

HBC FIELD, DITTON, CHESHIRE

Archaeological Watching Brief



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SUMMARY

In 2005 Halton Borough Council (Planning Reference 05/0948/FUL) submitted proposals for the construction of a Strategic Rail Freight Park at Ditton, Widnes, Cheshire. As the proposed development is situated adjacent to Lovel's Hall, a medieval moated manor and a Scheduled Ancient Monument (SAM **13435**), Cheshire Shared Services (CSS) Archaeology and Planning Advisory Service requested that a programme of archaeological watching brief be undertaken during initial ground works associated with the development. In response, AMEC Environment and Infrastructure UK Ltd produced a Written Scheme of Investigation (WSI; *Appendix 1*) and Oxford Archaeology (OA) North was commissioned to undertake the archaeological works, which took place between August and December 2012. The watching brief comprised the monitoring of three main elements: the trenching for drainage and manholes associated with the new access road; the topsoil strip of Areas A and B for the new access road and associated landscaping; and the excavation of eight test pits.

To the north of the railway two drainage trenches were opened on either side of the new access road, and several manholes were excavated along the side of the westernmost. The trenches and manholes comprised a silty topsoil (1000), and darker sandy-clay natural geology (1002). To the south two further drains were excavated. One along the western edge of the new access road, which comprised topsoil (1000), subsoil (1001), and natural geology (1002), and the second, following an existing north-east/south-west aligned track, consisted of crushed brick and gravel hardcore. No features or finds of archaeological interest were identified.

The area topsoil strip, both to the north and south of the railway, comprised topsoil (1000), subsoil (1001), and natural geology (1002). To the south, several modern, ceramic field drains and a sewage pipe were observed, and a fragment of modern, yet redundant, trackway was identified adjacent to the railway. To the north, adjacent to the current Newstead Road, a layer of redeposited sand and clay was identified (1003), sealing a former soil horizon (1005). Sitting on this soil horizon, and buried by the redeposited material, were the foundations of a sandstone, dry-stone wall (1004). Post-medieval pottery recovered from the buried soil horizon (1005) suggests a late date for the wall's construction.

The only potential archaeological remains were located adjacent to Newstead Road. It is likely that the redeposited clay (1003) was the result of the construction of the aforementioned road. This sealed a soil horizon (1005) and a fragment of sandstone wall (1004). An assessment of the first edition Ordnance Survey map (1893) indicated that an east/west field boundary wall once sat in this position. The results of the watching brief therefore suggest that the area had been left relatively untouched. The bulk of the area most likely comprised arable or pastoral fields, unchanged for centuries.

ACKNOWLEDGEMENTS

OA North would like to thank AMEC Environment & Infrastructure Limited for commissioning the project, and Cheshire Shared Services (CSS) Archaeology and Planning Advisory Service, specifically Mark Leah, Development Control Archaeologist. Thanks are also due to Oliver Benbow from Balfour Beatty for on-site consultations.

The watching brief was undertaken by Mike Birttles, Jeremy Bradley, Kelly Clapperton, Vickie Jamieson, Aidan Parker, Caroline Raynor and Alastair Vannan. The report was written by Kelly Clapperton and Vickie Jamieson, with the drawings produced by Marie Rowland. The project was managed by Stephen Rowland, and the report edited by Adam Tinsley.

1. INTRODUCTION

1.1 CIRCUMSTANCES OF PROJECT

- 1.1.1 In 2005 Halton Borough Council (Planning Reference 05/0948/FUL) submitted proposals for the construction of a Strategic Rail Freight Park at Ditton, Widnes, Cheshire. As the proposed development is situated adjacent to Lovel's Hall, a medieval moated manor and a Scheduled Ancient Monument (SAM 13435), Cheshire Shared Services (CSS) Archaeology and Planning Advisory Service requested a programme of archaeological works to further inform the planning process. Accordingly, Oxford Archaeology (OA) North was commissioned by The Environment Partnership to produce an archaeological desk-based assessment (OA North 2005).
- 1.1.2 As a result of the desk-based assessment, a programme of geophysical survey (Stratascan 2006) and archaeological trial trenching (EAS 2007) was carried out to the south of the Branch Line. Although no significant archaeological remains were identified, the close proximity of the current development to the moated manor led CSS to request a targeted archaeological watching brief during groundworks for the proposed development. In response, AMEC Environment and Infrastructure UK Ltd produced a Written Scheme of Investigation (WSI; 2011), and OA North was commissioned to undertake the archaeological works, which took place between August and December 2012.
- 1.1.3 The following report documents the results of the archaeological watching brief, and discusses them in their historical and archaeological context.

1.2 LOCATION, TOPOGRAPHY AND GEOLOGY

- 1.2.1 The development area is situated immediately to the north of the Liverpool-Manchester Freight Branch Line, and to the south of Newstead Road (Fig 1; NGR SJ 479 844). The area was roughly L-shaped in plan and measured approximately 280m by 200m. It encompassed the construction of an access road connecting the current Newstead Road, the A5300 interchange, and the proposed industrial estate to the south of the railway.
- 1.2.2 The development is situated to the south-west of Ditton village, a settlement that has effectively been absorbed by the conurbation of Widnes, although the land itself was largely agricultural in nature. It is bound to the west by a small industrial estate, and to the east by Lovel's Hall and fields.
- 1.2.3 The local area is characterised by the estuarine nature of the lower Mersey valley, with intertidal mud/sand flats, low exposed cliffs, and generally low lying, low relief topography (Countryside Commission 1998). The site lies 1km north-west of the River Mersey, and sits at a height of approximately 10m aOD (Ordnance Survey 1981). The drift geology is predominantly marine and river alluvium, with areas of windblown sand, and extensive areas of boulder clays with pockets of glacial sands, gravels and basin peats (Countryside Commission 1998). The underlying solid geology consists of

sandstone and pebble beds of the Permo-Triassic (Cheshire County Council 2003).

1.3 HISTORICAL AND ARCHAEOLOGICAL BACKGROUND

- 1.3.1 The following section presents a summary of the historical and archaeological background of the general area. This is presented by historical period, and has been compiled in order to provide a wider archaeological context to the site.
- 1.3.2 *Prehistoric Period:* concentrations of Mesolithic and Neolithic flint scatters have been discovered along the Ditton Brook to the north of the development, suggesting that it was a focus for resources and possibly communications (Cowell and Philpott 2000). A number of finds were recovered in the late 1800s across the development site, including worked oak and stag horns from peat at a depth of over 6m (Thompson Watkin 1881). Initially thought to be a Roman well, similar deposits analysed at a site near Warrington produced timbers and bones radiocarbon dated to the Late Bronze Age (Archaeology Data Service 2013). If the remains were associated with a well it would suggest early settlement in the vicinity.
- 1.3.3 Approximately 400m to the north-east at Brook House Farm, an Iron Age, high status, double-ditched enclosure was discovered (Cowell and Philpott 2000). It was abandoned during the first century AD, coinciding with the Roman Invasion. Other evidence includes place names, such as Barrow Flat and Barrow's Field, suggesting a possible prehistoric cemetery in the vicinity (OA North 2005).
- 1.3.4 **Roman Period:** although some military activity is recorded, by the late AD 70s the Mersey basin had been subject to permanent Roman occupation (Cowell and Philpott 2000). Several rural Romano-British settlements have been investigated across the region, including the re-occupation of the Brook House Farm enclosure in the second century, and the settlement of Ochre Brook, which produced evidence of ceramic production associated with the XX Legion (*ibid*). Recent work has shown that Roman settlement was wider across the region than previously thought.
- 1.3.5 *Medieval Period:* after the Battle of Chester in 614, the region had become part of Northumbria, and many Old English elements can still be seen in the place names, for example Ditton, Hale and Widnes (Edwards 2007). By the time of the Domesday survey of 1086 Hale with Halewood was one of the six *berewicks* of the manor of West Derby (Farrer 1907). The medieval period in this area is associated with an expansion of the dispersed population and agriculture. Corn mills were a feature of the landscape, and it is possible that Ditton Corn Mill, to the east of the development site, has its origins in the medieval period (OA North 2005). Moated manors dating from the twelfth to fourteenth centuries were also common (Lewis 2000), including Lovel's Hall to the immediate east.
- 1.3.6 Originally held by the Holland family during the fourteenth century, Lovel's Hall was passed to the Lovel family through marriage (*ibid*). It was the

principal seat in the area during the medieval period (Poole 1906), and its most famous, and last, inhabitant was Francis Lovel. He was made a viscount by Richard III, and fought with him at the Battle of Bosworth Field in 1485 (*ibid*). After Richard's defeat and death, Francis fled the country, only returning to England in 1487 with Lambert Simnel to fight at Stoke. Again, they were defeated, and Lovel's lands were conferred by the Crown to the Earl of Derby. It is thought that the Hall was abandoned at this time (*ibid*). The site itself is 60m², with a dry-moat up to 23m in width and 1.6m in depth. Although the site has high historical and archaeological value, no investigations have ever taken place.

- 1.3.7 *Post-Medieval Period:* the 1783 Estate Map of Halewood shows that the area was still owned by the Earl of Derby, and was largely agricultural in nature. The nineteenth century saw a significant expansion in transport communications, namely the Sankey Brook Navigation Canal and the St Helens and Runcorn Gap Railway. These served Widnes Dock, and facilitated the transport of coal from Lancashire and salt from Cheshire (OA North 2005). The establishment of several chemical works in Widnes saw the start of the transformation of the area into an industrial hub, and much of the surrounding marshland was reclaimed (*ibid*). The population expanded massively, rising from 6905 in 1861, to 30,011 in 1891 (Diggle 1961).
- 1.3.8 In 1869 the Liverpool-Manchester Freight Branch Line was constructed, and included Ditton Junction to the east of the development site. The station was closed in 1994 shortly after the railways were privatised (Wright 2011).

2. METHODOLOGY

2.1 INTRODUCTION

2.1.1 A WSI (*Appendix 1*) was produced by AMEC Environment and Infrastructure UK Ltd in response to a request by the CSS Development Control Archaeologist. The WSI was adhered to in full, and the work was consistent with the relevant IfA and English Heritage guidelines (Chartered Institute for Archaeologists 20014a, 20014b, 2014; English Heritage 2006).

2.2 WATCHING BRIEF

- 2.1.1 A targeted archaeological presence was maintained during the groundworks, the purpose being to identify, investigate, and record any archaeological remains encountered. This comprised the monitoring of three main elements: the trenching for drainage and manholes associated with the new access road; the topsoil strip of Areas A and B for the new access road and associated landscaping; and the excavation of eight test pits. All works were undertaken by a 360° mechanical excavator fitted with a toothless ditching bucket.
- 2.1.2 A daily record of the nature, extent and depths of groundworks was maintained throughout the duration of the project. All potential features and deposits were investigated manually, and all archaeological contexts were recorded on OA North's *pro-forma* sheets, using a system based on that of the English Heritage former Centre for Archaeology. All drawings were illustrated on permatrace and produced a suitable scale (1:10, 1:20 and 1:50). A monochrome and digital photographic record was maintained throughout.

2.3 ARCHIVE

2.4.1 A full professional archive has been compiled in accordance with the WSI (*Appendix 1*), and in accordance with current Chartered Institute for Archaeologists (CIfA) and English Heritage guidelines (CIfA 2014a; 2014b; 2014c: English Heritage 2006). The paper and digital archive will be deposited with the Cheshire Musuem Service, Chester on completion of the project. A copy of the report will be deposited with the Cheshire Historic Environment Record (CHER), also in Chester.

3. WATCHING BRIEF RESULTS

3.1 INTRODUCTION

3.1.1 The objective of the watching brief was to identify, investigate, and record any archaeological remains encountered during the groundworks for the proposed development, and the following is a summary of the findings. The areas of the watching brief are plotted in Figure 2. A description of the contexts has been provided in *Appendix 2*, and of the Test Pits in *Appendix 3*.

3.2 **RESULTS**

- 3.2.1 Four drainage trenches and associated manholes were excavated across the development. To the north of the railway two trenches were opened. They ranged from 90m to 120m in length, 0.6m to 0.9m in width, and 0.3m to 0.4m in depth. Several manholes were created along the western side of the western trench, and ranged from 1.4m² and 0.9m deep, to 1.4m x 0.6m and 2.25m deep. The trenches and manhole excavations comprised a silty topsoil (*1000*), and darker sandy-clay natural geology (*1002*). Some post-medieval pottery and coal fragments were observed during the works, but were not retained. No features or deposits of archaeological interest were identified.
- 3.2.2 To the south of the railway, two further drains were excavated. One along the western edge of the new access road, and the second following an existing north-east/south-west aligned track along the development site boundary, this then dog-legged to the west and followed the line of the proposed access road. The first trench measured 60m in length, 0.7m in width and 0.6m in depth, with a manhole, measuring 1.4m² by 2.5m deep, at each end. The excavations comprised a dark sandy-clay topsoil (*1000*), a lighter sandy-clay subsoil (*1001*), and mottled clay natural geology (*1002*). Post-medieval pottery and a putative flint core were recovered. No features or deposits of archaeological interest were observed.



Plate 1: Example of drainage trench to the south of the railway, looking north

- 3.2.3 The second L-shaped trench measured 175m long in total, 8m wide, and 0.5m to 0.7m deep. As it followed an existing modern track, the ground solely comprised a mix of crushed brick and gravel hardcore. No features or deposits of archaeological interest were encountered.
- 3.2.4 The second element of the watching brief concerned the monitoring of the topsoil strip for the access road and associated landscaping. To the south of the railway the strip was confined to the limits of the new access road and the haul road for the groundworks. The area comprised topsoil (1000), subsoil (1001), and natural geology (1002). Several modern ceramic field drains and a sewage pipe were observed crossing the easement. A fragment of modern, yet redundant, trackway was also identified adjacent to the railway; however, it was associated with fragments of post-medieval pottery, glass, coal, and modern plastic, suggesting a relatively later date. No features of archaeological significance were encountered.



Plate 2: Post-excavation view of the area to the south of the railway, looking east

3.2.5 To the immediate north of the railway, the site comprised topsoil (1000) directly over natural geology (1002). Eight field drains were observed running roughly north/south, however, no features of archaeological interest were identified. Further to the north, adjacent to the current Newstead Road, an additional layer of redeposited sand and clay was identified (1003), this sealed a former soil horizon (1005). Sitting on this soil horizon, and buried by the redeposited material, were the foundations of a sandstone wall (1004). This ran roughly east/west, and was constructed in a rough, dry-stone bond. Only one course survived, and it likely formed a field boundary. Post-medieval pottery recovered from the buried soil horizon (1005) suggests a late date for the wall's construction.



Plate 3: View of wall 1004, looking east

3.2.6 The final element of the watching brief comprised the excavation of eight test pits (A-H) across the site, to the north of the railway. Each pit measured 1.8m in length, 0.8m in width and ranged from 2.3m to 2.5m in depth. Test Pits A, C, D, and F to H consisted of yellow-brown sandy-silt topsoil, sealing yellow-grey sandy-clay subsoil, overlying reddish-brown clay natural. Test Pits B and E only contained the aforementioned topsoil. No features, deposits or finds of archaeological interest were observed.

4. CONCLUSION

4.1 **DISCUSSION**

- 4.1.1 The only potential archaeological remains were situated to the north of the railway line, and adjacent to Newstead Road, and comprised an area of disturbed ground. It is likely that the redeposited clay (1003) identified in this area resulted from the construction of the aforementioned road. This sealed a soil horizon (1005) and a fragment of sandstone wall (1004). An assessment of the first edition of the Ordnance Survey (1893) indicated that an east/west field boundary wall once sat in this position. This, or a later wall, can also be identified in a very similar position illustrated on maps after the 1950s. The construction of the railway seems to have had a surprisingly low impact, with the only associated features being two trackways running up to the southern side of it, one of which has since gone out of use.
- 4.1.2 The results of the majority of the groundworks carried out across the development site suggest that the area had been left relatively untouched. The bulk of the area most likely comprised arable or pastoral fields, unchanged for centuries.

5.1 **PRIMARY SOURCES**

Ordnance Survey, 1981 Widnes, SJ 48/58, Pathfinder 739, 1:25000

Ordnance Survey, 1893 First Edition Lancashire Sheet CXIV.12, 1:2500

5.2 SECONDARY SOURCES

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6.1 FIGURES

Figure 1: Site Location Map

Figure 2: Plan of watching brief areas

6.2 PLATES

Plate 1: Example of drainage trench to the south of the railway, looking north

Plate 2: Post-excavation view of the area to the south of the railway, looking east

Plate 3: View of wall 1004, looking east

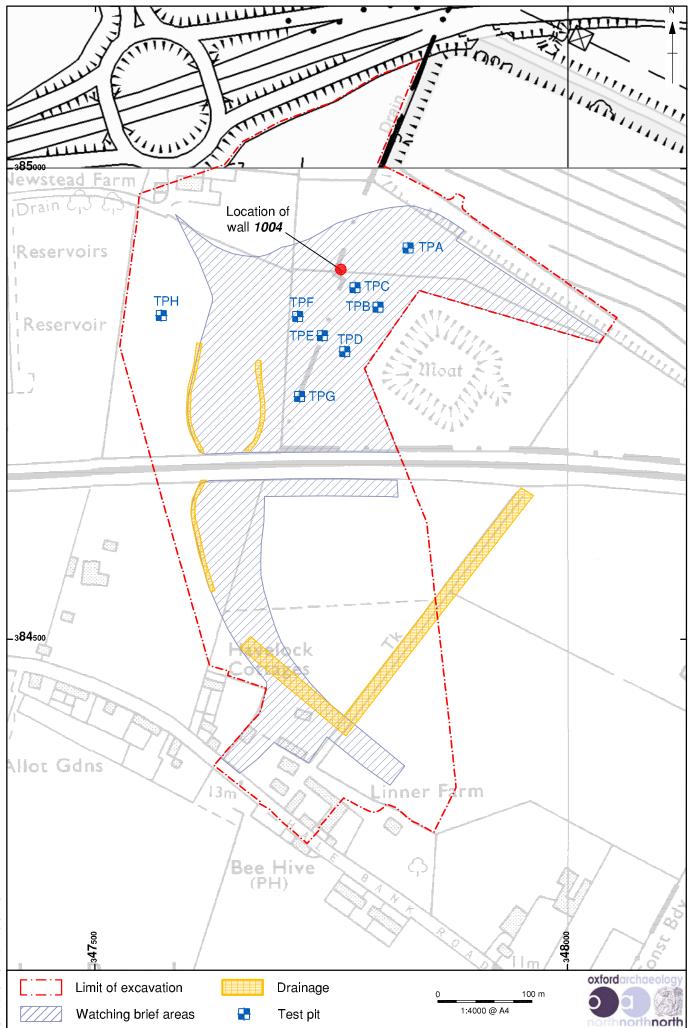


Figure 2: Plan of watching brief areas

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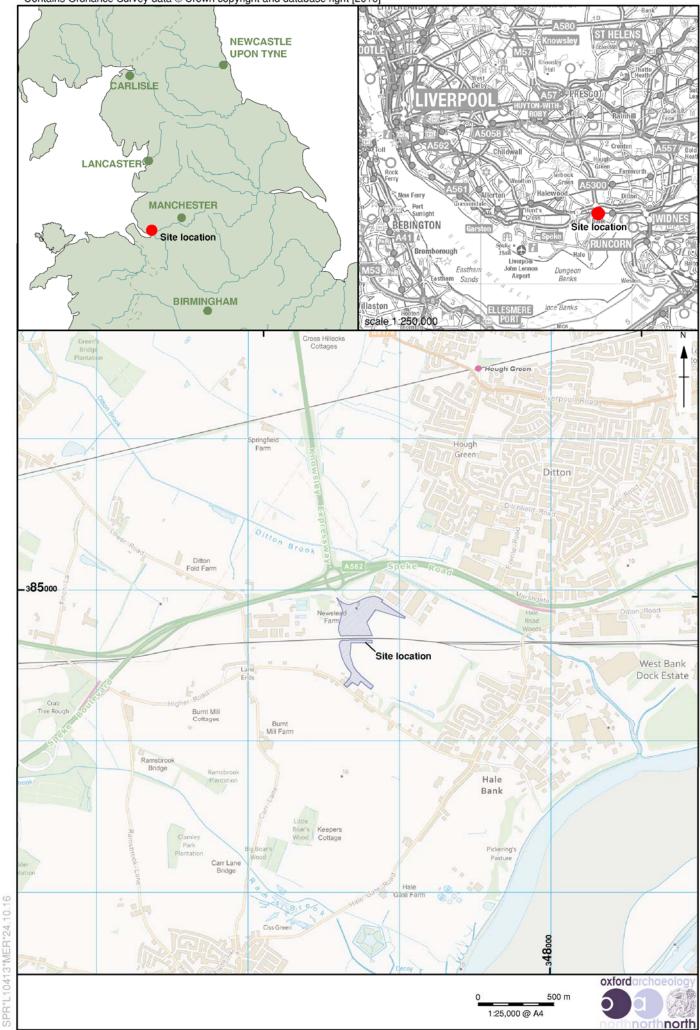


Figure 1: Site location

APPENDIX 1: PROJECT BRIEF/DESIGN



Produced for Prologis

HBC Field Ditton and Associated Link Road

Written Scheme of Investigation (WSI) for Archaeological Watching Brief – Including Provision for Essential Protective Fencing of the Scheduled Monument of Lovel's Hall Moated Site and Fishpond



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September 2011



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Cover page: – Photo taken looking c. west from the eastern bund across the HBC Field Site.

Produced for Prologis

HBC Field Ditton and Associated Link Road

Written Scheme of Investigation (WSI) for Archaeological Watching Brief – Including Provision for Essential Protective Fencing of the Scheduled Monument of Lovel's Hall Moated Site and Fishpond

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Executive Summary

Purpose of this Report

This report has been produced for the purpose of detailing an approach to comply with required on-site mitigation for the historic environment in the form of targeted archaeological watching brief(s) on any major ground works i.e. landscaping / top-soil stripping / exposure etc during the construction of both the HBC Field rail-served building for storage and distribution and associated Link Road.

This Written Scheme of Investigation (WSI) for Archaeological Watching Brief has been provided in order to secure agreement for the work under the following planning condition outlined by Mark Leah (Development Control Archaeologist – Cheshire Shared Services Archaeology and Planning Advisory Service) in correspondence with Glen Henry (Planning Officer - Halton Borough Council) on 27th July 2011, specific to the rail-served building for storage and distribution:

'No development shall take place within the area indicated until the applicant, or their agents or successors in title, has secured the implementation of a programme of archaeological work in accordance with a written scheme of investigation which has been submitted by the applicant and approved by the local planning authority. The work shall be carried out strictly in accordance with the approved scheme.'

Further conditions associated with the scheme specific to the Link Road, consented in 2008, include:

Knowsley Metropolitan Borough Council (KMBC) **Condition 12** – 'At least fourteen days written notice of the start of the development shall be given to the Local Planning Authority, to enable an archaeological watching brief to be carried out by an appropriately qualified archaeologist, the identity of whom has been agreed by the Local Planning Authority before the start of any works on site. Access shall be allowed at all times that development is taking place to enable the archaeologist to fully record any finds at the site.'

Halton Borough Council (HBC) **Condition 7** – '*No development shall take place within the site until the applicant, or their agents or successors in title, has secured the implementation of a programme of archaeological work in accordance with a written scheme of investigation which has been submitted and approved in writing by the Local Planning Authority.*'

The WSI also outlines the <u>important specific requirement</u> for **Lovel's Hall Scheduled Monument** to be carefully and sensitively demarcated / fenced off by means of the erection of a highly visible and robust temporary barrier well in advance of any construction activities commencing on site, with the maintenance of a minimum c.5m buffer zone around the Scheduled area. Further advice on this important aspect of the mitigation should be sought from Mark Leah (Development Control Archaeologist) at the earliest possible opportunity.

Before any works to the north of the West Coast Mainland Railway are permitted to start on-site, approval on these arrangements will need to be gained in consultation and agreement with Mark Leah (DCA) and English Heritage specific to the required barrier, its suitability and positioning.



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1. Introduction

1.1 Project Background

Prologis is proposing to construct a single rail-served building for storage and distribution purposes (B8) together with associated infrastructure, parking and open space at HBC Field, Hale Bank Road, Widnes. There will also be an associated Link Road access to the site (off the A5300/A562 Speke Road Roundabout). The development forms part of the wider Mersey Multi-Modal Gateway Development.

The geographical extent of the area includes the Link Road access off the roundabout of the A562 (Speke Road) and Newstead Road, which will run *c*. south crossing the West Coast Mainline Railway and join the HBC Field Site towards its south-west corner, and the HBC Field Site itself, the outlined location for the rail-served building for storage and distribution.

It has been agreed with Cheshire Shared Services Archaeology and Planning Advisory Service that the preservation by record of any archaeological remains identified during construction will comprise suitable mitigation. This mitigation will take place immediately in advance of, and alongside, the works.

Archaeological mitigation will comprise targeted archaeological watching brief(s) to be maintained during construction and conducted on any major ground works (significant earthmoving activity), including, but not limited to, top-soil stripping, landscaping, exposure etc, as part of the construction programme.

This WSI presents a methodology for the investigation and recording of any archaeological features and deposits that are identified during the course of the archaeological watching brief(s).

There is also an <u>essential specific requirement</u> to ensure that the **Scheduled Monument of Lovel's Hall** is carefully and sensitively demarcated and fenced off by means of the erection of a highly visible and robust temporary barrier well in advance of any construction activities commencing on site. This includes the maintenance of a minimum *c*.5m buffer zone around the Scheduled area. The Cheshire Shared Services (CSS) Development Control Archaeologist (DCA) and English Heritage must be consulted further on this matter and approve the arrangements, including the barrier's suitability and positioning.

In the opinion of the CSS DCA there is a very real risk of unauthorised and illegal intrusion into what is an otherwise un-demarcated site. It is therefore <u>absolutely essential that the barrier is erected and approved by the relevant parties</u> before any works happen on the site. It may be that this approval can be arranged by the supply of digital photos showing the barrier and its relationship to the monument, but it may also require a formal visit, either from English Heritage or their representative, in order to approve the arrangements.

No works will be permitted to start to the north of the West Coast Mainland Railway until the barrier is up and the arrangements have been approved to the satisfaction of the CSS DCA and English Heritage.



An archaeological contractor will be appointed by the Principal Contractor to undertake the archaeological watching brief work alongside the ground works contractor/construction team.

It is anticipated that monitoring visits will be undertaken by the CSS DCA, as and when required, and at his request.

The archaeological works will be carried out in accordance with the Institute for Archaeologists (IfA) Standard and Guidance for an Archaeological Watching Brief (IfA, 2008a), and the IfA Code of Conduct (IfA, 2008b), as well as the Cheshire County Council Guidance and General Conditions for Archaeological Contractors and Consultants in Cheshire (Cheshire CC, 2003).

1.2 **Geology and Topography**

The Mersey Valley has a geology of principally drift material, marine and river alluvium, areas of Shirley Hill windblown sand, and widespread areas of boulder clays with pockets of glacial sands, gravels and basin peats. The underlying solid geology constitutes sandstone and pebble beds of the Permo-Triassic (Cheshire CC, 2007).

The proposed development site is located immediately to the south of Ditton and comprises land to both the north and south of the West Coast Main Line Railway. The site is bordered to the south-west by Halebank Conservation Area, to the east by residential housing, to the west and south by predominantly agricultural land and the Hale Bank Road, and to the north and north-west by Business/Industrial Complexes and the A562 Speke Road (see Appendix A - Figure 1).

The majority of land within HBC Field currently constitutes Hale Bank Park (opened in August 2009). Substantial bunding and screening has already been constructed along the eastern and southern boundaries of the site, as well as a large water storage area towards the south-east corner. The extent of previous disturbance in terms of top-soil stripping is unknown, although towards and along the eastern and south-eastern boundaries it is believed to have been extensive (see Plate 1.1 below).





Plate 1.1 Aerial view of the site and wider area, showing approximate/indicative red line boundary of the combined site (HBC Field / Link Road). Bunding and a large pond to the eastern, south eastern and southern boundaries are clearly visible and also what appears to be evidence of at least partial previous disturbance across the whole south eastern area of the site. (©Microsoft 2011 – Bing – http://www.bing.com/maps/)

The Scheduled Monument of Lovel's Hall Moated Site and Fishpond is located immediately north of the West Coast Mainline Railway and is in the immediate vicinity (to the east) of the consented Link Road (see Appendix A - Figure 1).

1.3 Historical and Archaeological Background

A full historical and archaeological background is presented in the Oxford Archaeology North (OAN) Desk Based Assessment Report (OAN, 2005). Further summary information is also provided in Supporting Environmental Information - Archaeology and Historic Environment specific to the Link Road (AMEC, 2008). The Historic Environment Chapter (Chapter 13) to the latest Environmental Statement, specific to the rail-served building for storage and distribution, provides further background and summary information (AMEC, 2011).

In terms of the Historic Environment there is known and substantiated potential in the wider area for Prehistoric, Roman and medieval remains. A number of possible heritage assets were also identified through historic map regression analysis (mainly place name evidence) that feature within the proposed development site boundary, and date to the medieval and Post-medieval periods.



However, following previous desk-based assessment (OAN, 2005), geophysical survey (Stratascan, 2006) and a programme of targeted archaeological trial trenching (EAS, 2007) no evidence to suggest the presence of significant archaeological remains was found.

The Development Control Archaeologist (DCA) and Archaeological Advisor to the Local Planning Authority has indicated that on-site mitigation will be required for the historic environment in the form of targeted archaeological watching brief on any major ground works i.e. landscaping / top-soil stripping / exposure etc associated with the construction of the Link Road and rail-served building for storage and distribution.



2. Project Objectives

The aim of the archaeological watching brief(s) is to mitigate the impacts of the proposed works on possible archaeological remains across the site of the Link Road and the HBC Field rail-served building for storage and distribution, via preservation by record.

The general objectives of the archaeological watching brief(s) are to:

- investigate areas of possible archaeological interest using watching brief techniques;
- identify and record all archaeological features, deposits, artefacts or other material uncovered through the watching brief(s). An appropriate environmental sampling strategy will be developed as the archaeological recording progresses;
- prepare a fully illustrated report on the results of the watching brief(s), 'even if the results of the work are entirely negative' (Cheshire CC, 2003), which are compliant with all relevant regulations, guidance and good practice;
- archive all documentary, material and digital records created as a result of the watching brief(s) in the correct repository; and
- provide additional information, if possible and where appropriate, on any relevant themes/questions identified in the North West Archaeological Research Framework (NWARF) research agenda (Brennand, 2007).



3. Methodology

3.1 Archaeological Watching Brief Area

Archaeological watching brief(s) are to be conducted across the consented site of the Link Road and the HBC Field outlined site for a rail-served building for storage and distribution (see Appendix A - Figure 1) on any major ground works (significant earthmoving activity), including, but not limited to, top-soil stripping, landscaping, exposure etc, as part of the construction programme.

3.2 General

All archaeological works will be carried out in accordance with this WSI.

This design takes account of the Institute for Archaeologists (IfA) Standard and Guidance for an Archaeological Watching Brief (IfA, 2008a), and the IfA Code of Conduct (IfA, 2008b).

This design also takes account of Cheshire County Council's Guidance and General Conditions for Archaeological Contractors and Consultants in Cheshire (Cheshire CC, 2003), and other current and relevant best practice and standards and guidance including English Heritage's guidance document entitled Environmental Archaeology: a guide to the theory and practice of methods, from sampling and recovery to post-excavation (English Heritage, 2002).

As stated in the Cheshire County Council Guidance, paragraph 4.6.4, 'If during initial works, it becomes clear that a site has been heavily disturbed by recent land-use and the likelihood of surviving archaeological remains is low, discussions may take place between all parties to reconsider the level of monitoring required.' (CCC, 2003)

Equally, as stated in paragraph 4.6.5, 'Where archaeological remains are encountered, subject to practical constraints, the principles of recording should be the same as for other fieldwork projects (trial trenching, excavation etc). Opportunities for recording must be governed by health and safety considerations and may be guided by the developer's working method and timetable. Archaeological recording should not normally extend beyond areas which will be affected by the development.' (CCC, 2003)

3.3 Monitoring of Soil Stripping

It is anticipated that top-soil and sub-soil will be excavated and stored separately.

Mechanical excavation will commence using suitable plant, e.g. a 360° excavator, fitted with a ditching bucket for effective top-soil and sub-soil removal.

Excavated surfaces will be inspected for archaeological features and any identified features will be marked on the ground while stripping proceeds, and then recorded in plan. Where archaeological remains or suspected



archaeological remains are identified provision should be made for the cleaning of the surface using suitable plant under direct archaeological supervision. The location of identified archaeological features will be plotted on the ground using electronic survey equipment to an accuracy of ± 100 mm to ensure that the position is transcribed accurately from the location plan.

All suspected archaeological features and deposits uncovered during the course of these works will be investigated and recorded.

In order to comply with Cheshire County Council's Guidance and General Conditions for Archaeological Contractors and Consultants in Cheshire (Cheshire CC, 2003), the methodology described in Sections 3.4 - 3.10, below, will be applied.

Exact requirements for excavation and recording will be discussed and agreed, prior to the commencement of works and on site during monitoring visits, with the CSS DCA and the main site Principal Contractor, the developer and the archaeological contractor. Any deviation or variation to the methodology described below will be discussed and agreed with the CSS DCA and all relevant parties.

3.4 Hand Excavation of Archaeological Features

Archaeological features or deposits will be excavated using appropriate hand tools, such as a mattock, shovel and hand trowel.

A sample of each potential feature revealed will be excavated in an archaeologically controlled manner in order to provide the maximum amount of information with emphasis on stratigraphic relationships between features, recovery of dating evidence, form, extent, level of preservation and function. Archaeological excavation and recording will comprise:

- A minimum of 10% of the identified feature will be excavated along the length of all linear features (with each excavated section not less than 1m). This will rise to 20% where linear features occur in settlement complexes. Key intersections will be investigated to determine the stratigraphic relationship between features and sections will be located at all ditch terminals and to provide equal spatial coverage along the length of the feature.
- Discrete features, such as pits, will be half-sectioned (50%).
- Smaller discrete features, such as postholes, postpits and stakeholes, will be 100% excavated.
- Structures, such as hearths will also be 100% excavated.
- All burials will be fully (100% of each individual inhumation or cremation) excavated. Prior to excavation of human remains an exhumation licence will be obtained (see Section 3.8).

Machine-assisted excavation may be permissible if large/deep deposits or homogenous and non-archaeological layers are encountered, but only after consultation with the CSS DCA.



3.5 **Recording**

Each area requiring excavation will be given a unique site code, which will be written on all records, drawings, artefact bags and sample containers.

All archaeological remains will be recorded in plan using electronic survey equipment. All survey points used will be accurately tied into the OS National Grid.

Each area excavated will have a unique number, as indicated on an accurate location plan.

A full written and photographic record will be made of all archaeological features and deposits (contexts) with each context given a unique number and described on a separate record sheet. A context register, with brief details, will also be kept during the archaeological work.

In addition to the electronic survey of all features, as a minimum, all interventions and areas of detailed archaeology will be planned by hand, using tape measures.

Hand drawn plans and sections of features will be produced at an appropriate scale (normally 1:50 or 1:20 for plans and 1:10 for sections) with Ordnance Datum heights recorded in metres, correct to two decimal places. Each drawing will be given a unique drawing number. A drawing register, with brief details, will also be kept throughout the archaeological works.

A photographic record will be maintained. Photographs will be taken of each area excavated and all features. These will include a scale, identification board and north arrow. As a minimum, a 35mm format for photographs will be used in both monochrome and colour, and these will be supplemented by digital photography, where appropriate.

In addition to records of archaeological features, general digital photographs recording the context of the watching brief areas and work in progress will also be taken.

3.6 Artefact Recovery

Artefacts will be collected and labelled with the unique site code and context number of the deposit in which they were recovered. Each 'significant find' will be recorded three dimensionally using electronic survey equipment to an accuracy of ± 100 mm, and assigned a 'Special Finds' number. Similarly, if artefact scatters are encountered these should also be recorded three dimensionally. Bulk artefacts will be collected and recorded by context.

All archaeological artefacts that are collected that do not clearly belong to a particular context (e.g. during mechanical excavation) will be recorded as unstratified and assigned the top-soil context number.

Where necessary, the artefacts will be stabilised and conserved appropriately for transportation and temporary storage. All such activities shall be undertaken in accordance with the guidelines of the United Kingdom Institution of Conservators (UKIC). If necessary, a conservator will visit the site to undertake 'first aid' conservation treatment.



In post-excavation, any artefacts recovered will be processed (cleaned and individually marked with the site code and context number) as appropriate to the material. Artefacts will be properly conserved and will be stabilised for long-term storage and archiving. Each category of material will be examined by a suitably qualified archaeologist or specialist and the results incorporated into the report. The names of the proposed finds specialists and conservator, as required, should be provided to the CSS DCA prior to the commencement of the watching brief work.

3.7 Environmental Sampling

The English Heritage Regional Advisor for Archaeological Science will be consulted regarding the sampling strategy proposed by the archaeological contractor, as required. Provision will be made for the recovery of material suitable for scientific dating.

Environmental samples will be taken from a range of contexts and phases encountered on site, as appropriate, and from any deposit where it is expected that worthwhile environmental evidence may be recovered. Such deposits will include, though not be restricted to, waterlogged and burnt contexts. Provision will be made for the recovery of material suitable for scientific dating.

The sampling size for bulk samples will be a minimum of 30 litres or 100% of smaller features.

Any samples collected must come from appropriately cleaned surfaces, be collected with clean tools and be placed in clean containers. They will be adequately recorded and labelled and a register of all samples will be kept. Samples should be stored appropriately in a secure location prior to being sent to the appropriate specialist.

The sampling strategy, analysis of samples and subsequent reporting will follow best practice as recommended by English Heritage (EH, 2002).

All environmental samples will be processed as appropriate. Each category of environmental material will be examined by a suitably qualified archaeologist or specialist and the results incorporated into the report.

3.8 Human Remains

If any human remains are discovered, excavation will only take place after a licence is obtained from the Secretary of State under the Burials Act 1857, and will take place in accordance with the appropriate Environmental Health regulations. The CSS DCA should be contacted and discussions held as to the most appropriate course of action.

If it is suspected that the remains could be less than 100 years old, the police and coroner should be informed, as an inquest may be required.



3.9 Treasure

Any recovered artefacts that are designated Treasure as defined by the Treasure Act 1996 will be treated in accordance with said Act. All Treasure will be reported to H. M. Coroner.

Any Treasure will be removed to a secure store. Where removal cannot be effected on the same working day as the discovery, suitable security measures must be taken to protect the finds from theft.

3.10 Reporting

Upon the completion of the watching brief works an interim statement will be prepared and submitted to the Principal Contractor (as required), developer, CSS DCA and relevant Local Planning Authorities, summarising the results of the works.

As a minimum, the interim statement should include an all features plan for each area excavated and a brief, chronological summary of the archaeological remains, as necessary.

The reporting of the watching brief will be commensurate with the results of the investigation, and will be produced in accordance with the Institute for Archaeologists (IfA) Standard and Guidance for an Archaeological Watching Brief (IfA, 2008a), the IfA Code of Conduct (IfA, 2008b) and the Cheshire County Council Guidance and General Conditions for Archaeological Contractors and Consultants in Cheshire (CCC, 2003). The advice on report production within English Heritage's Management of Archaeological Projects (EH, 1991) and Management of Research Projects in the Historic Environment: The MoRPHE Project Managers' Guide (EH, 2006) should also be considered relevant.

Records and information from any relevant previous reports (see Section 11) should be integrated into the watching brief report.

As a minimum the report should include:

- a QA sheet detailing as a minimum title, author, version, date, checked by, approved by;
- a non-technical (executive) summary;
- introduction: to include site codes, project number, planning reference number, dates and grid references;
- site location and description;
- topography and geology;
- archaeological and historical background;
- methodology;



- aims and objectives;
- results (to include full description, assessment of condition, quality and significance of any remains);
- specialist assessment reports on the finds and environmental samples from the site, including a Conservation Assessment, as appropriate;
- a statement of the significance of the results in their local, regional and national context cross referenced to the NWARF research agendas, as appropriate;
- proposals for further analysis leading to publication, as appropriate;
- a publication synopsis, as appropriate;
- references;
- general and detailed plans showing the location of the excavated areas accurately positioned on an OS base map (to a standard scale);
- detailed plans and sections illustrating archaeological features (to a standard scale);
- photographs of the site, the excavated areas, archaeological remains and work in progress;
- a complete matrix for each excavated area, if appropriate; and
- the catalogue and location of the site archive.

A preliminary (draft) report should be issued for review by the Principal Contractor (as required) and the developer prior to agreement and issue of the final report to the CSS DCA and relevant Local Planning Authorities. It is anticipated that issue of the final report should follow within two weeks of comments being provided on the preliminary report.

A project CD should be submitted containing image files in JPEG or TIFF format, digital text files should be submitted in Microsoft Word format, and illustrations in AutoCAD/GIS format. A fully collated version of the report should be included in PDF format.

A hard copy of the final report will be lodged with Cheshire Historic Environment Record (CHER) and Merseyside Historic Environment Record (MHER).



4. Archive Preparation and Deposition

The archive will consist of the documentary and digital records and any archaeological material generated during the watching brief(s) and subsequent fieldwork. All records and materials produced will be quantified, ordered, indexed, marked with the unique project, site and context number and internally consistent. The archive will be kept secure at all stages of the project.

The archaeological contractor will, prior to the start of fieldwork, liaise with Cheshire Museums' Central Archaeological Store to obtain agreement in principle to accept the material, documentary, digital and photographic archive for long-term storage and curation.

The archaeological contractor will be responsible for identifying any specific requirements or policies of the museum/recipient body in respect of the archive, and for adhering to those requirements. The archive will conform to the standards required by Cheshire Museums Service.

The archive will be stored in a suitable secure location by the archaeological contractor until it is deposited with Cheshire Museums Service.

The deposition of the archive forms the final stage of this project. The archaeological contractor shall provide the Principal Contractor and in turn the developer with copies of communication with the recipient museum and written confirmation of the deposition of the archive. The archaeological contractor and developer will be jointly responsible for addressing the transfer of ownership and copyright issues.



5. Monitoring, Progress Reports, Meetings

The archaeological watching brief is likely to be subject to regular monitoring visits by the Cheshire Shared Services Development Control Archaeologist (CSS DCA). Monitoring visits should be arranged in advance with the Principal Contractor, developer and the archaeological contractor, who will accompany the CSS DCA on-site. The CSS DCA should be afforded the opportunity to observe any archaeological excavations following the identification of any significant archaeological deposits through the watching brief process.

A minimum of two weeks' notice should be given to the CSS DCA and Knowsley Metropolitan Borough Council (KMBC) in advance of the commencement of the archaeological watching brief work.

Weekly written progress reports should be provided to the Principal Contractor and developer by the archaeological contractor during the watching brief fieldwork and any post-excavation phase.

Each progress report should comprise a brief written report summarising results from the week. The CSS DCA must be kept informed of the results and all significant finds.

The archaeological contractor will only accept instruction from the Principal Contractor and developer.

Progress meetings between the Principal Contractor, developer and the archaeological contractor should be held on site during the course of the works, as required. The CSS DCA should also be invited to attend. These meetings will be arranged by the archaeological contractor in conjunction with the Principal Contractor and the developer.

Where necessary to achieve the objectives of the investigation within the overall project programme, variations to the scope of works will be agreed on site at progress meetings, as appropriate.



6. Confidentiality and Publicity

In the event of any enquiries by the public, the archaeological contractor will refer all enquiries to the Principal Contractor and/or developer without making any unauthorised statements or comments.

The archaeological contractor will not disseminate information or images associated with the project for publicity or information purposes, without prior consent from the developer.



7. Copyright

The archaeological contractor shall assign copyright in all reports and documentation/images produced as part of this project to the developer. The archaeological contractor shall retain the right to be identified as the author/originator of the material. This applies to all aspects of the project.

The archaeological contractor may apply in writing to use/disseminate any of the project archive or documentation (including images). Such permission will not be unreasonably withheld.

The results of the archaeological works shall be submitted to the Principal Contractor, developer, CSS DCA and KMBC, and will ultimately be made available for public access through the relevant Historic Environment Record(s).



8. Resources and Timetable

All archaeological personnel involved in the project should be suitably qualified and experienced professionals. The archaeological contractor shall provide staff CVs of the Project Manager, Project Officers, Site Supervisors (Watching Brief Archaeologists) and any proposed specialists. Any site assistants required will not normally be required to supply CVs, but all site assistants should have a minimum of six months excavation experience.

All equipment and tools required by the archaeological contractor will be supplied by the archaeological contractor.

The archaeological contractor shall provide immediate notice to the Principal Contractor and thereafter the developer should any agreed programme dates not be achievable.

It is currently anticipated that the works will commence in September 2011.

The programming of the works will be as follows:

- The Link Road Initial drainage work to commence mid September 2011, followed by top-soil strip November 2011, duration *c*. 2 weeks.
- Rail-served building for storage and distribution –Top-soil strip November-December 2011, duration *c*. 4 weeks.



9. Health and Safety

The works shall be carried out under CDM Regulations 2007.

The archaeological contractor should have their own Health and Safety policies compiled using national guidelines, which conform to all relevant Health and Safety legislation. A copy of their Health and Safety Policy must be submitted to the Principal Contractor and developer prior to the commencement of site work.

The Principal Contractor (main works/ground works contractor) shall be responsible for identifying any buried services and taking all necessary precautions to avoid damage to such services, prior to the watching brief commencing.

The archaeological contractor will be required to demonstrate that all personnel working on site are suitably experienced and competent to carry out their duties.

Personnel should adhere to the site safety policies at all times and shall wear and use the correct safety clothing and equipment, as directed by and in line with the Principal Contractors' requirements.

In undertaking the work, the archaeological contractor is to abide by all statutory provisions and by-laws relating to the works, in particular the Health and Safety at Work Act 1974.



10. General Provisions

No variation from, or changes to, the WSI will occur except by prior agreement between the CSS DCA, relevant LPA(s), Principal Contractor and developer.

All communications on archaeological matters will be directed through the Principal Contractor and relayed to the developer.

All vehicle movements will be strictly controlled. Access routes will be agreed in advance between the developer, Principal Contractor and the archaeological contractor.

Site vehicles will adhere to agreed access routes when travelling between work sites and any site compound. Site vehicles, except for the mechanical excavator and dumpers if required, will not drive onto the fields except in emergency, or unless agreed in advance with the developer.

The archaeological contractor will comply with the Principal Contractor's site specific documentation with regards to environmental requirements.

The archaeological contractor shall leave all work sites in a tidy and workmanlike condition and remove all materials brought onto the site.

The Principal (main works) Contractor will be required to make provision for the security of the site for the duration of the watching brief(s). Overnight security is likely to be required to ensure no unauthorised access to the site outside of normal working hours.

Individual excavation areas, as required, shall be fenced during the works. Additional security arrangements may be required if sensitive archaeological remains are uncovered.



11. References

In the order they appear in the document:

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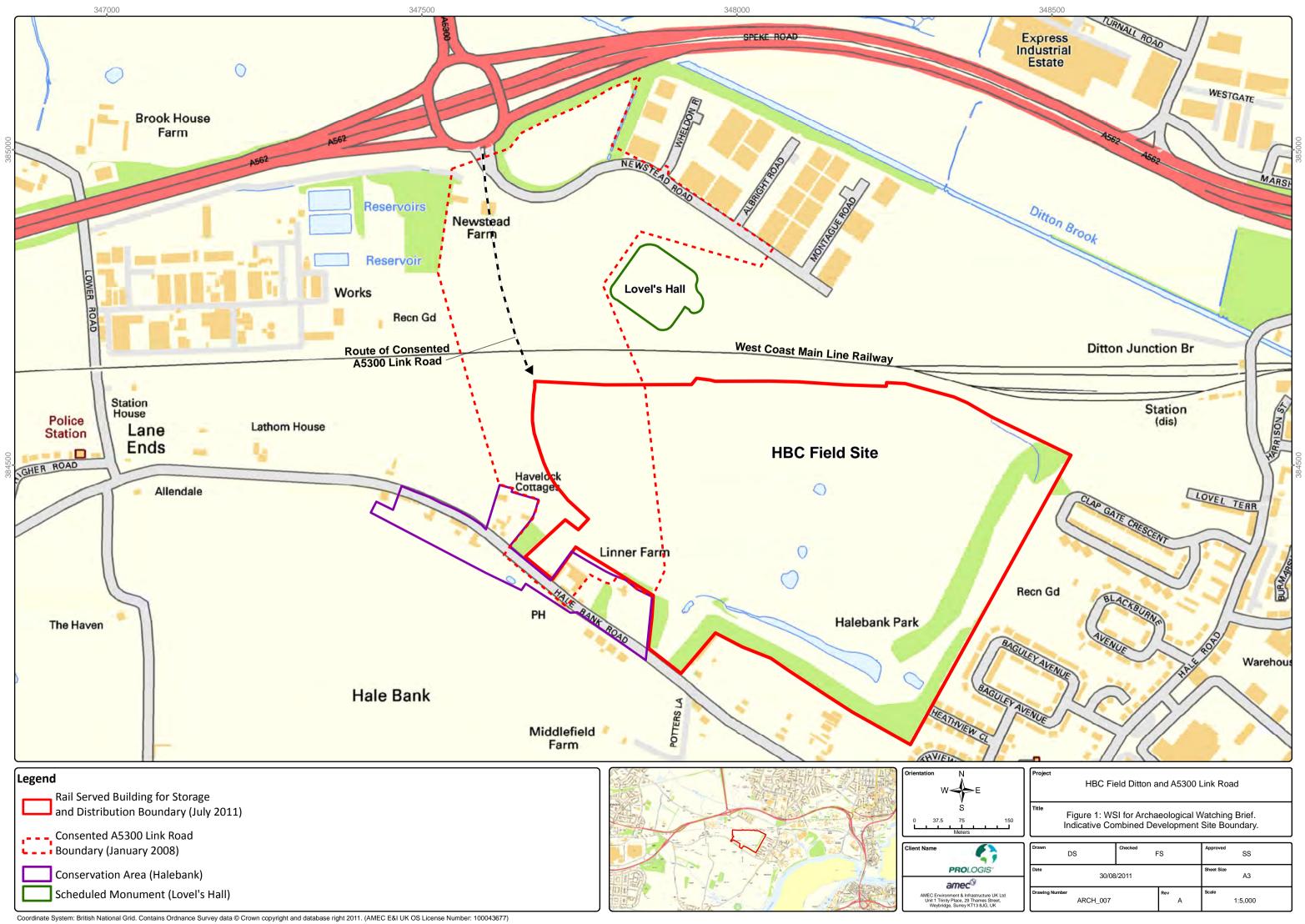
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Appendix A Figure 1:



Context Number	Description		
1000	Dark greyish-brown, soft and friable sandy-clay, with 5% small pebbles, 0.4m		
	thick. Topsoil		
1001	Mid orangey-brown, soft and friable sandy-clay, 0.2m thick. Intermittent subsoil		
1002	Dark and mottled Greyish-pink and orangey-brown, firm clay, with <2% medium		
	stones. Natural geology		
1003	Mottled mid-brown, cream and pink, firm silty-clay, with sub-rounded sandstone		
	fragments, 10mm-0.2m, 2% coal flecks, 10% sand, 1% brick flecks, 0.12m thick.		
	Redeposited clay with demolition rubble.		
1004	Roughly hewn sandstone blocks, 0.34m x 0.29m x 0.09m, one course survives,		
	and laid in a dry-stone bond. Wall foundations		
1005	Mid-dark, grey-brown firm clayey-silt, with 5% sandstone fragments <0.1m, 5		
	coal fragments and flecks <20mm, 1% brick flecks, <0.15m thick. Buried soil		
	horizon		

APPENDIX 2: CONTEXT DESCRIPTIONS

Test Pit	Dimensions	Description	
А	1.8m x 0.8m x 2.3m	Topsoil: light yellow-brown sandy-silt, 0.25m	
		Subsoil: yellow-grey sandy-clay, 0.35m	
		Natural geology: reddish-brown clay	
В	1.8m x 0.8m x 2.5m	Topsoil: dark brownish-grey silt, 0.3m	
		Natural geology: as above	
С	1.8m x 0.8m x 2.5m	Topsoil: grey-brown silt, 0.3m	
		Subsoil: yellow-brown sandy-clay, 0.15m	
		Natural geology: as above	
D	1.8m x 0.8m x 2.4m	Topsoil: as above, 0.4m	
		Subsoil: as above, 0.2m	
		Natural geology: as above	
Е	1.8m x 0.8m x	Topsoil: as above, 0.3m	
	2.45m	Natural geology: as above	
F	1.8m x 0.8m x 2.5m	Topsoil: as above 0.25m	
		Subsoil: brownish-yellow sand, 0.15m	
		Natural geology: as above	
G	1.8m x 0.8m x 2.5m	Topsoil: as above, 0.4m	
		Subsoil: coarse yellow sand, 1.1m	
		Natural geology: as above	
Н	1.8m x 0.8m x 2.5m	Topsoil: as above, 0.3m	
		Subsoil: orangey-brown sandy-silt, 0.35m	
		Natural geology: pale, yellowish-white clay	

APPENDIX 3: TEST PIT DESCRIPTIONS