



**ARCHAEOLOGICAL WATCHING BRIEF AT RYDER POINT,
BRASSINGTON, DERBYSHIRE**

ARCHAEOLOGICAL WATCHING BRIEF REPORT

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ARCHAEOLOGICAL WATCHING BRIEF AT RYDER POINT, BRASSINGTON, DERBYSHIRE

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NON-TECHNICAL SUMMARY

This report presents the results of a watching brief on groundworks associated with the erection of a wind turbine at Ryder Point, Brassington, Derbyshire. The works were required by Derbyshire County Council (DCC) as a condition of planning consent.

During the watching brief the removal of topsoil and subsoil for the groundworks of Turbine 1 was monitored. This observed the natural sequence of topsoil, subsoil and bedrock within this area.

No artefacts or features of archaeological significance were observed during the watching brief.

1 INTRODUCTION

ArcHeritage was commissioned by Arcus Consultancy Services Ltd. to monitor groundworks associated with the erection of a wind turbine on undisturbed ground at Ryder Point, Brassington, Derbyshire. The development scheme comprised the construction of two wind turbines, however following consultation by Arcus Consultancy Services Ltd., it was determined that only the groundworks around Turbine 1 required archaeological monitoring. This was due to the fact that Turbine 2 was to be located on a spoil bund and was not anticipated to break previously undisturbed ground.

The works were required by Derbyshire County Council (DCC) as a condition (condition 13) of planning consent. The work was undertaken in line with a Written Scheme of Investigation (WSI) produced by Arcus Consultancy Services Ltd. (2014, Appendix 3) and according to the guidance of the Chartered Institute for Archaeologists (CIfA 2014). The watching brief took place intermittently during April 2015.

2 LOCATION, GEOLOGY AND TOPOGRAPHY

The site is located on a hilly area of mixed farmland (centred NGR: SK 25590 54910, Figure 1), situated approximately 2.4 km to the north-east of the village of Brassington and approximately 6.2 km to the south-west of Matlock. The site is surrounded by further agricultural land, although is bordered by Ryder Point Quarry to the east. The High Peak Trail runs to the south of the site. The site slopes steeply from west to east from a high point of 356mAOD (Durkin 2012b).

The superficial geology of the site comprises head deposits of clay, silt, sand and gravel, with bedrock geology comprising the Bee Low Limestone Formation (BGS 2015a). Observations made on site during 2012 trial trenching indicates that there are also localised pockets of sand and clay of the Brassington Formation (Strafford 2012), which are recorded as white, pink and yellow siliceous sands with brightly coloured silts and clays, lying in pockets of Carboniferous limestones (BGS 2015b).

3 METHODOLOGY

3.1 Aims

The watching brief monitored the excavation of groundworks on undisturbed ground associated with the erection of a wind turbine (Turbine 1). The broad aim of the work was to gather sufficient information to establish the presence/absence, nature, date, depth, quality of survival and importance of any archaeological deposits to enable an assessment of the significance of the archaeology of the site. Specific aims were to:

- Record any archaeological deposits or structures exposed by the site works,
- Collect any significant archaeological artefacts disturbed by the site works,
- Sample any archaeologically significant deposits,
- Produce a report detailing the recording and interpretation undertaken and to set the results in a local and historical context.

3.2 Methodology

Excavation works were undertaken under the supervision of the principal site contractor. The location and nature of the groundworks is detailed in Figure 2. All excavation and recording work was carried out in accordance with the methodologies specified by DCC and in consideration of guidelines issued by the Chartered Institute for Archaeologists (2014). A full detail of the methodology is given in the WSI (Appendix 3).

4 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

4.1 Background

A detailed desk-based assessment of the site was completed in 2012 (Arcus Consultancy Services Ltd.), from which the following information has been gathered. The following information relates to sites known to exist within a 1 km radius of the site.

Prehistoric

The area surrounding Ryder Point is typified by archaeological remains of a prehistoric date. There have been numerous finds of worked flint, daggers and arrowheads discovered by fieldwalking, and there are several cairns and barrows situated on the higher ground which surrounds these development sites (Arcus Consultancy Services Ltd. 2012b). Numerous barrows have been excavated within the vicinity of the site, including Round Low Round Barrow and Ivet Low Bowl barrow, both of which contained cremated human bone and associated artefacts. Further barrow excavations in the area include Middleton Moor Platformed Barrow and the Bowl Barrow on Carsington Pasture.

Frequent isolated archaeological finds have been recovered through a prolonged period of field walking, including Mesolithic and Neolithic flint assemblages. The proximity of the site to these prehistoric remains suggests that there is potential for further unknown prehistoric archaeological remains within the vicinity, however it should be noted that an archaeological walkover and trial trenching did not identify any such remains.

Roman

Archaeological remains from this period include a Romano-British settlement site with building platforms and pottery, the remains of two possible Romano-British field systems and some isolated finds of Romano-British pottery. There are also elements of a Roman road running from Little Chester to Buxton, via Wirksworth, which is thought to run close to, but outside of the site boundary. The feature is largely visible as earthworks and cropmarks in aerial photography. The National Monuments Record (NMR) records the road as running through the site on a north-west to south-east orientation; however a subsequent walkover survey and trial trenching did not identify any trace of the road. It is believed that the road was in use prior to the Roman period and remained in use up until the building of the new turnpike road in 1756.

Medieval

The only medieval find known from the vicinity of the site is a blue glass bead.

Post-medieval

Numerous post-medieval remains are known to exist within the vicinity of the site, including the Cromford and High Peak Railway, built in 1830 and considered to be one of the earliest railways in the country. The engine and boiler house were identified during a 2006 watching brief (Pallant and Brightman 2006) just outside of the current site boundary and some of the remains associated with the railway are thought to exist within the current site boundary. Parts of the Cromford and High Peak railway now form part of the High Peak Trail.

Lead mining was an important industry in the area and is believed to have roots in the Roman period. The Derbyshire lead industry later developed throughout the 12th to the 15th centuries as lead was much in demand for purposes of roofing, drainage and mouldings. By the 17th century the lead mines of Derbyshire were extremely prosperous. Carsington Pasture is situated to the south-west of the site and contains remnants of a 17th century lead mine. Other known lead mines within the area include Chariot Mine, the Griffes Bage Mines, unnamed mines marked on the early edition OS maps (Figure 3), the Golconda Mines and Snake Mine. Evidence of localised mining was noted during a walkover of the site.

4.2 Previous Investigations

An archaeological watching brief was completed in 2006 just outside of the current site boundary, which identified the footings of an engine and boiler house associated with the Cromford and High Peak Railway (Pallant and Brightman 2006). Two watching briefs (Thornton 2008; Marshall 2009) and trial trenching (Brightman and Burrill 2008) at nearby Catsington Pasture yielded little archaeology, with the only remains recorded being a re-touched flint flake found during the evaluation.

The Archaeological Society of Wirksworth (2012) completed a small archaeological excavation in 2011 to investigate the course of the Portway Roman Road. The Roman Road was picked up adjacent to the current quarry access track situated to the north of the site.

As part of the planning application process for this development, an Environmental Statement (ES) was submitted to Derbyshire Dales County Council by Arcus Consultancy Services Ltd. (2012a). This was accompanied by a Desk-Based Assessment, which indicated that there was high potential for archaeological remains in areas which had not been previously disturbed by quarrying. A 2012 geophysical survey (Durkin 2012) identified a number of magnetic anomalies of different classifications. A subsequent programme of trial trenching and sieving (Strafford 2012) was undertaken in order to target some of the geophysical anomalies, however this produced no evidence of archaeological finds or features, indicating that the magnetic response over the survey area was likely produced by variations in the background geology.

Historic mapping for the area (Figure 3) shows little change within the site boundary from the late 19th century onwards. The 1884 map shows the beginnings of the existing quarry, which was then called Hopton Works, and its associated buildings. Various mining features and earthworks are labelled as 'old shafts'. The following 1900, 1924 and 1948 maps also list these features, and they were noted during a site walkover (Arcus Consultancy Services Ltd. 2012a). To the south of the site, the 1884 map details the location of an engine house and sluice relating to the Cromford and High Peak Railway. The buildings are depicted on later maps, but

are not labelled, indicating that the buildings may have fallen out of use by the 1900s. The 1884 map depicts the extent of Chariot Wood, located to the north of the site. This wood appears to have been reduced by 1900 and mostly felled by 1924, although the place name remains. The disused Chariot Lead Mine is depicted on all of the maps from 1884 onwards.

Aerial photographs of the site have been consulted (Arcus Consultancy Services Ltd. 2012a). Features such as the earthworks created by historic mining were clearly visible, however no features were identified within the site that were previously unknown. The aerial photographs also showed the extent of the quarrying and land restoration at various time periods.

5 FIELDWORK RESULTS

The initial groundworks in the area of Turbine 1 comprised an overburden strip within the footprint of the works (Figure 2; Plates 1-2). The stratigraphy of the stripped area around Turbine 1 was fairly uniform, comprising a topsoil deposit (101) of moist dark greyish brown silty clay with visible rootlets, frequent sub-angular unworked chert pebbles and evidence of recent worm action. The topsoil varied in thickness between approximately 0.25m and 0.40m, with the deposit being thickest at the bottom the slope. The boundary with the underlying subsoil (102) appeared to be fairly irregular and undulating, indicative of ploughing activity. The subsoil comprised mid orange-brown clay silt subsoil, with frequent angular chert pebbles and occasional angular pebbles and cobbles of limestone. The subsoil had a maximum thickness of 0.40m at the north-western end of the area, and 0.65m at the south-eastern end of the investigation area. The difference in both topsoil and subsoil thickness across the site is likely due to the natural topography of the site and the uneven nature of the underlying natural geology (103), which comprised angular and sub-angular limestone cobbles and boulders in a mid orange-brown silt clay matrix. Occasional pockets of red, orange and yellow clay with inclusions of white, yellow and black medium sand were observed within the drift geology, which is likely to represent deposits of the Brassington Formation. Subsequent groundworks involved excavation into the bedrock geology (103) (Plates 3 and 4) to a maximum depth of approximately 4m. Once all of the subsoil (102) deposit had been stripped, under archaeological supervision, the excavation of the bedrock (103) continued without archaeological monitoring.

No archaeological finds or features were uncovered during the stripping of the topsoil and subsoil deposits.

6 DISCUSSION AND CONCLUSION

The watching brief did not identify any features, deposits or artefacts of archaeological significance.

7 ACKNOWLEDGEMENTS

ArcHeritage would like to thank Mark Turner of Arcus Consultancy Services Ltd., Nigel Weedon of Longcliffe Quarries and Steve Baker of DCC.

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Historic maps

OS Derbyshire Six Inch 1884

OS Derbyshire Six Inch 1900

OS Derbyshire Six Inch 1924

OS Derbyshire Six Inch 1948

Web Resources

BGS (British Geological Survey). 2015a. Geology of Britain Viewer. Available online at: <http://www.bgs.ac.uk/discoveringGeology/geologyOfBritain/viewer.html?src=topNav> [Accessed 8th April 2015].

BGS (British Geological Survey). 2015b. The BGS Lexicon of Named Rock Units – Brassington Formation. Available online at: <http://www.bgs.ac.uk/lexicon/lexicon.cfm?pub=BTON> [Accessed 9th April 2015].

FIGURES

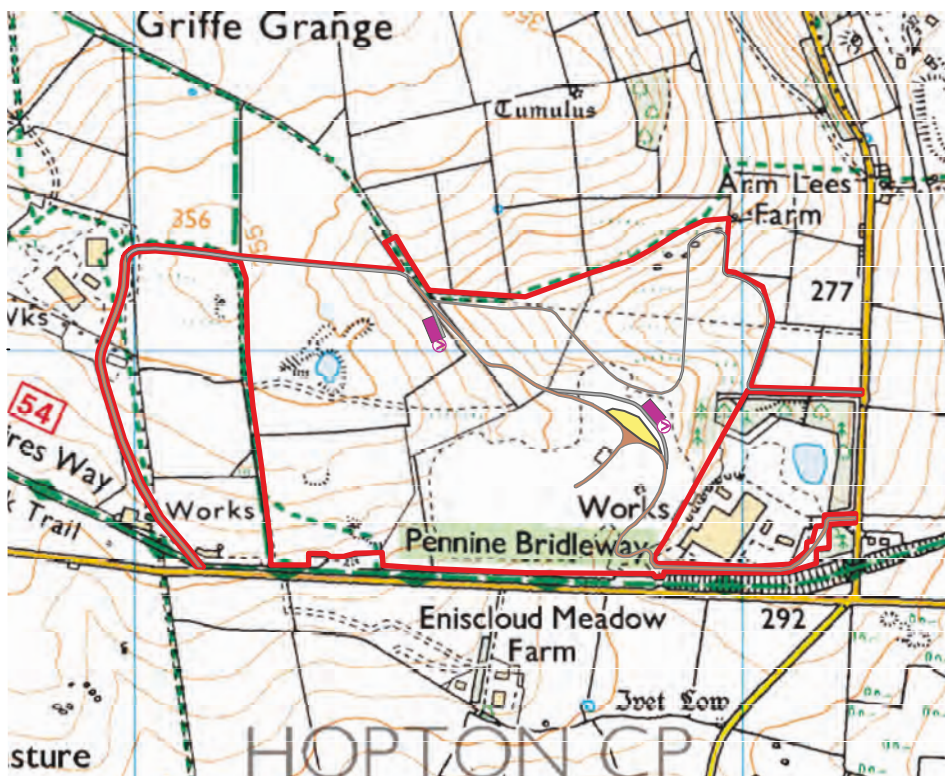
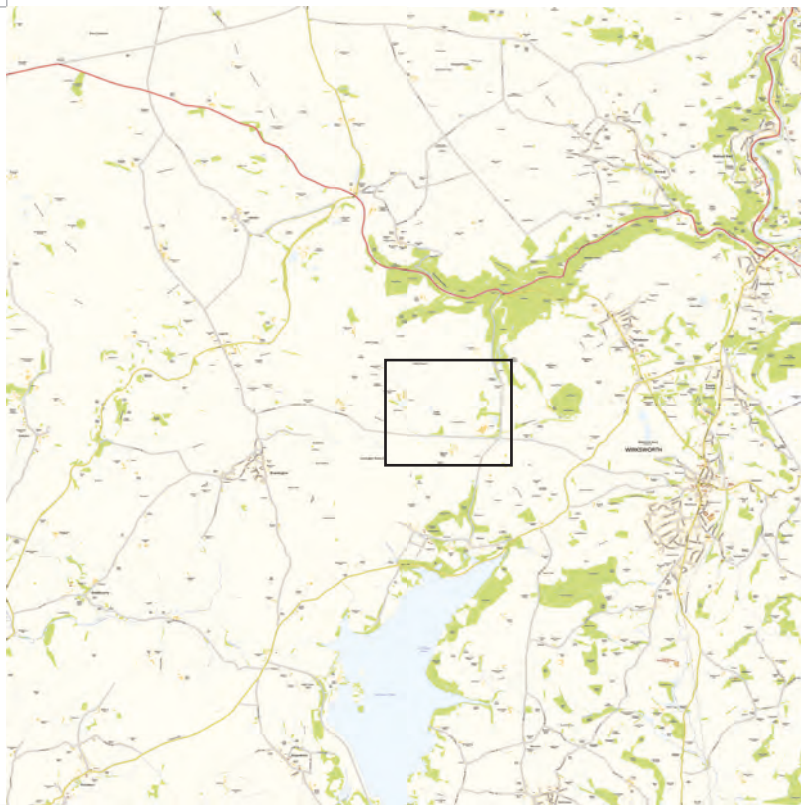


Figure 1: Site location (detailed site location and scheme of works after Arcus Renewable Energy Consulting Ltd 2012b, Fig 5).



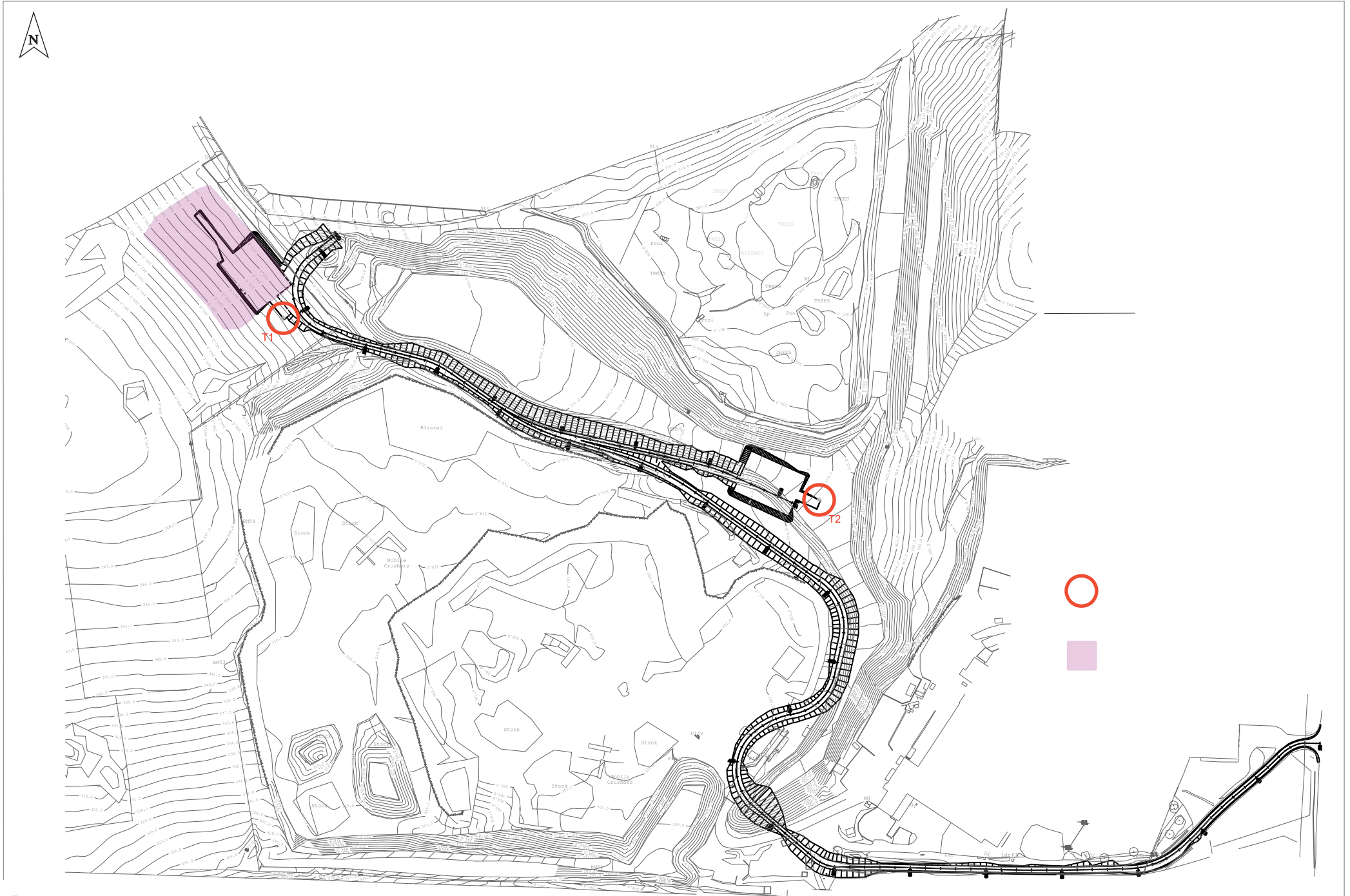


Figure 2: Location of the turbine sites and access road (original drawing by URS, supplied by Arcus Renewable Energy Consulting Ltd)





1884 OS Six Inch



1900 OS Six Inch



1924 OS Six Inch



1948 OS Six Inch

Figure 3: Historical mapping of the site 1884-1948.



PLATES



Plate 1: Top soil strip at the location of Turbine 1. Facing north-east.



Plate 2: Soil strip at the location of Turbine 1. Facing north-west.



**Plate 3: Excavation into the bedrock geology (103) for the footings for the crane pad and Turbine 1.
Looking north-east.**



**Plate 4: Excavation into the bedrock geology (103) for the footings for the crane pad and Turbine 1.
Looking north-west.**

APPENDIX 1: INDEX TO ARCHIVE

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Context register	1
Context sheets	3
Digital photographs	6
Report	2

Table 1: List of archive contents

APPENDIX 2: CONTEXT LIST

Context no	Description
101	Topsoil dark greyish brown silty clay
102	Subsoil mid orange-brown clay silt
103	Bedrock geology angular and sub-angular limestone cobbles and boulders in a mid orange-brown silt clay matrix

Table 2: List of contexts

APPENDIX 3: WRITTEN SCHEME OF INVESTIGATION



ARCUS

**RYDER POINT WIND TURBINES - ARCHAEOLOGICAL WRITTEN
SCHEME OF INVESTIGATION**

APRIL 2014

PLANNING APPLICATION NUMBER 12/00723/FUL



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1 INTRODUCTION

Arcus Consulting Ltd. ("Arcus"), on behalf of Longcliffe Quarries Ltd ("the Developer"), has prepared a Written Scheme of Investigation (WSI) for a programme of archaeological watching brief, at the site of the consented Ryder Point Wind Turbines, near Longcliffe, Derbyshire ("the Development").

1.1 Site Location and Description

The Development at Ryder Point occupies a hilly area of mixed farmland situated to the east of the village of Longcliffe. The Development is situated approximately 6.2 km south-west of Matlock. The site is centred on NGR SK 25590 54910 and is surrounded by further agricultural land. The site is bordered by Ryder Point Quarry to the east and the High Peak Trail to the south. The geology of the site comprises carboniferous limestone with superficial deposits of clay, silt, sand and gravel.

1.2 Planning Background

The Development involves the erection of two wind turbines. To facilitate the Developments, the construction of access roads, upgrades to existing access roads, upgrades to existing access tracks, and crane pads will be required. The application was submitted in November 2012 (planning application number 12/00723/FUL) and consented on the 11th of July 2013. As part of the planning conditions the following condition was stipulated.

Condition 13

"a) No development shall take place until a Written Scheme of Investigation for archaeological monitoring has been submitted to and approved by the Local Planning Authority in writing. The Scheme shall include an assessment of significance and research questions; and

The programme and methodology of site investigation and recording

The programme and provision to be made for post investigation analysis and reporting

Provision to be made for publication and dissemination of the analysis and records of the site investigation

Provision to be made for archive deposition of the analysis and records of the site investigation

Nomination of a competent person or persons/organisation to undertake the works set out within the Written Scheme of Investigation.

b) No development shall take place other than in accordance with the archaeological Written Scheme of Investigation approved under condition (a).

c) Within a period of twelve weeks from completion of the development, the archaeological site investigation and post investigation analysis and reporting shall have been completed in accordance with the programme set out in the Written Scheme of Investigation approved under condition (a) and the provision to be made for publication and dissemination of results and archive deposition shall have been secured."

This document constitutes the WSI (referred to in Condition 13 part a) to be adhered to and will indicate all phases of archaeological mitigation required to discharge the above planning condition.

1.3 Previous Archaeological Investigations

As part of the planning application process for the Development, an Environmental Statement (ES) was submitted to Derbyshire Dales County Council by Arcus on behalf of The Developer. This was accompanied by a Desk-Based Assessment, which indicated that there was high potential for archaeological remains in areas which had not been previously disturbed by quarrying.

The results of a geophysical survey also accompanied the ES and this indicated that there was a significant magnetic response over the survey area however it was not known whether the ground disturbance was natural in origin or resultant from agriculture, quarrying or mining. As such a programme of trial trenching and sieving was undertaken and the results submitted as supplementary information.

The trial trenching and sieving produced no evidence of archaeological finds or features and indicated that the magnetic response over the survey area was likely produced by variations in the background geology.

To conclude it is considered that it is possible that small scale archaeological remains, particularly those which may relate to lead mining, may be encountered within the Development footprint.

1.4 The Development

The Development consists of 2 wind turbines, 100 metres (m) in height to blade tip, with associated turbine foundations, crane hardstanding, access roads, cabling and grid connection.

Excavation depths for cable runs and access tracks are anticipated to reach c. 500-750 mm, whilst excavations for turbine foundations are anticipated to reach a depth between 2-4 m.

2 AIMS

The aim of this WSI is to outline a project which will enable the preservation by record of any archaeological features which may be damaged or destroyed by the Development in accordance with National Planning Policy Framework (NPPF) (paragraph 141). The scheme of works should gather sufficient information to establish the presence/absence, nature, date, depth quality of survival and importance of any archaeological deposits to enable an assessment of the significance of the archaeology of the site.

It is proposed to meet the above aims and objectives by the following methodology. The proposed programme of archaeological investigation will consist of;

- A programme of archaeological watching brief on all areas of proposed ground disturbance, which have been identified as not having been previously disturbed by quarrying works.

All work will be carried out in compliance with the relevant codes of conduct of the Institute for Archaeologists (IfA).

The archaeological contractor who undertakes the Watching Brief must be able to prove that they have appropriate and current insurance to undertake excavations.

All staff must be suitably qualified and experienced for their project roles, with practical experience of excavating early post-medieval mining sites. Curriculum Vitae (CVs) will be supplied to the Development Control Archaeologist at Derbyshire County Council (DCC), where appropriate.

3 METHODOLOGY

3.1 Pre-Site Preparation Work

At least 10 working days notice, the name and contact number of the archaeologist on site will be given to the Development Control Archaeologist prior to the commencement of work.

To ensure continuous monitoring a schedule of works will be issued by the groundworks contractor to the archaeological contractor prior to the commencement of site works. This document will include the contact details for key personnel and the proposed schedule of works. Should the proposed schedule of works be subject to change the archaeological contractor will be informed immediately.

This WSI will be appended to the Construction Method Statement, so that the groundworks contractor is aware of the archaeological obligations of the Development.

Buxton Museum and Art Gallery, Buxton, Derbyshire should be contacted to discuss archiving prior to work commencing. The contractor is to notify the museum of the upcoming fieldwork using the notification from which can be found in Appendix I of the *Procedures for the Transfer of Archaeological Archives – Museums in Derbyshire*¹.

All staff must familiarise themselves with the archaeological background of the Development site, and the results of any previous work in the area, prior to the start of work on site. All staff must be aware of the work required under the specification, and must understand the projects aims and methodologies.

3.2 Archaeological Watching Brief

All work should be carried out in compliance with the codes of practice of the IfA and should follow the IfA Standards and Guidance for an Archaeological Watching Brief².

The watching brief will entail an appropriately experienced and qualified archaeologist **continuously** monitoring all ground works in all areas not previously disturbed by quarrying. This will include site stripping, excavation of foundation trenches, and excavation of service trenches.

The area subject to the Watching Brief will be accurately tied into the National Grid and located on a 1:2500 or 1:1250 map of the area. All archaeological deposits and features and the top and base of all ground works must be recorded with an above ordnance datum (AOD) level.

Where a mechanical excavator is to be used for ground excavation work, it must be fitted with a toothless bucket or a toothless ditching bucket for area stripping. Excavation must be carried out in successive level spits with opportunity for archaeological inspection.

The onsite archaeologist must be given the opportunity to stop work where necessary in order to inspect surfaces revealed.

Where archaeological features or deposits are revealed then time must be allowed for the archaeologist to carry out appropriate excavation and recording, as outlined in sections 3.3 and 3.4, before work recommences.

The archaeologist should inspect and monitor the upcast spoil from the excavations. All pottery of early 18th century or earlier date should be retained, whether stratified or not. Other material should be noted in terms of quantity, stratigraphic location and fabric/ware type.

¹ Museums in Derbyshire (September 2003) *Procedures for the Transfer of Archaeological Archives – Museums in Derbyshire*

² IfA (revised October 2008) *Standard and guidance for an archaeological watching brief*. Available at <http://www.archaeologists.net/sites/default/files/node-files/IfASG-Watching-Brief.pdf> [Accessed on 26/02/2013]

Below-ground stratigraphy and soils are of relevance in understanding the land-use history and evolution of the site. These should be recorded, photographed and interpreted even where no archaeological finds or features are present.

In the event of the discovery of archaeological remains which are of a greater number or extent than anticipated, work will cease and the Development Control Archaeologist and a representative of the Developer will be notified immediately. An assessment will be made of the importance of the remains and any provision for their recording or preservation in-situ, as appropriate.

Provision will be made for the archaeologists to be recalled to attend should mining evidence be encountered during deeper foundation works, in order to record any archaeological remains which may be disturbed. A specific risk assessment will be required prior to any excavation and recording of mining evidence. At all times health and safety must take priority over archaeological matters.

3.3 General Procedures for Excavation and Artefact Collection

All excavation should be carried out in compliance with the codes of practice of the IfA and should follow the IfA Standards and Guidance for an Archaeological Excavation³.

Decisions made on the methods and strategies for sampling features should be based upon the nature and extent of any deposits which are revealed.

All sample percentages are to be discussed and agreed with the Development Control Archaeologist. As a minimum guideline this process will typically require the following level of sampling.

- 100% of postholes, stakeholes or small discrete features;
- 50% of discrete features;
- 20% of linear/curvilinear features;
- 10 % of linear features considered to be agricultural or single fill in nature; and finally
- The deposits at junctions or interruptions in linear features should be sufficiently excavated for the relationship between components to be established.

All archaeological features and deposits must be excavated by hand.

In the event of human burials being discovered, they should be left *in-situ*, covered and protected and the coroners' office informed. If removal is essential, work must comply with relevant Home Office/Ministry of Justice Regulations.

Appropriate procedures under the relevant legislation must be followed in the event of the discovery of artefacts covered by the provisions of the Treasure Act 1996.

The Artefact collection policy shall be concerned with the provision of adequate samples for meeting, the objectives of the work.

During and after the excavation, all recovered artefacts and environmental samples must be stored in the appropriate material and storage conditions to ensure minimal deterioration and loss of information (this should include controlled storage, correct packaging, regular monitoring of conditions, immediate selection for conservation of vulnerable material).

Palaeo-environmental remains are not anticipated. If deposits of palaeo-environmental potential are encountered then a recognised specialist/English Heritage RSA will visit the site to suggest a sampling strategy, which will be adopted.

³ IfA (revised October 2008) *Standard and guidance for an archaeological excavation*. Available at <http://www.archaeologists.net/sites/default/files/node-files/IfASG-Excavation.pdf> [Accessed on 26/03/2014]

Where there is evidence for industrial activity, samples will be taken to identify macroscopic technological residues in accordance with *Archaeometallurgy*⁴ (English Heritage 2001) and *Science for Historic Industries*⁵ (English Heritage 2006).

A contingency will be made to allow for conservation advice/work and X-radiography of metal finds in line with EH Guidelines (EH 2006. *Guidelines on the X-radiography of archaeological metalwork*⁶) where justified by the aims of the project.

3.4 Recording

Recording should follow those standards as set out by the Institute for Archaeologists (IfA) in their Standards and Guidance for Field Evaluation and Excavation⁷.

As a minimum;

- Single-context recording as developed by the Museum of London Archaeology Service (MoLAS) should be followed;
- A Harris-Winchester or similar matrix should be used for complex stratigraphical problems;
- For brick/stone structures the record should include brick dimensions and type, mortar and the extent of structures. Brick samples should be taken for structures likely to pre-date the mid 19th century;
- A suitable photographic record should be produced, this will include;
 - A photographic record of all contexts should be taken in 35 mm b/w print film duplicated by either 35 mm colour slides of high resolution (7 megapixel or greater) colour DSLR photography. A register of all photographs should be kept, with the subject and direction of each shot; and
 - The photographic record should also include general site shots, shots of groundworks and shots of individual features and groups of features.
- Where possible digital data recording details digitally in three dimensions and this should be deposited alongside the report in the HER.
- The site should be accurately tied into the National Grid and located on a 1:2500 or 1:1250 map of the area.
- A full and proper record (written, graphic and photographic as appropriate) should be made for all work, using pro-forma record sheets and text descriptions appropriate to the work.
- Accurate scale plans and section drawings should be drawn at 1:50, 1:20 and 1:10 scales as appropriate.
- Drawing conventions should follow the MoLAS *Archaeological site manual* 2004.
- All archaeological deposits and features must be recorded with an **above ordnance datum (AOD)** level.

3.5 Contingency

In the event of the discovery of archaeological remains which are of a greater number or extent than anticipated, work will cease and Development Control Archaeologist and a representative of the Developer will be notified. An assessment will be made of the importance of the remains and any provision for their recording or preservation *in-situ*, as appropriate.

⁴ Centre for Archaeology Guidelines and English Heritage (2001) *Archaeometallurgy*. Available at <https://www.english-heritage.org.uk/publications/archaeometallurgy/cfaarchaeometallurgy2.pdf>. [Accessed on 27/03/2014]

⁵ English Heritage (2006) *Science for Historic Industries: Guidelines for the investigation of 17th - to 19th - century industries*. Available at <http://www.english-heritage.org.uk/content/publications/publicationsNew/guidelines-standards/science-for-historic-industries/science-historic-industries.pdf> [Accessed on 27/03/214]

⁶ English Heritage (2006) *Guidelines on the X-radiography of archaeological metalwork*. Available at <http://www.english-heritage.org.uk/publications/x-radiography-of-archaeological-metalwork/xradiography.pdf> [Accessed on 27/03/2014]

⁷ Institute for Archaeologists (2008) *Standards and Guidance for Field Evaluation and Excavation*. Available at <http://www.archaeologists.net/sites/default/files/node-files/IfASG-Excavation.pdf> [Accessed on 27/03/2014]

Adequate supervision of all groundworks will need to be ensured at all times. A provisional allowance of up to 10 person-days will be made at this stage. This will be reviewed once the construction programme is finalised.

3.6 Health and Safety

At all times health and safety must take priority over archaeological matters and must abide by relevant health and safety guidelines.

The Principal Contractor shall provide details of their Health and Safety policy and a site specific risk assessment. The health and safety plan shall include all site activities, and detail any required Personal Protective Equipment (PPE). The risk assessment should make specific reference to the potential to encounter features related to historic mining, and in particular reference historic mine shafts. The archaeological contractor shall comply with any health and safety requirements of the Principal Contractor.

3.7 Environmental Protection

The archaeological contractor will comply with any requirements of the employer or Principal Contractor to protect the environment. This will include provision for removal of refuse, the provision of bunds or other containment around fuel tank (if any), drip trays under plant and the availability of pollution clean-up kits in the event of a spillage.

4 POST-FIELDWORK METHODOLOGY

Finds recovery and conservation will follow the guidelines laid out by the Institute for Archaeologists⁸.

All finds (artefact and ecofacts) uncovered during the watching brief **must** be collected and processed, unless variations in this principle are first agreed with the Development Control Archaeologist for Derbyshire County Council. Finds **must** be appropriately packaged and stored under optimum conditions, as detailed in RESCUE/UKIC publication First Aid for Finds⁹.

A rapid scan of all excavated material should be undertaken by conservators and finds researchers in collaboration. Material considered vulnerable will be selected for stabilisation after specialist recording. Where intervention is necessary, consideration must be given to possible investigative procedures (e.g., glass composition studies, residues in or on pottery and mineral-preserved organic material). Once assessed all material will be packed and stored in optimum conditions. Deposits must be sampled for retrieval and assessment of the preservation conditions and potential for analysis of all biological remains.

If required, opportunity should be afforded for an environmental specialist to visit the site during the valuation and to discuss the strategy. Processing of all samples collected for biological assessment, or sub-samples of them, must be completed. Unprocessed sub-samples must be stored in conditions specified by the appropriate specialists.

Assessments for any technological residues should be undertaken. Samples for dating must be submitted to laboratories promptly.

Allowance should be made for preliminary conservation and stabilisation of all objects and an assessment of long-term conservation and storage needs.

⁸ IfA (revised October 2008) *Standard and Guidance for the collection, documentation, conservation and research of archaeological materials*. Available at <http://www.archaeologists.net/sites/default/files/node-files/IfASG-Finds.pdf> [Accessed on 12/12/2013]

⁹ Watkinson, D and Neal, V. (1998) *First Aid for Finds*. RESCUE/UKIC

The sampling strategy should include a reasoned justification for the selection of deposits for sampling and should be developed in collaboration with a recognised bio-archaeologist.

All finds processing, conservation work and storage of finds must be carried out in compliance with the IfA Guidelines for the collection, documentation, conservation and research of archaeological materials and those set out by UKIC (United Kingdom Institute for Conservation).

Any recording, marking and storage material should be of archive quality and recording systems must follow the guidance as outlined by the IfA.

The arrangements for the final disposal of any finds (artefacts) made in connection with the archaeological work are to be in keeping with the requirements of the Buxton Museum and Art Gallery.

5 MONITORING

Access will be permitted to the Derbyshire Archaeology Service and English Heritage to monitor any field, as well as the progress of any agreed post-fieldwork analysis and reporting programmes (at the Archaeological Contractor's premises or that of their specialist sub-contractors as appropriate).

6 REPORTING

If low levels of locally important archaeological and environmental remains are uncovered on the Development site, Development Control Archaeologist may decide that only an archive report is required. The archaeological consultant or contractor must submit a copy of the report to their client and Development Control Archaeologist within 12 weeks of completion of the work.

The Derbyshire County Council Historic Environment Record will be provided with one hard copy, one electronic PDF copy of the report and five key record photographs, with appropriate indexing.

Development Control Archaeologist for Derbyshire County Council will need to approve the report before discharging the condition on the planning permission.

Each page and paragraph should be numbered within the report and illustrations cross referenced within the text.

The report should include the following as a minimum:

- The Planning Application number, OASIS reference number and an 8 figure grid reference;
- A location plan of the site at an appropriate scale of at least 1:10,000;
- A location plan of the extent of the watching brief. This must be at a recognisable planning scale, and located with reference to the national grid, to allow the results to be accurately plotted on the Historic Environment Record;
- Plans and sections of archaeology located at a recognisable planning scale (1:10, 1:20, 1:50 or 1:100, as appropriate);
- A summary statement of the results of the watching brief;
- A table summarising the deposits, features, classes and numbers of artefacts encountered and spot dating of significant finds; and
- Any specialist reports associated with further analysis of finds and environmental samples from the watching brief.

Any variation to the above requirements should be approved by the Development Control Archaeologist prior to work being submitted.

7 ARCHIVE PREPARATION AND DEPOSITION

Adequate provision for post-excavation work must be made. This will be dependent upon the nature and size of the archive as generated by the fieldwork.

The site archive, the finds and the research archive must be deposited in the appropriate local museum (The Buxton Museum and Art Gallery, Buxton, Derbyshire). The archive must be submitted in line with Appendices 3 and 6 in English Heritage's Guidelines on the Management of Archaeological Projects and according to the guidelines as presented in Museums in Derbyshire's *Procedures for the Transfer of Archaeological Archives*¹⁰.

The contractor will notify the museum of the fieldwork using the notification form (Appendix 1 of the Museums in Derbyshire guidelines). A copy of this notification form will be sent to the Development Control Archaeologist.

If the findings are negative (i.e., there are no finds and no significant features), no museum deposition will be made and a single bound copy of the report will be deposited with the HER, plus a PDF on CD; an OASIS record will be completed and a digital copy of the report will be uploaded to OASIS as indicated in Section 9 of this WSI.

If the findings are positive (i.e., there are retained finds and/or significant features) then an accession number will be drawn and deposition of a stable site archive with the Buxton Museum will be made in line with the Museums in Derbyshire guidelines¹¹.

It is essential that the integrity of the site archive is maintained and the contractors adhere to the following principles:

- All archaeological projects must result in a stable, ordered, accessible archive;
- All aspects of the archaeological process affect the quality of the resulting archive;
- Standards for the creation, management and preparation of the archive must be understood and agreed at the beginning of any project;
- Ensuring the security and stability of the archive is a continuous process and a universal responsibility;
- A project has not been completed until the archive has been transferred successfully and is fully accessible for consultation. The planning archaeologist will not recommend the discharge of any planning condition until they have approved the report and the archive has been deposited; and
- Regular contact with the museum regarding all stages is recommended.

The archive will consist of all written records and materials recovered, drawn and photographic records, including a single copy of the final report. It will be quantified, ordered, indexed and internally consistent. It should also contain all site matrices, a site summary and brief written observations on the artefactual and environmental data.

The Development Control Archaeologist and Museum Curator must be notified in writing/by email on completion of fieldwork, with a brief summary of the archive material, and a proposed timetable for the project report. The report must include an archive statement, with an index to the archive and details of its location.

The Development Control Archaeologist must be informed in writing on final museum deposition of the site archive.

8 PUBLICATION AND DISSEMINATION

An appropriate level of publication and dissemination will be arranged in line as recommended by the Derbyshire Archaeology Service.

Copies of all reports, interim and final will be lodged with the Derbyshire HER.

¹⁰ Museums in Derbyshire (September 2003) *Procedures for the Transfer of Archaeological Archives* – Museums in Derbyshire

¹¹ *Ibid*

Publication costs must be built into agreed project budgets from the outset. Where no substantial publication is justified then 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.

The Derbyshire Archaeology Service and the Historic Environment Record supports the Online Access to Index of Archaeological Investigations (OASIS) Project. The overall aim of the OASIS project is to provide an online index to the mass of archaeological grey literature that has been produced as a result of the advent of large scale developer funded fieldwork.

The archaeological contractor must, at the start of work (immediately before fieldwork commences) initiate an online OASIS form at <http://ads.ahds.ac.uk/project/oasis/> and complete key fields on Details, Location and Creators forms. The OASIS form must be completed within 3 months of completion of the work and should include an uploaded pdf version of the entire report. Contractors are advised to ensure that adequate time and costings are built into their tenders to allow the forms to be filled in.

Technical advice must be sought in the first instance from OASIS (oasis@ads.ahds.ac.uk).

Once a report has become a public document by submission to or incorporation into the HER, Derbyshire HER will validate the OASIS form thus placing the information into the public domain on the OASIS website.

9 INSURANCE STATEMENT

The archaeological contractor must ensure and demonstrate that they are covered by adequate insurance policies, public liability and employer's liability some relevant form of civil liability indemnity or professional indemnity.

10 COPYRIGHT

The copyright of any written, graphic or photographic records and reports rests with the originating body. Agreements on copyright will be agreed with the commissioning body at the outset of the project.

The circumstance under which the report of records can be used by other parties should be identified at the commencement of the project, as should the proposals for distribution of the report. All aspects of publicity must be agreed at the outset of the project between the commissioning body and the archaeological organisation or individual undertaking the project.

11 FURTHER GUIDANCE

Any further guidance or queries should be directed to:

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