contractors on-site Health and Safety policy, the University of Leicester Health and Safety Policy and follow the guidance in the ULAS Health and Safety manual together with the following relevant Health and Safety guidelines.

1.3 HSE Construction Information Sheet CS8 Safety in excavations.
HSE Industry Advisory leaflet IND (G)143 (L): Getting to grips with manual handling.
HSE Industry Advisory leaflet IND (G)145 (L): Watch Your back.
CIRIA R97 Trenching practice.
CIRIA TN95 Proprietary Trench Support Systems.
HSE Guidance Note HS(G) 47 Avoiding danger to underground services. HSE Guidance Note GS7 Accidents to children on construction sites

1.4 The Health and Safety policy on site will be reassessed during the watching brief

2 Risks Assessment

2.1 Contaminants

A risk assessment has been prepared by ENSR (2001a and b) including a soil gas survey. Some hydrocarbon and heavy metal impacted soil was detected with concentrations of arsenic and cyanide. Contaminated soil will be removed from the site.

Precautions. No contact will be made with the areas of contaminated soils. Protective clothing will be worn at all times.

2.2 Working within a building site

Precautions. No work will be undertaken beneath section faces. Loose spoil heaps will not be walked on. Protective footwear will be worn at all times. Hard hats will be worn at all times. A member of staff qualified in First Aid will be present at all times. First aid kit, vehicle and mobile phone to be kept on site in case of emergency.

2.3 Working with plant.

Precautions. Hard hats, protective footwear and hazard jackets will be worn at all times. No examination of the area of stripping will take place until machines have vacated area. Observation of machines will be maintained during hand excavation. Liaison will be maintained with the contractors to ensure programme of machine movement is understood.

2.4 Working within areas prone to waterlogging.

Protective clothing will be worn at all times and precautions taken to prevent contact with stagnant water which may carry Vialls disease or similar.

2.5 Working with chemicals.

If chemicals are used to conserve or help lift archaeological material these will only be used by qualified personnel with protective clothing (i.e a trained conservator) and will be removed from site immediately after use.

2.6 Other risks

Precautions. If there is any suspicion of unforeseen hazards being encountered e.g chemical contaminants, unexploded bombs, hazardous gases work will cease immediately. The client and relevant public authorities will be informed immediately.

2.9 No other constraints are recognised over the nature of the soil, water, type of excavation, proximity of structures, sources of vibration and contamination.

Patrick Clay
04/09/2006