

**An Archaeological Evaluation on Brook Street Derby (SK 3475 3661). Derby
Museum & Art Gallery Accession Number DBYMU 2004-15.**

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University of Leicester Archaeological Services Design Specification for
Archaeological Evaluation.

Summary

University of Leicester Archaeological Services was commissioned by Radleigh Homes to undertake an archaeological evaluation prior to construction work at Brook Street, Derby. A prior archaeological desk based assessment had suggested that the site was of some potential for buried remains of the Roman and medieval periods and its position adjacent to the Markeaton Brook raised the possibility of well preserved waterlogged material.

Four trenches were excavated on site, none of which uncovered any archaeologically significant remains and the area appeared to have suffered considerable disturbance during the nineteenth and twentieth centuries. Records will be deposited with Derby City Museum Service, accession number DBYMU 2004-15.

1. Introduction

University of Leicester Archaeological Services was commissioned by Radleigh Homes to undertake an archaeological evaluation by trial trenching in advance of proposed development of a site at Brook Street, Derby (SK 3475 3661). A previous desk-based assessment also commissioned by the client (Gnanaratnam 2004) suggested a reasonable possibility of buried archaeological remains within the development area. A programme of trial trenching was requested by the Development Control Archaeologist for Derby City Council to characterise the nature and extent of any archaeology which may be present on site, and to determine whether or not it may be impacted upon by the development proposals.

The site is located outside the historic core of Derby, on the Markeaton Brook (Fig 1); cartographic evidence indicates that the site was within the meadows which were originally part of the Nunnery of St Mary de Pratis, Derby, the remains of which are likely to lie approximately 300 metres to the west of the proposed development. None of the pre nineteenth century maps recorded buildings within the proposed development area; Cole's map of 1806 records a building along the Brook Street frontage, which may or may not be the cottages currently on site.

There is also slight chance that the Roman Ryknield Way, which leads to the Roman settlement of Little Chester, approximately 1000 metres to the north. The exact route of the road is uncertain; it has been projected as passing near to or even through the development area (Jonathan Wallis pers. comm.) although Brassington (1981, 88) locates the crossing in the vicinity of Nun's Street.

Being an urban area, the soils have not been mapped, however the proximity of Markeaton Brook, which borders the southern edge of the development site, would indicate likely alluvial deposits. The local geology is described as reddish-brown soils of silty or clayey loam based upon Keuper Marl or Sandstone (Soil Survey 1965) and the site is at approximately 48 metres OD.

2. Methodology

The site measures approximately 1648 sq m in area and was occupied by industrial buildings before their recent demolition. In accordance with the requirements of the Derby City Development Control Archaeologist, a strategy of trial trenching was devised to sample 6% of the development area, approximately 99 square metres, 62 linear metres of 1.6 metre wide trench. It was decided to excavate four trenches across the development area to investigate the areas previously occupied by buildings and the area within the footprint of the proposed new buildings (Fig 2).

The locations of these trenches were decided upon after demolition work had been completed. Information from Radleigh Homes indicated the presence of a substantial brick-built underground tank towards the Brook Street frontage; it was decided therefore not to locate a trench within this area as previously intended. Two twenty-metre trenches, one fifteen and one six-metre trench were excavated by machine equipped with a flat-bladed ditching bucket under continuous archaeological supervision.

3. Results

Trench 1

Interval	0m Northeast	2m	4m	6m Southwest
Ground (OD)	48.65	48.76	48.64	48.80
Depth of Overburden	47.98	47.91	47.71	47.92
Base of Trench	47.50	47.54	47.57	47.58

The visit carried out during the desk-based assessment recorded the presence on site of a standing wall of coursed millstone grit blocks incorporated into a brick-built wall. The bricks from the wall appeared to be handmade and likely to be early nineteenth century in date; a possible timber lintel was also incorporated into this wall, suggesting a possible gateway had been blocked up.

Although there was no obvious clue to the date of this wall, its northwest-southeast alignment suggests a possible boundary wall. The majority of the mid to late nineteenth century maps record a number of structures and boundary divisions occupying the rear of the site and it is more than likely therefore, that the wall is the remains of one of these.

Despite demolition it was still possible to trace the line of the wall and trench 1 was located perpendicular to the wall (aligned northeast-southwest) to examine its foundations and attempt to recover dating evidence. The trench was approximately 6 metres long, 1.6 metres wide and initially excavated to a depth of 1200mm, approximately 1000mm of nineteenth, twentieth century overburden was excavated until an horizon of pink mudstone and alluvial gravels was encountered.

Hand cleaning indicated that the wall continued for a further five courses, to a depth of approximately 1400mm, the lower courses all appeared to be undressed and sitting directly on top of the mudstone. The un-worked appearance of these lower courses suggests they were not intended to be visible and is therefore likely to be the foundations of the structure. The top course, however, did contain dressed stone and

was therefore probably superstructure. The size and shape of these stones was virtually identical to those used as footings for the nearby cottages and other buildings along Brook Street; it is likely therefore that the two structures are contemporary.

An examination of the northwest-facing section failed to uncover any evidence of a foundation cut for the wall; the overburden however, appeared to be no earlier than late nineteenth century in date and therefore this was expected. It appears therefore that this part of the site at least has been recently and comprehensively damaged.

Due to the extent of the ground disturbance it was decided to increase the depth of the trench until unquestionably undisturbed material was encountered. As a result, a further 600mm was excavated until clean alluvial gravels were encountered at 46.83m OD. The northwest facing section was then recorded at this depth and the trench released for backfilling.

Trench 2

Interval	0m ESE	2m	4m	6m	8m	10m	12m	14m	16m	19m WNW
Ground OD	48.67	48.69	48.66	48.73	48.78	48.76	48.77	48.82	48.91	48.95
Base of Trench	47.76	47.67	47.64	47.64	47.67	47.68	47.70	47.65	47.20	47.34

Trench 2 measured approximately 15 metres long and 1.6 metres wide and was located approximately 2 metres south of trench 1 on a northwest-southeast alignment. Once again approximately 1000mm of twentieth-century overburden was stripped revealing a horizon of pink mudstone with isolated pockets of alluvial gravels. Nothing of archaeological significance was observed at this level.

It was assumed that this level was undisturbed natural, however after further examination it was decided once again to continue excavation beyond this level to confirm the stratigraphy. Machining was stopped when certain alluvial deposits were encountered at approximately 46.64m OD. Although it was difficult to establish conclusively the origins of the mudstone deposit even after this additional machining, it is assumed to be natural in the absence of any evidence to the contrary.

Trench 3

Interval	0m SW	2m	4m	6m	8m	10m	12m	14m	16m	19m NE
Ground OD	48.59	48.49	48.33	48.34	48.34	48.24	48.17	48.20	48.24	48.25
Base of Trench	47.17	47.15	47.11	47.05	47.06	47.10	47.30	47.18	46.98	47.24

Trench 3 was excavated 8 metres northwest of trench 2, this time on a north northeast south southwest alignment, the area had been previously occupied by the now demolished building and was also within the footprint for the proposed development.

The trench was approximately 19 metres long, 1.6 metres wide; approximately 1000mm to 1500mm of modern overburden was excavated before a horizon of gravel and alluvial deposits was revealed there was no evidence of the mudstone layer

observed within trenches 1 and 2. Nothing of archaeological significance was observed and the trench was backfilled.

Trench 4

Interval	0m SW	2m	4m	6m	8m	10m	12m	14m	16m	18m NE
Ground OD	50.89	50.92	50.86	50.83	50.83	50.86	50.85	50.93	50.93	50.93
Base of Trench	48.99	48.94	48.94	48.97	48.93	48.84	48.87	48.90	48.92	48.96

Trench 4 was located approximately 10 metres northwest of trench 3 on the same alignment. The ground here was visibly higher and had previously been used as a yard, but there was evidence that a building had once occupied at least the southwestern part of the area. The depth of the modern overburden varied between 1800mm and 2000mm deep; as with trench 3, the underlying natural consisted of gravel and alluvial deposits. Once again there was nothing of archaeological significance visible within the trench and it was backfilled.

Of possible interest was the nature of the overburden within this trench. Unlike the previous trenches, the overburden appeared to be industrial waste consisting of vitrified bricks, iron slag and other industrial debris within a matrix of casting sand. There is no direct evidence for furnaces within the development area, although cartographic evidence indicates the presence of an iron works operating next door on the site now occupied by The Building Centre from at least 1882 until 1947. It is more than likely; therefore, that this material originated from next door and that significant early industrial remains may be present on that site.

4. Conclusion

Despite its location and the moderate potential of the site for archaeological remains, all of the trenches proved to be negative. The results from all four trenches would imply that the area has been comprehensively stripped and levelled during either the later part of the nineteenth century or the early twentieth century. There was no evidence either of any buried soils, which normally occur within urban build up, again indicating that the site has been levelled recently.

Cartographic evidence indicates that the development area remained open meadowland until the early part of the nineteenth century, followed by almost continuous re-building well into the twentieth century. Although other evidence has indicated that the nearby Markeaton Brook was prone to flooding, no indications of this were observed within the development area and it is possible, therefore, that the area had been stripped and levelled at some stage during a recent phase of re-development.

It seems likely that the development area lies beyond the historic core of the city of Derby and remained undeveloped meadowland until the early nineteenth century and has undergone considerable earthmoving, probably during the late nineteenth or early twentieth century.

References

Glen, C. 2003 *Desk Based Assessment of the Archaeological Implications of Proposed Development on Land at 3 Friar Gate Derby.*

Gnanaratnam, A. 2004 *Desk Based Assessment for Land on Brook Street Derby, Derbyshire (SK 3475 3661).* ULAS Report Number 2004-012.

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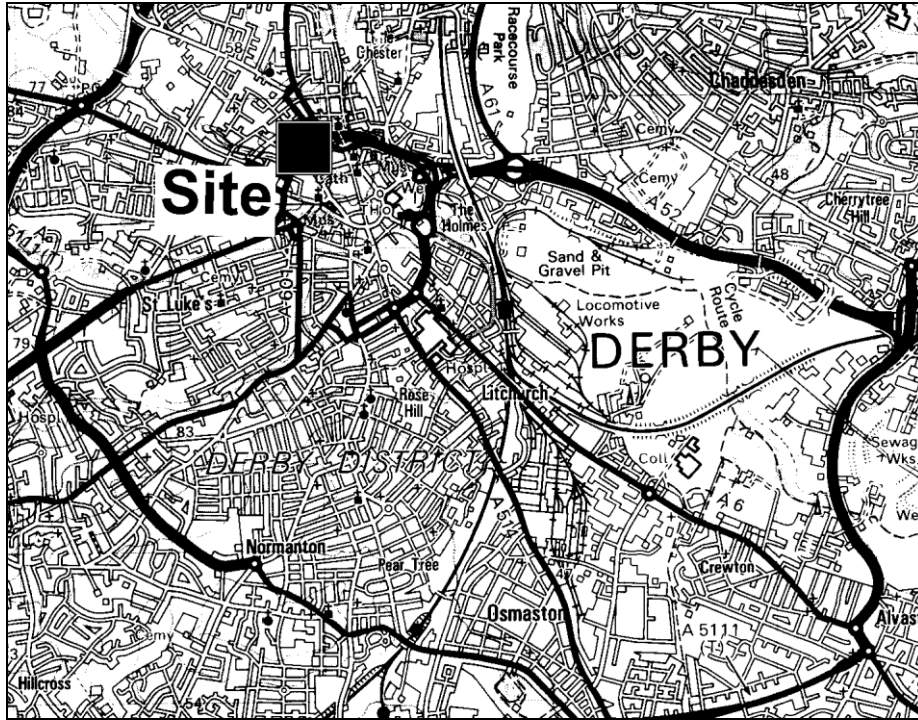
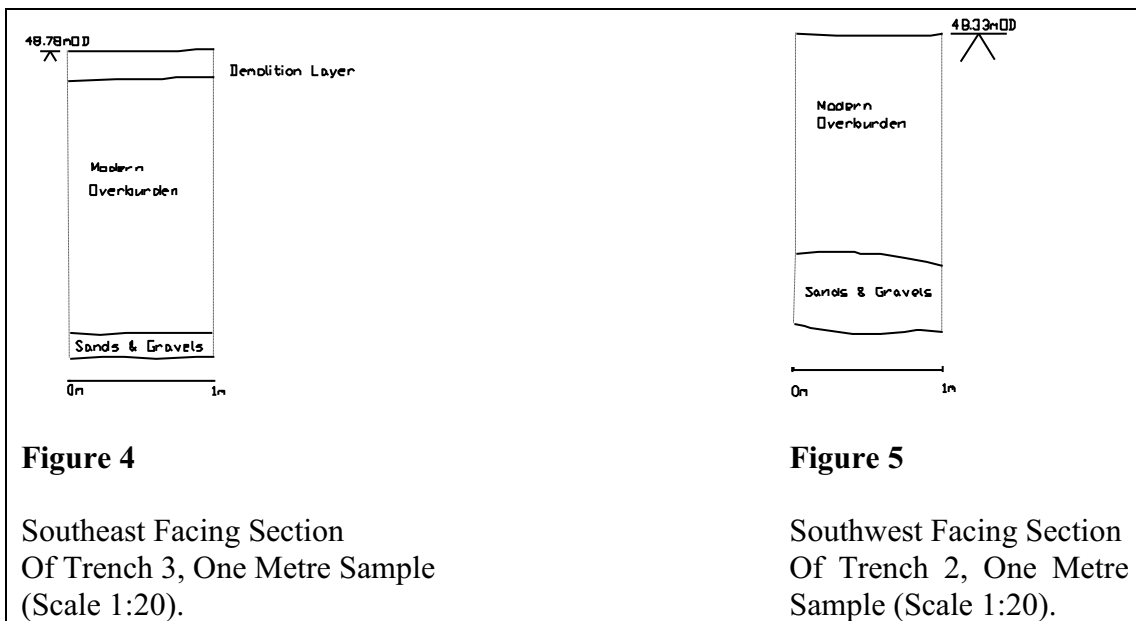
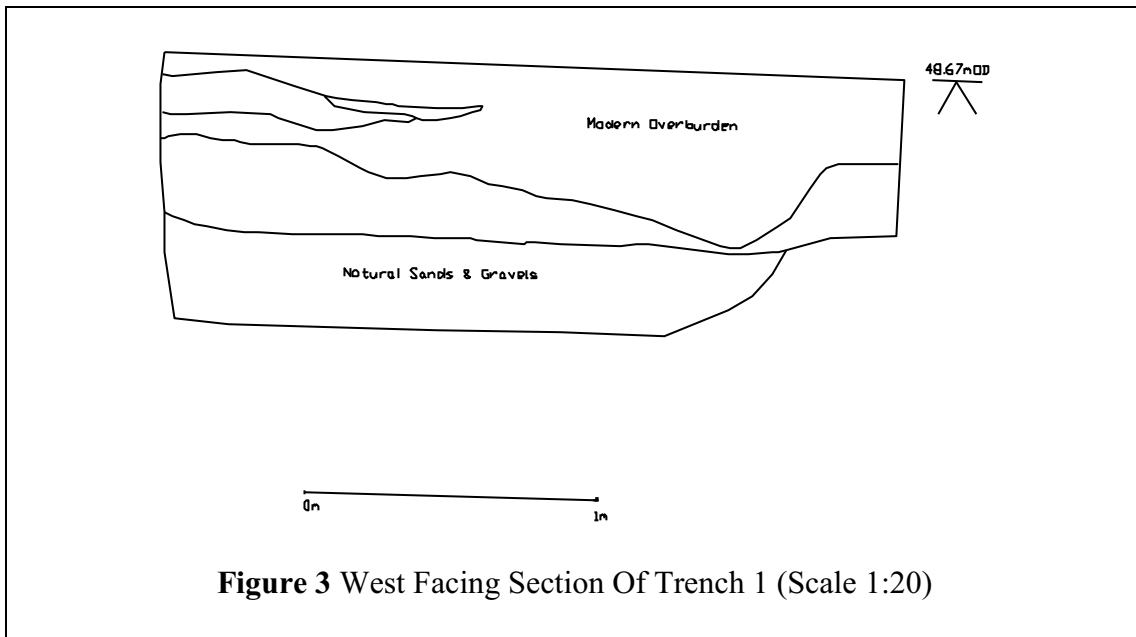


Figure 1. Site location Scale 1:50000 Reproduced from the Landranger 128 Derby and Burton upon Trent area Scale 1:50000 map by permission of Ordnance Survey on behalf of The Controller of Her Majesty's Stationery Office. © Crown Copyright 1996. All rights reserved. Licence number AL 10002186

Figure 2 Trench Location Plan

Representative Sections of Trenches 1, 2 & 3.



UNIVERSITY OF LEICESTER ARCHAEOLOGICAL SERVICES

Design Specification for archaeological evaluation

***Brook Street, Derby,
(SK 3475 3661)
for Radleigh Homes***

Summary

A programme of archaeological trial trenching has been requested by the Development Control; Archaeologist for Derby City Council, Council, in partial satisfaction of planning conditions placed on the development of land at Brook Street, Derby. The work is required to characterise the nature, extent, date and significance of any archaeology, which may be present on the site, and to determine whether or not it may be impacted upon by the development proposals. This specification provides details of the aims and methodologies to be adopted in the course of the work.

1. Definition and scope of the specification

1.1 This specification is for archaeological evaluation by trial trenching in advance of proposed development of a site at Brook Street, Derby (SK 3475 3661).

1.2 It addresses the recommendations of Development Control Archaeologist for Derby City Council following Planning Policy Guidelines 16 (PPG16, Archaeology and Planning), para.30.

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

2. Background

2.1 The proposed works involve the construction of new residential units to the north-west of the historic core of Derby, on Brook Street, adjacent to the course of the Markeaton Brook. The site measures approximately 1648 sq m in area and, at the time of writing, is occupied by industrial buildings in the process of being demolished. On the Brook Street frontage is a row of listed cottages.

2.2 Archaeological Desk Based Assessment (Gnanaratnam 2004) has shown that the site is located outside the historic core of the medieval town of Derby, within the meadows that were originally part of the nunnery of St Mary de Pratis. The study concluded that there could be archaeological remains on the site of the medieval and/or post-medieval periods relating to the control or use of the brook, such as revetting, or even fish weirs, together with evidence of earlier channels. In addition, it was also thought that there was a low probability of a bridge or mill or remains associated with the nunnery. The possibility that the Roman Rykniel Way passes through or close to the site was also raised, whilst it was also thought that there was a slight chance of prehistoric remains in the area.

3. Archaeological Objectives

3.1 The main objective of the evaluation will be:

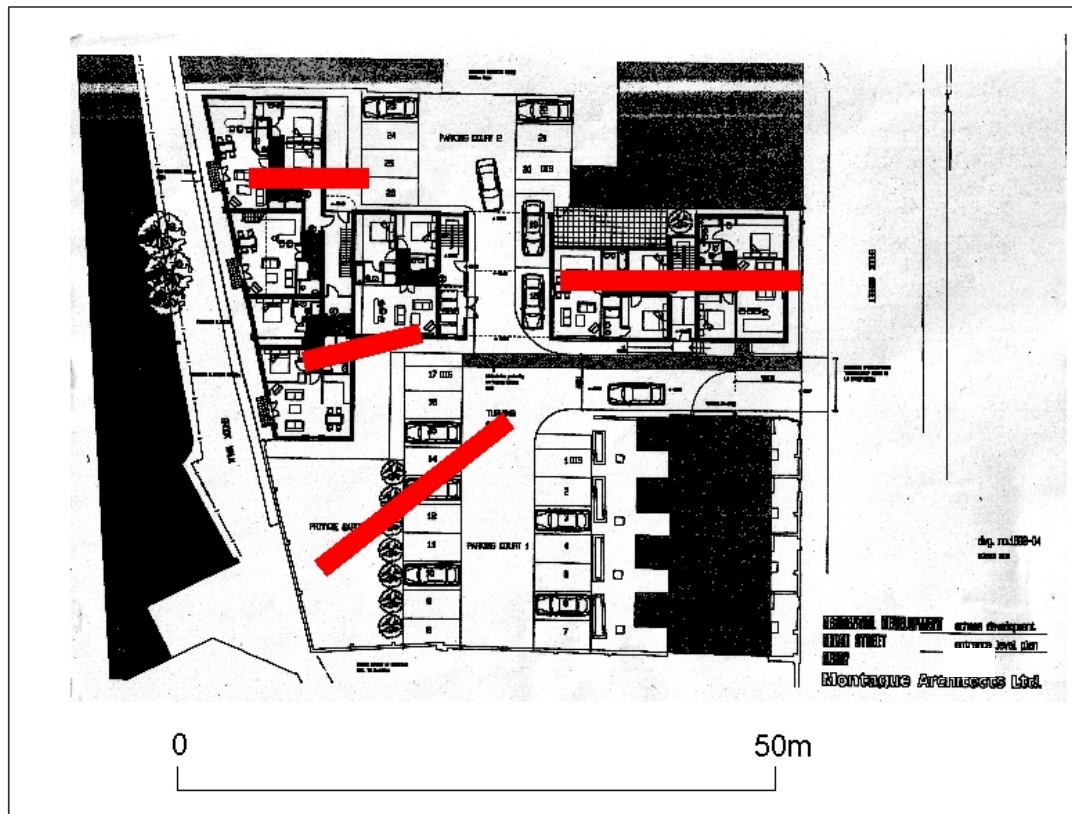
- To identify the presence/absence of any archaeological deposits.
- To establish the nature, extent, date, depth, significance and state of preservation of any archaeological deposits to be affected by the proposed ground works.
- Assess the potential impact upon buried archaeological deposits from the proposed development.
- To produce an archive and report of any results.
-

4. General Methodology

4.1 All work will follow the Institute of Field Archaeologists (IFA) *Code of Conduct* and adhere to their *Standard and Guidance for Archaeological Field Evaluations*.

4.2 Staffing, recording systems, Health and Safety provisions and insurance details are provided.

4.3 Internal monitoring procedures will be undertaken including visits to the sites from the project manager. These will ensure that project targets are being met and professional standards are being maintained. Provision will be made for external monitoring meetings with representatives of the Client, Derby City Council and the Development Control Archaeologist. The strategy will be reviewed in the light of the quality of the archaeological resource as revealed at different stages of the fieldwork.



2. Area of development showing proposed trench locations

Reproduced from the OS map Scale 1:1250 map by permission of Ordnance Survey on behalf of The Controller of Her Majesty's Stationery Office. © Crown Copyright 2002. All rights reserved. Licence number AL 10002186

4.6 Trial Trenching (fig.2)

4.6.1 In accordance with the requirements of the Derby City Development Control Archaeologist, the site will be subject to trial trenching to provide a 6% sample, amounting to some 99 square metres, or 62 linear metres of 1.6m wide trench. To achieve this sample, it is proposed to examine two 20m by 1.6m trenches and two 11m trenches located to provide an even spread across the whole development area and to investigate areas previously occupied by buildings and areas in former back yards. In this way, it should be possible to determine the potential for differential disturbance. In addition, trenches have been placed close to the Markeaton Brook to address the potential for fishweirs/riverside structures and palaeochannels.

4.6.2 The topsoil will be removed in spits by machine with a toothless ditching bucket (or similar) under full supervision, until archaeological deposits or undisturbed substrata are encountered. Where appropriate modern disturbances will be removed by machine.

4.6.3 The location of the trenches will be surveyed using an Electronic Distance Measurer (EDM) linked to a Psion hand held computer.

4.6.4 Any archaeological deposits located will be hand cleaned and planned as appropriate to address the aims and objectives of the evaluation. 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).

4.6.5 Particular attention will be paid to the potential for buried palaeosols in consultation with ULAS's environmental officer. Deposits which may provide radiocarbon dating evidence will be sampled.

4.6.6 All excavated sections will be recorded and drawn at an appropriate scale, levelled and tied into the Ordnance Survey datum. Spot heights will be taken as appropriate.

4.6.7 Any human remains encountered will only be removed under a Home Office Licence and in compliance with relevant environmental health regulations. Miller Homes, Derbyshire County Council and the coroner will be informed immediately on their discovery.

4.6.8 All finds recovered from site will be described and quantified in the field. Retained finds will be cleaned, marked, catalogued and packed in materials, as appropriate for long term storage. Analysis of finds will be undertaken as necessary by suitably qualified specialists.

4.7 Mitigation Strategy

4.7.1 Depending on the results of the trial trenching and following consultation with the Derby City Council Development Control Archaeologist and the Client, a mitigation strategy may need to be formulated.

4.8 Environmental Sampling

If significant archaeological features are subject to sample excavation, the sampling strategy will include the following if practicable, within the scope of the project and with the allocated resources:

A range of features to represent all feature types, areas and phases will be selected on a judgmental basis. The criteria for selection will be that deposits are datable, well sealed and with little intrusive or residual material.

Any buried soils or well-sealed deposits with concentrations of carbonised material present will be intensively sampled taking a known proportion of the deposit.

Spot samples will be taken where concentrations of environmental remains are located.

Waterlogged remains, if present, will be sampled for pollen, plant macrofossils, insect remains and radiocarbon dating provided that they are uncontaminated and datable. Consultation with the specialist will be undertaken.

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 a current Ordnance Survey map at an appropriate scale (reproduced with the permission of the Controller of HMSO) will be prepared. This will be supplemented by detailed plans of 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 an appropriate scale. 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 undertaken.

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

5.6 All site records and finds will be kept securely.

6 Report and Archive

6.1 Upon completion of the fieldwork and analysis of the records and materials, a full report will be produced following IFA guidelines and submitted to the Local Planning Authority, DCC curatorial staff and the SMR.

6.2 The report should include as a minimum

- Non-technical summary
- Introductory statement
- Aims and purpose of the project
- Methodology
- An objective summary statement of the results
- Conclusion, including a confidence statement.
- 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 detail of archive location
- References

6.3 The copyright of all original finished documents shall remain vested in ULAS and ULAS will be entitled as of right to publish any material in any form produced as a result of its investigations.

6.4 Arrangements should be made from the outset of the project for 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) (RFG/FRG 1993) to be deposited in the Derby City Museum. This archive will include all written, disk-based, drawn and photographic records relating directly to the investigations undertaken.

7. *Timetable and staffing*

7.1 The trial trenching will be undertaken within a two week period with two members of staff and will commence during the week beginning 17.02.2004. The site director and assistant will be allocated nearer the time.

8. *Health and Safety*

8.1 ULAS is covered by and adheres to the University of Leicester Statement of Safety Policy and ULAS Safety manual (2001), 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. All ULAS staff will follow the site contractors' Health and Safety policy.

9. *Insurance*

9.1 All ULAS work is covered by the University of Leicester's Public Liability and Professional Indemnity Insurance. The Public Liability Insurance is with Gerling Insurance Services Policy No. 62/99094/D, Risk Reference LT 35101 while the Professional Indemnity Insurance is with Sun Alliance Insurance Policy No. 03A/5A 001 05978, Risk Reference LT 27229.

10. *Bibliography*

Gnanaratnam, A., 2004 *An Archaeological Desk Based Assessment for land on Brook Street, Derby*. ULAS report 2004/12

MAP 2, 1991, *The Management of Archaeological Projects* 2nd edition English Heritage

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)

28/10/2010

APPENDIX 1

Draft Project Health and Safety Policy Statement

Brook Street, Derby

For: Cedar House Investments

1. Nature of the work

1.1 This statement is for trial trenching in advance of proposed development of land at **Brook Street, Derby**. It will be revised following the commencement of operations when the extent of risks can be assessed in full.

1.2 The work will involve machine dug trial trenching during daylight hours and recording of any underlying archaeological deposits revealed. Overall depth is likely to be c. 0.5m -1.2m 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 University of Leicester Health and Safety Policy and follow the ULAS Safety manual (2001), with appropriate risks assessments for all archaeological work, together with the following relevant Health and Safety guidelines, including the following.

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

1.3 The Health and Safety policy on site will be reassessed during the evaluation .All work will adhere to the company's health and safety policy.

2 Risks Assessment

2.1 Working within an excavation.

Precautions. No work will be undertaken beneath section faces deeper than 1.2m. Loose spoil heaps will not be walked on. Protective footwear 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.

2.2 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.

2.3 Working within areas close to services

Precautions.

1. Locate and mark electricity cables shown on the services plan. No machining to be undertaken within 1m of the cable.
2. Undertake CAT scan of areas to be investigated to locate buried cables, especially those which serve the building and which are not shown on service plans.
3. Trenches to be kept 3-5m away from gas pipe locations.
4. Attempt to locate the sewer main on the ground and keep 5m from this.
5. Machinery working beneath the overhead BT cable serving the Health Centre to be supervised by a banksman at ALL times.
6. Suite supervisor to have read ULAS service notes and 'HS (G) 47 'Avoiding Danger from Underground Services' in ULAS H&S file.
7. All site staff to be inducted by supervisor on location of cables and procedures.

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.

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