

Land at the Former Fire Station, Mill Hill, Oswaldtwistle: Archaeological Watching Brief



For Under Construction Archaeology Ltd
Job Number MHO001
NGR: SD 739 275
Planning Application Reference: 11/08/0230
Minerva Heritage Ltd
April 2009

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Summary

Minerva Heritage Ltd was invited by Under Construction Archaeology Ltd in September 2008 to undertake an Archaeological Watching Brief on a parcel of land at the Former Fire Station, Mill Hill, Oswaldtwistle (centred on NGR SD 739 275). The purpose of the watching brief programme was to monitor groundworks and removal of existing surfaces in order to identify and record any archaeological remains which might otherwise be harmed or destroyed by construction activity.

The first phase of the monitoring programme was conducted on 6 and 7 November 2008. This comprised observation of the removal of extant hard-standing surfaces and subsequent excavation of three geotechnical pits located around the site perimeter. The second phase of the monitoring programme was conducted between 17 February and 9 March 2009. This comprised the observation of drainage location and relocation excavations.

Natural clay geology was encountered at varying depths below the extant ground surfaces. Other deposits encountered across the site comprised demolition rubble and hardcore containing modern bricks and crushed mortar, layers of ash-rich sand containing stone rubble and a deposit of sandy clay subsoil which produced small quantities of post-medieval potsherds and clay tobacco pipe. Rubble and brick walls enclosing a concrete floor were observed towards the eastern end of the site; these were identified as 19th and early 20th century structures respectively.

No significant archaeological features or deposits were encountered on the site. The thickness of the made ground towards Mill Hill and the various depths of natural geology observed across the site suggest that much of the site had been built up during the 19th and 20th centuries. It is considered likely that the construction of buildings in the 19th and 20th centuries have removed any earlier evidence for archaeological activity.

1 Introduction

1.1 Project Circumstances

- 1.1.1 Planning permission (Planning Ref 11/08/0230) was granted for the construction of a Tesco Express store on the site of the former Fire Station, Mill Hill, Oswaldtwistle, Lancashire (centred on NGR SD 738 725; Fig 1). The site was thought to occupy an area known as Hippings, which had been settled during the medieval period (Appendix 1, 4-5). An archaeological condition was therefore attached to the planning permission by Lancashire County Archaeological Service (LCAS), in order to provide for the appropriate detection and treatment of any significant archaeological material.
- 1.1.2 Under Construction Archaeology Ltd invited Minerva Heritage to conduct the archaeological watching brief, which was undertaken between 6 November 2008 and 9 March 2009, in accordance with a Written Scheme of Investigation issued by Under Construction Archaeology (Appendix 1) and approved by LCAS. This report sets out the results of the watching brief in the form of a short document outlining the findings.

1.2 Site Location, Geology and Topography

- 1.2.1 The former fire station at Mill Hill is located to the immediate north-west of the road bridge over Tinker Brook, which carries the B6231 from Accrington to Lower Darwen. Tinker Brook flows through the north of Oswaldtwistle into the River Hyndburn. The landscape surrounding the town of Oswaldtwistle comprises “gently undulating” hills below the Pennines, between 128m and 200m aOD ((Lancashire County Council and Egerton Lea 2005, 9). Solid geology comprises Lower Westphalian productive coal measures dating to the Carboniferous era, while the overlying drift geology principally comprises Brickfield Association till (Lancashire *ibid*).

2 Methodology

2.1 Written Scheme of Investigation

- 2.1.1 Under Construction Archaeology Ltd submitted a specification outlining the scope of the project and the methods and procedures to be employed therein (Appendix 1). Minerva Heritage Ltd conducted all works according to the conditions of the Under Construction Archaeology Specification. The work was also consistent with the relevant standards and guidance produced by the Institute of Archaeologists (IfA 2001).

2.2 Watching Brief

- 2.2.1 A programme of field observation accurately recorded the location, extent, and character of any surviving archaeological features and/or deposits during all excavation activity. Excavation proceeded to a maximum depth of 3.20m below the existing ground surfaces. Any deposits, horizons, structures, features or other archaeological detail encountered during the excavations were recorded using Minerva Heritage *pro forma* watching brief recording sheets. All artefacts were carefully recovered in bags and boxes prior to removal from site, cleaning and examination. An archive photographic record was also compiled using monochrome silver-based 35mm film and 35mm colour slide formats, supplemented by high-quality (10 megapixels) digital photography. Photographs included a metrically graduated scale to allow independent verification of dimensions, where practicable.

2.3 Archive

- 2.3.1 A full archive has been compiled in accordance with current IfA (2001) and English Heritage guidelines (English Heritage 1991). The material, paper and digital archive will be prepared following Brown 2007. An index to the archive is provided at the end of this document (Appendix 2). The paper and digital archive will be submitted to the Lancashire County Record Office in Preston, and the material archive will be deposited with the Museum of Lancashire. An entry form for the Arts and Humanities Data Service (AHDS) online database, *Online Access index of Archaeological Investigations* (OASIS) will also be completed.

3 Watching Brief Results

3.1 Introduction

3.1.1 A programme of archaeologically controlled monitoring, in the form of a watching brief, was conducted between 6-7 November 2008, on 17-18 February 2009 and on 3, 5 and 9 March 2009. All work was carried in accordance with the methodology outlined in the Written Scheme of Investigation (Appendix 1) approved by LCAS. Material beneath the extant surfaces was removed by machine excavation. A maximum depth of 3.70m below the former ground surfaces was reached. The location of the watching brief observations is shown in Figure 2.

3.2 Results

3.2.1 The monitored excavations comprised three distinct phases of activity. Firstly the existing hard-standing surfaces were removed by excavating plant. Secondly a series of three geotechnical investigation pits were excavated around the perimeter of the site. Thirdly and finally the existing sewer was located at entry and exit points, before foundation trenches were excavated for the insertion of new drainage and access points. Detailed records of any deposits and other remains were made, and a full photographic record was produced for each phase of activity. No remains of archaeological significance were identified during any stages of the groundworks.

3.2.2 The removal of the extant hard-standing surfaces necessitated the employment of a concrete breaker. The uppermost layers of concrete were then removed to reveal the material beneath. This comprised the remains of brick footings beneath the footprint of the former fire station, and made ground comprising rubble and other debris elsewhere.

3.2.3 Three geotechnical pits (Plates 1-3) were excavated around the perimeter of the site (Figure 2). The results of this phase are illustrated in Table 1 below.

Table 1: Geotechnical Test Pit Results

No	Maximum Depth (m)	Maximum Thickness of Deposit (m)	Description
1	1.50	0.60 0.20 0.10 na	Successive layers of reinforced concrete Layer of ash-rich sand, with <85% stone rubble inclusions Sandy-clay (subsoil) Sandy clay (natural geology)
2	0.95	0.60 0.20 na	Successive layers of reinforced concrete Layer of ash-rich sand, with <85% stone rubble inclusions Sandy clay (natural geology)
3	1.50	0.10 1.10 0.15	Concrete path surface Made ground (rubble) Concrete surface

- 3.2.4 The location of the entry and exit points of the extant sewer necessitated the excavation of trial holes, at the north-eastern (Trial Hole A) and western (Trial Hole B) corners of the site (Figure 2). These two points were then connected via a series of new drainage trenches and access points.
- 3.2.5 Excavation of Trial Hole A in the south-eastern corner first removed the vegetation comprising the extant ground surface. At a depth of 0.25m below the extant ground surface a series of brick walls (Plate 4) were exposed above a concrete floor surface, located at approximately 2.30m below the existing ground surface. The brick wall bonding material comprised firmly cemented ash-rich mortar. The material removed by machine comprised modern made ground formed by the demolition rubble used to backfill the room. Natural geology comprising sandy clay and sandstone was observed beneath the concrete floor surface, at a depth of approximately 1.80m beneath the extant ground surface, although excavation proceeded to a depth of approximately 3.40m.
- 3.2.6 Excavation of Trial Hole B in the north-western corner of the site proceeded to remove the upper layers, comprising made ground, to a maximum depth of 1.00m. Beneath this depth a 0.10m thick layer deposit, comprising oily ash-rich sandy-clay subsoil, was observed. A quantity of post-medieval to industrial-period ceramic fragments was recovered from this deposit. Natural geology comprising sandy clay and sandstone was observed beneath this layer, at depths between 0.60m at the north of the trial hole and 1.10m at the south of the trial hole, although excavation proceeded to a depth of approximately 3.70m.
- 3.2.7 The drainage trench between Trial Holes A and B principally comprised 19th and 20th century backfill and made ground (Plate 5). At the north-eastern end of the trench, at the junction with Trial Hole A, a stone rubble wall (Plate 6) was observed. Additional sections of the brick walls observed during the excavation of Trial Hole A were painted white. Natural geology comprising grey-orange boulder clay over sandstone was encountered at depths between 1.10m, at the northern end of the trench, and 1.80m, at the south-eastern end of the trench. Excavation of natural material continued to an approximate depth of 3.50m below the existing ground surface.

3.3 Finds

- 3.3.1 A small quantity of post-medieval material, comprising three ceramic sherds and a single fragment of clay tobacco pipe stem, was retrieved from the sandy-clay subsoil deposit in Geotechnical Test Pit 1. A small quantity of fragmentary post-medieval ceramic material was also recovered from the spoilheap produced during the drainage excavations. This material has been spot-dated and is summarised in Table 2 below.

Table 2: Summary of Artefacts

Material and Form	Quantity
Clay Tobacco Pipe (Stem)	1
Ceramic vessel fragments	9

- 3.3.2 All of the material is post-medieval in origin, and most likely dates from the mid 18th to the 19th century. The pottery comprised a limited range of kitchen and tablewares, of 18th century and later date. Each piece of pottery was in good condition, the fragments being reasonably large and unabraded, suggesting that the contexts from which they had derived had not been repeatedly disturbed. The earliest artefacts recovered probably comprised the five fragments of hard-fired black-glazed wares, four of which comprised rimsherds. The rimsherd fragments represent four different storage jars of various blackware types, which were widely produced from the mid 18th century to the close of the 19th century. The remaining ceramic fragments comprised a single fragment of creamware, which dates from the 18th to the 19th century; and three fragments of white-bodied earthenware dating from the 19th century. The 20mm-long fragment of clay tobacco pipe stem was characteristically undiagnostic. Its bore diameter, at 2.5mm (3/32"), does not define a close date range, although it is considered likely that the stem fragment is 19th century.
- 3.2.4 This small assemblage of objects was retrieved from a layer of subsoil during test pit excavation, and also from the retrieval of material from the spoilheap during excavation of a similar layer. Neither source represents a secure archaeological context. This assemblage is of negligible archaeological significance, contributing little to the understanding of this site or its wider context.

4 Conclusion

4.1 Discussion

- 4.1.1 A single archaeological deposit comprised an unidentified subsoil lens above the natural geology. Ceramic material was recovered from this deposit indicating a 19th century deposition date. The brick and stone structure identified in the south-eastern corner of the site appears to have been built in the 19th century, and modified or rebuilt in the early 20th century. Other artefacts recovered during the project were of mid 18th to 19th century date. The 19th deposit, the 19th/20th century structure and the collection of artefacts are of negligible archaeological significance.

5 Bibliography

5.1 Secondary Sources

Brown DH 2007, *Archaeological Archives: A guide to best practice in creation, compilation, transfer and curation*, Archaeological Archives Forum

English Heritage 1991, *Management of Archaeological Projects*, 2nd edn, London

Institute of Archaeologists (IfA) 2001, *Standards and Guidance for Archaeological Watching Brief*, rev edn

Lancashire County Council and Egerton Lea Consultancy 2005, *Lancashire Historic Town Survey Programme Oswaldtwistle and Church Historic Town Assessment Report*, Preston

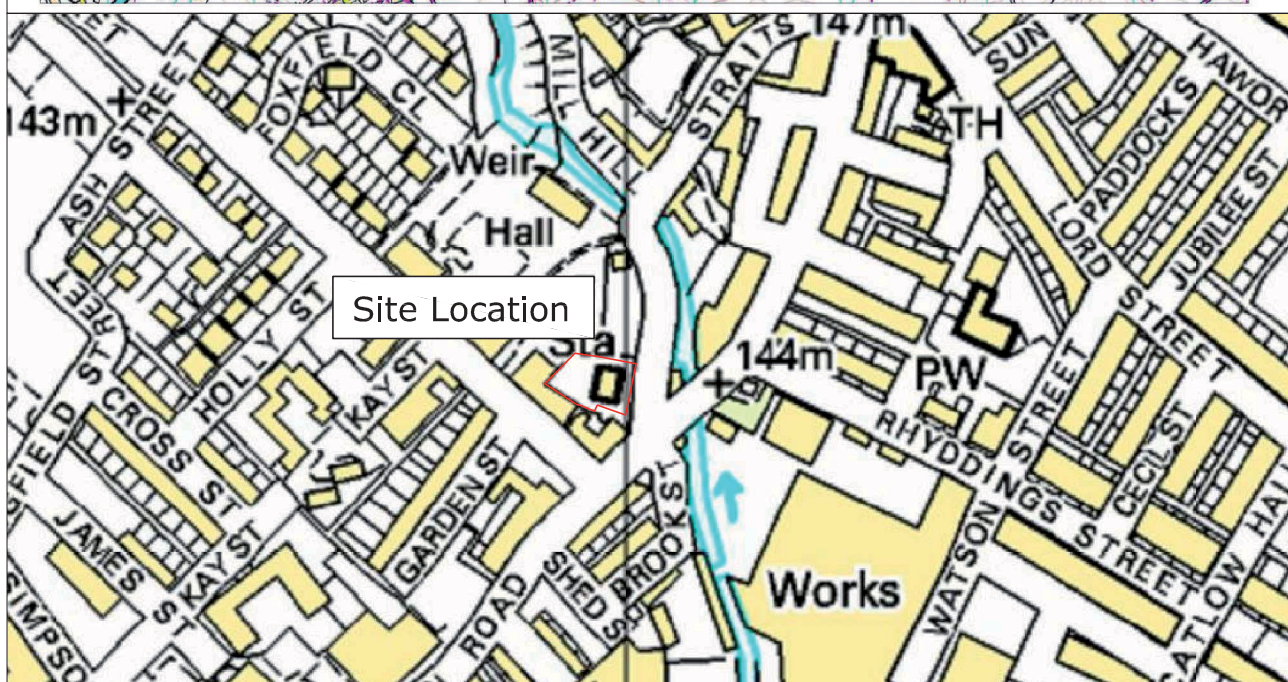


Figure 1: Site Location Map based on Ordnance Survey mapping at 1:50000 Scale and 1:5000 scale

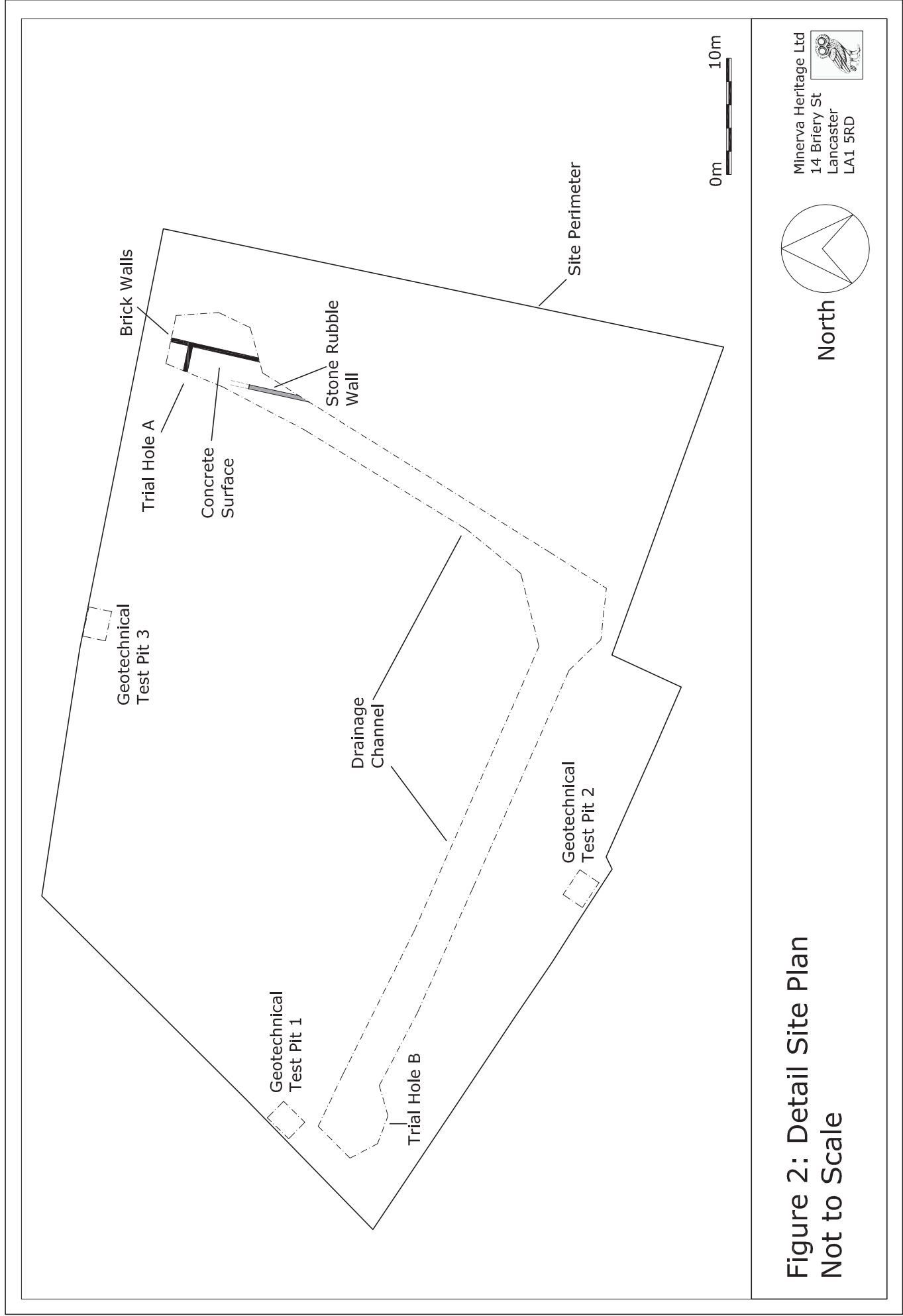
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North



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Plates



Plate 1: Geotechnical Test Pit 1, facing north-west



Plate 2: Geotechnical Test Pit 2, facing south-west



Plate 3: Geotechnical Test Pit 3, facing north



Plate 4: Brick walls exposed in Trial Hole A, facing north



Plate 5: Drainage trench, facing south-east



Plate 6: Stone rubble wall in drainage trench, facing south

Appendix 1: Written Scheme of Investigation



**Specification for
Archaeological Watching Brief at
the former Fire Station, Mill Hill, Oswaldtwistle**

for

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October 2008

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Executive Summary

Fox Construction has been appointed to undertake groundworks in advance of the construction of a new Tesco Express store on the site of the former Fire Station, Mill Hill, Oswaldtwistle, Lancashire.

The site lies in an area believed to have been settled during the medieval period and known as Hippings. As such a condition has been attached to the planning permission to ensure any archaeological remains are identified and recorded. Consultation with the Lancashire County Council archaeological advisor (LCC) has confirmed that archaeological work should take the form of a watching brief during groundworks associated with the removal of existing surfaces and construction of the new building.

This document details the methods by which the watching brief will be maintained, sampling strategies and reporting procedures. As such it forms the Written Scheme of Investigation required by the planning condition and is subject to the approval of LCC.

1.0 Introduction

- 1.1 Planning permission (Ref: 11/08/0230) has been granted for the construction of a new Tesco Express on the site of the former Fire Station at Mill Hill, Oswaldtwistle, Lancashire. The planning permission contains a condition relating to archaeology and requiring a written scheme of investigation (WSI) to be agreed with the planning authority in advance of development commencing.
- 1.2 Consultation with the Lancashire County Council Archaeological Service (LCC), as advisors to the planning authority, has confirmed that a watching brief is required during groundworks. This watching brief is to cover all below ground works with the exception of geotechnical test pits measuring less than 1m x 1m and the insertion of foundation piles.

2.0 Site Description

- 2.1 The site occupies an area of approximately 8,000m², centred on NGR SD739275. It is an irregular shaped parcel of land accessed from Mill Hill to the east. Stone walls form the boundaries to north and north-west, with stone buildings to the west and south. The fire station building sits on a level platform created by building up the levels to north and east. An area of grass is located to the north and east of an extant building; the remainder of the site is tarmac or concrete hard-standing.
- 2.2 To the east of the site, Mill Hill crosses the Tinker Brook by way of Tinker Bridge.

3.0 Archaeological and historical background

- 3.1 Oswaldtwistle, with Church, has been the subject of Lancashire's Historic Towns Survey Assessment and full details of the archaeological and historical background is contained in that document (Lancashire County Council 2005). The following paragraphs have taken information from that document where it is specific to the proposed development site.
- 3.2 Oswaldtwistle is first recorded in c.1208 when it is believed to have been part of the Forest of Accrington. It was deforested in 1225 but remained a small community throughout the medieval period, being a collection of individual farmsteads with no known focal point. The farmsteads developed as small hamlets, with 'Ippings'

being one of those named. Tinker's Brook, to the east of the site, is crossed by Tinker's Bridge but it is believed that Hippings Bridge to the north was the site of medieval ford. Hippings is a name which may refer to stepping stones (Gelling 1984: 93). The site of the Oswaldtwistle Cross, now known simply as Cross, to the south is also believed to have been something of an early focal point and it is therefore concluded that the area between Hipping Bridge and Cross was the focal point of the medieval manor.

- 3.3 By the second half of the 17th century it had expanded, suggesting the agricultural economy was being supplemented by textile industries. Wool, and then cotton became the driving force of the local economy through the 18th and 19th centuries, with numerous mills developing in the vicinity of the site. Tinker's Brook shows clear signs of adaptation to feed the needs of the textile industry.
- 3.4 Cartographic evidence from the 19th century shows there to have been buildings existing within the boundary of the site.

4.0 Purpose of Work

- 4.1 The potential exists for remains of medieval or post-medieval date to survive on the site.
- 4.2 The primary aim of this programme of works is to identify and record any archaeological remains that may be negatively impacted by the removal of existing foundations, landscaping, diversion or creation of service runs and by the excavation of new foundations.

5.0 Methodology

- 5.1 The potential for archaeological remains will be assessed through continual monitoring of groundworks below the current surfaces and any make-up levels supporting them. A suitably qualified and/or experienced archaeologist will attend site as and when requested by the groundworks contractor.
- 5.2 All archaeological features and deposits revealed will be rapidly excavated and recorded. Every effort will be made to minimise disruption to the groundworks programme, however, sufficient time should be given to the archaeologist to ensure

a proper record is made. Should remains of sufficient importance be identified it may be necessary to temporarily suspend works. In such an instance, the LCC archaeological service will be contacted and discussions held on the appropriate level of recording.

- 5.3 A written, drawn and photographic record will be made of all archaeological features and deposits revealed during the course of works. Where appropriate, plans will be completed at a scale of 1:50 or 1:20, whilst section drawings of discrete archaeological features will be recorded at a scale of 1:10.
- 5.4 A minimum 35mm format for photography is required (in monochrome and colour) this may be supplemented by digital images.
- 5.5 No palaeoenvironmental sampling will be taken unless features of sufficient importance are identified. A sampling strategy will then be devised in conjunction with the LCC archaeological service.
- 5.6 A finds recovery and conservation strategy will be discussed with the curators and the recipient museum identified and contacted in advance of the project commencing. Any recording, marking and storage of materials should be of archive quality, and recording systems must be compatible with the recipient museum (see below).
- 5.7 All finds (artefacts and ecofacts) visible during groundworks will be collected and processed; finds will be appropriately packaged and stored under optimum conditions, as detailed in the RESCUE/UKIC publication First Aid for Finds.
- 5.8 If remains suitable for scientific dating are recovered then this potential should be assessed.

6.0 Reporting

- 6.1 An archive report outlining the results of archaeological fieldwork and recording should be prepared within 6 weeks of site works finishing. This report will comprise a narrative account of the results, photographs, illustrations and specialist reports as appropriate. The report will include as a minimum:

- A non-technical summary of the results of the work, introduction and aims and objectives;
- An introduction which should include
 - planning reference number and Scheduled Monument Casework number
 - dates when the fieldwork took place
 - grid reference
- An account of the methods and results of the evaluation, describing both structural data and associated finds and/or environmental data recovered;
- Interpretation, including phasing of the site sequence and spot-dating of ceramics. (Descriptive material should be clearly separated from interpretative statements). This shall be supported by the use of photographs and drawings, to include an overall plan of the site accurately identifying the location of individual archaeological features and areas observed;
- An assessment of the archaeological significance of the deposits identified, in relation to other sites in the region;
- Details of archive location and destination (with accession number, where known), together with a catalogue of what is contained in that archive;
- Appendices and figures, as appropriate.
- References and bibliography of all sources used.

6.2 One paper copy of the report will be provided to the client; a digital copy of the report in PDF format on CD-Rom will be supplied to the LCC.

7.0 Copyright

7.1 Unless the individual/organisation commissioning the project wishes to state otherwise, the copyright of any written, graphic or photographic records and reports rests with the originating body (the archaeological organisation undertaking the fieldwork and analysis). Agreements on copyright will be agreed with the commissioning body at the outset of the project.

7.2 If it is considered that any remains, artefact or discovery made during fieldwork is newsworthy then in the first instance the client will be contacted. Final say in all matters relating to the press lies with the commissioning body.

8.0 Archiving

- 8.1 The site archive and any artefacts or ecofacts recovered will be prepared in line with MAP 2 and, with the site owners consent, deposited for long term storage with an appropriate local Museum.
- 8.2 The receiving museum will be contacted to establish if any special measures are required and if a financial contribution will be necessary

9.0 Further Publication and Dissemination

- 9.1 In the case that significant information is derived from fieldwork it may merit publication in its own right. Any decision regarding further analysis or publication will be made upon production of the report.
- 9.2 An OASIS form should be completed at <http://ads.ahds.ac.uk/project/oasis/>. No further publication of the results will be required.

10.0 Bibliography

English Heritage, 2002. *Environmental Archaeology: A guide to the theory and practice of methods from sampling and recovery to post-excavation*. English Heritage/Centre for Archaeology Guidelines

English Heritage, 1991. *Managing Archaeological Projects* (MAP 2)

Gelling 1984 Place Names in the Landscape, J. M. Dent

Institute of Field Archaeologists , 1994, revised September 1999. *Standard and Guidance for Archaeological Watching Briefs*

Lancashire County Council 2005. *Oswaltdtwistle and Church Historic Town Assessment Report*. Lancashire Historic Town Survey Report

Society of Museum Archaeologists, 1993. *Selection, Retention and Dispersal of Archaeological Collections, Guidelines for use in England, Northern Ireland, Scotland and Wales*

Watkinson J & Neale, 1998. *First Aid for Finds*, 3rd Edition

Appendix 2: Index to Project Archive

Item	Material	Size	N
Archive CD contains: Digital Photography; Report as a PDF document	CD	6"x6"	1
Archive Index	Paper	A4, single sided	1
Colour Slide Film	Transparencies	2" in holders	30
Monochrome Film	Gloss Prints	5"x7" in holders	30
Negatives	Negative Film	6"x1" strips in holders	4
Watching Brief Recording Sheets	Paper	A4, double-sided	8
Digital Photographic Record Sheets	Paper	A4, double-sided	2
Photographic Record Sheets	Paper	A4, double-sided	2
Site Diary Record	Paper	A4, double-sided	8
Finds	Pottery	In 4" x 5" self-seal bags (x2)	6+3
	Clay Tobacco Pipe	In 4" x 5" self-seal bag	1

The paper and material archive will be deposited with the Lancashire Record Office, Preston, Lancashire.