

Cleaning of Cromford Canal, Derbyshire

Report on an Archaeological Watching Brief



ARS Ltd Report 2013/24

February 2013

OASIS ID: archaeol5-144916

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**Cromford Canal, Derbyshire.
Results of an Archaeological Watching Brief.**

ARS Ltd Report 2013/24

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Archaeological Research Services Ltd

Table of Contents

	Executive summary.....	3
1	Introduction.....	4
	1.1 Scope of work.....	4
	1.2 Location and geology.....	4
2	Background.....	6
3	Aims and Objectives.....	6
4	Methodology.....	6
5	Results.....	8
6	Conclusions.....	9
7	Publicity, Confidentiality and Copyright.....	10
8	Statement of Indemnity.....	10
9	Archive Deposition.....	10
10	Publication.....	10
11	Acknowledgements.....	10
12	References.....	11
	Appendix I: OASIS Record.....	12
	Appendix II: Written Scheme of Investigation.....	15

Table of Figures

1	Site location.....	5
2	Site plan.....	7

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Executive Summary

In February 2013 Archaeological Research Services Ltd was commissioned by Derbyshire County Council to undertake an archaeological watching brief at Cromford Canal, Derbyshire prior to stockpiling and dewatering of dredged sediment from Cromford Canal (NGR.SK 30217 56727). The monitoring was carried out during topsoil and subsoil stripping of land adjacent to the Cromford Canal.

The watching brief identified only two features: a possible disused watercourse or holloway running from the gate at the south west corner of the field to a large depression at the north west corner which was visible in the topography of the field and was also seen below the topsoil in Trench 2; and a small deposit of unworked sandstone blocks within Trench 1, possibly a levelling deposit.

No other archaeological finds, features or buried land surfaces were revealed.

1. INTRODUCTION

1.1 Scope of Work

1.1.1 In February 2013 Archaeological Research Services Ltd (ARS Ltd) was commissioned by Derbyshire County Council to undertake an archaeological watching brief within a field adjacent to Cromford Canal for the deposition of dredged sediment following canal cleaning (ref. 12/00761/CM).

1.1.2 The Cromford canal lies within the environs of the World Heritage Site of the Derwent Valley Mills (World Heritage Site reference 1030) and as such Dave Barrett, County Archaeologist for Derbyshire County Council, has requested monitoring of all ground works for archaeological features be maintained.

1.2 Location and geology

1.3 The field is located at SK 30163 56774. It lies on the edge of a floodplain and is bounded to the south east by a watercourse flowing into the floodplain and a 'hollow' to the north west of the site which is possibly a dried up former watercourse. Such a position could well have been an attractive settlement location in prehistory, albeit seasonal or periodic. As such, the Derbyshire County Archaeologist determined that there was potential for archaeological remains of at least local significance to be present, despite the fact that the field has been previously ploughed.

1.3.1 The local bedrock geology is of the Bowland shale formation: sedimentary bedrock of mudstone, siltstone and sandstone formed during the Carboniferous Period (British Geological Association, 2013).

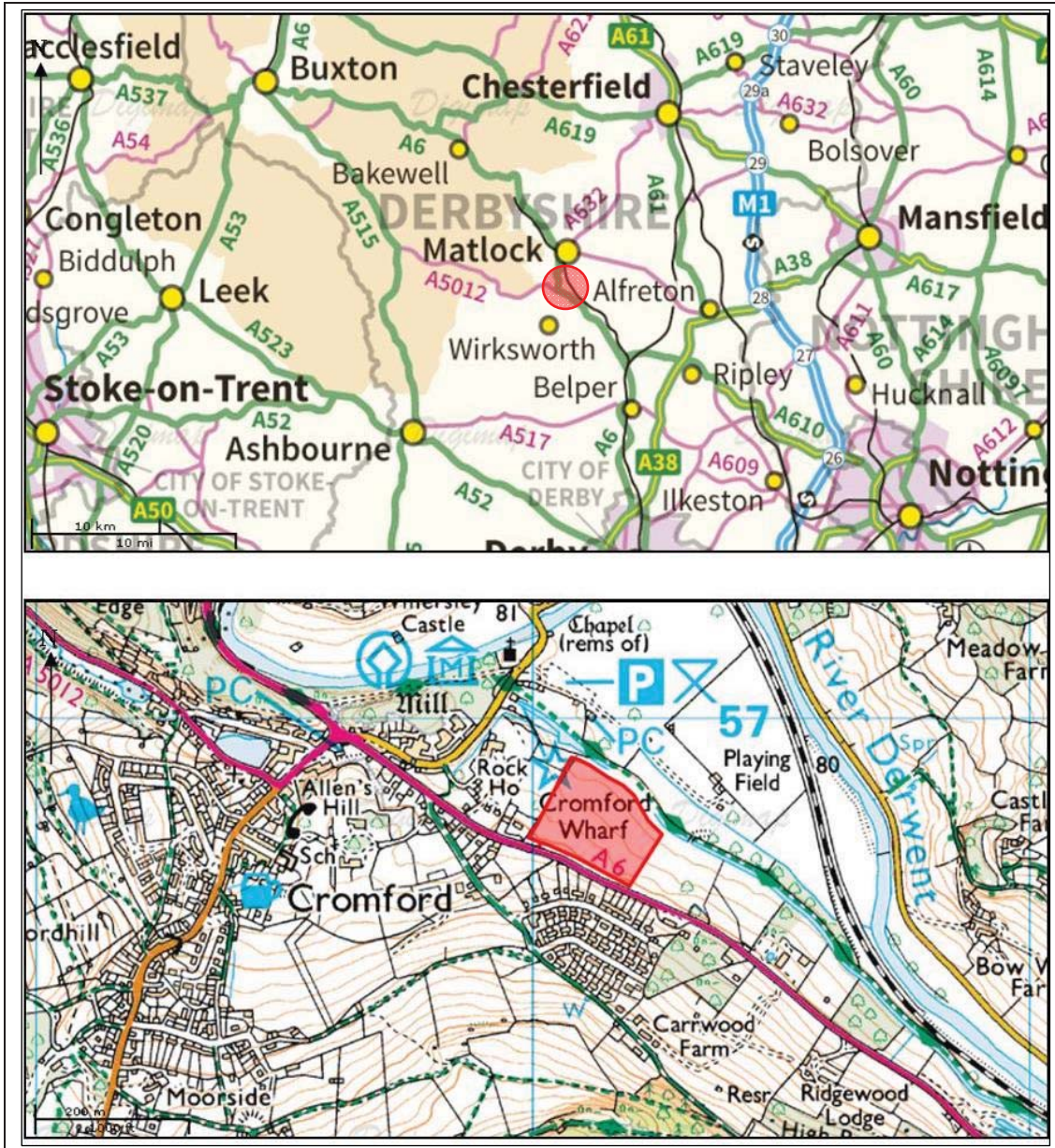


Figure 1. Site location

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2. BACKGROUND

2.1 No known archaeological sites exist in the field which will act as the receptor site for the disposal/spreading of the silt removed from the canal. A number of north-south aligned linear features do show up on aerial photographs; however, these are likely to be the remains of ridge and furrow which are also apparent north of the canal.

2.2 The field's access to water suggests that this area could well have been an attractive settlement location in prehistory. A search of Derbyshire's Historic Environment Record (HER) within a 1km radius of the investigation area returned 109 results, the vast majority of these relating to medieval, post medieval and industrial activity, with the only earlier evidence being a Bronze Age palstave axe and three separate Roman finds. The palstave axe findspot is believed to be less than 300m to the south of the investigation area.

3. AIMS AND OBJECTIVES

3.1 The objective of the watching brief was to ensure that any archaeological features encountered during the ground-works in the specified area were recorded, interpreted and, if at all possible, protected.

4. METHODOLOGY

4.1 The excavation was undertaken using a 360 degree excavator fitted with a toothless ditching bucket, with hand digging of areas of archaeological significance or inaccessible to the machine. The excavation entailed the digging of 15 trenches in total of a variety of sizes. The trenches were stepped at increments of four to five metres in order to create level platforms on the sloped field. Due to this method of excavation, only small areas of subsoil were revealed, with the rest of the trench being built up with the resulting topsoil spoil.

4.2 Any features and structures were fully cleaned, photographed and recorded in accordance with the standard and guidance stipulated by the Institute of Field Archaeologists (IfA 2008).

4.3 Full details of the methodology are provided in the Written Scheme of Investigation (Appendix II).



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 Angel House
 Portland Square
 Bakewell
 Derbyshire
 DE45 1HB

Site Code: CRO 13
 Date: 04/03/2013
 Drawn by: KM
 Scale: 1:2000 at A4

Figure 2
 Site plan

- Key:
- Site boundary
 - Trenches
 - Buildings
 - Canal
 - Line of possible watercourse or holloway

Notes:

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5. RESULTS

5.1 *Topsoil*

The topsoil (001) covered the entire site and was largely uniform in colour, texture and depth. It consisted of a medium to fine, dark greyish-brown clayish silt containing infrequent inclusions of small rounded stones no larger than 5cm in diameter. It had a maximum depth of 0.35m. It is likely that this deposit had been created and distributed during previous ploughing on the site; however, extensive deep ploughing does not appear to have been utilised, leaving the natural clay substratum relatively untouched. Small sherds of modern ceramic material and modern green glass were found within the topsoil, along with sandstone chunks and modern ceramic building material.

5.2 *Subsoil*

The subsoil (002) was situated directly below the topsoil (001) but did not have a uniform depth, being much deeper in some areas than others and completely absent in several trenches. It was deepest in those trenches situated closest to the Canal at a depth of approximately 0.2m, and absent in Trenches 1 and 2 at the top of the slope. In the trenches situated between the top and bottom of the slope the subsoil varied in depth but never to more than 0.2m.

5.3 *Imported gravel and mixed gravel and topsoil deposits*

Within Trench 2 was a compacted deposit of pale pinkish-orange gravelly sand material (003), which had been imported from elsewhere. It appears as though this deposit is part of an attempt to fill a dip in the slope that was possibly the remains of an old watercourse or holloway, running from the gate in the south west corner of the field down to the depression in the north west corner. The deposit was covered by topsoil, indicating that the turf or upper topsoil had been stripped, the ground had been levelled with the gravel material and the stripped material replaced. It is likely to have been a modern addition as modern ceramic fragments were recovered from the topsoil directly below. Below the imported gravel was a deposit of topsoil mixed with gravel (006) that is likely to have had the same purpose as the gravel deposit. The cut of the possible watercourse/holloway was not excavated in order to maintain a level area with minimal sinkage.

5.4 *Deposit of sandstone rubble*

A small area of sandstone rubble (004) was uncovered within Trench 1 below the topsoil. It seemed to be situated within a depression in the natural clay substratum. The rubble consisted of chunks and blocks of varying sizes up to approximately 0.3m in length, none of which appeared to have been shaped. They were not placed in any sort of specific order and did not appear to have been the remains of a built structure. The depression in which the rubble was situated did not have a clean edge and a cut shape or size could not be reliably established. It is possible that this deposit is related to a drainage feature, or was the remains of a levelling deposit.

5.5 *Natural Substratum*

The natural substratum was visible in several places and consisted of a fine clay containing infrequent inclusions of small stones. It varied in colour throughout the site with most areas showing a mid yellow or red hue, while in one trench (Trench 16) it showed mid to light blue-grey.

6. CONCLUSIONS

6.1 The watching brief involved monitoring all ground works on the site and recording all exposed features and finds of archaeological significance. The watching brief identified only two features; however the scope of the excavation was very limited with many trenches only showing a small area of subsoil or natural substratum. In many cases the topsoil was not fully excavated and so any archaeological features present within the subsoil or natural substratum were not seen. The two features that were exposed (the possible watercourse or holloway [007] and the deposit of sandstone rubble (004)) are of unknown date and would require wider excavation of a greater area than that undertaken in this instance in order to fully determine their provenance.

7. PUBLICITY, CONFIDENTIALITY AND COPYRIGHT

7.1 Any publicity will be handled by the client.

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

8. STATEMENT OF INDEMNITY

8.1 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.

9. ARCHIVE DEPOSITION

9.1 A digital and paper archive will be prepared by Archaeological Research Services Ltd, consisting of all primary written documents, plans, sections, photographs and electronic data, which will be deposited at Buxton Museum and Art Gallery (accession number DERSB 2013.3) within three months of completion of fieldwork.

10. PUBLICATION

10.1 A summary of the project, with selected drawings, illustrations and photographs, will be submitted within 2 years of completion of the project to the Derbyshire Archaeological Journal for publication.

11. ACKNOWLEDGEMENTS

11.1 Archaeological Research Services Ltd would like to thank all those involved with the archaeological project, especially Derbyshire County Council for commissioning the work; Mark Prout of Ebsford Environmental; and Dr. Dave Barrett, County Archaeologist for Derbyshire County Council, for monitoring and providing advice throughout the project.

12. REFERENCES

British Geological Survey. 2013. Geology of Britain Viewer. Available at <http://www.bgs.ac.uk/discoveringGeology/geologyOfBritain/viewer.html> [Accessed 9th November 2012].

Department for Communities and Local Government (CLG). 2010. *Planning Policy Statement 5: Planning for the Historic Environment*. London, The Stationery Office.

Department for Communities and Local Government (CLG). 2012. *National Planning Policy Framework*. London, The Stationery Office.

Institute for Archaeologists. 2008. *Standard and Guidance for an Archaeological Watching Briefs*. Reading, Institute for Archaeologists.

APPENDIX I: OASIS RECORD

OASIS DATA COLLECTION FORM: England

[List of Projects](#) | [Manage Projects](#) | [Search Projects](#) | [New project](#) | [Change your details](#) | [HER coverage](#) | [Change country](#) | [Log out](#)

Printable version

OASIS ID: archaeo15-144916

Project details

Project name	Cromford Canal Cleaning Project
Short description of the project	In February 2013 Archaeological Research Services Ltd was commissioned by Derbyshire County Council to undertake an archaeological watching brief at Cromford Canal, Derbyshire prior to stockpiling and dewatering of dredged sediment from Cromford Canal (NGR SK 30217 56727). The monitoring was carried out during topsoil and subsoil stripping of land adjacent to the Cromford Canal. The watching brief identified only two features: a possible disused watercourse or holloway running from the gate at the south west corner of the field to a large depression at the north west corner which was visible in the topography of the field and was also seen below the topsoil in Trench 2; and a small deposit of unworked sandstone blocks within Trench 1, possibly a levelling deposit. No other archaeological finds, features or buried land surfaces were revealed.
Project dates	Start: 25-02-2013 End: 01-03-2013
Previous/future work	No / No
Any associated project reference codes	ARS 2013/24 - Contracting Unit No.
Any associated project reference codes	DERSB 2013.3 - Museum accession ID
Any associated project reference codes	12/00761/CM - Planning Application No.
Type of project	Recording project
Site status	None
Current Land use	Cultivated Land 2 - Operations to a depth less than 0.25m
Monument type	CANAL Post Medieval
Significant Finds	NONE None
Investigation type	"Watching Brief"
Prompt	Direction from Local Planning Authority - PPS

Project location

Country England
 Site location DERBYSHIRE DERBYSHIRE DALES CROMFORD Cromford Canal
 Study area 1.00 Kilometres
 Site coordinates SK 30163 56774 53 -1 53 06 25 N 001 32 57 W Point

Project creators

Name of Organisation Archaeological Research Services Ltd
 Project brief originator Derbyshire County Council
 Project design originator Archaeological Research Services Ltd
 Project director/manager Mike Wood
 Project supervisor Kate Mapplethorpe
 Type of sponsor/funding body District Council
 Name of sponsor/funding body Derbyshire County Council

Project archives

Physical Archive Exists? No
 Digital Archive recipient Buxton Museum and Art Gallery
 Digital Archive ID DERSB 2013.3
 Digital Contents "none"
 Digital Media available "Images raster / digital photography","Text"
 Paper Archive recipient Buxton Museum and Art Gallery
 Paper Archive ID DERSB 2013.3
 Paper Contents "none"
 Paper Media available "Context sheet","Drawing","Photograph","Plan","Report","Section","Unpublished Text"

Project bibliography 1

Publication type Grey literature (unpublished document/manuscript)
 Title Cleaning of Cromford Canal, Derbyshire: Report on an archaeological watching brief
 Author(s)/Editor(s) Mapplethorpe, K.
 Other bibliographic details ARS 2013/24

Date 2013
Issuer or publisher Archaeological Research Services Ltd
Place of issue or publication Bakewell

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APPENDIX II: WRITTEN SCHEME OF INVESTIGATION

Cromford Canal, Derbyshire.

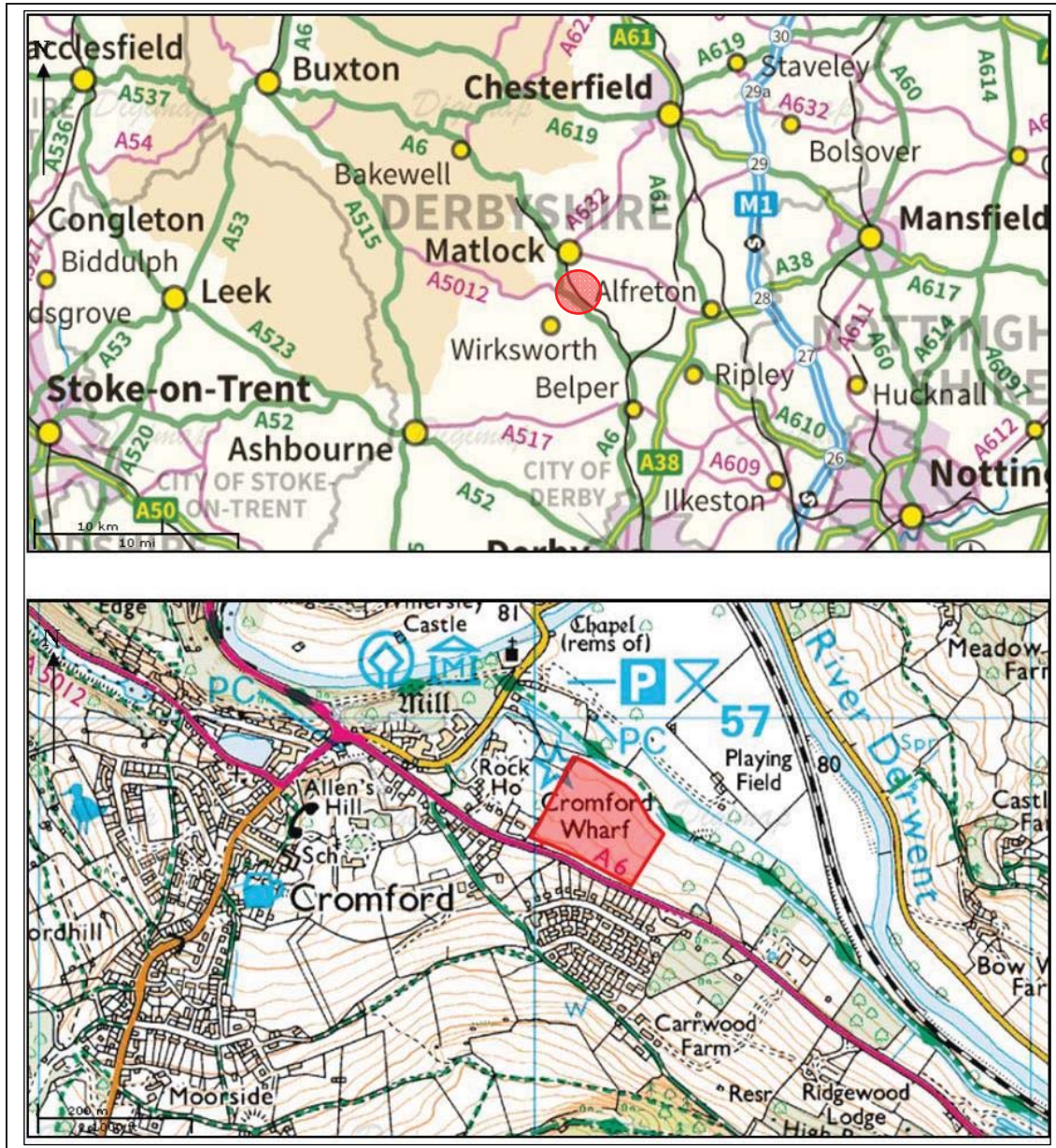
Written Scheme of Investigation for Archaeological Watching Brief.



1. Introduction

- 1.1. This scheme of works relates to the cleaning of a stretch of Cromford Canal (NGR SK 30217 56727) and specifically the stripping of topsoil and subsoil for the dredged sediment to be stockpiled and dewatered. The investigation area comprises an open field approximately 35000m², with the proposed level of disturbance being approximately 200mm in depth.
- 1.2. No known archaeological sites exist in the field which will act as the receptor site for the disposal/spreading of the silt removed from the canal. A number of north-south aligned linear features do show up on aerial photographs; however, these are likely to be the remains of ridge and furrow which is also apparent north of the canal.
- 1.3. A search of the Derbyshire historic environment record (HER) within a 250m radius of the investigation area returned 5 results, four of which relate to post medieval activity. A Bronze Age bronze flanged palstave (HER record number 9702) is the only prehistoric evidence within the 250m buffer. A wider search within a 1km radius of the investigation area returned 109 results, the vast majority of these relating to medieval, post medieval and industrial activity, with the only earlier evidence being the aforementioned Bronze Age palstave and three separate Roman finds.
- 1.4. The field lies on the edge of a floodplain and is bounded to the south east by a watercourse flowing into the floodplain and a 'hollow' to the north west of the site which is possibly a dried up former watercourse. Such a position could well have been an attractive settlement location in prehistory, albeit seasonal or periodic. As such, the Derbyshire County Archaeologist has determined that there is potential for archaeological remains of at least local significance to be present despite the fact that the field has been previously ploughed, and that the field does have 'Archaeological Interest' in line with the definition in NPPF Annex 2 (communities and Local Government 2012: 50). In order to address this, it has been recommended that a programme of archaeological monitoring be carried out on all ground works on the site.

1.5. This document is a written scheme of investigation (WSI) confirming the nature of the archaeological watching brief to be undertaken by Archaeological Research Services Ltd (ARS Ltd).



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Figure 2. Site location (outlined in red)

2. Objectives

2.1. The objective of the watching brief is to ensure that any archaeological features encountered during the course of the ground works are recorded and interpreted.

3. Fieldwork Methodology

- 3.1 The ground works will be undertaken by a suitable mechanical excavator fitted with a toothless ditching bucket. Arrangement will be made to avoid any tracking of machinery across recently stripped areas until the areas have been checked and cleared by a representative of Archaeological Research Services Ltd. If significant archaeological features are identified, the Derbyshire County Archaeologist will be notified and a decision taken as to the best method of proceeding.
- 3.2 Archaeological Research Services Ltd will provide an archaeological officer at all times during any ground works on the site to undertake a watching brief. The on-site archaeologist will be given the opportunity to stop site work in order to investigate potential archaeological features and adequate time will be allowed for recording any such features.
- 3.3 A written, drawn and photographic record will be maintained during the watching brief plus all significant archaeological remains will be recorded and/or retrieved. All excavations will be recorded in accordance with normal principles of archaeological evaluation upon pro-forma context sheets. All significant architectural features will be photographed (with scale) *in situ* and their location recorded on a plan of the site.
- 3.4 Where archaeological features and/or deposits are identified during the watching brief, then a sufficient quantity of the said features will be investigated by hand to allow their date, nature and degree of survival to be ascribed. All features thus investigated will be recorded in plan and section and significant archaeological finds recovered will be retained for analysis. Any archaeological features identified will be photographed and drawn in plan at a scale of 1:20 and in section at a scale of 1:10. The stratigraphy, where relevant and apparent, will be recorded.
- 3.5 For brick structures, the record will include details of brick dimensions and type (handmade/machine-made, plain/frogged), mortar (colour, composition, hardness) and the extent of structures (number of courses, thickness in skins).
- 3.6 A plan of the excavated areas will be maintained, features noted and section lines recorded. All drawings will be carried out at an appropriate scale and all contexts will be recorded using a single context recording system. The site archive will include plans and sections at an appropriate scale, a scale photographic record, and full stratigraphic records on recording forms/context sheets or their electronic equivalent. Should archaeological features be present then the locations and height AOD of the features will be accurately fixed, surveying in either the planning baselines or the features themselves.
- 3.7 The watching brief will be undertaken in accordance with the Institute for Archaeologists (IfA) *Standards and Guidelines for Archaeological Watching Briefs* (2008).
- 3.8 Any human remains discovered will initially be left *in situ* and, if removal is deemed necessary, this will be undertaken in accordance with the relevant Ministry of Justice regulations.
- 3.9 Archaeological Research Services Ltd will ensure that heavy plant or machinery will not

be operated in the immediate vicinity of archaeological remains until the remains have been recorded. Contractors and plant operators will be notified that any observations of archaeological remains must be reported immediately to the archaeological officer on site.

- 3.10 A risk assessment will be undertaken before commencement of the work and health and safety regulations will be adhered to at all times.

4 Artefact and Ecofact collection and Recording

4.1 Artefact collection policy will be concerned with the provision of adequate samples for meeting the objectives of the work. All finds of Medieval and earlier date will be collected as a matter of course. Discarded artefactual materials will 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 will be cleaned, marked, catalogued and packed in materials, as appropriate, for long term storage (see 8 Archive Deposition below).

4.2 Unstratified finds will only be collected where they contribute significantly to the project objectives or are of particular intrinsic interest. Finds of 'treasure' will be reported to the Coroner in accordance with the Treasure Act (1996).

4.3 Collection and policies for structural remains and industrial residues have been set out by the Society of Museum Archaeologists (SMA, 1993). The presence of such materials within a context will be recorded even where comprehensive retention is not considered appropriate.

4.4 The representative from Archaeological Research Services Ltd will inspect and monitor the upcast spoil from the site investigations, and unstratified pottery will be retained only if it is of early post-medieval date, or earlier.

4.5 It is not considered likely that waterlogged, palaeoenvironmental or human remains will be encountered at any stage of this project. However, should such remains be identified work will cease and a meeting arranged between Archaeological Research Services Ltd, the landowner and the Derbyshire County Archaeologist to discuss further procedures.

5 Monitoring Arrangements

5.1 Reasonable prior notice of the commencement of the ground works will be given to the Derbyshire County Archaeologist:

Dave Barrett,

Archaeologist
Derbyshire County Council
Environmental services Department
Shand House
Darley Road South
Matlock
Derbyshire

DE4 3RY

Dave.Barrett@derbyshire.gov.uk

01629 539774

5.2 Archaeological Research Services Ltd will liaise with the Derbyshire County Archaeologist at regular intervals throughout the course of the work, and the Derbyshire County Archaeologist will be notified of any findings promptly upon completion of the project.

6 Report

6.1 Following completion of the watching brief Archaeological Research Services Ltd will produce a report which will include as a minimum:

- Non-technical summary
- Introductory statement
- Aims and purpose of the project
- Methodology
- A location plan showing all excavated areas and any archaeological features with respect to nearby fixed structures and roads
- Illustrations of all archaeological features with appropriately scaled hachured plans and sections.
- An objective summary statement of results
- A review of the significance of the site and the impact of the works.
- Conclusions
- Supporting data – tabulated or in appendices
- Index to archive and details of archive location
- References
- Statement of intent regarding publication
- Confirmation of archive transfer arrangements
- A copy of the WSI
- A copy of the OASIS form

6.2 A single bound copy of the report along with a .pdf copy on digital CD will be deposited with the Derbyshire Historic Environment Record.

7 Archive Deposition

7.1 A digital, paper and artefactual archive will be prepared by Archaeological Research Services Ltd, consisting of all primary written documents, plans, sections, photographs and electronic data. The archive will be submitted to Buxton Museum and Art Gallery (accession number DERSB : 2013.3).

7.2 The archive will be deposited within two months of the completion of fieldwork, and the Derbyshire County Archaeologist will be notified of the accession number at this time. The Derbyshire County Archaeologist and Museum Curator will be notified in

writing on completion of the fieldwork with projected dates for the completion of the report and deposition of the archive. The date for deposition of the archive will be confirmed in the report and the Derbyshire County Archaeologist informed in writing on final deposition of the archive.

- 7.3 All artefacts and associated material will be cleaned, recorded, properly stored and deposited in the archive.
- 7.4 A full set of annotated, illustrative pictures of the site, excavation, features, layers and selected artefacts will be supplied to the HER and deposited with the archive as digital images on a CD ROM along that will be attached with the report.
- 7.5 At the start of work (immediately before fieldwork commences) an OASIS online record <http://ads.ahds.ac.uk/project/oasis/> will be initiated and key fields completed on Details, Location and Creators forms. All parts of the OASIS online form will be completed for submission to the HER. This will include an uploaded .pdf version of the entire report (a paper copy will also be included within the archive).

8 Changes to Methodology or Work Programme

- 8.1 Changes to the approved methodology or programme of works will only be made with prior written approval of the Derbyshire County Archaeologist.

9 References

Communities and Local Government. 2012. National Planning Policy Framework. Available online at:

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/6077/2116950.pdf [Accessed 13th February 2013].

Institute for Archaeologists. 2008. *Standards and Guidelines for an Archaeological Watching Brief*. Institute for Archaeologists, Reading. Available online at:

http://www.archaeologists.net/sites/default/files/node-files/ifa_standards_watching.pdf [Accessed 13th February 2013].