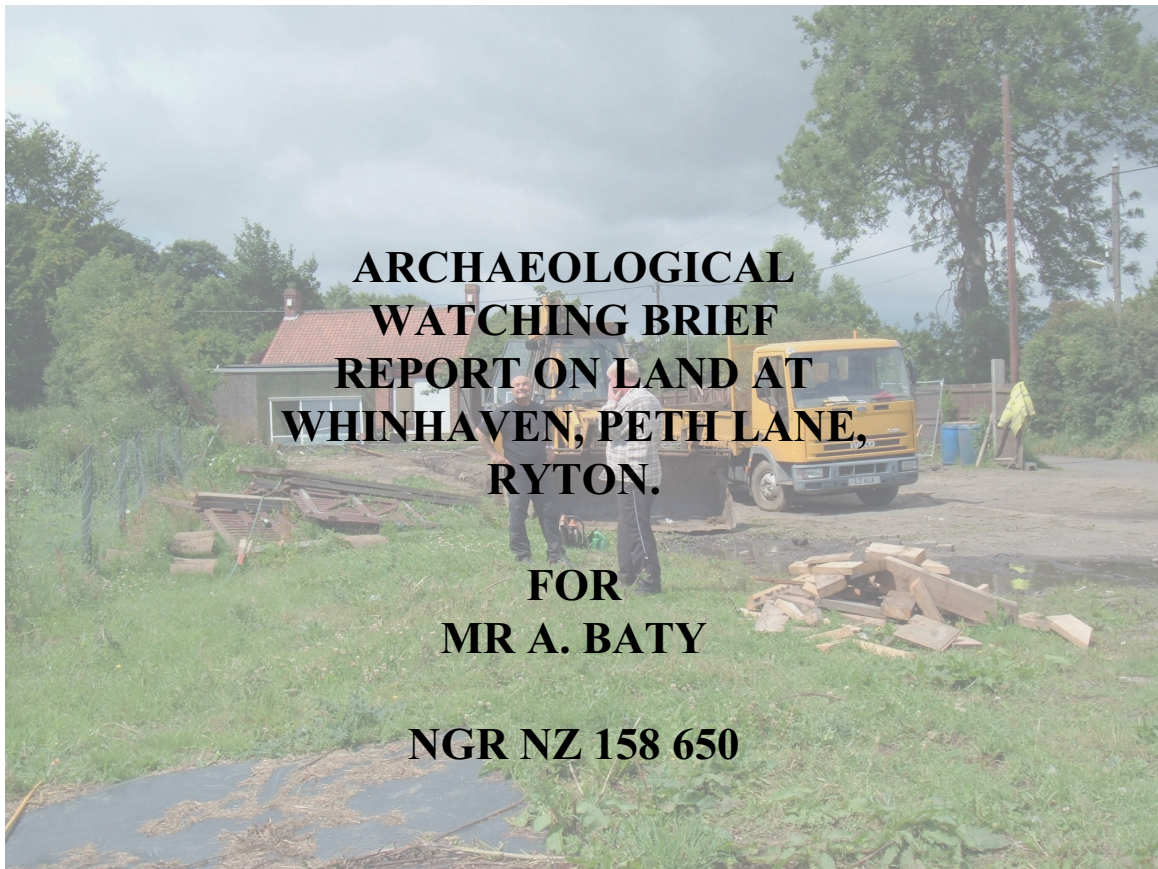


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# **NORTH PENNINES ARCHAEOLOGY LTD**

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**Project Designs and Client Reports No. CP/751/08**



**OASIS REF: northpen3-46582**

Frances Wood, BA (Hons)  
North Pennines Archaeology Ltd  
Nenthead Mines Heritage Centre  
Nenthead  
Alston  
Cumbria CA9 3PD  
Tel: (01434) 382045  
Fax: (01434) 382294  
Email: [info@nparchaeology.co.uk](mailto:info@nparchaeology.co.uk)

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## EXECUTIVE SUMMARY

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North Pennines Archaeology Ltd were commissioned by Mr A. Baty to undertake an archaeological watching brief on groundworks relating to the construction of a double garage with workspace area in the roof space.

The site was located on an area known to be of high archaeological potential, as Whinhaven is situated within the English Heritage registered Newburn Battlefield of 1640. A watching brief was undertaken on groundworks relating to the development in July 2008.

The excavations consisted of a square foundation trench, measuring 8m on the north side by 9.6m on the south side. The width of the trench was 0.9m wide with a depth of 0.9m. A mechanical excavator using a narrow toothed ditching bucket carried out the work under fair weather conditions.

No archaeological deposits were observed during the groundworks and no further work is scheduled.

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## ACKNOWLEDGEMENTS

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North Pennines Archaeology Ltd would like to offer thanks to Mr A. Baty and for commissioning the project, and for all assistance throughout the work.

North Pennines Archaeology Ltd would also like to extend their thanks to Jennifer Morrison of the Tyne and Wear Specialist Conservation Team. In addition, further thanks are extended to Mr A. Smith of Smith Construction Ltd and all staff on-site, for their help during this project.

Frances Wood undertook the archaeological watching brief and wrote the report. Tony Liddell produced the drawings. The project was managed by Matt Town, Project Manager, of NPA Ltd. Matt Town edited the report.

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## 1 INTRODUCTION

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### 1.1 CIRCUMSTANCES OF THE PROJECT

- 1.1.1 Planning permission has been granted for development at Whinhaven, Peth Lane, Ryton (NGR NZ 158 650) (Figure 1).
- 1.1.2 The site of Whinhaven is located within the English Heritage registered Newburn Battlefield of 1640. In addition, the 17<sup>th</sup> century Crawcrook or Risemoor Way runs to the south of the house, parallel with the existing garden fence. The potential of finding 17<sup>th</sup> century archaeological remains is high and there is also the possibility of finding 18<sup>th</sup> and 19<sup>th</sup> century archaeological deposits relating to the colliery activity in the area.
- 1.1.3 Archaeological research in the vicinity has recorded 17<sup>th</sup> century archaeological remains in the form of prominent earthworks (HER 624), located to the east of Whinhaven, off Haugh Lane. These could be the sconces mentioned in a letter from Lord Conway in 1640 (Morrison 2008) relating to the battlefield defences, but have also been interpreted as the remains of the battery which carried the wagonway associated with the colliery activity of the 17<sup>th</sup> century. Lead musket balls have been found in the garden close to the site at Whinhaven.
- 1.1.4 North Pennines Archaeology Ltd (NPAL) were commissioned by the client to undertake these works, consistent with the specification provided by the City Council (Morrison 2008) and to IFA guidelines and generally accepted best practice. This report outlines the monitoring works undertaken on-site, and the results of this scheme of archaeological works.

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## 2 METHODOLOGY

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### 2.1 PROJECT DESIGN

- 2.1.1 No project design was required. All works were undertaken in accordance with a specification prepared by the Tyne and Wear Specialist Conservation Team (Morrison 2008). This was adhered to in full, and the work was consistent with the relevant standards and procedures of the Institute of Field Archaeologists (IFA 2002), and generally accepted best practice.

### 2.2 THE WATCHING BRIEF

- 2.2.1 The archaeological monitoring and supervision of groundworks associated with the development took place on the 22<sup>nd</sup> July 2008. The works involved a structured watching brief to observe, record and excavate any archaeological deposits from the development site. The results of the monitoring are included within this report. A full written, drawn and photographic record of all features was taken, and has been compiled within an archive.

### 2.3 THE ARCHIVE

- 2.3.1 A full professional archive has been compiled in accordance with the specification, and in line with current UKIC (1990) and English Heritage Guidelines (1991). The archive will be deposited within an appropriate repository, with copies of the report available at the County Historic Environment Record at Jesmond, Newcastle, available upon request. The archive can be accessed under the unique project identifier NPA08, RYT-A, CP 751/08.
- 2.3.2 North Pennines Archaeology and the Tyne and Wear Specialist Conservation Team support the Online Access to the Index of Archaeological Investigations (OASIS) project. This project aims to provide an on-line index and access to the extensive and expanding body of grey literature, created as a result of developer-funded archaeological work. As a result, details of the results of this project will be made available by North Pennines Archaeology, as a part of this national project.

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## 3 BACKGROUND

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### 3.1 LOCATION AND GEOLOGICAL CONTEXT

- 3.1.1 The site is located to the south of the river Tyne in the east extent of Ryton village near the Newburn Bridge and is found between Peth Lane and Haugh Lane. The site access from the east by road is from Haugh Lane and from the west, on foot along Peth Lane. The site is on the flood plain of the Tyne.
- 3.1.2 The area rests on Middle Coal Measures of the Carboniferous period. Early in this stage advancing ice from south-west Scotland and the Lake District eroded channels into the rock head. The Carboniferous rocks are generally masked by Quaternary deposits of varying thickness and character. Exposure of bedrock is generally not good and the sections are discontinuous. Drift-free areas are usually restricted to higher ground, steeper slopes, stream sections and quarries.
- 3.1.3 The district was subjected to several periods of glaciation during the Pleistocene, but the glacial deposits preserved all belong to the last glaciation (Late Devensian). Sediments of earlier glaciations and interglacial periods have been removed or recycled. Generally the Quaternary deposits range up to 10m in thickness, but values of well in excess of 30 – 90m have been recorded in the buried valleys, particularly those associated with the river Tyne. Boulder clay is the most widespread of these Quaternary deposits and covers half the area of the district. It lies directly on the underlying Carboniferous rocks and in many places is the only drift deposit present. In general it comprises tough, over-consolidated silty and locally sandy clay (Mills and Holliday 1998; BGS 2001).

### 3.2 HISTORICAL CONTEXT

- 3.2.1 This historical background is only a summary of the known context of the site. A desk-based assessment (Peters 2005) was undertaken on an area of land in Newburn across the river from Whinhaven, giving a thorough historic and archaeological analysis of the area, and this will not be repeated here. Instead, this section is a site-specific analysis of known historical events, which may be impacted upon by the groundworks.
- 3.2.2 The earliest recorded activity, which may have extended within the area affected by groundworks, was in the 17<sup>th</sup> century. The site lies in the battlefield area of the Newburn Ford Battle. This event took place in 1640 and was sparked off by King Charles I's attempt to impose a new prayer book on the Scots, which resulted in military conflict between the King's army and the Scottish troops. This battle was the only battle of the Second Bishops' War and was of high political significance.
- 3.2.3 Later industrial activity in the area surrounding the site was thought to have started in 1663 with the construction of the Crawcrook or Risemoor Way, which was a wagonway developed for use with the 17<sup>th</sup> century Crawcrook Colliery. This earlier colliery is presumed to be on the same site as 19<sup>th</sup> century colliery (Morrison 2008).



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## 4 ARCHAEOLOGICAL WATCHING BRIEF

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### 4.1 INTRODUCTION

- 4.1.1 The watching brief monitoring was undertaken on the 22<sup>nd</sup> of July 2008. The work scheduled was to excavate foundations for four walls of a double garage. The ground works took place to the east of the house on a piece of wasteland that had building debris scattered across the surface (Figure 2).

### 4.2 THE WATCHING BRIEF

- 4.2.1 The excavations consisted of a square foundation trench, measuring 8m on the north east side by 9.6m on the south side. The width of the trench was 0.9m wide with a depth of 0.9m. There was a concrete skim overlying the site to the west of the area of works. A mechanical excavator using a narrow toothed ditching bucket carried out the work under fair weather conditions.
- 4.2.2 The stratigraphic matrix observed within the excavated area consisted of a modern topsoil grass and gravel mix car-park surface (**100**) which was 0.9m in depth, which overlay in places a yellow hardcore deposit (**101**), with a maximum depth of 0.2m. This in turn overlay a mid brown sandy soil layer (**102**) which has been interpreted as natural or a thick subsoil layer. Deposits of modern rubble were observed in the excavations; these included red bricks, mortar, concrete and plastic fragments.
- 4.2.3 A disused plastic pipe that runs across the area of works in an east west direction was breached. The pipe was thought to be part of a septic tank that had been disconnected in an earlier phase of the works. The fluid resulting from this breach caused the trench to become quite waterlogged in parts.



*Plate 1: south facing section showing stratigraphy in north eastern extent of foundation trench.*



*Plate 2: View of completed works taken looking southwest.*





*Plate 3: View of the site looking along the line of the hedgerow, towards the west.*

### **4.3 ARCHAEOLOGICAL FINDS**

- 4.3.1 No archaeological finds were recovered, no features were observed and no environmental samples were taken during the groundworks.

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## 5 CONCLUSIONS AND RECOMMENDATIONS

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### 5.1 CONCLUSIONS

- 5.1.1 Despite the high archaeological potential of this area, there were no archaeological finds found and no features observed during the groundworks. The ground appeared to have been disturbed, as can be evidenced by the deposits of modern rubble and hardcore that lay beneath the surface of the site.

### 5.2 RECOMMENDATIONS

- 5.2.1 As the construction of the garage at Whinhaven requires no further groundworks, further monitoring is not required during this work.
- 5.2.2 This watching brief has provided a useful opportunity to test the sub-surface survival of the potential 17<sup>th</sup> and 18<sup>th</sup> century deposits in this area. The area truncated by the groundworks is within the known area of site of the Newburn Battlefield and there is a possibility that earlier deposits may yet survive below the level reached by these works, as the ground level may have built up over the years as a result of being sited on a flood plain.
- 5.2.3 Due to the high archaeological potential of the area, it is likely that similar works in the vicinity will require a similar scheme of archaeological mitigation, subject to advice from the Tyne and Wear Specialist Conservation Team.

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## APPENDIX 1: CONTEXT TABLES

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| <b>Context Number</b> | <b>Context Type</b> | <b>Description</b>                       |
|-----------------------|---------------------|--|
| <b>100</b>            | Layer               | Modern surface; turf and gravel          |
| <b>101</b>            | Deposit             | Yellow hardcore                          |
| <b>102</b>            | Layer               | Mid-brown sandy soil; natural or subsoil |

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## APPENDIX 2: SPECIFICATION

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### TYNE AND WEAR SPECIALIST CONSERVATION TEAM

#### **Specification for an Archaeological Watching Brief at Whinhaven, Peth Lane, Ryton NE40 3PD**

##### ***Introduction***

Planning permission has been granted for a double garage with workspace area in the roofspace.

Whinhaven lies within the English Heritage-registered Newburn Battlefield of 1640. There is a possibility that buried archaeological remains relating to the battle (such as musket or cannon balls) may be present on the site. The owner of Whinhaven has found musket balls in the garden on previous occasions (see HER 624 below).

The Crawcrook or Risemoor Way of 1663 runs to the south of the house, parallel with the garden fence. To the east of the site off Haugh Lane are two prominent earthworks, once thought to be the remains of battlefield sconces, but now thought to be the remains of a battery which carried the waggonway.

##### HER 1297 Battlefield of Newburn Ford 1640

King Charles I's attempt to impose a new prayer book on the Scots led to military conflict in the summer of 1640. To avoid assaulting the strong defences on the north side of Newcastle, a Scottish army of up to 20,000 men under the command of Alexander Leslie decided to cross the Tyne and attack from the weaker southern side. Lord Conway opposed the crossing from the south bank of the Tyne, constructing fortifications to defend both of the fords. The English were driven from one fortification by the weight of the Scots' artillery bombardment. The Scottish cavalry crossed the ford but were countered by English cavalry. The Scots forced the English to retreat to higher ground where they made a last stand but were beaten off by the Scots' advance, who afterwards occupied Newcastle. The Battle of Newburn Ford was the only battle of the Second Bishops' War. Politically it was of the greatest importance. The cost to King Charles of raising the army and the need to buy off the Scots after their occupation of Newcastle forced the King to install the Long Parliament which sat through the Civil Wars until the Restoration. The landscape of 1640 was profoundly different from that of today. The river has been straightened and the floodplain largely developed. Even so, the topography allows an understanding of the course of events during the battle which took place over pastureland with woods on the steep river cliffs. In 1640 a Scottish invasion was expected, and "two sconces, or breastworks, were raised by the English against the two fords where the Scots might pass at low water, and into each sconce were put 400 musketeers and four pieces of ordnance". The Scots gathered in the village of Newburn, the English assembled on Newburn/Stella Haugh. The English started the battle on 28 August 1640 by shooting at and wounding a Scots officer, and the two sides began firing at each other across the river. The greater of the English sconces was breached, and the Scots crossed the river. They were also firing from a new sconce to the east, and the English withdrew.

##### HER 624 earthworks, Haugh Lane NZ 1619 6481

In a letter from Lord Conway in 1640, there is reference to an order having been given to cast up works against the fords at Newburn, and a further reference to "two sconces or breastworks" being raised by the English, into each being put 400 musketeers and 4 pieces of ordnance. On 28 August the greater sconce was breached by the Scottish cannon, and the English withdrew. Tradition has it that the two prominent, high but shapeless earthworks at the first grid reference, and a third (longer and straight, but now ploughed out) at the second, were the "royalist breastworks" thrown up before this battle. There has never been universal acceptance of this idea,- some of the antiquarians visiting the site in the 1880s were convinced the "old crescent-shaped embankment was part of a wagonway...the top...was covered with pieces of coal". Indeed a desk based survey in 2004 of the early wagonways of Gateshead, does in fact show that the Crawcrook and Risemoor Way (HER 3321) built in 1663, runs directly through these embankments. Nevertheless, the land owner in 1987 produced lead musket balls which he had dug up in his garden close by (Whinhaven).

##### HER 3321 Crawcrook and Rise Moor Way

It is possible that Crawcrook, lying much closer to the River Tyne, had a waggonway before Chopwell. Under the ownership of Robert Anderson there may have been a waggonway here before 1640, although no positive evidence has been found to prove this. By the early 18th century, the way is not shown on the 1728 plan, although there is evidence it was open at this time; it is possible it was subsumed under another waggonway. The site of the 17th century Crawcrook Colliery was probably the same as that of the 19th century one, still visible south of South View as an area of spoil heaps. The waggonway took a north-easterly course through the later Emma Colliery at Bar Moor. From there to the Holburn Dene it course is followed by the Corbridge road. It reached Ryton Haughs along the east side of the dene where the remains of an embankment still stand. This embankment has, in the past, been erroneously regarded as a defensive measure built to protect English soldiers at the Battle of Newburn. The original staiths were on the Tyne, nearly opposite Newburn Church, above Crummel Ford.

Rise Moor Colliery was opened around 1685. It was worked by wains and any serious development depended on Chopwell's waggonway. By 1710 it had gone out of production but was leased in 1736 by John Humble of Ryton and in 1737 he built a waggonway. He used the old Crawcrook waggonway by extending it to the valley of the Stanley Burn and intended to work coal from this low point. The old waggonway had already been extended as far as the Bradley Burn, past the Rising Sun Inn. Humble's extension from the Bradley Burn over the Stanley Burn is clear on the ground. It appears on an early 19th century map crossing the Stanley Burn under the name "Mill Moss Waggonway", despite it having been lifted in 1781, and the relaying of 1787 is thought to have ended at Crawcrook. It had a wayleave to use the old waggonway to Boggle Hole as well as new staiths on the Hassocks at Stella, with a mount (an embankment built to allow the coal still to be shot into keels from above where the river banks were low). Another crossing, across the Red Burn in Guards Wood, entailed a battery and culvert and it remains today. The waggonway ended just beyond the lane bounding Dukes Hagg Wood. In 1743 another extension was built from the Red Burn deep into Prudhoe. It closed 20 years later when two copyholders each built a wall across it. In 1763 another colliery was opened at Rise Moor and the waggonway was extended from Dukes Hagg Wood, where it can be seen overlying the old way, for nearly 1½ miles to the west, removing the newly built blocking walls. At the head of the incline at Dukes Hagg Wood the way split, one branch heading south to Leadgate and the other westward to Airey Hill. A plan of 1767 shows a diversion at Stella Boggle Hole with a new timber bridge on gears over the stream. This latest Rise Moor Colliery lasted until 1781, when it was worked out, and the copyholders rebuilt their walls across the waggonway and it was lifted. In 1787 its Hassock staiths was an empty site. By 1789 the way was lifted in three places either side of Whitewell Lane. By 1820 the wooden waggonway was no longer in use and it was not relaid.

The work must therefore be monitored by an archaeologist as a Watching Brief, in order that any archaeological remains can be recorded.

The watching brief must be carried out by a suitably qualified and experienced archaeological organisation.

All work must be carried out in compliance with the codes of practice of the Institute of Field Archaeologists and must follow the IFA Standard and Guidance for Watching Briefs (revised 2001).

The work will record, excavate and environmentally sample (if necessary) any archaeological deposits of importance found on the plot. The purpose of this brief is to obtain tenders for this work. The report must be the definitive record for deposition in the Tyne and Wear HER.

**A toothless bucket will be used on the plant employed on site if feasible to reduce damage to archaeological remains.**

### ***Research Aims and Objectives***

The watching brief report should make reference to Regional and Thematic Research Frameworks.

The North-East Regional Research Framework for the Historic Environment (2006) notes the importance of research as a vital element of development-led archaeological work. It sets out key research priorities for all periods of the past allowing commercial



contractors to demonstrate how their fieldwork relates to wider regional and national priorities for the study of archaeology and the historic environment. The aim of NERRF is to ensure that all fieldwork is carried out in a secure research context and that commercial contractors ensure that their investigations ask the right questions.

See page 106 Resource Assessment Post-Medieval: Defences  
Page 179 Research agenda and strategy Post Medieval: Defence  
Key Research Themes: PM2 Early railways  
Key Research Priorities: PMvii Civil War

See <http://www.algao.org.uk/Association/England/Regions/ResFwks.htm>

Ideally and where possible the evaluation should cross-reference its aims and objectives to national priorities, defined in SHAPE (Strategic Frameworks for Historic Environment Activities and Programmes in English Heritage), and the English Heritage Research Agenda 2005-2010.

Where appropriate note any similar nationwide projects using ADS, internet search engines, ALSF website, HEEP website, OASIS, NMR excavation index.

All staff on site must understand the project aims and methodologies.

The commissioning client will provide plans indicating the location of the proposed work.

### **Notification**

**The County Archaeologist needs to know when archaeological fieldwork is taking place in Tyne and Wear so that he can inform the local planning authority and can visit the site to monitor the work in progress. The Archaeological Contractor must therefore inform the County Archaeologist of the start and end dates of the Watching Brief. He must also keep the County Archaeologist informed as to progress on the site. The CA must be informed of the degree of archaeological survival. The Client will give the County Archaeologist reasonable access to the development to undertake monitoring.**

### **The tasks**

1 A construction timetable has yet to be agreed. Tenders for the Watching Brief should therefore be a cost per day including overheads such as travel costs and equipment. Contingency costs will be provided for environmental sampling and scientific dating per sample and for finds analysis. Any variation on the agreed timetable will be notified by the client, who will give a minimum of 48 hours notice of a change on the days of site attendance. Close liaison between the parties involved will be needed to co-ordinate this element of the work.

2 The work involves undertaking a structured watching brief to observe and record any archaeological deposits and finds from this locality. The absence of deposits and finds must be recorded as negative evidence. **The Watching Brief will not aim to hinder the construction programme, however should archaeological remains be found, the appointed archaeologist must be allowed sufficient time to fully record (by photograph and scale plan and section), excavate and environmentally sample (if necessary) the archaeological deposits.** Within the course of the Watching Brief, it may be possible to record sections through the stratigraphy exposed during the construction work.

### **General Conditions**

The work will be undertaken according to English Heritage Guidelines - Managing Archaeological Projects 2nd Edition ('MAP2') 1991 ([www.english-h.gov.uk/guidance/map2/index.htm](http://www.english-h.gov.uk/guidance/map2/index.htm)) and Management of Research Projects in the Historic Environment (MoRPHE) – The MoRPHE Project Managers' Guide, Project Planning Notes and Technical Guides 2006 ([www.english-heritage.org.uk/publications](http://www.english-heritage.org.uk/publications)).

All staff employed by the Archaeological Contractor shall be professional field archaeologists with appropriate skills and experience to undertake work to the highest professional standards.

The Archaeological Contractor must maintain a Site Diary for the benefit of the Client, with full details of Site Staff present, duration of time on site, etc. and contact with third parties.

Because this is a detailed specification, the County Archaeologist does not require a Project Design from the appointed archaeologist. However a health and safety statement and risk assessment, identifying potential risks in a risk log (see template in appendix 2 of The MoRPHE Project Manager's Guide) and specifying suitable countermeasures and contingencies, is required to be submitted to the commissioning client.

The Management of Research Projects in the Historic Environment (MoRPHE) – The MoRPHE Project Managers' Guide 2006 contains general guidance on Risk management (section 2.3.2, Appendix 2).

Risk assessments must be produced in line with legislative requirements and best practice e.g. as set out in the SCAUM (Standing Conference on Archaeological Unit Managers) Health and Safety Manual <http://www.scaum.org/uk>

The Client may wish to see copies of the Archaeological Contractor's Health and Safety Policies.

The Archaeological Contractor must be able to provide written proof that the necessary levels of Insurance Cover are in place.

#### ***Environmental Sampling and Scientific Dating***

Scientific investigations should be undertaken in a manner consistent with "The Management of Archaeological Projects", English Heritage 1991 and with "Archaeological Science at PPG16 Interventions: Best Practice for Curators and Commissioning Archaeologists", English Heritage, 2003.

Aims of environmental sampling – to determine the abundance/concentration of the material within the features and how well the material is preserved, to characterise the resource (the site) and each phase, to determine the significance of the material and its group value, what crop processing activities took place on the site? What does this tell us about the nature of the site? Is there any evidence for changes in the farming practice through time? How did people use this landscape? Can we place certain activities at certain locations within the site? Function and date of individual features such as pits, hearths etc. Are the charred assemblages the result of ritual deposition or rubbish? Is the charcoal the result of domestic or industrial fuel?

Advice on the sampling strategy for environmental samples and samples for scientific dating etc. must be sought from Jacqui Huntley, English Heritage Regional Advisor for Archaeological Science (0191 3341137 or 07713 400387) **before** the evaluation begins. The sampling strategy should include a reasoned justification for selection of deposits for sampling.

Deposits should be sampled for retrieval and assessment of the preservation conditions and potential for analysis of biological remains (English Heritage 2002). Flotation samples and samples taken for coarse-mesh sieving from dry deposits should be processed at the time of fieldwork wherever possible. Sieving recovers fish, amphibian, small bird and mammal bone, small parts of adult mammals and young infused bones which may be under-represented otherwise. However it is noted that clay soils in this region make sieving difficult. Discuss the potential for sieving with Regional Advisor for Archaeological Science.

Environmental samples (bulk soil samples of 30 litres volume, to be sub-sampled at a later stage) will be collected by the excavator from suitable (i.e. uncontaminated) deposits. It is suggested that a large number of samples be collected during evaluation from which a selection of the most suitable (uncontaminated) can be processed. All tenders will give a price for the full analysis, report production and publication per sample.

Deposits will be assessed for their potential for radiocarbon, archaeomagnetic (guidance is available in the Centre for Archaeology Guideline on Archaeometallurgy 2001) and Optically Stimulated Luminescence dating. Timbers will be assessed for their potential for dendrochronology dating. Sampling should follow procedures in "Dendrochronology: guidelines on producing and interpreting

dendrochronological dates”, Hillam, 1998. All tenders will quote the price of these techniques per sample.

The following information should be provided with the environmental samples to be processed – brief account of nature and history of the site, aims and objectives of the project, summary of archaeological results, context types and stratigraphic relationships, phase and dating information, sampling and processing methods, sample locations, preservation conditions, residuality/contamination etc.

Laboratory processing of samples shall only be undertaken if deposits are found to be reasonably well dated, or linked to recognisable features and from contexts the derivation of which can be understood with a degree of confidence.

A range of features, and all phases of activity, need to be sampled for charred plant remains and charcoal. Ceramic features should not be avoided as the plant remains from these features may help to date them. Deep features should be sampled in spits to pick up changes over time. Part, or all of each of the contexts should be processed. In general samples should be processed in their entirety. All flots should be scanned, and some of the residues.

Pollen samples can be taken from features such as lakes, ponds, palaeochannels, estuaries, saltmarshes, mires, alluvium and colluvium, and from waterlogged layers in wells, ditches and latrines etc. Substances such as honey, beer or food residues can be detected in vessels. Activities such as threshing, crop processing and the retting of flax can be identified. When taken on site, pollen samples should overlap. Your regional science advisor can advise on the type of corer or auger which would be most appropriate for your site. Samples need to be wrapped in clingfilm and kept dark and cool. Make a description of the sediments in which the pollen was found, and send this with the sample to be assessed.

Coastal or estuary sites (even those which are now well drained) are suitable for sampling for foraminifera. Diatoms can also be found on marine sites, but also in urban settings (sewers, wells, drains, ditches etc). They only survive in waterlogged conditions. These aquatic microfossils are used as proxy indicators of the former aquatic ecological conditions on site, changes in sea levels and temperature, salinity, PH and pollution. Forams are taken from cores, monolith tins or bulk samples. Diatoms are cut from monolith tins or cores or taken as spot samples.

Insects, which are useful as palaeoenvironmental indicators, survive best in waterlogged deposits such as palaeochannels and wells. They can provide information on climate change and landscape reconstruction as some species are adapted to particular temperatures, habitats or even particular trees. Certain insects can indicate the function of a feature or building (eg. Weevils, which were introduced by the Romans, often indicate granary sites, parasites will indicate the presence of particular animals such as sheep or horse, latrine flies survive in the mineral deposits in latrines, or in the daub of medieval buildings etc). Samples need to be sealed (eg. in a plastic box).

Where there is evidence for industrial activity, macroscopic technological residues should be collected by hand. Separate samples should be collected for micro-slugs (hammer-scale and spherical droplets). Guidance is available in the English Heritage “Archaeometallurgy” guidelines, 2001.

Buried soils and sediment sequences should be inspected and recorded on site by a recognised geoarchaeologist. Procedures and techniques in the English Heritage document “Environmental Archaeology”, 2002 and “Geoarchaeology”, 2004 should be followed.

Sampling strategies for wooden structures should follow the methodologies presented in “Waterlogged wood. Guidelines on the recording, sampling, conservation and curation of waterlogged wood” R. Brunning, 1996. If timbers are likely to be present on your site, contact a wood specialist beforehand. Pre-excavation planning – determine questions to ask, agree on a sampling strategy, allocate reasonable time and budget. Soil samples should be taken of the sediments surrounding the timber. Keep the timbers wet! Record them asap on-site – plan, photograph, record the size and orientation of the wood (radial, tangential, transverse), any toolmarks, joints, presence of bark, insect damage, recent breaks, and if another piece of wood was on top of or below the piece sampled. Both vertical and horizontal positioning of wattling must be recorded. Wood samples can provide information on woodland management such as medieval coppicing, type of taxa (native or foreign), conversion technology (how the wood was turned into planks), building techniques and type of tools used.

Waterlogged organic materials should be dealt with following recommendations in "Guidelines for the care of waterlogged archaeological leather", English Heritage and Archaeological Leather Group 1995.

### **Animal Bone**

Animal bone can explore themes such as hunting and fowling, fishing, plant use and trade, seasonality, diet, age structures, farrowing areas, species ratios, local environment.

Animal bone assemblages should be assessed by a recognised specialist.

The specialist will need to know a brief account of the nature and history of the site, an account of the purpose, methods (details of sampling) for recovery of animal bones, and the main aims and results of the excavation, details of any specific questions that the excavator wants the animal bone specialist to consider, information about other relevant finds from the excavation (e.g. bone tools, fishing equipment, weaving equipment), specific information about each context that has produced significant quantities of animal bone (recovery method, phase, context type, position in relation to major structures, contamination by more recent material, some indication of the amount of bone (by weight or by container size). See "Ancient Monuments Laboratory Advisory Note, "Assessment of animal bone collections from excavations", Sebastian Payne, 1991 and "The Assessment of a collection of animal bones", S. Davis, n.d., Ancient Monuments Laboratory.

### **Human Remains**

Human remains must be treated with care, dignity and respect.

Excavators must comply with the relevant legislation (essentially the Burial Act 1857) and local environmental health concerns. If found, human remains must be left in-situ, covered and protected. The archaeological contractor will be responsible for informing the police, coroner and County Archaeologist. If it is agreed that removal of the remains is essential, the archaeological contractor will apply for a licence from the Home Office and their regulations must be complied with.

Site inspection by a recognised osteologist is desirable for isolated burials and essential for cemeteries. The remains will be recorded in-situ and subsequently lifted, washed in water (without additives). They will be marked and packed to standards compatible with "Excavation and post-excavation treatment of cremated and inhumed human remains", McKinley and Roberts, 1993. After excavation, the remains will be subject to specialist assessment.

Analysis of the osteological material should take place according to published guidelines "Human Remains from Archaeological Sites, Guidelines for producing assessment documents and analytical reports, English Heritage, 2002.

Some of the potential benefits from the study of human skeletons – demography, growth profiles, patterns of disease, genetic relationships, activity patterns, diet, burial practices, human evolution. New scientific techniques available include DNA and stable isotope analyses.

The final placing of the remains after scientific study and analysis will be agreed beforehand.

Further guidance is available in:

"Guidance for best practice for treatment of human remains excavated from Christian burial grounds in England", The Church of England and English Heritage, 2005 ([www.english-heritage.org.uk/upload/pdf/16602\\_HumanRemains1.pdf](http://www.english-heritage.org.uk/upload/pdf/16602_HumanRemains1.pdf))

"Church Archaeology: its care and management", Council for the Care of Churches, 1999

The Advisory Panel on the Archaeology of Christian burials in England can provide free well-informed advice with consideration of relevant religious, ethical, legal, archaeological and scientific issues. Panel's website:

<http://www.britarch.ac.uk/churches/humanremains/index.html>

or email the secretary [simon.mays@english-heritage.org.uk](mailto:simon.mays@english-heritage.org.uk)

### **Treasure**

Defined as:

- Any metallic object, other than a coin, provided that at least 10% by weight of metal is precious metal and that is at least 300 years old when found
- Any group of two or more metallic objects of any composition of prehistoric date that come from the same find
- All coins from the same find provided that they are at least 300 years old when found, but if the coins contain less than 10% gold or silver there must be at least ten
- Any object, whatever it is made of, that is found in the same place as, or had previously been together with, another object that is Treasure
- Any object that would previously have been treasure trove, but does not fall within the specific categories given above. Only objects that are less than 300 years old, that are made substantially of gold or silver, that have been deliberately hidden with the intention of recovery and whose owners or heirs are unknown will come into this category

If anything is found which could be Treasure, under the Treasure Act 1996, it is a legal requirement to report it to the local coroner within 14 days of discovery. The Archaeological Contractor must comply with the procedures set out in The Treasure Act 1996. Any treasure must be reported to the coroner and to The Portable Antiquities Scheme Finds Liaison Officer, Rob Collins (0191 2225076 or [Robert.Collins@newcastle.ac.uk](mailto:Robert.Collins@newcastle.ac.uk)) who can provide guidance on the Treasure Act procedures.

### ***Finds Processing and Storage***

Finds shall be recorded and processed in accordance with the IFA Guidelines for Finds Work

Finds will be assessed by an experienced finds specialist.

The Archaeological Contractor will process and catalogue the finds in accordance with Museum and Galleries Commissions Guidelines (1992) and the UKIC Conservation Guidelines, and arrange for the long term disposal of the objects on behalf of the Client. A catalogue of finds and a record of discard policies, will be lodged with the finds for ease of curation.

Assessment should include x-radiography of all iron objects (after initial screening to exclude recent debris) and a selection of non-ferrous artefacts (including all coins). Refer to "Guidelines on the x-radiography of archaeological metalwork, English Heritage, 2006.

If necessary, pottery sherds and bricks should be recommended for Thermo-luminescence dating.

Finds processing, storage and conservation methods must be broadly in line with current practice, as exemplified by the IFA "Standard and guidance for the collection, documentation, conservation and research of archaeological materials", 2001. Finds should be appropriately packaged and stored under optimum conditions, as detailed in the RESCUE/UKIC publication "First Aid for Finds" (Watkinson and Neal 1998). Proposals for ultimate storage of finds should follow the UKIC publication "Guidelines for the Preparation of Excavation Archives for Long-term Storage" (Walker 1990). Details of methodologies may be requested from the Archaeological Contractor.

Other useful guidance – "A Strategy for the Care and Investigation of Finds", English Heritage, 2003, "Finds and Conservation Training Package", English Heritage, 2003.

All objects must be stored in appropriate materials and conditions to ensure minimal deterioration. Advice can be sought from Jacqui Huntley of English Heritage (0191 3341137 or 07713 400387) where necessary.

### **The report**

The production of Site Archives and Finds Analysis will be undertaken according to English Heritage Guidelines (Managing Archaeological Projects 2nd Edition).

### ***The report***

6 The archaeological contractor will provide a report of archaeological operations, including:

- a site location plan and grid reference
- brief description of recording procedures
- plans and sections of stratigraphy recorded (if practical)
- report on the finds (if any)
- environmental report (if relevant)
- colour photographs of the site and any significant archaeological features/finds
- a summary of the results of the work
- copy of this specification

The report will form an addition to the *Short Reports* files in the Tyne and Wear Historic Environment Record.

7 Three bound and collated paper copies of the report need to be submitted:

- one for the commissioning client
- one for the planning authority (Gateshead Council)
- and one for deposition in the County HER at the address below. A digital copy of the report on CD is also required by the HER, in a plastic case and not attached to the report.

***The report and CD for the HER must be sent by the archaeological consultant or their client directly to the address below. If the report is sent via the planning department, every page of the report will be stamped with the planning application number which ruins the illustrations. The HER is also often sent a photocopy instead of a bound colour original which is unacceptable.***

#### **Site Archive**

The archive should be a record of every aspect of an archaeological project – the aims and methods, information and objects collected, results of analysis, research, interpretation and publication. It must be as complete as possible, including all relevant documents, records, data and objects {Brown, 2007, 1}.

The site archive (records and materials recovered) should be prepared in accordance with Managing Archaeological Projects, Second Edition, 5.4 and appendix 3 (HBMC 1991), "Archaeological documentary archives" IFA Paper No. 1, "Archaeological Archives – creation, preparation, transfer and curation" Archaeological Archives Forum etc., Guidelines for the Preparation of Excavation Archives for Long Term Storage (UKIC 1990) and "Archaeological Archives – A guide to best practice in creation, compilation, transfer and curation" by Duncan H. Brown, Archaeological Archives Forum, July 2007.

#### **Documentary Archive**

The documentary archive comprises all records made during the archaeological project, including those in hard copy and digital form.

This should include written records, indexing, ordering, quantification and checking for consistency of all original context sheets, object records, bulk find records, sample records, skeleton records, photographic records (including negatives, prints, transparencies and x-radiographs), drawing records, drawings, level books, site note-books, spot-dating records and conservation records, publication drafts, published work, publication drawings and photographs etc.

A summary account of the context record, prepared by the supervising archaeologist, should be included.

All paper-based material must at all times be stored in conditions that minimise the risk of damage, deterioration, loss or theft.

Do not fold documents

Do not use self-adhesive labels or adhesive or tape of any kind

High quality paper (low-acid) and permanent writing materials must be used.

Original drawings on film must be made with a hard pencil, at least 4H.

Do not ink over original pencil drawings.

Use polyester based film for drawings (lasts longer than plastic).

Store documents in acid-free, dust-proof cardboard boxes

Store documents flat

All documents must be marked with the project identifier (e.g. site code) and/or the museum accession number.

All types of record must use a consistent terminology and format.

Use non-metal fastenings, and packaging and binding materials that ensure the longevity of documents.

Copies of reports and appropriate drafts, with associated illustrative material, must be submitted for inclusion with the archive.

#### *Material Archive*

The material archive comprises all objects (artefacts, building materials or environmental remains) and associated samples of contextual materials or objects.

All artefacts and ecofacts retained from the site must be packed in appropriate materials.

All finds must be cleaned as appropriate to ensure their long-term survival

All metal objects retained with the archive must be recorded by x-radiograph (except gold or lead alloys or lead alloys with a high lead content and objects too thick to be x-rayed effectively e.t.c. )

All finds must be marked or labelled with the project and context identifiers and where relevant the small-finds number

Use tie-on rot-proof labels where necessary

Bulk finds of the same material type, from the same context, may be packed together in stable paper or polythene bags

Mark all bags on the outside with site and context identifiers and the material type and include a polyethylene label marked with the same information

Use permanent ink on bags and labels

Sensitive finds must be supported, where appropriate, on inert plastic foam or acid-free tissue paper. It is not advisable to wrap objects in tissue as the unwrapping could cause damage.

The archive will be placed in a suitable form in the appropriate museum (typically Museum of Antiquities for Newcastle and Tyne and Wear Museums for the rest of Tyne and Wear (check with these institutions) with the landowner's permission.

A letter will be sent to the County Archaeology Officer within six months of the report having been submitted, confirming where the archive has been deposited.

#### **Monitoring**

8 The Archaeological Contractor will inform the County Archaeologist of the start and end dates of the Watching Brief to enable the County Archaeologist to monitor the work in progress. The Client will give the County Archaeologist reasonable access to the development to undertake monitoring.

### **OASIS**

The Tyne and Wear County Archaeologist supports the Online Access to the Index of Archaeological Investigations (OASIS) project. This project aims to provide an online index/access to the large and growing body of archaeological grey literature, created as a result of developer-funded fieldwork.

The archaeological contractor is therefore required to register with OASIS and to complete the online OASIS form for their watching brief at <http://ads.ahds.ac.uk/project/oasis/>. Please ensure that tenders for this work takes into account the time needed to complete the form.

Once the OASIS record has been completed and signed off by the HER and NMR the information will be incorporated into the English Heritage Excavation Index, hosted online by the Archaeology Data Service.

The ultimate aim of OASIS is for an online virtual library of grey literature to be built up, linked to the index. The unit therefore has the option of uploading their grey literature report as part of their OASIS record, as a Microsoft Word document, rich text format, pdf or html format. The grey literature report will only be mounted by the ADS if both the unit and the HER give their agreement. The grey literature report will be made available through a library catalogue facility.

Please ensure that you and your client understand this procedure. If you choose to upload your grey literature report please ensure that your client agrees to this in writing to the HER at the address below.

For general enquiries about the OASIS project aims and the use of the form please contact: Mark Barratt at the National Monuments Record (tel. 01793 414600 or [oasis@english-heritage.org.uk](mailto:oasis@english-heritage.org.uk)). For enquiries of a technical nature please contact: Catherine Hardman at the Archaeology Data Service (tel. 01904 433954 or [oasis@ads.ahds.ac.uk](mailto:oasis@ads.ahds.ac.uk)). Or contact the Tyne and Wear Archaeology Officer at the address below.

Jennifer Morrison  
Tyne and Wear Archaeology Officer  
West Chapel  
Jesmond Old Cemetery  
Jesmond Road  
Newcastle upon Tyne  
NE2 1NL  
(0191) 2816117  
[jennifer.morrison@newcastle.gov.uk](mailto:jennifer.morrison@newcastle.gov.uk)

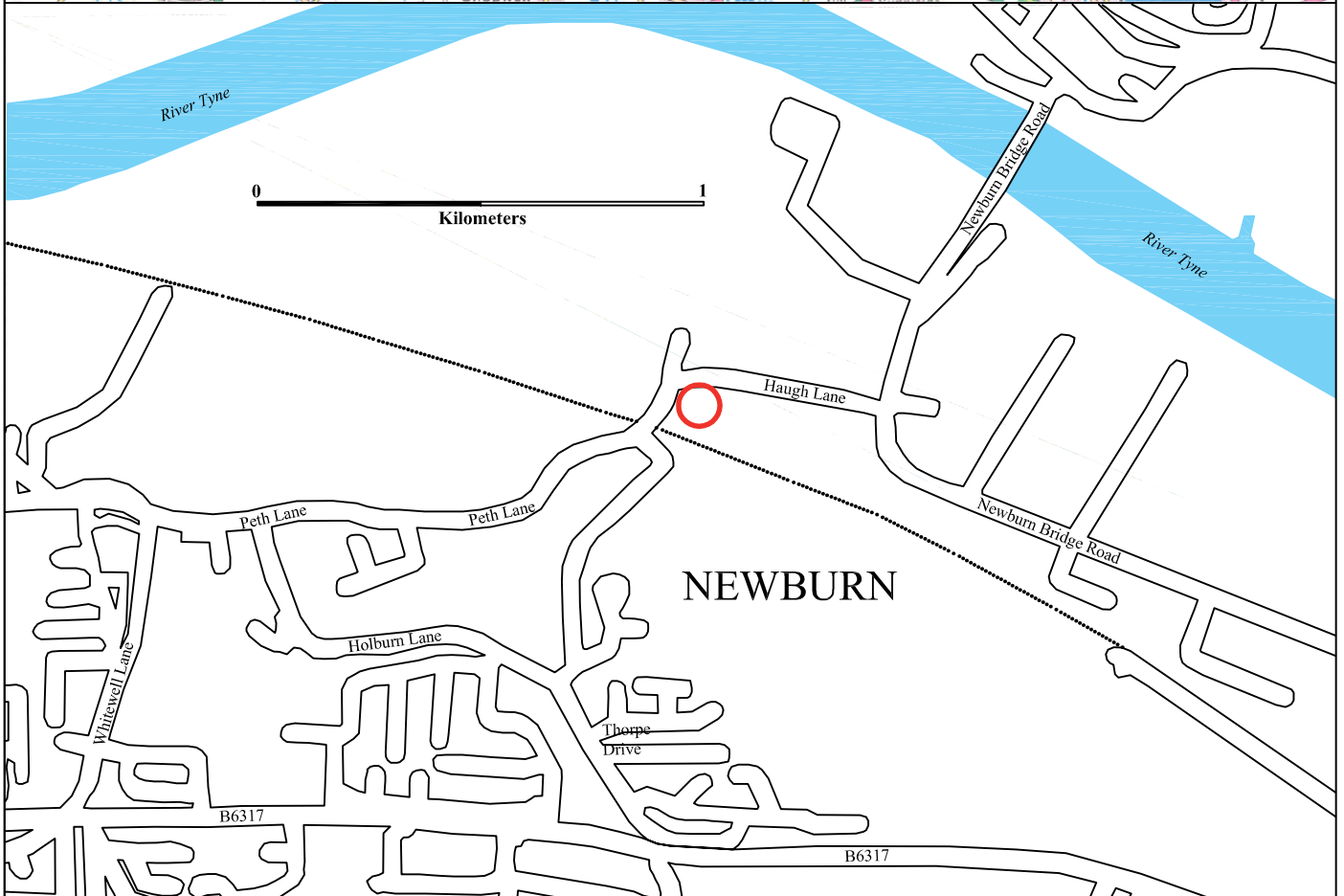
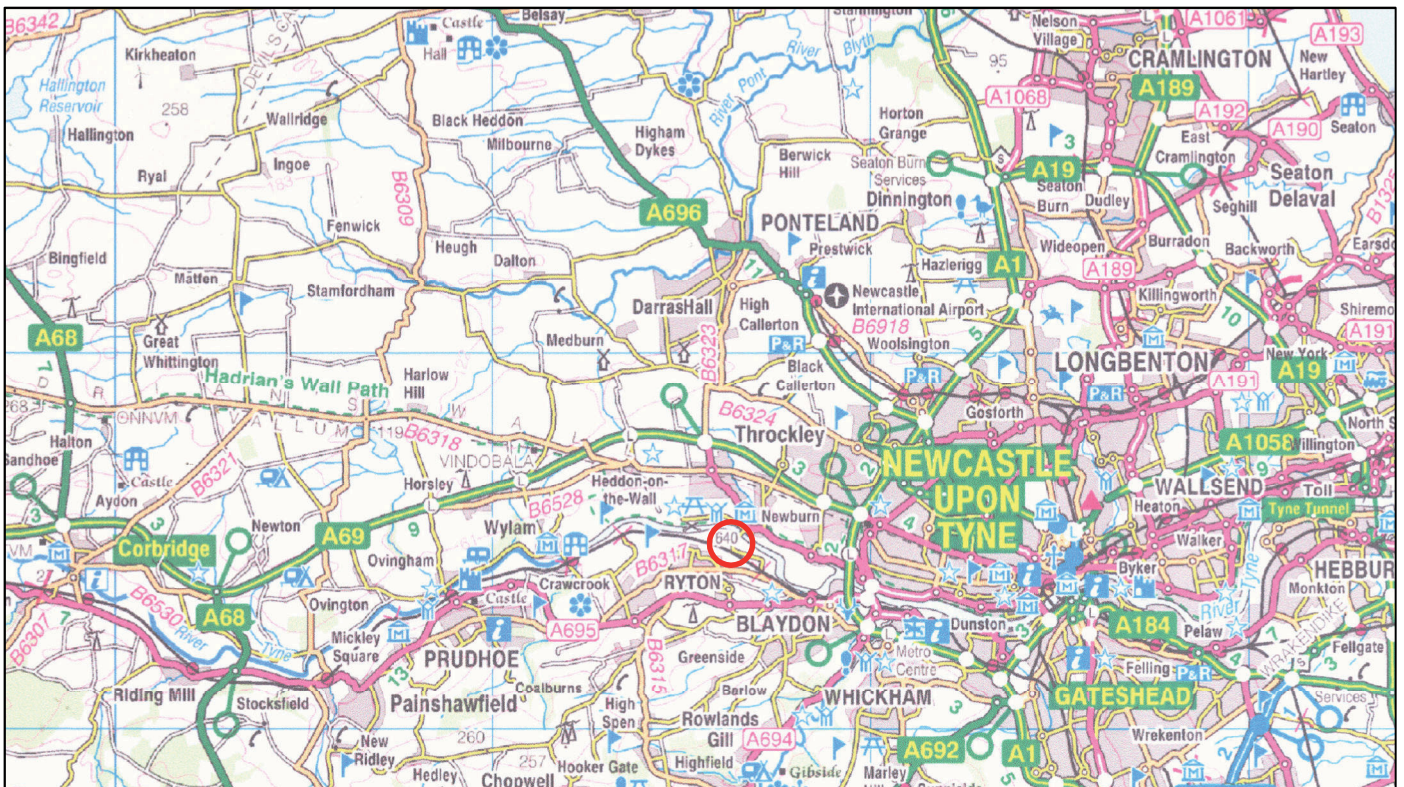
Ref: MON6110  
July 2008  
Planning Application: DC/08/00223/FUL






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## **APPENDIX 3: FIGURES**

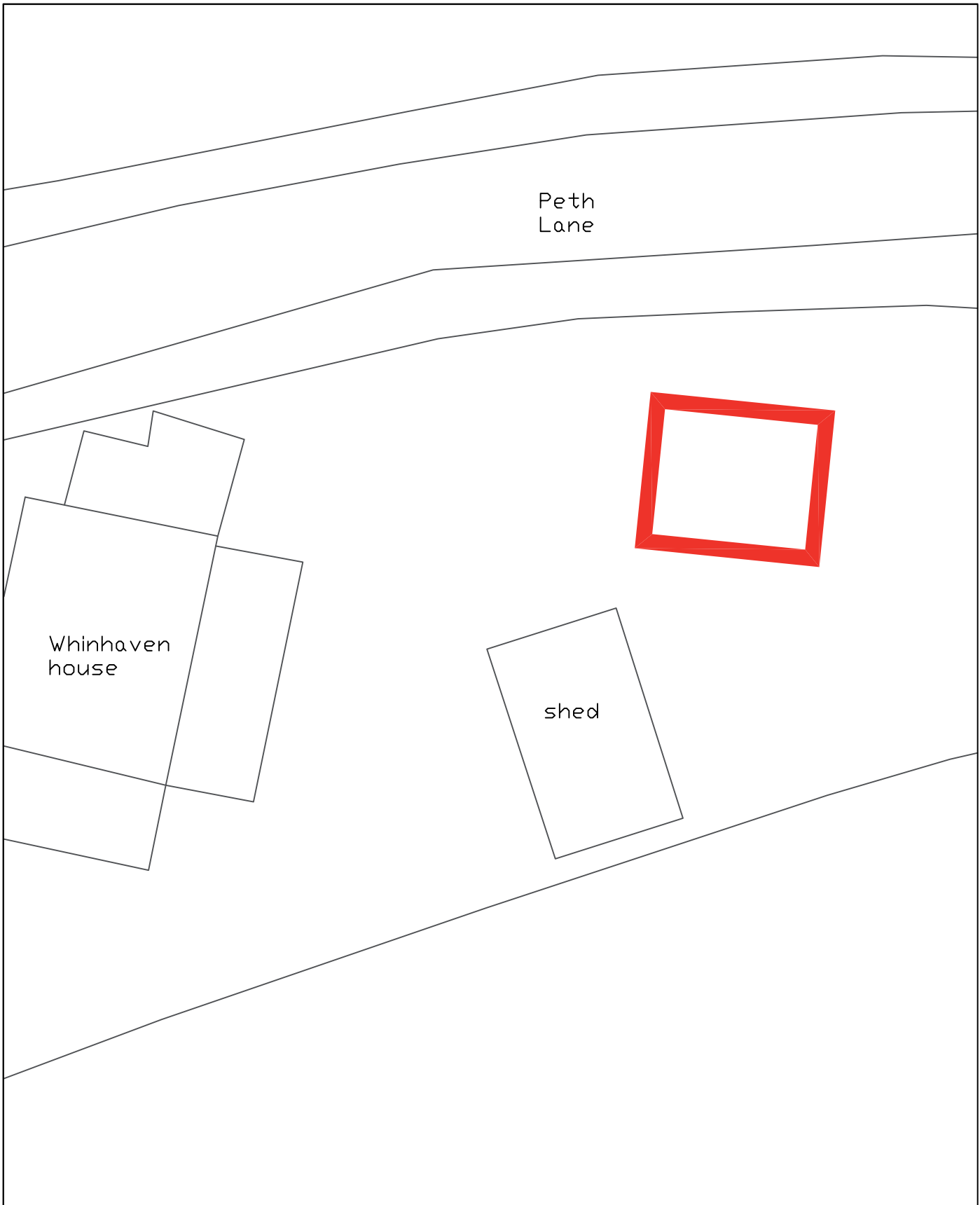
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|--|---|---|---|
|  <p>North Pennines Archaeology Ltd<br/>2008</p> | <p>PROJECT: Whinhaven, Peth Lane, Ryton</p> <p>SCALE: A: 1:200000 B: See Scale Bar</p> <p>REPORT No: CP 751/08</p> <p>CLIENT: Mr A. Baty</p> <p>DRAWN BY: T.L.</p> <p>DATE: August 2008</p> | <p>ORIENTATION:</p>  | <p>KEY:</p>  Site Location |
|--|---|---|---|

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Figure 1 : Location of Development Site






|  |  |   |   |
|--|--|---|---|
|  <p>North Pennines Archaeology Ltd<br/>2008</p> | <p>PROJECT: Whinhaven, Peth Lane, Ryton<br/> SCALE: 1:300 (at A4)<br/> REPORT No: CP 751/08<br/> CLIENT Mr A. Batey<br/> DRAWN BY: T.L.<br/> DATE: August 2008</p> | <p>ORIENTATION:</p>  | <p>KEY:</p>  <p>Foundation Trench</p> <p><small>Reproduced by permission of Ordnance Survey on behalf of The Controller of Her Majesty's Stationery Office. © Crown copyright. All rights reserved. Licence number 100014732</small></p> |
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Figure 2 :Location of development site and ground works