

Mercury 62
Historic Environment Desk-Based Assessment
July 2022

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Report

Historic Environment Desk-Based Assessment

Site

Mercury 62

Clients

Maro Developments Ltd

Date

July 2022

Planning Authority

Metropolitan Borough of Knowsley

Site Centred At

SJ 46749 89351

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Timescales Used in This Report

Prehistoric

Palaeolithic	450,000 -12,000 BC
Mesolithic	12,000 - 4,000 BC
Neolithic	4,000 - 2,200 BC
Bronze Age	2,200 - 700 BC
Iron Age	700 - AD 43

Historic

Roman	43 - 410AD
Saxon/Early Medieval	410 - 1066AD
Medieval	1066 - 1485AD
Post Medieval	1486 - 1901AD
Modern	1901 - Present Day

Executive Summary

This historic environment desk-based assessment considers land at Mercury 62, Knowsley (hereinafter referred to as the “study site”). In accordance with government policy (National Planning Policy Framework), this assessment draws together the available archaeological, historic, topographic and land-use information in order to clarify the heritage significance and archaeological potential of the study site.

Archaeological Assets

No statutory designations (Scheduled Ancient Monuments, Registered Battlefields or World Heritage Sites) are located within or adjacent to the study site boundary. None are recorded within the 1km study area and one Scheduled Monument 2km from the study site will not experience any impacts. As such the assessment has not identified any designated archaeological assets which will be negatively impacted by the proposed development.

A review of the available evidence has confirmed that the study site has a moderate potential to contain Prehistoric and Roman archaeology and high potential for post-medieval finds and features with a low potential for all other periods. The continuous use since the Prehistoric and nearby Roman tile manufactory suggest any such remains could be of at least regional significance. The post medieval archaeology is likely to relate to the development of the Halsnead estate and adjacent colliery and would be of local significance.

The former colliery and railway and the construction of the motorways may have had direct and indirect impacts on the survival of any archaeology. The modern ditch cut will also have removed any archaeology and has the potential to have indirectly impacted any features surrounding it.

Given the moderate to high potential for Prehistoric, Roman and post medieval remains identified, it is anticipated that there will be a requirement for geophysical survey to inform the application for the proposed development. Subject to the results of the geophysical survey, the LPA Archaeologist may request further works in order to mitigate the impacts of the proposed development in line with the NPPF.

Built Heritage Assets

This assessment has identified three designated and one non-designated built heritage assets that have the potential to have their significance affected by the proposed development. These are the Grade II listed Old Halsnead (NHLE 1261787), Carr Farmhouse (NHLE 1253441), The Paddocks and the Stables (NHLE 1253505) and the non-Designated lodge building located at National Grid Reference SJ 46849 88963 c. 170 metres south of the study site boundary.

Although the study site forms part of the wider semi-rural setting of these assets, it is considered that the contribution the study site makes to the significance of the assets is negligible. In all cases, the significance of the assets derives from their special architectural and historic interest. Due to the intervening built form, existing natural screening and local topography, all those designated and non-designated assets that have been assessed share limited to no intervisibility with the study site. This combined with the severance of any historic ownership or functional links that

the assets may have shared with the study site, it is considered that the proposals as they stand, will have little to no effect on their significance.

1.0 Introduction

- 1.1** This historic environment desk-based assessment considers land at Mercury 62, Knowsley (Figure 1). It has been researched and prepared by Orion Heritage on behalf of Maro Developments Ltd. The site (hereinafter referred to as the “study site”) is located at grid reference SJ 46749 89351. It has been prepared to inform the emerging design of the proposed development and the promotion of the site for residential development.
- 1.2** In accordance with the Standard and Guidance for Historic Environment Desk-Based Assessment (Chartered Institute for Archaeologists 2017), the assessment draws together available information on designated and non-designated heritage assets, topographic and land-use information so as to establish the potential for non-designated archaeological assets within the study site. The assessment includes the results of a site survey, an examination of published and unpublished records, and charts historic land-use through a map regression exercise. The assessment also considers the setting of heritage assets and provides an assessment of how their settings contribute to their significance.
- 1.3** The assessment enables relevant parties to assess the significance of archaeological heritage assets on and close to the study site and considers the potential for hitherto undiscovered archaeological assets, thus enabling potential impacts on assets to be identified along with the need for design, civil engineering, or archaeological solutions. It also provides an understanding of any constraints to development of the study site due to the presence of nearby heritage assets and provides an assessment of the potential impact development would have on the significance of heritage assets and also provides design responses that would serve to reduce that impact in line with local and national policy.
- 1.4** The study area used in this assessment is a 1km radius from the centre of the study site (Figures 2, 3 and 4). A site visit was undertaken on 15th June 2022 when the conditions were hot and sunny with good visibility.

Location, Topography and Geology

- 1.5** The study site is located to the southeast of the Tarbock Roundabout at the interchange of the M62 and M57 motorways, approximately 12km east of Liverpool (Figure 1). It is 9.47ha, approximately rectangular plot, situated at c.25m AOD and vacant grassland. The site is bounded by the M62 and Tarbock Roundabout to the north, the A5080 to the south and west and farmland or construction sites to the east.
- 1.6** The solid geology of the study site predominantly comprises Pennine Middle Coal Measures Formation – mudstone, siltstone and sandstone with superficial deposits of Till, Devensian - Diamicton. There is a north-south band of Alluvium – clay, silt, sand and gravel superficial deposits at the western end of the study site.

2.0 Aims, Objectives & Methodology

2.1 The principal aims of the heritage desk-based assessment are to:

- Gain an understanding of the archaeological potential of the study site;
- Identify any archaeological constraints to the development of the study site; and to
- Assess the likely impact of the proposed development.

2.2 The results of the archaeological desk-based assessment will inform an archaeological strategy for further on-site assessment and formulation of a mitigation strategy, as appropriate to the archaeological potential of the study site.

2.3 This desk-based assessment conforms to the requirements of current national and local planning policy (including *National Planning Policy Framework* 2021) and it has been designed in accordance with current best archaeological practice, and the appropriate national and local standards and guidelines, including:

- Management of Recording Projects in the Historic Environment: MORPHE (English Heritage 2006);
- Code of Conduct (Chartered Institute for Archaeologists [CIfA] [revised edition] 2014); and
- Standard and Guidance for Historic Environment Desk-Based Assessment (CIfA January 2017).

2.4 It is noted that the Chartered Institute for Archaeologists defines desk-based assessment as:

“a programme of study of the historic environment within a specified area or site on land, the inter-tidal zone or underwater that addresses agreed research and/or conservation objectives. It consists of an analysis of existing written, graphic, photographic and electronic information in order to identify the likely heritage assets, their interests and significance and the character of the study area, including appropriate consideration of the settings of heritage assets and, in England, the nature, extent and quality of the known or potential archaeological, historic, architectural and artistic interest. Significance is to be judged in a local, regional, national or international context as appropriate.”

2.5 The Chartered Institute for Archaeologists Standard for desk-based assessment states that:

“Desk-based assessment will determine, as far as is reasonably possible from existing records, the nature, extent and significance of the historic environment within a specified area. Desk-based assessment will be undertaken using appropriate methods and practices which satisfy the stated aims of the project, and which comply with the Code of conduct and other relevant regulations of CIfA. In a development context desk-based assessment will establish the impact of the proposed development on the significance of the historic environment (or will identify the need for further evaluation to do

so) and will enable reasoned proposals and decisions to be made whether to mitigate, offset or accept without further intervention that impact.”

Methodology

2.6 The following sources will be consulted for the whole study area:

- Merseyside Historic Environment Record (MHER).
- National Heritage List for England held by Historic England.
- Historic mapping.
- Previous archaeological evaluation and excavation records relating to sites in and immediately adjacent to the study area.
- Such other published works, reports and other information relevant to the desk-based assessment.
- Online aerial photography including Google Earth and Bing Aerial.
- An assessment of any Lidar holdings held by the Environment Agency for the study area; and
- Portable Antiquities Scheme (PAS) data, available from the PAS website.

2.7 If the DBA is submitted as part of a planning application, a digital copy of the report will be provided to the Merseyside HER (hard copies will be provided on request) and a copy will also be uploaded as part of the ADS OASIS database record.

2.8 Lidar provides topographic data and is particularly useful in the detection and identification of heritage assets that survive as earthworks. The Environment Agency (EA) regularly collects Lidar data for England and makes these data available for public use through their online portal. Digital Terrain Models (DTM) are routinely used for heritage purposes as this model shows the ground surface with buildings and trees filtered out to create a ‘bare earth’ effect. The Environment Agency National Lidar Programme collected DTM data in 2019 at 1m resolution that offers full coverage of the study site and 1km study area. This data was downloaded in June 2022, processed using the Relief Visualisation Toolkit (RVT) version 1.2 and reviewed using QGIS.

3.0 Statutory and Planning Policy Framework

Ancient Monuments & Archaeological Areas Act 1979

- 3.1** The Ancient Monuments & Archaeological Areas Act 1979 (as amended) protects the fabric of Scheduled Monuments but does not afford statutory protection to their settings.

Planning (Listed Building and Conservation Areas) Act 1990

- 3.2** The *Planning (Listed Buildings and Conservation Areas) Act* 1990 sets out broad policies and obligations relevant to the listing of special buildings.

- 3.3** Section 66(1) of the Act states:

“In considering whether to grant planning permission for development which affects a listed building or its setting, the local planning authority or, as the case may be, the Secretary of State shall have special regard to the desirability of preserving the building or its setting or any features of special architectural or historic interest which it possesses”.

National Planning Policy Framework (NPPF) & National Planning Practice Guidance (NPPG)

- 3.4** Government policy in relation to the historic environment is outlined in Section 16 of the National Planning Policy Framework (NPPF), entitled ‘Conserving and Enhancing the Historic Environment’. This provides guidance for planning authorities, property owners, developers and others on the conservation and investigation of heritage assets. Overall, the objectives of Section 16 of the NPPF can be summarised as seeking the:

- Delivery of sustainable development;
- Understanding the wider social, cultural, economic and environmental benefits brought by the conservation of the historic environment;
- Conservation of England's heritage assets in a manner appropriate to their significance; and
- Recognition of the contribution that heritage assets make to our knowledge and understanding of the past.

- 3.5** Section 16 of the NPPF recognises that intelligently managed change may sometimes be necessary if heritage assets are to be maintained for the long term.

- 3.6** Paragraph 194 states that planning decisions should be based on the significance of the heritage asset, and that the level of detail supplied by an applicant should be proportionate to the importance of the asset and should be no more than sufficient to understand the potential impact of the proposal upon the significance of that asset.

- 3.7** Paragraph 198 states that decisions regarding the removal or alteration of historic statues, plaques, memorials or monuments should have regard to the

importance of their retention in situ and, where appropriate, explaining their historic and social context rather than removal.

3.8 Paragraph 203 requires the decision-maker to take into account the effect on the significance of non-designated heritage assets and to take a balanced judgement having regard to the scale of harm or loss and the significance of the asset(s) potentially affected.

3.9 Annex 2 of the NPPF has the following heritage related definitions:

- **Historic environment:** *All aspects of the environment resulting from the interaction between people and places through time, including all surviving physical remains of past human activity, whether visible, buried or submerged, and landscaped and planted or managed flora.*
- **Heritage asset:** *A building, monument, site, place, area or landscape identified as having a degree of significance meriting consideration in planning decisions, because of its heritage interest. It includes designated heritage assets and assets identified by the local planning authority (including local listing);*
- **Designated heritage asset:** *A World Heritage Site, Scheduled Monument, Listed Building, Protected Wreck Site, Registered Park and Garden, Registered Battlefield or Conservation Area designated under the relevant legislation.*
- **Significance (for heritage policy):** *The value of a heritage asset to this and future generations because of its heritage interest. This interest may be archaeological, architectural, artistic or historic. Significance derives not only from a heritage asset's physical presence, but also from its setting. For World Heritage Sites, the cultural value described within each site's Statement of Outstanding Universal Value forms part of its significance.*
- **Setting of a heritage asset:** *The surroundings in which a heritage asset is experienced. Its extent is not fixed and may change as the asset and its surroundings evolve. Elements of a setting may make a positive or negative contribution to the significance of an asset, may affect the ability to appreciate that significance or may be neutral.*

3.10 Heritage assets that have not been designated as a listed building, scheduled monument, registered park and garden, protected wreck, battlefield or conservation area is referred to as a non-designated heritage asset.

3.11 The NPPF is supported by the PPG (July 2019). In relation to the historic environment, paragraph 002 (002 Reference ID: 18a-002-20190723) states that:

"Where changes are proposed, the National Planning Policy Framework sets out a clear framework for both plan-making and decision-making in respect of applications for planning permission and listed building consent to ensure that heritage assets are conserved, and where appropriate enhanced, in a manner that is consistent with their significance and thereby achieving sustainable

development. Heritage assets are either designated heritage assets or non-designated heritage assets.”

- 3.12** Paragraph 18a-013 (Paragraph: 013 Reference ID: 18a-013-20190723) outlines that although the extent and importance of setting is often expressed in visual terms, it can also be influenced by other factors such as noise, dust and vibration. Historic relationships between places can also be an important factor stressing ties between places that may have limited or no intervisibility with each other. This may be historic as well as aesthetic connections that contribute or enhance the significance of one or more of the heritage assets.
- 3.13** Paragraph 18a-013 concludes:
- “The contribution that setting makes to the significance of the heritage asset does not depend on there being public rights or an ability to access or experience that setting. This will vary over time and according to circumstance. When assessing any application for development which may affect the setting of a heritage asset, local planning authorities may need to consider the implications of cumulative change. They may also need to consider the fact that developments which materially detract from the asset’s significance may also damage its economic viability now, or in the future, thereby threatening its on-going conservation.”*
- 3.14** The key test in NPPF paragraphs 199-202 is whether a proposed development will result in substantial harm or less than substantial harm to a designated asset. However, substantial harm is not defined in the NPPF. Paragraph 18a-017 (Paragraph: 018 Reference ID: 18a-018-20190723) of the PPG provides additional guidance on substantial harm. It states:
- “What matters in assessing whether a proposal might cause harm is the impact on the significance of the heritage asset. As the National Planning Policy Framework makes clear, significance derives not only from a heritage asset’s physical presence, but also from its setting.”*
- 3.15** Proposed development affecting a heritage asset may have no impact on its significance or may enhance its significance and therefore cause no harm to the heritage asset. Where potential harm to designated heritage assets is identified, it needs to be categorised as either less than substantial harm or substantial harm (which includes total loss) in order to identify which policies in the National Planning Policy Framework (paragraphs 200-203) apply.
- 3.16** Within each category of harm (which category applies should be explicitly identified), the extent of the harm may vary and should be clearly articulated.
- 3.17** Whether a proposal causes substantial harm will be a judgment for the decision-maker, having regard to the circumstances of the case and the policy in the National Planning Policy Framework. In general terms, substantial harm is a high test, so it may not arise in many cases. For example, in determining whether works to a listed building constitute substantial harm, an important consideration would be whether the adverse impact seriously affects a key element of its special architectural or historic interest. It is the degree of harm to the asset’s significance rather than the scale of the development that is to

be assessed. The harm may arise from works to the asset or from development within its setting.

3.18 While the impact of total destruction is obvious, partial destruction is likely to have a considerable impact but, depending on the circumstances, it may still be less than substantial harm or conceivably not harmful at all, for example, when removing later additions to historic buildings where those additions are inappropriate and harm the buildings' significance. Similarly, works that are moderate or minor in scale are likely to cause less than substantial harm or no harm at all. However, even minor works have the potential to cause substantial harm, depending on the nature of their impact on the asset and its setting.

3.19 Paragraph 202 of the NPPF outlines that where a proposed development results in less than substantial harm to the significance of a heritage asset, the harm arising should be weighed against the public benefits accruing from the proposed development. Paragraph 18a-020 of the PPG (Paragraph: 020 Reference ID: 18a-020-20190723) outlines what is meant by public benefits:

"Public benefits may follow from many developments and could be anything that delivers economic, social or environmental objectives as described in the National Planning Policy Framework (paragraph 8). Public benefits should flow from the proposed development. They should be of a nature or scale to be of benefit to the public at large and not just be a private benefit. However, benefits do not always have to be visible or accessible to the public in order to be genuine public benefits, for example, works to a listed private dwelling which secure its future as a designated heritage asset could be a public benefit.

Examples of heritage benefits may include:

- *sustaining or enhancing the significance of a heritage asset and the contribution of its setting;*
- *reducing or removing risks to a heritage asset; and*
- *securing the optimum viable use of a heritage asset in support of its long-term conservation."*

3.20 In considering any planning application for development, the planning authority will be mindful of the framework set by government policy, in this instance the NPPF, by current Development Plan Policy and by other material considerations.

Local Planning Policy

3.21 The Knowsley Local Plan Core Strategy was adopted in January 2016 and contains the following policies relevant to this assessment:

Policy CS20: Managing the Borough's Historic Environment

9.12 Effective protection of Knowsley's historic buildings and conservation areas is important, as these contribute to quality of place, local distinctiveness, and a greater understanding of the past and provide an opportunity to promote Knowsley's historic environment.

1) Development proposals in Knowsley should preserve or enhance the borough's historic and architectural assets, including Listed Buildings, Conservation Areas, Historic Parks and Gardens and archaeological remains, together with other local areas, buildings and structures of historic importance.

The Council will:

- a) Require preservation of the local distinctiveness and character of historic assets through sensitive design of new development, including appropriate integration with their setting and immediate landscape;*
 - b) Prevent demolition and/or development which would result in substantial harm or the loss of a designated historic asset or its setting, unless the proposal would result in substantial public benefits which clearly outweigh the harm or loss;*
 - c) Where a development proposal will result in less than substantial harm to a designated heritage asset or its setting, assess such harm against the benefits of the proposal;*
 - d) Facilitate long term conservation and enhancement of local assets and areas of historic importance, including through the preparation of Conservation Area Management Plans.*
- 2) The re-use of vacant and underused historic assets will be encouraged, with favourable consideration given, where appropriate, to proposals which will:*
- a) Enable a use for a purpose sympathetic to its conservation;*
 - b) Retain or introduce public access; and*
 - c) Enhance the importance of the asset for local tourism, leisure or the economy.*
- 3) Development proposals on sites which include, or are considered to have the potential to include, heritage assets or comprising archaeological interest, should be accompanied by a heritage impact statement.*
- 4) Locally important historic assets which are not subject to statutory designation will be identified in a local list and will be afforded consideration in the decision making process.*

Preserving and Enhancing the Historic Environment

9.13 In dealing with new development proposals, the Council frequently needs to strike a balance between the protection of the built heritage and the need to allow original architecture and buildings that meet the needs of modern businesses and residents. National planning policy establishes a presumption in favour of conserving designated heritage assets (such as Listed Buildings, Conservation Areas, Historic Parks and Gardens) and that the more significant the designated heritage asset is, the greater the presumption in favour of its conservation should be.

9.14 Policy CS20 intends to secure appropriate integration of development with Knowsley's heritage assets and provide a positive approach to their future management to safeguard their preservation. This approach will support the area priorities identified for: 'Huyton and Stockbridge Village'; 'Kirkby'; 'Prescot, Whiston, Cronton and Knowsley Village'; and 'Halewood' and supplement the more general guidance in Policy CS19: Design Quality and Accessibility in New Development (which applies to all developments).

Listed Buildings

9.16 Designation of a building or other structure as a Listed Building means that consent is required for its demolition, or for any works of alteration or extension, either internal or external which would affect its special interest. The Council will take positive action to secure the retention, repair, maintenance and continued use of Listed Buildings and ensure new buildings within the curtilage of, or close to, a Listed Building respect its setting and immediate landscape. Listed Buildings are important to Knowsley's historic and cultural heritage and once lost, cannot be replaced. Knowsley's Listed Buildings (see Chapter 2: Knowsley – The Place and Chapter 6: Area Priorities) are considered to have a special architectural and/or historical character that is worthy of preservation. Although none of the Listed Buildings in Knowsley are on the national buildings at risk register and there are currently no designated ancient monuments, the intention of Policy CS20 is to ensure that provisions are in place to manage any change in circumstance of existing heritage assets, together with any additional designations which may be identified during the plan period.

Historic Environment Strategy, Local Listing and Archaeology

9.18 The Historic Environment Strategy is intended to include a comprehensive assessment of historic and architectural assets in the area and their settings including their historical significance, physical status, opportunities for enhancement and expansion, and contribution to the delivery of other sustainable development objectives. This includes consideration of the potential to identify new sites of historic or archaeological interest to which Policy CS20 will apply, with the process intended to inform designations within the Local Plan: Site Allocations and Development Policies.

9.19 Other important areas and historic buildings and structures in Knowsley are also valuable to local distinctiveness and character, despite falling outside of national statutory designations, and therefore the policy ensures an appropriate approach with an expectation that their character will be integrated with new development. The Council will support this approach by producing a local list of buildings which are important in a local context because of their contribution to the area's character, with supplementary policy guidance provided via the Design Quality and New Development SPD.

9.20 Knowsley contains a number of important archaeological remains which are important historical assets. New development should take into account the need to preserve or record archaeological remains. Where evidence suggests

that development could affect archaeological remains, the developer will be required to arrange investigations to assess their character, condition and extent. In the event, that remains are identified as of specific importance, the developer may be required to design the development to enable preservation in-situ, or if appropriate arrange for the excavation, recording, analysis and reporting of the remains.

Guidance

Historic Environment Good Practice Advice In Planning Note 2: Managing Significance in Decision-Taking in the Historic Environment (Historic England 2015)

- 3.22** The purpose of this document is to provide information to assist local authorities, planning and other consultants, owners, applicants and other interested parties in implementing historic environment policy in the NPPF and NPPG. Paragraph 6 outlines a six-stage process to the assembly and analysis of relevant information relating to heritage assets potentially affected by a proposed development:

- *“Understand the significance of the affected assets.*
- *Understand the impact of the proposal on that significance.*
- *Avoid, minimise and mitigate impact in a way that meets the objectives of the NPPF.*
- *Look for opportunities to better reveal or enhance significance.*
- *Justify any harmful impacts in terms of the sustainable development objective of conserving significance and the need for change; and*
- *Offset negative impacts on aspects of significance by enhancing others through recording, disseminating and archiving archaeological and historical interest of the important elements of the heritage assets affected.”*

Historic Environment Good Practice Advice In Planning Note 3: The Setting of Heritage Assets (Historic England 2017)

- 3.23** Historic England’s Historic Environment Good Practice Advice in Planning Note 3 provides guidance on the management of change within the setting of heritage assets.
- 3.24** The document restates the definition of setting as outlined in Annex 2 of the NPPF. Setting is also described as being a separate term to curtilage, character and context; while it is largely a visual term, setting, and thus the way in which an asset is experienced, can also be affected by noise, vibration, odour and other factors. The document makes it clear that setting is not a heritage asset, nor is it a heritage designation, though land within a setting may itself be designated. Its importance lies in what the setting contributes to the significance of a heritage asset.
- 3.25** The Good Practice Advice Note sets out a five-staged process for assessing the implications of proposed developments on setting:

1. Identification of heritage assets which are likely to be affected by proposals.
2. Assessment of whether and what contribution the setting makes to the significance of a heritage asset.
3. Assessing the effects of proposed development on the significance of a heritage asset.
4. Maximising enhancement and reduction of harm on the setting of heritage assets; and
5. Making and documenting the decision and monitoring outcomes

3.26 The guidance reiterates the NPPF in stating that where developments affecting the setting of heritage assets results in a level of harm to significance, this harm, whether substantial or less than substantial, should be weighed against the public benefits of the scheme.

4.0 Archaeological and Historic Baseline

- 4.1** The heritage assets under consideration have been identified by means of a review of a wide range of sources, in summary this includes:
- Merseyside Historic Environment Record (MHER) Data.
 - The National Heritage List for England (NHLE) held by Historic England.
 - Historic England Archive.
 - Pastscape.
 - Local studies and record office research.
 - Review of historic mapping.
 - Previous archaeological evaluation and excavation records relating to sites in and immediately adjacent to the study area.
 - Such other published works, reports and other information relevant to the desk-based assessment.
 - Online aerial photography including Google Earth and Bing Aerial.
 - An assessment of any Lidar holdings held by the Environment Agency for the study area.
 - Portable Antiquities Scheme (PAS) data, available from the PAS website.
- 4.2** These resources have been used to provide an understanding of the heritage assets which may be affected by the proposed development. This chapter will describe the heritage assets which may be affected and assess their significance.
- 4.3** The location of heritage assets mentioned in the text are shown on Figs. 2, 3 and 4.

Scheduled Monuments

Rainhill Hall Farm moated site and twelve fishponds in The Rough (NHLE 1017860)

- 4.4** Rainhill Hall Farm is located 2km northeast of the study site. It includes a slightly raised island on which stand the two surviving wings of the 16-17th century Hall and the Grade II* Listed Old Hall Farmhouse (NHLE 1253242). The island is surrounded by a now partially infilled moat. The fishponds lie a short distance to the southeast within woodland known as The Rough. The earliest record of the house is 1323. It has been Scheduled because of the evidential (archaeological) value of the earlier buildings, either demolished or retained within existing structures and because of the complex of ponds and moat that will preserve organic material.
- 4.5** A site visit did not identify any intervisibility and there are no known functional or ownership links between the Monument and study site. Therefore, no impacts are anticipated as a result of the development.

Portable Antiquities Scheme

4.6 The Portable Antiquities Scheme (PAS) encourages the recording of archaeological objects found by members of the public in England and Wales. A search of the online PAS database is appended to this report. The spatial data is not available to download but can be viewed using the PAS KML download in Google Earth.

4.7 The PAS database did not contain any entries for the 1km study area.

Aerial Photographs and Lidar

4.8 The Cambridge University Collection of Aerial Photographs (CUCAP) is presently closed to the public and there is currently no projected reopening date for services. The CUCAP collection is searchable online and a list of aerial photographs within the study area is at Appendix A. No detailed descriptions and or thumbnail images which indicate the subject of the photographs were available so full analysis has not been possible.

4.9 The National Mapping Programme (NMP) data does not cover the study area.

4.10 Satellite and aerial imagery held by Google Earth covers the study site for the period 1985-2021. The 1985 image is of too poor quality to analyse. The remaining images show the site as a field with encroaching scrub vegetation that is periodically cleared.

4.11 The Environment Agency National Lidar Programme collected data that covers the study site and 1km study area at 1m resolution in 2019. The processed data shows evidence of the large modern ditch at the northwestern end and the raised track across the eastern part of the site, both noted during the site visit. There are no other features of archaeological interest within the study site.

Previous archaeological investigations

4.12 Many of the archaeological investigations summarised below were part of the construction process for the A5300 corridor. A monograph has been produced synthesise the archaeology in more detail than can be presented here (Cowell and Philpott, 2000).

4.13 Mesolithic flint blades and a late Neolithic or early Bronze Age arrowhead and scraper were recovered during excavations east of Ochre Brook, c300m south of the study site (EME38; EME522). Fieldwalking in the same area also found a Mesolithic flint core and flake (EME2377; MME15646).

4.14 Evaluation in 2005 in advance of works to Junction 6 of the M62, only 100m to the north of the study site, found Mesolithic pits associated with a flint scatter of Mesolithic to Bronze Age date and a probably later gully (EME2384; EME2389; MME15650; MME15651). A post medieval plough soil was also uncovered (EME2384; MME15649). It contained sherds of medieval and post medieval pottery. A deposit of late medieval pottery was also found (EME2390; MME15680).

4.15 Investigations to the southwest of the junction revealed a ditch and pits with some metalwork debris but no dating material and the surface of a medieval trackway (EME2389; MME15673; MME15674). Beneath this track were traces of a later Prehistoric field system (MME16036). Further investigations to the

southwest in 2007 found Iron Age pits with charcoal, charred cereal and burnt animal bone that returned Iron Age radiocarbon dates (EME2389; MME15675).

- 4.16 A Roman enclosure and building were discovered during evaluation and excavation of land west of Ochre Brook, c200m southwest of the study site (EME35; EME521). Pottery found dated to the 2nd century AD. Stamped and tallied legionary tile fragments, with wasters, indicate the site was used for tile manufacture primarily in the 2nd century with activity into the 3rd century AD (MME6289). Three massive medieval clay extraction pits and a ditch with medieval pottery were also found in this location (MME16360; MME16361).
- 4.17 Iron smithing traces were found within a number of pits c350m southwest of the study area (EME2679; EME2389; MME15677). Roman tile and pottery was also found within the pits, with more found in colluvium and in a palaeochannel that traversed the site.
- 4.18 Fieldwalking in 1982 to the south of the study site and surrounding Yew Tree Farm found a consistent scatter of medieval and early post medieval pottery (EME1375; EME1376; EME1378; EME1379; EME1408). Further fieldwalking to the west of the A5300 in 1982 and 2000 found 16-19th century pottery, pipe stems and bowls, brick and slag (EME1380; EME1381; EME2377). The distribution suggested an expansion of arable use from the northern end across the whole field by the 19th century.
- 4.19 An evaluation of Halsnead Park, north of the study site found a medieval ditch and ditch terminal with a sherd of c11-13th century pottery (EME3227; MME20871; MME20872).
- 4.20 Approximately 500m west of the study site, a strip, map and sample excavation found the site of a Georgian house and outbuildings, 19th century pottery and an undated truncated ditch (EME3063).
- 4.21 A section of the Halsnead Park wall was photographed and excavated during works to Junction 6 of the M62 (EME2390; EME2391; MME15681). The wall, of light grey sandstone, had foundations 2m deep.
- 4.22 East of the study site, an evaluation of 26 trenches found no archaeological features (EME3083).

Prehistoric

- 4.23 All the Prehistoric evidence within the study area is known from previous investigations. It consists of Mesolithic to Bronze Age flint implements, Iron Age pits and a Prehistoric field system located to the north, south or southwest of the study site. There is moderate potential for similar features to be located within the study site.
- 4.24 *Roman*
- 4.25 As for the Prehistoric period, all the Roman evidence is known from previous investigations. Close to the study site is the site of a Roman building and tile manufactory. Further evidence spreads southwards and there are sporadic

pottery and tile finds further afield. As it is possible that the influence of the Roman site extends northwards also, there is moderate potential for Roman archaeology.

Medieval

- 4.26** A former medieval field system almost 1km to the south of the study site is visible as cropmarks and survived to be documented on the Tithe Map of 1849 (MME6272).
- 4.27** The site of a mill dam, and possibly the site of the watermill itself, is documented c800m to the southwest of the study site (MME13317). The mill is one of two documented from the early 13th century on the land of the Manor of Tarbock (MME15635).
- 4.28** Halsnead, just to the north of the study site and M62, was first recorded as a manor in the thirteenth century, and was under the ownership of Adam de Halsnead who granted the manor to his son Ralph. Ralph conveyed Halsnead to Richard le Norreys whose family retained the manor until 1422 when the Wetherbys took possession. The Wetherby family owned the manor alongside the Pemberton family from this point until the seventeenth century when the Ogles who owned nearby Whiston Manor also acquired Halsnead (VCH Lancaster).
- 4.29** Extending beyond 1km to the east of the study site, is the probable medieval estate of Shaw, which was first recorded in 1190 (MME16079). It is represented by a continuous oval shaped enclosure and may have been wooded.
- 4.30** North of the study area, the manor at Whiston was first recorded under the ownership of Vivian Gernet in the thirteenth century before the manor was granted to Richard Travers. Richard was succeeded by Henry Travers and Whiston descended with the family line until 1480 when it was sold by Thomas Travers to Richard Bold. The Bold family held Whiston throughout the sixteenth century (VCH Lancaster).
- 4.31** In summary, there is a scatter of medieval pottery indicating agricultural use of the landscape as part of the increasing influence of manorial estates, namely Halsnead and Whiston to the north, Tarbock to the southwest and Shaw to the northeast. Therefore, there is low potential for medieval archaeology.

Post Medieval

- 4.32** In 1685, Thomas Willis bought Halsnead (MME15147). It was subsequently passed to his nephew, also named Thomas, but with no heirs the manor passed to a relative known as Ralph Earle who then took the surname Willis. Ralph's son Richard Willis inherited the manor and held it until his death in 1837. Halsnead descended through the Willis line and by 1902 it was recorded under the ownership of Richard Atherton D'Anyers Willis (VCH Lancaster).
- 4.33** By 1600 Whiston Manor had been acquired by the Ogle family, who had been stewards of Prescott manor the century prior. A Henry Ogle married Elizabeth, daughter of Robert Whitby of Chester, in 1610. Henry appeared to remain

neutral during the civil war but his sons were royalists. The eldest son, Cuthbert, inherited Whiston and passed the manor to his son Edward, whose daughter Elizabeth saw the manor conveyed to her husband Jonathan Case. By 1800, Whiston was under the ownership of Richard Willis of Halsnead and so it remained with the Willis family (VCH Lancaster).

4.34 Tarbock Hall is outside of the study area at just over 1km to the southwest however its associated parkland did extend north into the study area (MME6271). The former Little Park is documented from the 13th century belonging to Henry, Lord of Thurbok and is still with the family in the 17th century. It is intermittently shown on post medieval maps but the results of fieldwalking in 1982 and 2000 indicated the land had been disemparked from the late 17th century (EME1382; EME2377).

4.35 The study site is not shown on pre-Ordnance Survey Maps but an increasing number of places surrounding the site are shown. For example, Tarbok and Ranehill are depicted with churches on the 1659 Janssonius Map. By 1787, Cronton and Huyton are shown on the Cary Map, with the Cronton Road that forms the southern site boundary also depicted. Greenwood's 1830 Map has more detail, including the extent of the Halsnead estate, which included the study site.

4.36 Part of the study site was featured on the 1847 tithe map for Tarbock Green (IR 30/18/298). The relevant plots were all owned and occupied by Richard Willis:

Plot Number	Plot Name	Owner	Occupier	Cultivation/Use
46	Plantation	Richard Willis	Richard Willis	ND
47	Part of Halsnead Park	Richard Willis	Richard Willis	Meadow
133	Plantation	Richard Willis	Richard Willis	ND

4.37 The remaining plots of land that the study site would have fallen into were featured on the 1840 tithe map for Whiston (IR 30/18/333). They were also all owned and occupied by Richard Willis:

Plot Number	Plot Name	Owner	Occupier	Cultivation/Use
549	Plantation	Richard Willis	Richard Willis	ND
550	Damser	Richard Willis	Richard Willis	Meadow
551	Plantation	Richard Willis	Richard Willis	ND

Plot Number	Plot Name	Owner	Occupier	Cultivation/Use
552	Plantation	Richard Willis	Richard Willis	ND
553	Plantation	Richard Willis	Richard Willis	ND

4.38 The Ordnance Survey Maps from 1849 onwards, show the study site as part of the Halsnead Estate. It is open farmland with intermittent woodland and extraction pits, including Ravenshurst Pits in the approximate centre of the study site. In 1927, the Mineral Railway forms the northern edge of the site as it connects Liverpool with various quarries, including Cronton Colliery to the east of the study site. Increasing development can be seen to the northwest through the mid 20th century and the M62 and M57 are constructed by the 1977-78 OS map. Cronton Colliery is no longer marked and the railway dismantled by 1999.

4.39 In summary, the study site has been farm or Estate land for most of the post medieval period. Historic mapping shows extraction pits, for which archaeological evidence may remain. The railway and colliery construction or operation may also have impacted the study site. The potential for post medieval archaeology is therefore moderate.

Site Walkover

4.40 A site visit was undertaken on 15th June 2022 to ascertain a greater understanding of the existing land use and potential for archaeological or historic environment constraints. The study site is currently vacant grassland with management of the entrance with crushed stone and evidence of machine tracking and fly-tipping.

4.41 A modern large ditch cut, surrounded by the excavated material was located parallel to the northwestern boundary. A slightly raised linear feature, approximately 3m wide was observed extending from c10m inside the current entrance on Cronton Road on the southern boundary, northwards to the northern boundary. It correlates with the track shown on 19th and 20th century mapping although it included modern rubble and machinery tracks in places. If it is the same track, it has links to Tarbock Lodge (see below) and the trackway recorded on the HER that links to Water Lane on the southern edge of the study area (MME16368).

4.42 Along the northern site boundary, grey stone gravel and tumbles of dressed stone were located on an informal footpath. The gravel had the appearance of railway ballast and would be in the approximate location of the former mineral railway. No building is mapped in this location though a small structure related to the railway is still possible.

Summary of Archaeological Potential and Assessment of Significance

- 4.43** A review of the available evidence has confirmed that the study site has moderate potential for Prehistoric and Roman archaeology due to the density and proximity of surrounding remains. The landscape appears to have been in almost continuous use since the early Prehistoric and further archaeology that adds to or links the evidence could be of regional significance. Similarly, the nearby Roman tile manufactory is unusual and therefore any related remains would be of at least regional significance. There is higher potential for post medieval archaeology than the documentary evidence indicated because of the possible trackway and railway evidence observed during the site visit. This is likely to relate to the documented estate or colliery and is of local significance.
- 4.44** There is low potential for medieval archaeology. It is most likely to be related to agricultural or parkland use and be of local significance.

5.0 Built Heritage Assets

- 5.1** This section will consider the potential effects of development within the study site on the significance of built heritage assets, including impacts on their settings. This includes heritage assets within the immediate environs of the study site, whose settings may be affected. The study site contains no designated or non-designated heritage assets, as such the assessment will consider only heritage assets whose settings may be affected.
- 5.2** Heritage assets and potential impacts will be assessed using best practice, including that set out in Historic England's Good Practice Advice Note 3, The Setting of Heritage Assets. The heritage assets which require assessment have been selected with reference to the National Heritage List for England (NHLE) database held by Historic England, as well as information held by the Local Planning Authority (LPA) on conservation areas and locally listed or other non-designated heritage assets identified by the LPA.
- 5.3** Stage 1 of Historic England's five-stage settings assessment (HistE 2017) requires the assessor to "Identify which heritage assets and their settings are affected" (HistE 2017). There are no strict parameters for the setting of study areas. This has been defined based on the results of the site visit, professional judgement and experience of potential significant direct and indirect effects likely to arise from the Proposed Development. A radius of 1 km from the centre of the study site has been used for assessing indirect effects on all listed buildings and non-designated heritage assets.
- 5.4** As outlined above, the study site does not contain any designated or non-designated built heritage assets. Within the 1 km metre study area there are five Grade II listed buildings. These are shown in Figure 4. Owing to the limited intervisibility through tree screening, local topography, intervening built form and historic relationships, only those assets most proximate to the subject site, with historic ownership connections to the study site will require separate assessment. These include:
- Grade II listed Old Halsnead (NHLE 1261787)
 - Grade II listed Carr Farmhouse (NHLE 1253441)
 - Grade II listed The Paddocks and the Stables (NHLE 1253505)

Non-designated Built Heritage Assets

- 5.5** Located at National Grid Reference SJ 46849 88963 c. 170 metres south of the study site boundary on the southern side of Cronton Road is a small lodge style building which is present in Plot 132 on the 1847 Tarbock Green Tithe Map (Figures 4 and 9). It is recorded in the apportionments as being owned by Richard Willis, occupied by Joseph Williams and is described as Cottage and Garden. Due to its position at the southern end of an historic trackway which crossed Halsnead Park, it will also be considered as part of this assessment.
- 5.6** A site visit was undertaken on 15th June to assess the setting of nearby designated and non-designated heritage assets. The conditions were hot and

sunny with good visibility. Additional desk-based assessment using Google Earth and historic maps was also utilised.

Old Halsnead (Grade II, NHLE 1261787)

Description and setting

- 5.7** Located c.550 metres northeast of the study site boundary, this Grade II listed building is described as follows in its listing:

1680. Stuccoed stone, stone roof with centre chimney, 2 storeys. A 2-storeyed gabled porch has a round-arched entrance with keystone and imposts, and a 3-light window above, and an armorial crest in gable. A 5-light window on each floor to right of porch, and 2 5-light windows on each floor to left of porch all with chamfered stone mullions and leaded panes (mostly non-opening).

- 5.8** The significance of this heritage asset derives principally from its early date and the relative intactness of its built fabric which generates its special historic and architectural interest. Although there has been a later addition to its west elevation, its original historic planform is still legible, and its stone-built structure is key in terms of understanding the vernacular character and historic usage pattern of the building. Located in Plot 528 on the 1840 Whiston Parish Tithe Map (Figures 4 and 8), the asset is recorded as being owned and occupied by Richard Willis who historically owned the land contained within the study site, though these links will now have been severed.
- 5.9** The immediate setting of the asset relates principally to its location within its historic garden plot on the northern flank of the lane which leads from the east. The existing banks of mature trees along its plot boundary give the setting a rather enclosed feel, though there are glimpsed views through these trees to the open agricultural land to its southwest. The study site is located some distance to the southwest of the asset and the two share no intervisibility due to the intervening natural screening.

Carr Farmhouse (Grade II, NHLE 1253441) and The Paddocks and Stables (Grade II, NHLE 1253505)

Description and setting

- 5.10** Due to their similar date of construction and their ancillary relationship, these assets will be assessed collectively.
- 5.11** Located c. 400 metres northwest of the study site boundary, these Grade II listed buildings are described as follows in their listings:

Carr Farmhouse

C17. Red sandstone with stone roof. 2 storeys. Front is of two periods. The earlier portion to the left (North) has a long 5-light stone mullioned window on ground floor (with label) and a 3-light window above. The larger portion to the right has a blocked doorway dated 1660 and a modern window on ground floor, a blocked oval stone and a 6-light window above. All chamfered stone mullions. A gabled 2-storeyed wing to right (South) has altered windows

(ground floor modern, first floor modern glazing in old wide opening with label, and a 4-light window in gable). Right hand end has a projecting chimney in centre, and 2 windows on each floor, modernised but in old openings with labels. Opposite gable end of wing has stone-mullioned windows on different levels. New brick addition at rear.

The Paddocks and Stables

Former barn and associated farm buildings. 1819 (datestone, R 1819 C) incorporating C16 and C17 work. Finely coursed rubble with sandstone dressing; brick to rear. Graduated slate roofs. The buildings form a single range (aligned NW/SE) and consist of 3 elements: (1) a low, single-storeyed room, probably a former byre, with a datestone, re-positioned, GPH, 1506, in gable wall; (2) a formerly part-storeyed barn (now entirely, without floors), extended in 1819 but preserving a datestone (GAP 1653) in the original (now internal) gable wall; and (3) a single-storeyed room to SE. All the openings on the principal (house-side) elevation date from the 1819 re-modelling. (1) wide doorway flanked by single-light windows, all with hood moulds, the former with quoined jambs, (2) with 1st floor plot band and quoining; 3 oculi with alternating square-headed windows to 1st floor; 3 similar windows and two doorways to ground, one with the 1819 datestone; vertical masonry joint marks former end wall. All openings blocked. Rear walls rebuilt in brick; blocked wagon entrance to (2) flanked by large buttresses (one dismantled). Breathers (some blocked). End walls with breathers in dressed surrounds. Interiors: (1) has squat king post roof with large side purlins. (2), 3 bays king post with queen strut roof, 2 sets of back purlins.

5.12 The significance of these heritage assets derives principally from their early date and the intactness of their built fabric which generates their historic and architectural special interest. Elements of the buildings date from the 17th century and a number of building phases can be clearly interpreted. Although now residential properties, their proximity to each other and their historic planforms still allow an appreciation of their historic functional relationship as a farmstead which also generates a level of group value. On the 1840 Whiston Tithe Map (Figures 4 and 8), the assets are located in Plots 563, 564 and 566 which were owned and occupied by Richard Willis illustrating an historic ownership link with the land contained within the study site boundary, though this will now have been severed.

5.13 The setting of the assets relates principally to their location along the lane leading from the eastern flank of Windy Arbor Road. Their garden plot is lined with mature trees and hedgerows which limits any visual connection to the surrounding open pastureland to the east, the residential development to the northeast and the industrial units to the northwest. Although the study site forms part of the asset's wider rural context any visual link is severed by the intervening natural screening and the M62 to the south of the assets.

Non-designated Built Heritage Assets

5.14 Located at National Grid Reference SJ 46849 88963 c. 170 metres south of the study site boundary on the southern side of Cronton Road is a small lodge

style building which is present in Plot 132 on the 1847 Tarbock Green Tithe Map (Figures 4 and 9). It is recorded in the apportionments as being owned by Richard Willis, occupied by Joseph Williams and is described as Cottage and Garden. It is located at the southern end of an historic trackway which leads northwards and is shown crossing Halsnead Park on the Whiston Parish Tithe Map (Figure 8).

- 5.15 Rectangular in form and raised in what appears to be coursed stone blockwork, it has a hipped mineral felt covered roof with a central chimney. The south elevation has two modern UPVC windows and a set of stone gate piers connected to the building by a coursed stone blockwork wall and provides an entranceway to the Lodge Riding and Livery Centre.
- 5.16 The immediate and largely enclosed setting of the asset relates primarily to the collection of buildings to the north which consist of stable blocks and an indoor and outdoor riding school. The study site forms part of its wider rural context to the north and is separated by fields and Cronton Road.
- 5.17 As stated above, the building shares historic ownership links to the study site, though these would now have been severed. Apart from its historic planform still being largely legible, the building provides limited architectural interest. Due to the intervening built form and natural screening to its north, the building shares no intervisibility with the study site.

6.0 Proposed Development and Potential Impact on Designated and Non-Designated Heritage Assets

Site Conditions

- 6.1** The site comprises vacant grassland, formerly estate farm and parkland. There is a large modern ditch along the northwestern boundary and some evidence for management of the entrance with machine tracks and modern crushed stone surface.

The Proposed Development

- 6.2** The proposed development consists of two warehouse units with associated access, parking, utilities and other infrastructure.
- 6.3** The production of the masterplan has not been finalised and therefore this section and the impacts and conclusions sections of this report may be subject to revision.

Potential Archaeological Impacts and Mitigation Measures

- 6.4** No statutory designations are located within or adjacent to the study site and none are recorded within the 1km study area. One Scheduled Monument at Rainhill Hall Farm moated site and twelve fishponds in The Rough is 2km from the study site so there will be no physical impacts. There is no intervisibility and no known functional or ownership links and so no setting impacts will be associated with the development.
- 6.5** A review of the available evidence has confirmed that the study site has moderate potential to contain Prehistoric and Roman finds and features and low potential for archaeology of medieval origin. There is higher potential for post medieval archaeology because of the probable trackway crossing the site and the possible railway remains on the northern boundary.
- 6.6** The former colliery and railway, on the northeast boundary and to the east of the study site, and the construction of the M62 and M57 motorways and Tarbock Roundabout junction may all have impacted the study site. This could be direct impacts to build the roads or indirect, such as dewatering or spoil storage. These could affect the survival and quality of archaeology and the depth at which it might be found. Similarly, the recent large ditch on the northwestern edge of the site will have removed any archaeology in that location, buried any adjacent features under a large quantity of spoil and may also have caused dewatering or other impacts to the surrounding area.
- 6.7** Given the known archaeological landscape and the moderate or high potential for Prehistoric, Roman and post medieval archaeology within the study site, it is anticipated that there will be a requirement for a geophysical survey to further support the application for development. Subject to the results of the geophysical survey, the LPA Archaeologist may request further works.

- 6.8** As outlined in section 5, the development of the study site has the theoretical potential to have indirect impacts on a number of designated and non-designated built heritage assets, which are:
- Grade II listed Old Halsnead (NHLE 1261787)
 - Grade II listed Carr Farmhouse (NHLE 1253441)
 - Grade II listed The Paddocks and the Stables (NHLE 1253505)
 - Non-designated lodge building located at National Grid Reference SJ 46849 88963 c. 170 metres south of the study site boundary.
- 6.9** There are no anticipated physical impacts upon the designated or non-designated built heritage assets located in the vicinity of the study site or within the 1km study area. Impacts will therefore be limited to the setting of designated and non-designated heritage assets.
- 6.10** Although the study site forms part of the wider semi-rural setting of these assets, it is considered that the contribution the study site makes to the significance of the assets is negligible. In all cases, the significance of the assets derives from their special architectural and historic interest. All of those designated and non-designated assets that have been assessed share limited to no intervisibility with the study site and therefore it is considered that, while the proposals represent a change in the wider semi-rural setting of the assets, this will have little to no effect on their significance.

7.0 Summary and Conclusions

- 7.1** This historic environment desk-based assessment considers land.

Archaeological Assets

- 7.2** No statutory designations (Scheduled Ancient Monuments, Registered Battlefields or World Heritage Sites) are located within or adjacent to the study site boundary. None are recorded within the 1km study area and one Scheduled Monument 2km from the study site will not experience any impacts. As such the assessment has not identified any designated archaeological assets which will be negatively impacted by the proposed development.
- 7.3** A review of the available evidence has confirmed that the study site has a moderate potential to contain Prehistoric and Roman archaeology and high potential for post-medieval finds and features with a low potential for all other periods. The continuous use since the Prehistoric and nearby Roman tile manufactory suggest any such remains could be of at least regional significance. The post medieval archaeology is likely to relate to the development of the Halsnead estate and adjacent colliery and would be of local significance.
- 7.4** The former colliery and railway and the construction of the motorways may have had direct and indirect impacts on the survival of any archaeology. The modern ditch cut will also have removed any archaeology and has the potential to have indirectly impacted any features surrounding it.
- 7.5** Given the moderate to high potential for Prehistoric, Roman and post medieval remains identified, it is anticipated that there will be a requirement for geophysical survey to inform the application for the proposed development. Subject to the results of the geophysical survey, the LPA Archaeologist may request further works in order to mitigate the impacts of the proposed development in line with the NPPF.

Built Heritage Assets

- 7.6** This assessment has identified three designated and one non-designated built heritage assets that have the potential to have their significance affected by the proposed development. These are the Grade II listed Old Halsnead (NHLE 1261787), Carr Farmhouse (NHLE 1253441), The Paddocks and the Stables (NHLE 1253505) and the non-Designated lodge building located at National Grid Reference SJ 46849 88963 c. 170 metres south of the study site boundary.
- 7.7** Although the study site forms part of the wider semi-rural setting of these assets, it is considered that the contribution the study site makes to the significance of the assets is negligible. In all cases, the significance of the assets derives from their special architectural and historic interest. Due to the intervening built form, existing natural screening, the local topography, all those assets that have been assessed share limited to no intervisibility with the study site. This combined with the severance of any historic ownership or functional links that the assets may have shared with the study site, it is

considered that the proposals as they stand, will have little to no effect on their significance.

Sources

General

British Library

The National Archives

Oxfordshire Historic Environment Record

Cartographic

1659	Janssonius Map
1665	Blaeu Map
1787	Cary Map
1794	Cary Map
1806	Cary Map
1830	Greenwood Map
1840	Whiston Tithe Map
1847	Tarbock Green Tithe Map
1849-50	1:10,560 Ordnance Survey Map
1884	1:10,560 Ordnance Survey Map
1892	1:2,500 Ordnance Survey Map
1907	1:2,500 Ordnance Survey Map
1908	1:10,560 Ordnance Survey Map
1927	1:2,500 Ordnance Survey Map
1928	1:10,560 Ordnance Survey Map
1937	1:2,500 Ordnance Survey Map
1938	1:10,560 Ordnance Survey Map
1955-56	1:10,560 Ordnance Survey Map
1959	1:2,500 Ordnance Survey Map
1966-67	1:10,000 Ordnance Survey Map
1975	1:2,500 Ordnance Survey Map
1977-78	1:10,000 Ordnance Survey Map
1979-81	1:2,500 Ordnance Survey Map
1990-91	1:10,000 Ordnance Survey Map
1984-89	1:2,500 Ordnance Survey Map
1993	1:2,500 Ordnance Survey Map
1999	1:10,000 Ordnance Survey Map
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Lidar

Lidar data were downloaded from the Environment Agency website in June 2022 - <https://environment.data.gov.uk/DefraDataDownload/?Mode=survey>

Tile Name	Year	Resolution (m)
TL15ne	2020	1

APPENDIX A – GAZETTEERS

GAZETTEER OF ARCHAEOLOGICAL ASSETS

In order to understand the nature and extent of the surrounding archaeological resource, a study area of a 1km buffer of the study site was adopted. The following gazetteer represents all of the entries from the Merseyside HER.

Abbreviations:

MHER:	Merseyside Historic Environment Record
MonUID:	Merseyside HER monument identification reference number

MonUID	NAME	PERIOD
MME10027	Route of the Willis Branch of Liverpool and Manchester Railway, to Halsnead Colliery, Whiston	Hanoverian To Late 20th Century
MME10028	Site of Cronton Colliery, Halsnead Park, Whiston	Early 20th Century To Late 20th Century
MME10891	Church of St Nicholas, Windy Arbor Road, Whiston	Victorian To 21st Century
MME12982	Barn at Higher Park Farm, Dacre's Bridge Lane, Tarbock	Georgian To 21st Century
MME12983	Outbuilding at Higher Park Farm, Dacre's Bridge Lane, Tarbock	Victorian To 21st Century
MME13073	Site of Top Row, Dacre's Bridge Lane, Tarbock	Georgian To Late 20th Century
MME13083	Site of Prince's House, Cock Glades, Whiston	Georgian To Mid 20th Century
MME13104	Nos. 160-164 Windy Arbour Road, Whiston	Georgian To 21st Century
MME13132	Outbuilding of Carr Cottage, Windy Arbor Brow, Whiston	Georgian To 21st Century
MME13163	Site of Paradise Farm, Banner Hey, Whiston	Georgian To Mid 20th Century
MME13317	Site of a mill dam, Tarbock	Medieval To Georgian
MME15147	Halsnead Park, Whiston	Georgian To 21st Century
MME15635	Possible location of a windmill, Ox Lane, Tarbock	Jacobean To Georgian

MonUID	NAME	PERIOD
MME15637	17th century pottery, Ox Lane, Tarbock	Elizabethan To Stuart
MME15638	Roman pottery, Ox Lane, Tarbock	Roman
MME15639	Medieval and post medieval pottery, Ox Lane, Tarbock	Medieval To Victorian
MME15640	Roman pottery and tile, east of Ox Lane, Tarbock	Roman
MME15641	Late medieval pottery, east of Ox Lane, Tarbock	Medieval To Tudor
MME15642	Roman pottery, east of Ox Lane, Tarbock	Roman
MME15643	Roman tile, east of Ox Lane, Tarbock	Roman
MME15646	Mesolithic flint, east of Ochre Brook, Tarbock	Late Mesolithic To Early Neolithic
MME15649	Medieval and post medieval pottery, east of Ox Lane, Tarbock	Medieval To Stuart
MME15650	Flints, east of Ox Lane, Tarbock	Unknown
MME15651	Mesolithic pit and prehistoric flint scatter, east of Ox Lane, Tarbock	Late Mesolithic To Early Bronze Age
MME15652	Undated post hole and pits, east of Ox Lane, Tarbock	Unknown
MME15673	Undated ditch and pits, east of Ox Lane, Tarbock	Unknown
MME15674	Medieval or post medieval Ox Lane, Tarbock	Medieval To Victorian
MME15675	Iron Age pits, west of Ox Lane, Tarbock	Early Iron Age To Late Iron Age
MME15677	Roman pits, east of Ox Lane, Tarbock	Roman
MME15678	Sandstone wall, Windy Arbor Brow, Whiston	Georgian To Victorian
MME15679	Clay floor, Windy Arbor Brow, Whiston	Unknown
MME15680	Late medieval pottery, Windy Arbor Brow, Whiston	Medieval To Tudor

MonUID	NAME	PERIOD
MME15681	Halsnead Park wall, Whiston	Georgian To 21st Century
MME15781	Site of an icehouse, Main Drive, Whiston	Victorian To Mid 20th Century
MME16035	Medieval bank and pottery, east of Ox Lane, Tarbock	Medieval
MME16036	Later prehistoric ard marks, possible field boundary and saddle quern, Ox Lane, Tarbock	Later Prehistoric
MME16037	Late medieval and post medieval pottery, Ox Lane, Tarbock	Medieval To Victorian
MME16079	Shaw, a medieval curvilinear enclosure, Cronton	Medieval
MME16113	Site of a colliery, Whitefield Lane, Tarbock	Georgian To Victorian
MME16114	Location of 18th century coal pits, Cronton Road, Tarbock	Stuart To Georgian
MME16360	Medieval clay pits, Dacre's Bridge Lane, Tarbock	Medieval
MME16361	Medieval and post medieval ditches and pits, Dacre's Bridge Lane, Tarbock	Medieval To Georgian
MME16362	Mesolithic flints, Dacre's Bridge Lane, Tarbock	Mesolithic
MME16363	Mesolithic flints, Water Lane, Tarbock	Mesolithic
MME16366	Medieval building, Water Lane, Tarbock	Medieval
MME16367	Undated ditch, Water Lane, Tarbock	Unknown
MME16368	Route of Watkins Lane, Tarbock	Medieval To Victorian
MME16871	Site of a colliery, Whiston	Victorian
MME17970	Edward VIII Pillar Box, Windy Arbor Road, Whiston	Mid 20th Century To 21st Century
MME18748	Church Lodge, Windy Arbor Road, Whiston	Victorian To 21st Century

MonUID	NAME	PERIOD
MME19541	Location of a medieval leper hospital, Ridgate or Tarbock	Medieval
MME19921	Possible cropmarks, east of Foxes Bank Lane, Cronton	Unknown
MME20860	War memorial, St Nicholas' churchyard, Windy Arbor Road, Whiston	Mid 20th Century To 21st Century
MME20871	Possible medieval ditch, Halsnead Park, Whiston	Early Medieval To Medieval
MME20872	Undated ditch, Halsnead Park, Whiston	Unknown
MME20923	Location of a building, Windy Arbor Road, Whiston	Georgian To Victorian
MME21130	Route of Logwood Mill mill race, Wilson Road, Huyton	Georgian To Victorian
MME21235	Site of early 19th century coal pits, Cronton Road, Tarbock	Georgian To Victorian
MME6070	Site of a house, Coppice Lane, Tarbock	Georgian To Late 20th Century
MME6071	Site of a house, Cronton Road, Tarbock	Georgian To Late 20th Century
MME6072	Nos. 1 and 3 Whitfield Lane, Tarbock	Hanoverian To 21st Century
MME6075	Site of a house, Cronton Road, Tarbock	Georgian To Early 20th Century
MME6076	Nos. 2-8 Whitefield Lane, Tarbock	Georgian To 21st Century
MME6079	Site of Priory Farm, Cronton Road, Tarbock	Georgian To Late 20th Century
MME6080	Site of Priory Farm Outbuildings, Cronton Road, Tarbock	Victorian To Late 20th Century
MME6082	Site of a colliery, Cronton Road, Tarbock	Georgian To Victorian

MonUID	NAME	PERIOD
MME6085	Site of a smithy and wheelwrights shop, Whitfield Lane, Tarbock	Hanoverian To Edwardian
MME6086	Site of Tarbock Tile Works, Cronton Road, Tarbock	Victorian
MME6089	Site of Logwood Farm, Wilson Road, Huyton	Georgian To Late 20th Century
MME6090	Site of Logwood Mill, Wilson Road, Huyton	Georgian To Victorian
MME6242	Higher Park Farm, Dacre's Bridge Lane, Tarbock	Georgian To 21st Century
MME6243	Site of a house, Dacre's Lane, Tarbock	Georgian To Early 20th Century
MME6244	Yew Tree Farm, Dacre's Bridge Lane, Tarbock	Georgian To 21st Century
MME6245	Tarbock Lodge, Dacre's Bridge Lane, Tarbock	Georgian To 21st Century
MME6247	Medieval pottery, southwest of Yew Tree Farm, Tarbock	Medieval
MME6248	Medieval and early post medieval pottery, northwest of Brunt Boggart Farm, Water Lane, Tarbock	Medieval To Stuart
MME6253	Medieval and post medieval pottery, northwest of Yew Tree Farm, Dacre's Bridge Lane, Tarbock	Medieval To Georgian
MME6254	Medieval Pottery, northwest of Water Lane Farm, Water Lane, Tarbock	Medieval
MME6255	Medieval and post medieval pottery, east of Ox Lane, Tarbock	Medieval To Victorian
MME6256	Medieval and post medieval pottery, west of Ox Lane, Tarbock	Medieval To Victorian
MME6257	Medieval and post medieval pottery, northeast of Tarbock Hall, Tarbock	Medieval To Georgian
MME6263	Possible cropmark, southeast of Yew Tree Farm, Tarbock	Unknown

MonUID	NAME	PERIOD
MME6264	Possible cropmark, southwest of Yew Tree Farm, Tarbock	Unknown
MME6265	Possible Cropmark, west of Knowsley Expressway, north of Water Lane, Tarbock	Unknown
MME6271	Site of Little Park, Tarbock Hall, Tarbock	Medieval To Georgian
MME6272	Medieval field system curvilinear enclosure, north of Water Lane, Tarbock	Medieval
MME6274	Site of Dagger's Bridge Farm, Dacre's Bridge Lane, Tarbock	Jacobean To Late 20th Century
MME6275	Carr House, Windy Arbor Road, Whiston	Tudor To 21st Century
MME6276	Site of a house and the Hen and Chickens beer House, School Lane, Tarbock	Victorian To Mid 20th Century
MME6277	Site of a cottage, Dacre's Bridge Lane, Tarbock	Georgian To Victorian
MME6278	Site of a house, Dacre's Bridge Lane, Tarbock	Georgian To Victorian
MME6279	Site of Bottom Row, Dacre's Bridge Lane, Tarbock	Georgian To Late 20th Century
MME6280	Site of Hollands House, Windy Arbour Brow, Whiston	Georgian To Late 20th Century
MME6281	Site of Brook House, Windy Arbor Brow, Whiston	Georgian To Late 20th Century
MME6282	Location of the Chapel of Ridgate, Tarbock	Medieval To Jacobean
MME6283	Site of Carr Cottage, Windy Arbor Brow, Whiston	Georgian To 21st Century
MME6284	No. 10 Windy Arbor Brow, Whiston	Georgian To 21st Century
MME6285	Site of a boundary bank section for Halstead Park, M62 and M57 Junction, Tarbock	Unknown

MonUID	NAME	PERIOD
MME6287	Dagger's Bridge, Dacre's Bridge Lane, Tarbock	Georgian To 21st Century
MME6289	Roman enclosure, Ochre Brook, Dacre's Bridge Lane, Tarbock	Roman
MME6290	Flint scatter, east of Ochre Brook, south of Dagger's Bridge Farm, Tarbock	Early Mesolithic To Early Bronze Age
MME6292	The Paddocks and The Stables, Windy Arbor Road, Whiston	Tudor To 21st Century
MME6298	Site of a building, Main Drive, Halsnead Park, Whiston	Victorian
MME6299	Site of Halsnead Colliery, Stadt Moers Park, Whiston	Victorian To Edwardian
MME6303	Site of Hig Hey Colliery, Bishop Drive, Whiston	Victorian
MME6305	Site of a weighing machine, Banner Hey, Whiston	Victorian
MME6306	Site of Halsnead Colliery, Windy Arbour Road, Whiston	Georgian To Victorian
MME6843	Bluebell Cottage, Cronton Road, Tarbock	Georgian To 21st Century
MME6844	Site of Phithians, Prescott Road, Tarbock	Georgian To Early 20th Century
MME6845	Fox's Bank, No. 93 Cronton Road, Tarbock	Victorian To 21st Century
MME6846	Site of Fox's Bank Farm, Cronton Road, Tarbock	Georgian To Late 20th Century
MME6849	Site of Red House, Prescott Road, Cronton	Georgian To Late 20th Century
MME6851	Medieval pottery, southeast of Higher Park Farm, Tarbock	Medieval
MME6852	Old Halsnead, Fox's Bank Lane, Whiston	Stuart To 21st Century

MonUID	NAME	PERIOD
MME6853	Snape Gate Barn, Fox's Bank Lane, Whiston	Georgian To 21st Century
MME6854	Site of a cottage, Fox's Bank Lane, Tarbock	Victorian To Late 20th Century
MME6855	Site of Snape Gate Cottages, Foxes Bank Lane, Whiston	Georgian To Late 20th Century
MME6856	Site of Halsnead, Halsnead Park, Whiston	Stuart To Early 20th Century
MME6857	Barn and Outbuildings at Prince's House Farm, Cock Glades, Whiston	Georgian To 21st Century
MME6865	Site of a coal pit, Main Drive, Halsnead Park, Whiston	Georgian To Victorian
MME10027	Route of the Willis Branch of Liverpool and Manchester Railway, to Halsnead Colliery, Whiston	Hanoverian To Late 20th Century

GAZETTEER OF ARCHAEOLOGICAL EVENTS

The following gazetteer represents all events recorded by the MHER within the 1km study area.

Abbreviations:

NHER:	Merseyside Historic Environment Record
Event ID:	Merseyside HER event identification reference number

EVENT ID	NAME
EME1375	Fieldwalking to Southwest of Yew Tree Farm, Field T8, Tarbock, March 1982
EME1376	Fieldwalking to Northwest of Brunt Boggart Farm, Field T11, Water Lane, Tarbock, March 1982
EME1378	Fieldwalking to Northwest of Yew Tree Farm, Field T10, Dacre's Bridge Lane, Tarbock, March 1982
EME1379	Fieldwalking to Northwest Water Lane Farm, Field T9, Tarbock, March 1982
EME1380	Fieldwalking to East of Ox Lane, Field T7, Tarbock, March 1982
EME1381	Fieldwalking to West of Ox Lane, Field T5, Tarbock, January 1982
EME1382	Fieldwalking to Northeast of Tarbock Hall, Field T4, Tarbock, January 1982
EME1383	Field Walking
EME1408	Fieldwalking to Southeast of Higher Park Farm, Field T13, Tarbock, April 1982
EME2376	Desk-based assessment of land around of Tarbock Hall, Ox Lane, Tarbock - 2000
EME2377	Fieldwalking of land around of Tarbock Hall, Ox Lane, Tarbock - 2000
EME2379	Desk-based assessment of the former site of Cronton Colliery, Halsnead Park, Whiston - 2003
EME2382	Desk-based assessment of a proposed pipeline route from Stockswell Pumping Station, Stockswell Road to Caldway Drive water works, Little Woolton -2004
EME2384	Evaluation at Junction 6 of the M62, Whiston and Tarbock - 2005
EME2388	Building survey of Carr House Farm Barn, Windy Arbor Road, Whiston - 2008
EME2389	Excavation at Junction 6 on the M62, Tarbock - 2007
EME2390	Watching brief at Junction 6 on the M62, Tarbock - 2007
EME2391	Photographic record of Halsnead Park wall and the Cronton colliery branch line embankment, Whiston - 2007
EME2422	Desk-based assessment of land south of Cronton Road, Tarbock - 2008/9
EME2424	Desk-based assessment of the M62 Junction 6, Tarbock - 2003

EVENT ID	NAME
EME2425	Desk-based assessment of the M62 Junction 6, Tarbock - 2005
EME2500	Watching brief, Carr House Farm, Windy Arbor Road, Whiston - 2008
EME2520	Desk-based assessment of Halsnead Park, Whiston - 2016/7
EME2679	Evaluation at Junction 6 of the M62, Tarbock - 2006
EME2760	Desk-based assessment of land at Coppice Lane, Tarbock - 2017
EME2774	Evaluation, Water Lane, Tarbock - 1991
EME2781	Evaluation, Brunt Boggart, Water Lane, Tarbock - 1993
EME2782	Watching brief, Water Lane, Tarbock - 1993
EME2950	Desk-based assessment of Halsnead Park, Whiston - 2018
EME2953	Magnetometry survey of Halsnead Park, Whiston - 2018
EME3019	Desk-based assessment of land east of Windy Arbour Road, Halsnead Park, Whiston - 2017
EME3020	Magnetometry survey of land east of Windy Arbour Road, Halsnead Park, Whiston - 2019
EME3025	Magnetometry survey of Symmetry Park, Halsnead Park, Whiston - 2019
EME3062	Magnetometry survey of land at Lickers Lane, Whiston - 2018
EME3063	Strip, map and sample excavation of land north of Coppice Lane, Tarbock - 2019
EME3064	Watching brief on land north of Coppice Lane, Tarbock - 2019
EME3083	Evaluation at Symmetry Park, Tarbock - 2020
EME3090	Desk-based assessment of Halsnead Park, land west of Fox's Bank Lane, Whiston - 2018/9
EME3227	Evaluation of land east of Windy Arbor Road, Halsnead Park, Whiston - 2021
EME35	Evaluation, Dacre's Bridge Lane, Tarbock - 1993
EME36	Desk-based assessment of the M62-A562 link road, Tarbock and Halewood - 1990-2
EME38	Fieldwalking on the proposed route of the A5300, Tarbock - 1991
EME520	Excavation, Brunt Boggart, Water Lane, Tarbock - 1993
EME521	Excavation, Dacre's Bridge Lane, Tarbock - 1993

EVENT ID	NAME
EME522	Excavation east of Ochre Brook, Dacre's Bridge Lane, Tarbock - 1993

GAZETTEER OF DESIGNATED HERITAGE ASSETS

The following gazetteer represents all known designated heritage assets within the 1km study area.

Abbreviations:

NHLE: National Heritage List for England

NHLE Number	Name	Grade
1253505	The Paddocks and The Stables	II
1261787	Old Halsnead	II
1253250	Barn at Snape Gate	II
1253441	Carr House Farmhouse	II
1261894	Church of St Nicholas	II

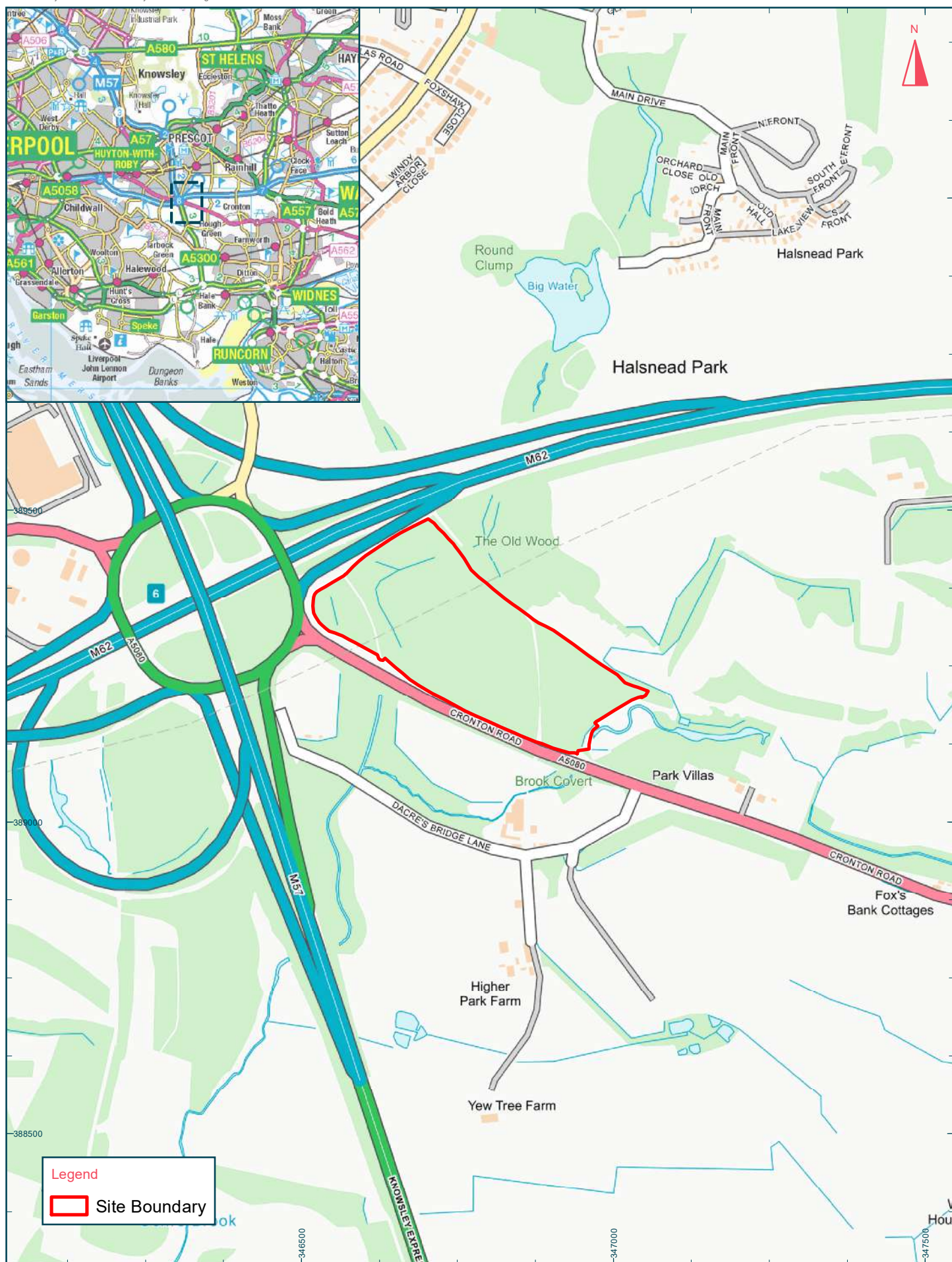
The following cover search lists all aerial photographs covering the study site and c1km study area, which were accessioned to the digital CUCAP archive as of 15/06/2022.

Abbreviations:

CUCAP: Cambridge University Collection of Aerial Photographs

Photo Reference	Oblique or Vertical	Date	Subject	Easting	Northing
ZknJJ49	Vertical	08/05/2000	Lancs/Mersey	347727	387239
ZknJJ50	Vertical	08/05/2000	Lancs/Mersey	348654	387268
ZknJJ51	Vertical	08/05/2000	Lancs/Mersey	349578	387286
ZknJJ66	Vertical	08/05/2000	Lancs/Mersey	349571	389012
ZknJJ67	Vertical	08/05/2000	Lancs/Mersey	348659	388997
ZknJJ68	Vertical	08/05/2000	Lancs/Mersey	347740	388976
ZknJJ69	Vertical	08/05/2000	Lancs/Mersey	346810	388970
ZknJJ70	Vertical	08/05/2000	Lancs/Mersey	345897	388975
ZknJJ71	Vertical	08/05/2000	Lancs/Mersey	344979	388986
ZknJJ120	Vertical	08/05/2000	Lancs/Mersey	344977	390713
ZknJJ121	Vertical	08/05/2000	Lancs/Mersey	345896	390720
ZknJJ122	Vertical	08/05/2000	Lancs/Mersey	346816	390713
ZknJJ123	Vertical	08/05/2000	Lancs/Mersey	347742	390732
ZknJJ124	Vertical	08/05/2000	Lancs/Mersey	348648	390735
ZknJJ125	Vertical	08/05/2000	Lancs/Mersey	349581	390716
ZknMN55	Vertical	19/09/2001	Belfast	345298	388365
ZknMN55	Vertical	19/09/2001	Belfast	345298	388365
ZknMN56	Vertical	19/09/2001	Belfast	344664	388360
ZknMN56	Vertical	19/09/2001	Belfast	344664	388360

ZknMN87	Vertical	19/09/2001	Belfast	344659	389603
ZknMN87	Vertical	19/09/2001	Belfast	344659	389603
ZknMN88	Vertical	19/09/2001	Belfast	345312	389601
ZknMN88	Vertical	19/09/2001	Belfast	345312	389601
ZknMN89	Vertical	19/09/2001	Belfast	345296	390825
ZknMN89	Vertical	19/09/2001	Belfast	345296	390825
ZknMN90	Vertical	19/09/2001	Belfast	344660	390829
ZknMN90	Vertical	19/09/2001	Belfast	344660	390829
ZknPD82	Vertical	06/08/2003	Belfast-x1	344654	390596
ZknPD83	Vertical	06/08/2003	Belfast-x1	345305	390617
ZknPD84	Vertical	06/08/2003	Belfast-x1	345951	390624
ZknPD85	Vertical	06/08/2003	Belfast-x1	346594	390615
ZknPD86	Vertical	06/08/2003	Belfast-x1	347233	390601
ZknPD87	Vertical	06/08/2003	Belfast-x1	347887	390588
ZknPD88	Vertical	06/08/2003	Belfast-x1	346583	389379
ZknPD89	Vertical	06/08/2003	Belfast-x1	345952	389398
ZknPD90	Vertical	06/08/2003	Belfast-x1	345307	389395
ZknPD91	Vertical	06/08/2003	Belfast-x1	344660	389379
ZknPD122	Vertical	06/08/2003	Belfast-x1	344652	388178
ZknPD123	Vertical	06/08/2003	Belfast-x1	345305	388162

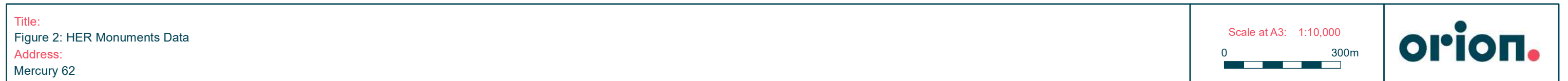


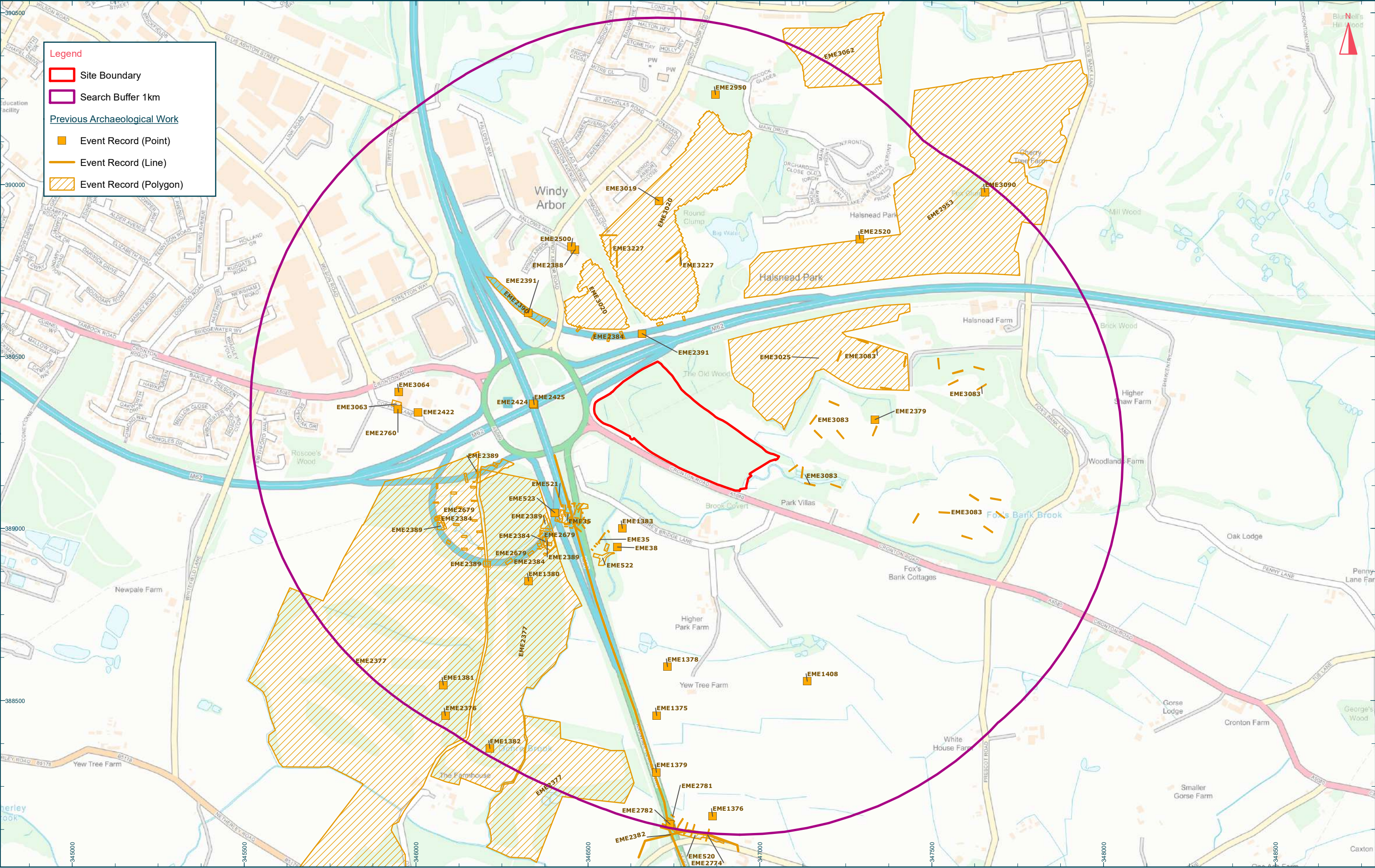
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Figure 1: Site Location
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Mercury 62

Scale at A4: 1:8,000

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orion.





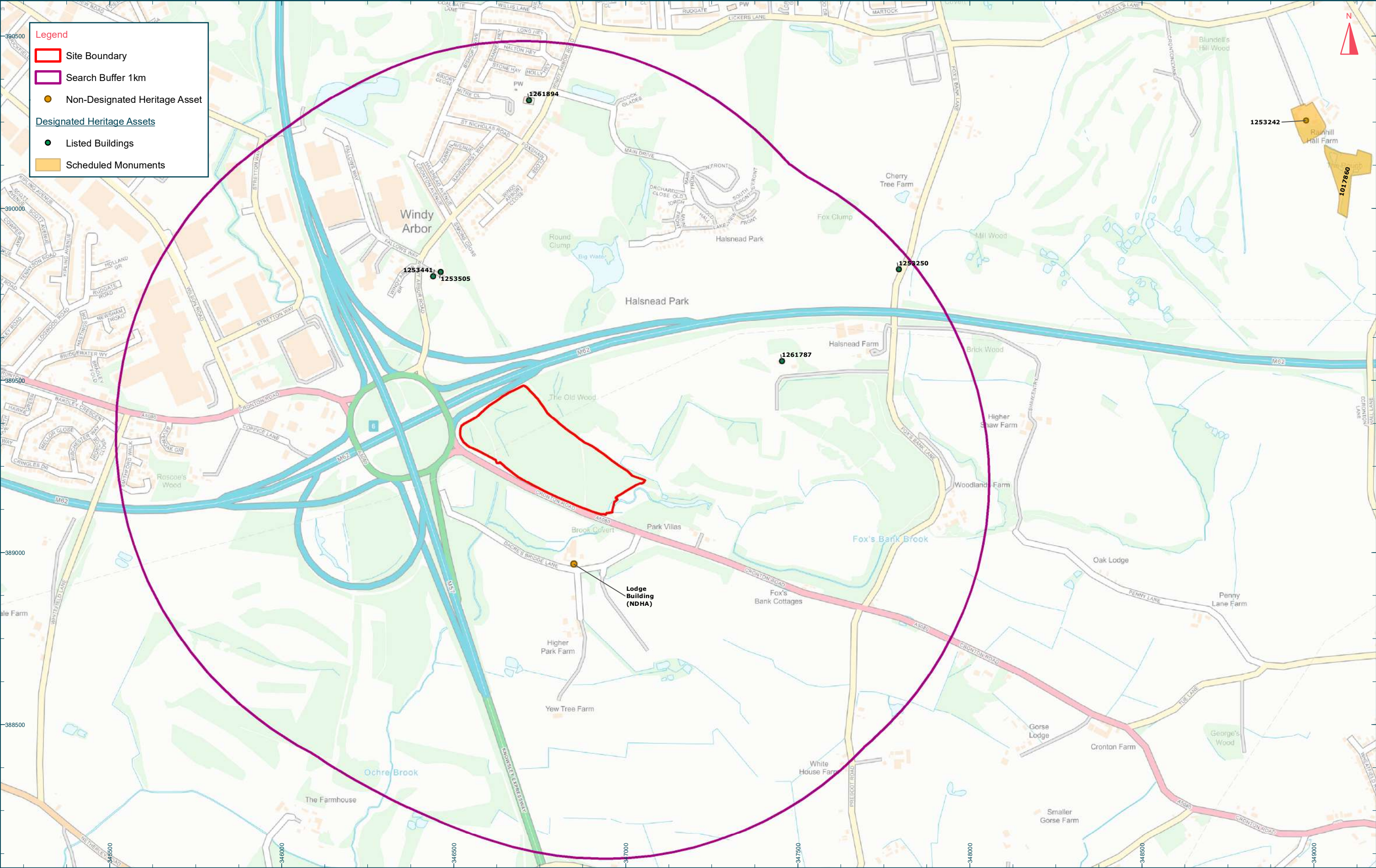
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Figure 3: HER Events Data

Address:
Mercury 62

Scale at A3: 1:10,000

0 300m





Title:
Figure 4: Designated Heritage Assets

Address:
Mercury 62

Scale at A3: 1:10,000

0 300m





Legend



Approximate Site Location



Title:
Figure 5: 1659 Janssonius Map
Address:
Mercury 62

Not to Scale.
Illustrative Only.





Title:
Figure 6: 1787 Cary Map
Address:
Mercury 62

For Illustrative Purposes Only

orion.



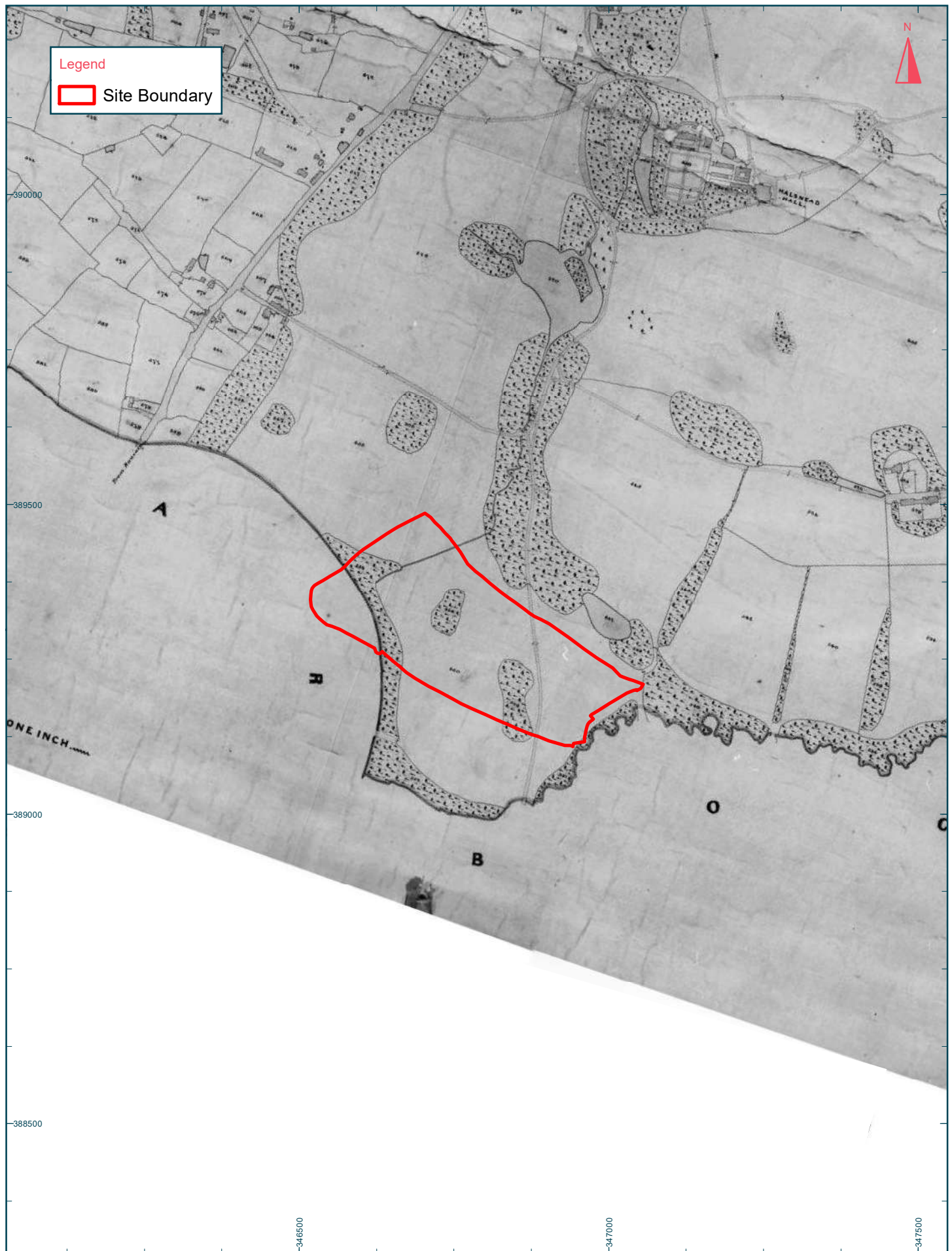
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Figure 7: 1830 Greenwood Map

Address:
Mercury 62

Scale at A4: 1:20,000

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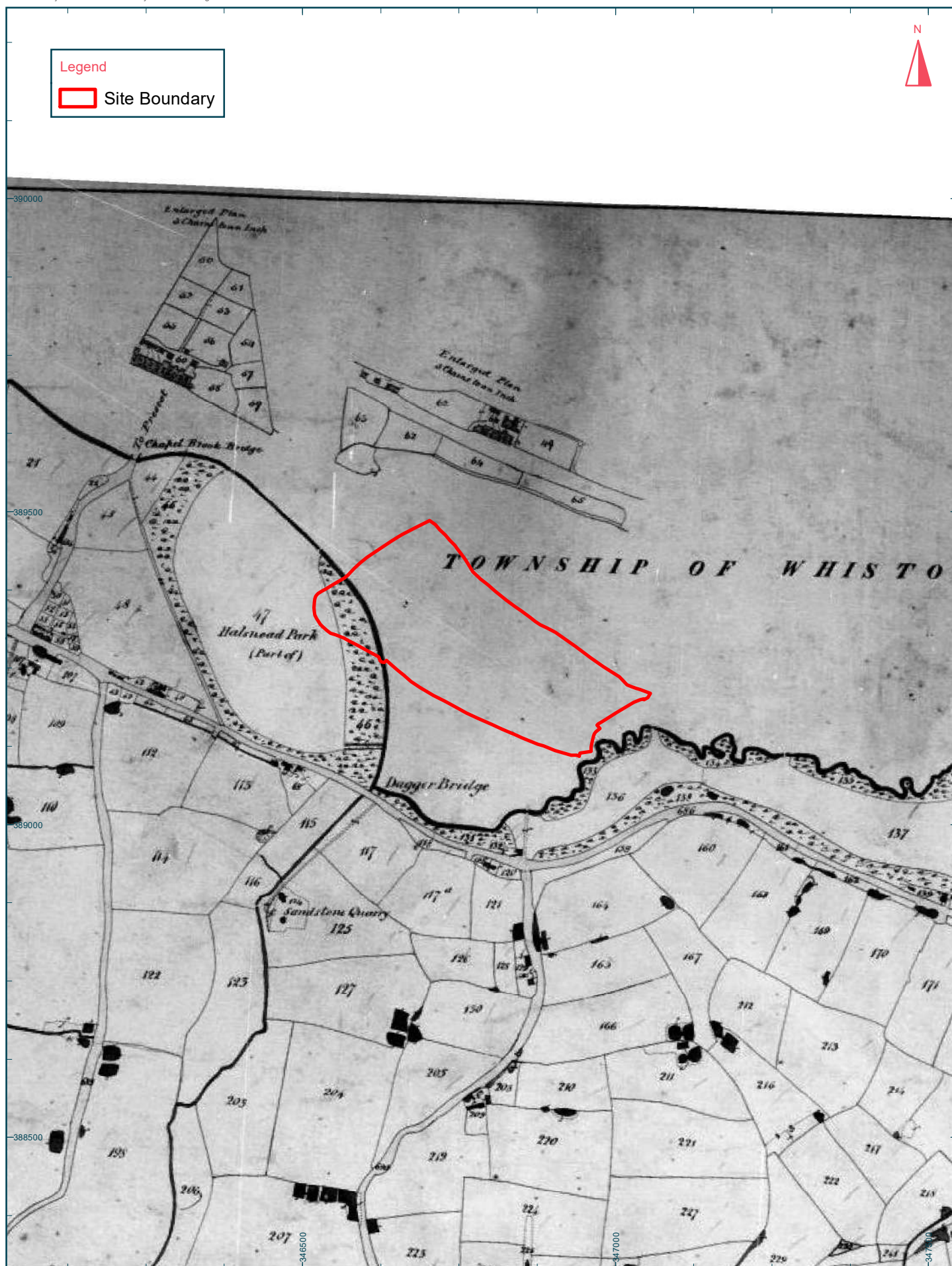
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Title:
Figure 8: 1840 Tithe Map for Whiston
Address:
Mercury 62

Scale at A4: 1:8,000
0 250m

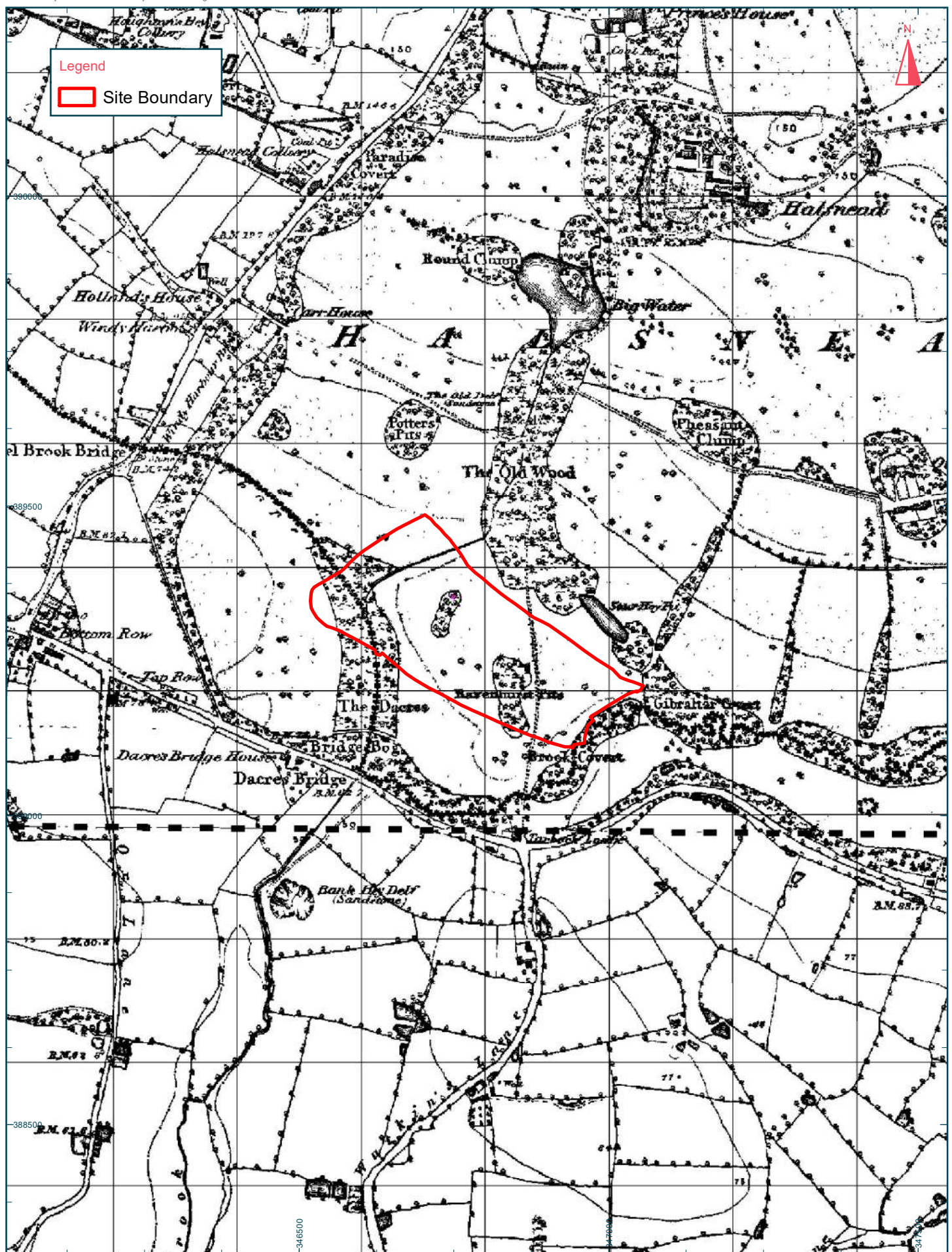
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Title:
Figure 9: 1847 Tithe Map for Tarbock Green
Address:
Mercury 62

Scale at A4: 1:8,000
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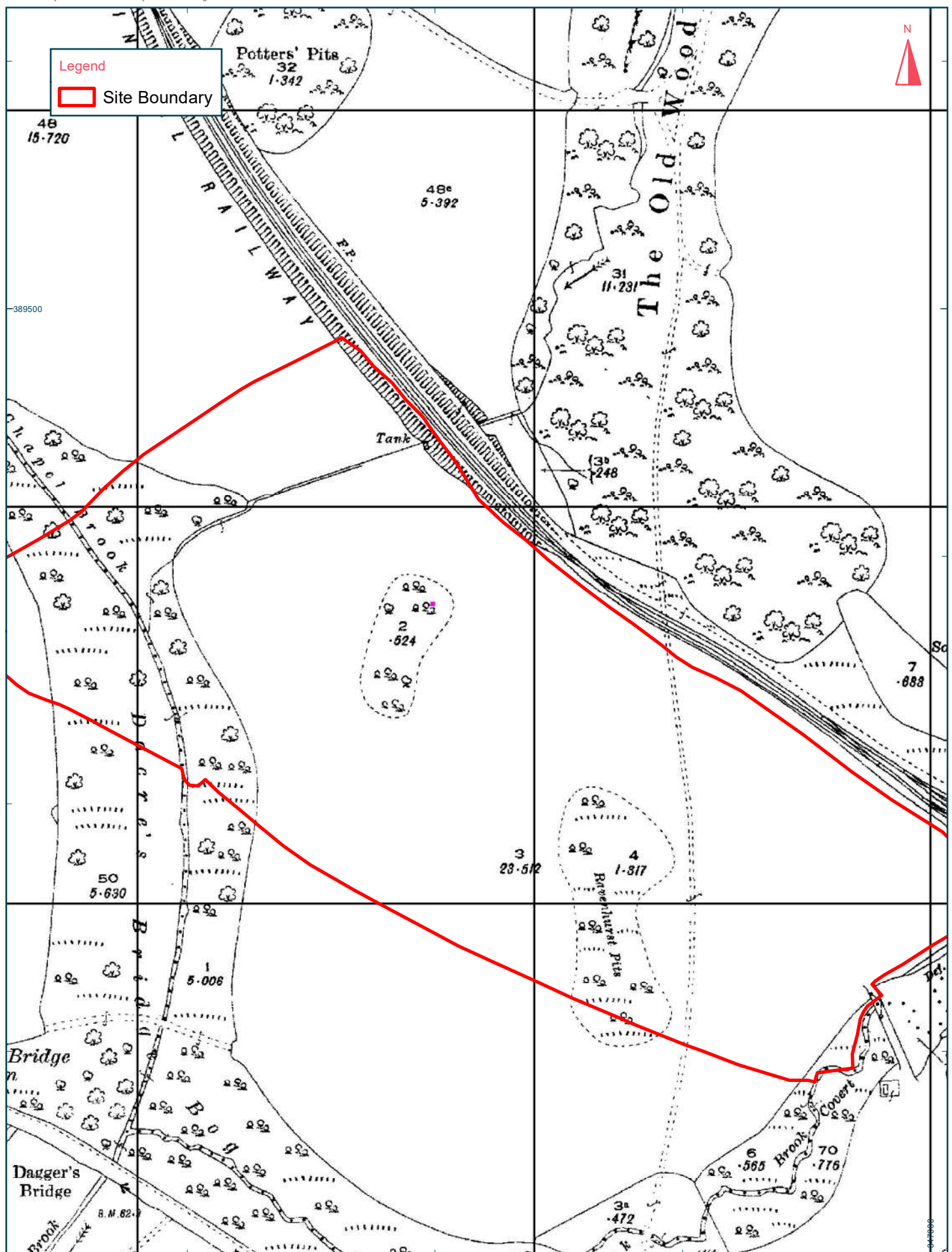


Title:
Figure 10: 1849 OS 1:10,560
Address:
Mercury 62

Scale at A4: 1:8,000

0 250m

orion.



Title:
Figure 11: 1927 OS 1:2500

Address:
Mercury 62

Scale at A4: 1:2,500

0 100m

orion.

