An Archaeological Watching Brief at Oakerthorpe, near Alfreton.

April 2008

Post-excavation photograph of Plot 3

ARS Ltd Report 2008/38
April 2008

Planning ref: AVA/2004/0833

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Archaeological Research Services Ltd

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EXECUTIVE SUMMARY

In March and April 2008 Archaeological Research Services Ltd were commissioned by Thistledown Developments Ltd to undertake an archaeological watching brief at Four Lanes Ends, Oakerthorpe. The monitoring was carried out during ground works for fourteen new properties.

Following a ground investigation undertaken by GRM Development Solutions in November 2007 it was established that the embankment that slopes down towards the B6013 to the east of the site was deemed to be the least disturbed area of the site. As the Roman road, known as Ryknield Street (SMR 26204), is believed to have followed the line of the B6013 through Oakerthorpe it was possible that undisturbed archaeological deposits may have been located below the embankment. The rest of the site appeared to have been levelled substantially to accommodate a 20th century factory, recently demolished to make way for the current development. There is evidence of coal workings tot the north of the site.

No features of archaeological significance or buried land surfaces were revealed.

1. INTRODUCTION

In March and April 2008 Archaeological Research Services Ltd were commissioned by Thistledown Developments Ltd to undertake an archaeological watching brief at Four Lanes Ends, Oakerthorpe (Fig. 1). The work was carried out during groundworks for the development of fourteen residential units.

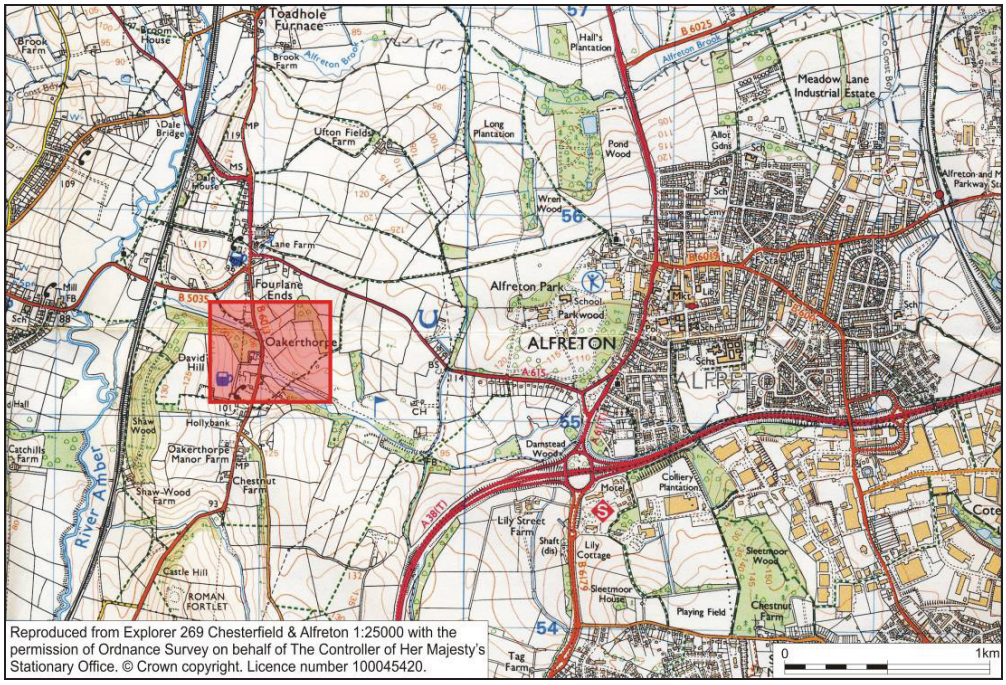


Fig. 1 Site location.

2. LOCATION AND GEOLOGY

2.1 The site, which is approximately 0.9ha in size, is situated north-west of the junction of the B6013 and A 615 and is 2.5km south-west of Alfreton (SK 38886 55805) (Fig. 1).

2.2 The solid geology of the site comprised of Lower Coal Measures mudstone and sandstone (Aitkinhead, N. 2002, 58).

3. BACKGROUND

3.1 The site is located on the alignment of the Roman Road known as Ryknield Street (SMR 26204). The location of the road has been fairly well established through excavation and research in this area and has been clearly shown on the Ordnance Survey maps from 1880s. Approximately 1.5km to the south of the site is a Roman fort called Castle Hill Camp (SMR 26203 and Scheduled Monument DR98) and to the north-east of the site, approximately 500m away, is the site of a probable Roman building (SMR 26213).

3.2 In 1953 and 1954, two excavations were carried out with the aim of proving the course of Ryknield Street at a number of points between Chesterfield and Clay Cross (Oakley 1955). These specific points had been referenced by 18th and 19th century writers and the excavations were undertaken to test the accuracy of these accounts.

3.3 New Tupton, located approximately seven miles north of Oakerthorpe, was the focus of the main excavations. After cutting a small trench 'the road was found as a layer of flat stones of average size about 5 ins. square, resting on a foundation, 12 ins. thick, of rammed gravel and yellowish clay' (Oakley 1955, 145).

3.4 New Tupton was excavated again in 1975 when a mechanical section was cut through the *agger* (earthwork) of the Roman road (O'Brien 1976). Trent Valley Archaeological Research Committee revealed two road surfaces (Fig. 2). The earlier surface consisted of small stones which were loosely packed together and laid onto the natural clay. The later surface was much thicker and consisted of irregularly sized blocks packed into the earth (O'Brien 1976). This does not prove the position of the Roman Road in Oakerthorpe, but provides a firmer reassurance that the alignment of the road ran through this village.

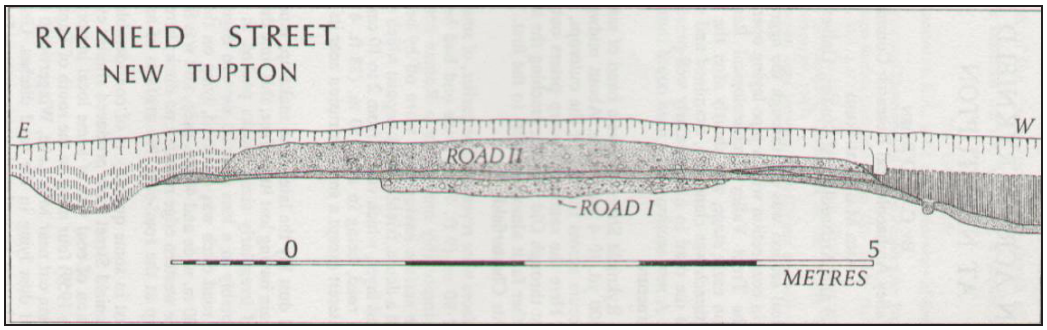


Fig. 2: Stratigraphic plan of the 1975 excavation of Ryknield Street at New Tupton indicating the two recorded road surfaces revealed during the diggings (taken from O'Brien 1976, 24).

3.5 The Roman road was an important route running north-south through the Midlands, giving access from the Fosse Way, north-east of Cirencester to settlements at Alcester, Derby, Chesterfield and Templeborough in Yorkshire. Given all this information it is very likely that the road ran through Oakerthorpe approximately along the line of the B6013.

3.6 The development site had been occupied by a large 20th century factory building. The construction of the factory has impacted minimally on the east of the site but to a greater scale on the west side. Ordnance Survey maps indicate that the east of the site has not been exposed to repeated disturbance or development, suggesting that potential archaeological features may remain on the site.

4. AIMS OF THE PROJECT

4.1 The project was an archaeological watching brief and the aims of the project were as follows:

- To observe all groundwork for the presence of archaeology.
- To alert all interested parties to the possible destruction of archaeological features.
- To fully record and excavate any archaeological features encountered.

4. METHOD STATETMENT

5.1 All machine excavation on the site was observed by an archaeologist to ensure that no archaeological remains were disturbed. Any features or structures were to be fully cleaned and recorded in accordance with the standards stipulated by the Institute of Field Archaeologists (IFA) and the guidance provided in 'Archaeological Science at PPG16 Interventions' (English Heritage 2003).

5.2 Any features or structures were to be photographed, recorded and, where possible, fully-excavated. All the contexts were recorded on pro-forma sheets and a context register was maintained.

5.3 Photographs were taken using a 35mm SLR camera with black and white print film, and colour transparency, as well as with a digital camera (7.1 megapixel resolution).

5.4 All work was carried out wearing appropriate safety equipment. A system of hand signals was agreed before work commenced to allow for easy communication and a safe environment for examining the potential archaeological remains while supervising machine excavation.

6. RESULTS

6.1 The specification required that a watching brief should be carried out to observe any groundworks taking place for the proposed development, in order to identify any potential archaeological remains. The land where the factory had previously been situated was raised above the height of the B6013. The ground level then sloped down towards the road creating a bank (Fig. 3, Area B) below which possible archaeological remains could be present. The bank was removed to form a flat terrace level where the new houses in Area B were to be located (Figs. 3 and 4).

Fig. 4: Working shot of the removal of the soil to form a terrace for Area B.

6.2 Upon excavation of the bank in Area B the first deposit to be encountered below the topsoil (001) was made ground which included redeposited natural materials, bricks and coal (002). The made ground was encountered across the site and can be interpreted as colliery spoil (Fig. 5). The depth of this made ground (002) varied across the length of the bank but averaged between 2.5m – 3m in depth. At the south east extent of the bank the made ground was excavated to a depth of approximately 4m with the natural substratum (002) still not being encountered. This is in agreement with the information provided in the GRM Development Solutions report that states that in the south of the site, the Made Ground identified as 'largely reworked natural material considered to be colliery spoil', varied from a depth of 2.6 metres to 4.7 metres.

6.3 At the northern extent of the bank, where the made ground (002) was the shallowest, the clay substratum (003) was encountered at a depth of approximately 2m below the modern ground level. Throughout this groundwork, excavations were watched by an archaeologist to observe for any archaeological features.

Fig. 5: Section of the bank showing the made ground (002).

6.4 A disused mine shaft infilled with clay was revealed during the preliminary groundwork in the north of Area B where the made ground (002) was at its shallowest. The shaft was circular in shape and measured 2m in diameter. The shaft was excavated to a depth of 7m before being subsequently backfilled with concrete to provide a stable ground surface for building on (Fig. 6). No features of archaeological interest were able to be identified during the removal of the 7m shaft infill.

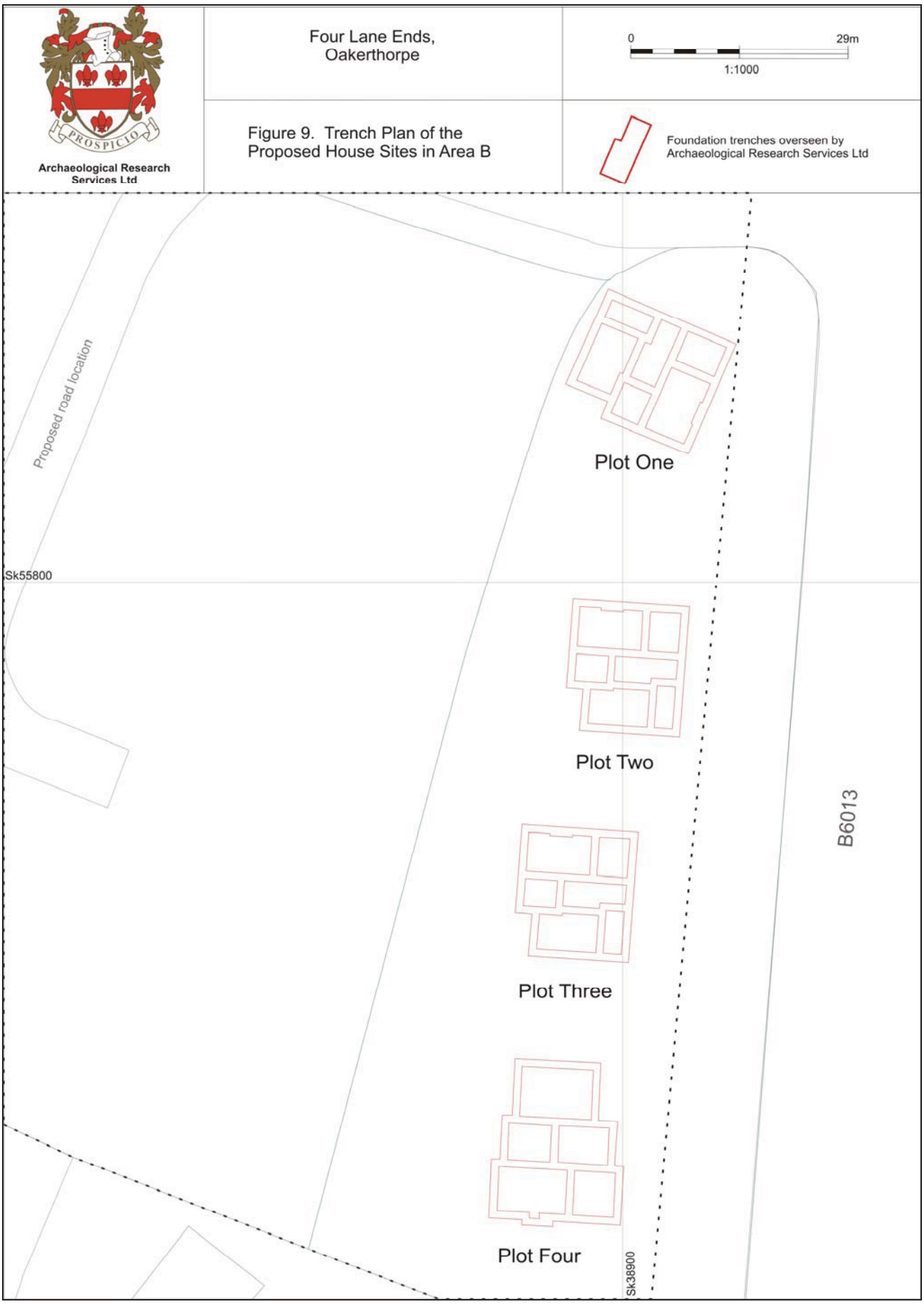
Fig. 6: Post-excavation of the mine shaft.

6.5 The terraced area was then covered in a layer of compacted aggregate that measured approximately 0.7m in depth (Fig. 7). The footings for the new building were to be excavated through this deposit to a depth of approximately 1.5m cutting in to the ground below between 0.3m – 0.5m. The majority of the ground below had been established, during the removal of the bank, as the natural substratum (003), but as the depth of the modern overburden (002) had not been established at the south east end of the area the work was watched by a representative of Archaeological Research Services Ltd (Fig. 8). The depth of the modern overburden was still not established in this area.

Fig. 7: Area B shown after the bank has been removed and a levelling layer of aggregate deposited ready for construction to begin.

Fig. 8 Cut for footing for house 3 showing the builders gravel on top of the clay (003) with a natural clay seam (scale: 0.5m graduations on the poles and 0.25m on the arrow).

6.6 Only 4 of the proposed fourteen properties are located within Area B, the area on site identified as having archaeological potential (Fig. 8). During the excavation of the footings for the houses in Area B no archaeological finds or deposits were encountered. It was agreed with the Development Control Officer for Derby County Council in advance of works that the depth of the excavations in the upper areas of the site to the west would not reach the potential archaeological horizon and an archaeologist was not required to watch these excavations.



7. STRATIGRAPHY

7.1 *Topsoil*

The topsoil (001) covered the top of the bank which was removed prior to excavating the trenches. It varied between 0.15 metres in depth at the south end of the site and 0.12 metres in depth at the north end of the site. It consisted of a very fine grey-brown sandy material (7.5YR 4/3) with inclusions of small stones and patches of demolition rubble.

7.3 *Modern Overburden*

Across the site, directly below the topsoil (001) and tarmac was a made ground (002) that varied in character but was predominately an orange-brown, silty clay with inclusions of gravel, bricks, coal waste, mudstone and sandstone. This layer was thickest towards the south of the site and measured to a depth of between 0.6 metres and 7.5 metres across the site. The deposit was largely reworked natural material considered to be colliery spoil.

7.4 *Natural substratum*

Directly below the topsoil (001) and made ground (002) lay the natural clay substratum (003). This existed throughout the site and consisted of a very fine clayey-sand which was orange, mottled with brown, yellow and grey (10YR6/3 predominantly). The depth of this layer is unknown as it continued beyond the depth of excavation.

7.5 *Coal Seam*

A coal seam (005) ran north-south across Area B from the north corner of Plot One to the south corner of Plot Four (Fig. 9). The layer varied in depth from 0.28 metres to 0.4 metres.

7.6 No features, finds or deposits of archaeological significance were revealed during this project.

Fig. 10 Natural coal seam that was found within the clay substratum in Area B.

8. CONCLUSION

8.1 There were no archaeological features, deposits, buried land surfaces or small finds revealed during the ground works for this project.

9. PUBLICITY, CONFIDENTIALITY AND COPYRIGHT

9.1. Any publicity will be handled by the client.

9.2. Archaeological Research Services Ltd will retain the copyright of all documentary and photographic material under the Copyright, Designs and Patent Act (1988).

10. STATEMENT OF INDEMNITY

10.1 All statements and opinions contained within this report arising from the works undertaken are offered in good faith and compiled according to professional standards. No responsibility can be accepted by the author/s of the report for any errors of fact or opinion resulting from data supplied by any third party, or for loss or other consequence arising from decisions or actions made upon the basis of facts or opinions expressed in any such report(s), howsoever such facts and opinions may have been derived.

11. ACKNOWLEDGEMENTS

11.1. Archaeological Research Services Ltd would like to thank all those involved in this project, in particular Jason Melrose of Thistledown Developments Ltd.

12. REFERENCES

British Geological Survey 1979. *Geological Survey 1:50000 Map.* Third Edition (Solid). Southampton: Ordnance Survey.

GRM Development Solutions (2007) *Summary report Review* Unpublished document.

Oakley, R. H.. 1955. 'Excavations of Ryknield Street near Chesterfield, 1953 and 1954' *Derbyshire Archaeological Journal.* Vol. 75. 144 - 149.

O'Brien, C. F. 1976. 'A Section across Ryknield Street at new Tupton' *Derbyshire Archaeological Journal* Vol. 156. 23-25.

Websites

British Geological Survey www.bgs.ac.uk/geoindex/index.htm

APPENDIX I: BRIEF

BRIEF FOR AN ARCHAEOLOGICAL WATCHING BRIEF

SITE NAME: Catering Connections Ltd., Chesterfield Road, Oakerthorpe
PLANNING APPLICATION NUMBER: AVA/2004/0833
NGR: SK 38886 55805
ISSUED BY: A. M. Myers (Development Control Archaeologist)
ISSUED TO: Karen Storey (GVA Grimley)
DATE: 7th February 2007

1.0 Introduction

1.1 Planning application AVA/2004/0833 has received planning consent for a residential development on the site of Catering Connections Ltd., Chesterfield Road, Oakerthorpe.

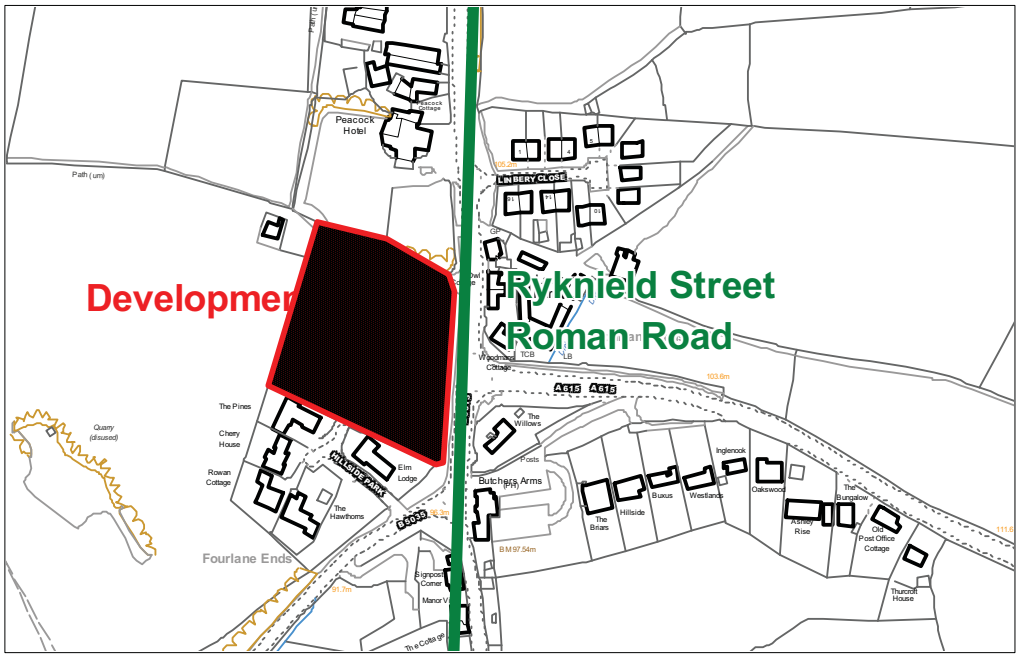


Fig. 1: Location of the development site and Ryknield Street Roman Road

1.2 As a condition of the planning consent there is a requirement that no development shall take place until the applicant has secured the implementation of an archaeological watching brief in accordance with a written scheme of investigation submitted by the applicant and approved by the Development Control Archaeologist advising the Local Planning Authority.

1.3 No archaeological desk-based assessment has been produced.

1.4 This document is a brief for an archaeological watching brief.

2.0 Background

2.1 The site is on the alignment of SMR 26204 "Ryknield Street Roman Road". The position and alignment of the road is reasonably well established through this general area. The line of the road has been clearly shown in this area on Ordnance Survey mapping since the 1880s. Just over 1.5 km to the south is a Roman fort called “Castle Hill Camp” (SMR26203) which is a Scheduled Monument (DR98) occupying a prominent position overlooking the River Amber to the west. Ryknield Street runs along the high ground to the east of the river and passes the fort on its east side. 500m to the north-east of the development, in fields to the east of Ryknield Street, is the site (SMR26213) of a probable Roman building.

2.2 The Roman road known as Ryknield Street was an important route running nearly due south-north through the Midlands, to give direct access from the Foss Way, north-east of Cirencester, to settlements at Alcester, Wall (at the junction with Watling Street), Derby, Chesterfield and Templeborough in Yorkshire. It crossed the River Dove into Derbyshire at Stretton, somewhere near its junction with the Trent. From here it ran north-east to the Roman site at Little Chester on the northern edge of Derby. It then ran in a more northerly direction towards Chesterfield, its course being visible in some areas and uncertain in others. It probably passed just to the east of the modern core of Chesterfield, and then continued northwards towards the Roman site at Templeborough (Rotherham).

2.3 It seems certain the road ran through what is now Oakerthorpe, more-or-less along the line of the existing B6013. The development site lies to the north of Oakerthorpe Brook which flows east - west into the River Amber. The site sits on the western slope of a small north-south valley from which a small stream feeds into Oakerthorpe Brook. For Ryknield Street to run through this area it would almost certainly have utilised this small valley.

2.4 The development site is presently occupied by a large factory building surrounded by an area of hard surfacing. This has been built on a level surface terraced back into the slope. East of the building the impact of this terracing on ground levels has been minimal while the impact has been greatest on the west side.

2.5 Historic mapping shows that the site has not been subject to repeated disturbance or development. The Ordnance Survey (fig. 2) maps indicate that from the mid-late 19th century until latter part half of the 20th century, when the present factory was built, the site remained undeveloped. None of the earlier maps indicate quarrying activity within the site. The 1967 mapping shows the central block of the works within its present cartilage, suggesting that terracing into the western slope preceded the construction of the works. Subsequent extensions have been made on the west and northern sides of the works.

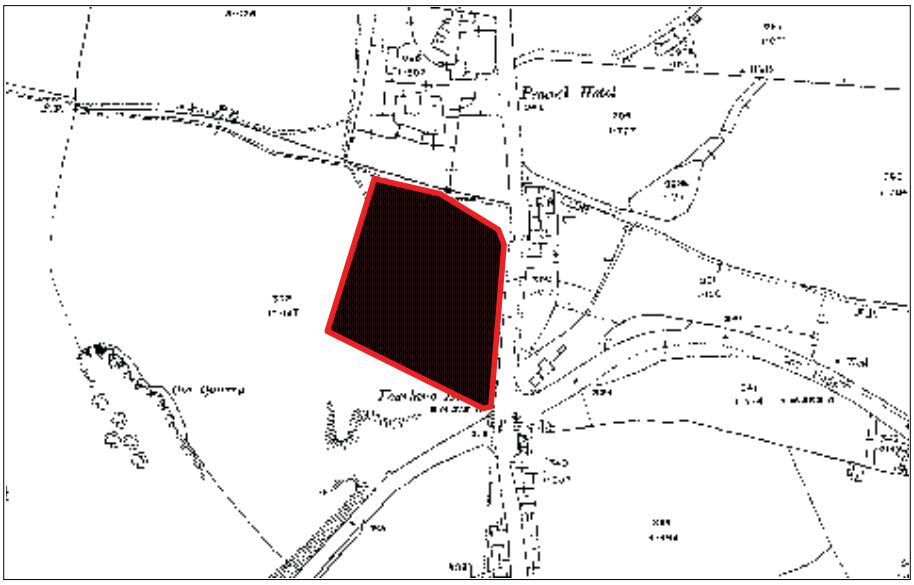


Fig. 2: 3rd Edition Ordnance Survey

3.0 Objective

3.1 The watching brief should provide for achieving an appropriate level of *preservation by record* for any archaeological deposits exposed during the development groundworks.

4.0 Fieldwork

4.1 The appointed archaeological contractor shall maintain a watching brief during all groundworks and activity, particularly on the eastern half of the site, that may cause disturbances to the ground surface thereby exposing buried archaeological features.

4.2. During the watching brief should any potential layers, features, structures or finds be exposed the archaeological contractor should be afforded sufficient time to clean, excavate, sample and record the archaeology.

4.3 The watching brief will not entail archaeological excavation beyond the areas exposed by the development works.

4.4 All archaeological fieldwork, recording of archaeological features and deposits and post-excavation analysis should be carried out to acceptable archaeological standards. The contractor will be expected to abide by the Code of Practice of the Institute of Field Archaeologists, and to follow the guidance provided in “Archaeological Science at PPG16 Interventions” (English Heritage 2003).

4.5 The appointed archaeologists should undertake a site risk assessment and operate at all times with due regard to health and safety regulations.

5.0 Monitoring

5.1 During the course of the fieldwork the Development Control Archaeologist (DCA) may undertake monitoring visits.

5.2 Should significant archaeological deposits be encountered the archaeological contractor should contact the DCA and arrange a convenient date and time for a site visit. Your contact will be:

Dr. Andrew Myers,
Development Control Archaeologist,
Derbyshire County Council,
Shand House,
Dale Road South,
Matlock,
Derbyshire DE4 3RY

Andy.myers@derbyshire.gov.uk
Tel: 01629 585146
Mob: 07781 850742
Fax: 01629 585507

6.0 Finds

6.1 Artefact collection policy should be concerned with the provision of adequate samples for meeting the objectives of the work. Discarded artefactual materials should be described and quantified through assignment to broad categories in the field. Analysis of finds will be undertaken, as necessary, by suitably qualified specialists. Retained finds should be cleaned, marked, catalogued and packed in materials, as appropriate, for long term storage (see **9.0 Archive Deposition** below).

7.0 Human Remains

7.1 In the event of human remains being encountered site works will cease and the Coroner's office notified. Such remains will remain *in situ* until authorised to continue by the Coroner and a Home Office licence obtained. The Coroner for Derby and South is,

Mr P. G. Ashworth,
St Katherins House,
St. Marys Wharf,
Mansfield Road,
Derby DE1 3TQ
Tel: 01332 294942

7.2 Analysis of any human remains will be undertaken, as necessary, by suitably qualified specialists.

8.0 Report

8.1 The preparation of the report should follow the guidelines published by the Institute of Field Archaeology.

8.2 Upon completion of the fieldwork a full report will be produced and copies submitted to the Local Planning Authority, the DCA and the Derbyshire SMR.

8.3 The report should include as a minimum,

- Non-technical summary
- Introductory statement
- Aims and purpose of the project
- Methodology
- An objective summary statement of results
- Conclusion
- Supporting illustrations at appropriate scales
- Supporting data – tabulated or in appendices, including as a minimum a basic quantification of all artefacts, ecofacts and structural data.
- Index to archive and details of archive location
- References
- Statement of intent regarding publication (see 8.5, 10.1)
- Confirmation of archive transfer arrangements (see 9.3)
- Copy of this brief

8.4 A full set of annotated, illustrative pictures of the site, excavation, features, layers and selected artefacts should be supplied to the SMR and deposited with the archive either as colour slides, or as digital images on a CD ROM.

8.5 A short summary report (see notes attached) should be supplied as hard copy and a PDF to the DCA along with the evaluation report. The appointed archaeological contractor should also provide the DCA with a written statement on how the project is to be published. *Where no further publication is envisaged then the short report will be published in an annual round-up on Developer Funded Archaeology in Derbyshire Archaeological Journal.*

9.0 Archive Deposition

9.1 Arrangements should be made from the outset of the project for the full and final archive to be deposited in Derby Museum and Art Gallery in accordance with their deposition and archiving standards. Your contact will be:

Jonathan Wallis,
Principal Curator (Collections)
Derby Museums and Art Gallery
Tel: 01332 716657

9.2 At the start of work (immediately before fieldwork commences) an OASIS online record http://ads.ahds.ac.uk/project/oasis/ must be initiated and key fields completed on Details, Location and Creators forms. All parts of the OASIS online form must be completed for submission to the SMR. This should include an uploaded .pdf version of the entire report (a paper copy should also be included with the archive).

9.3 Written confirmation of the archive transfer arrangements, including a date (confirmed or projected) for the transfer, must be included as part of the final report.

10.0 Publication

10.1 A summary of the project, with selected drawings, illustrations and photographs, should be submitted within 2 years of the completion of the project to Derbyshire Archaeological Journal for publication (see 8.5). The results of the work should be published at least in summary form in Derbyshire Archaeological Journal. A sheet of instructions for contributors is attached.

Guidance notes for contributors to the *Derbyshire Archaeological Journal* of interim and short reports on developer funded archaeology:

The aim is to publish annual compilations of short reports on developer funded archaeology in the county on a regular basis in the *Derbyshire Archaeological Journal,* in order to better inform the public of the results of the work being undertaken.

It is envisaged that the reports will take one of two forms;

1 Interim reports – short interim descriptions of an excavation or survey that will eventually be subjected to fuller publication.

2 Definitive reports – summaries of archaeological work which will not be pursued further. Note that even if the results were negative, if valid questions were posed then a brief explanation will be worthwhile.

MODEL – see 'Some Fieldwork in Derbyshire by the Trent & Peak Archaeological Unit in 1998-9' edited by Graeme Guilbert and Daryl Garton, *DAJ* vol. 121 (2001): 223-5. Number 18 is an example of an Interim report and numbers 19 to 20 are examples of definitive reports.

DETAILED NOTES

Set individual reports out in alphabetical order of site names.
NGR should follow site name, followed by names of those responsible for the report and/ or fieldwork.
Give due acknowledgement to sponsors of project within text.
Definitive reports should include whereabouts of the related written, drawn and photographic archive, as well as any artefacts.
Illustrations – include line drawings and/or photographs if appropriate.
References – include where appropriate at the end of each report.

FUNDING

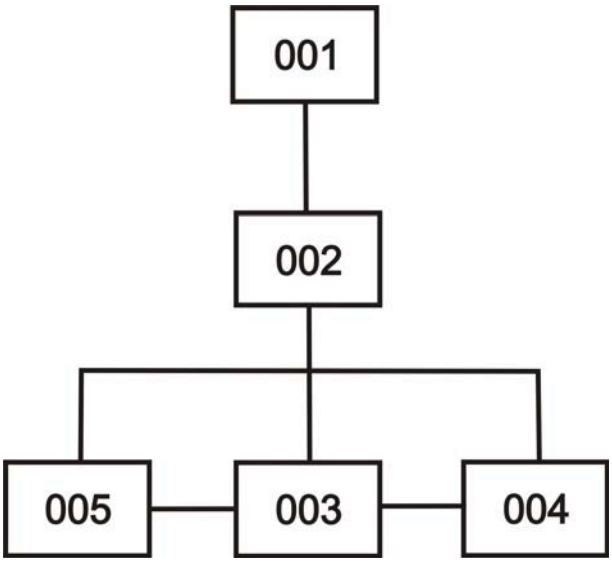
The Derbyshire Archaeological Society will require an offer of grant-aid towards the printing costs of short reports submitted in order to guarantee publication. Costs will be determined from the printer's estimate. A contribution towards these costs of around 60% will be sought from the relevant contracting archaeological organisation. For further information contact Pauline Beswick (Hon. Editor), 4 Chapel Row, Froggatt, Calver, Hope Valley, S32 3ZA or tel. 01433 631256.

DEADLINE

Reports received by the end of July will be considered for inclusion in *DAJ* in the year following. If too late they will be saved for consideration for the succeeding year.

Reports to be submitted in hard copy and on disc to:
Andy Myers at Environmental Services Department, Derbyshire County Council, Shand House, Dale Road South, Matlock, Derbyshire DE4 3RY.

APPENDIX II: HARRIS MATRIX



APPENDIX III: CONTEXT REGISTER

Context No.	Description
001	Topsoil
002	Made Ground (Colliery waste)
003	Clay substratum
004	Mine shaft
005	Coal seam

APPENDIX IV: PHOTOGRAPHIC REGISTER

Digital photographs

Shot Number	Photograph Content
1	Day One on site (facing east)
2	Day One on site (facing west)
3	Terracing the site (facing north)
4	Terracing the site (facing north-west)
5	Terracing the site (facing north)
6	Terracing the bank (facing north)
7	The bank (facing east)
8	Excavating the topsoil (facing south)
9	Excavating the mine shaft (facing east)
10	The mine shaft (facing south-west)
11	The mine shaft (facing north)
12	The mine shaft depth
13	The redeposited stone layer
14	Laying out the plots (facing south)
15	Laying out the plots of Area A (facing north-east)
16	Laying out the plots of Area B (facing north)
17	Excavation begins
18	Excavating house 2 (facing east)
19	Trench 2 of house 2 (facing south-west)
20	Excavation of house 2 (facing west)
21	Trench 1 of house 2 (facing north)
22	Trench of garage of house 2 (facing north)
23	Post-excavation of house 2 (facing east)
24	Post-excavation of house 2 (facing west)
25	Excavation of house 3 (facing south-east)
26	Stratigraphy of house 3 1 (facing north-east)
27	Stratigraphy of house 3 2 (facing north-east)
28	Stratigraphy of house 3 2 (facing north-east)
29	Post-excavation of house 3 (facing north)
30	Pre-excavation of house 4 (facing north)
31	Pre-excavation of house 4 (facing south)
32	Excavation of house 4 (facing west)
33	Post-excavation of house 4 (facing south)
34	Natural clay (003) and coal spit (005) (facing north)