



**ARCHAEOLOGICAL
DESK-BASED
ASSESSMENT**

**3 VIVEASH CLOSE
HAYES
GREATER LONDON**

DECEMBER 2016

Planning • Heritage

Specialist & Independent Advisors to the Property Industry

**Planning Authority:
London Borough of
Hillingdon**

**Site centred at:
TQ 09898 79343**

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EXECUTIVE SUMMARY

The site at 3 Viveash Close, Hayes has been reviewed for its below-ground archaeological potential.

In terms of relevant designated heritage assets, the study site does not lie within the vicinity of a World Heritage Site, Scheduled Monument, Historic Battlefield or Historic Wreck.

The study site is not located within an Archaeologically Significant Area, including any Archaeological Priority Zone or Area.

The site can be considered likely to have a low to moderate potential for early Prehistoric artefactual evidence at depth, and a low archaeological potential for all other past periods.

Past post-depositional impacts are considered likely to have been severe as a result of existing development, together with the construction and demolition of former WWI munitions factory buildings.

The site is proposed for a mixed-used residential and commercial development.

Based on the generally limited archaeological potential of the study site and the severity of post-depositional processes, as demonstrated by this report, development proposals are considered very unlikely to have a significant or widespread negative archaeological impact and therefore no further archaeological work should be recommended.

1.0 INTRODUCTION AND SCOPE OF STUDY

- 1.1 This below-ground archaeological desk-based assessment has been prepared by Ashley Bryant of CgMs Consulting on behalf of General Food Trading Co Ltd.
- 1.2 The subject of this Assessment comprises 3 Viveash Close, Hayes, London Borough of Hillingdon. The site (also referred to as study site) is centred at TQ 09898 79343, and is bordered by an industrial building to the south, Viveash Close to the west, and the Nestle factory site to the north and east (see Figures 1-2 and Plate 1).
- 1.3 In terms of relevant designated heritage assets, the study site does not lie within the vicinity of a World Heritage Site, Scheduled Monument, Historic Battlefield or Historic Wreck.
- 1.4 The study site is not located within an Archaeological Significant Area.
- 1.5 Food Trading Co Ltd has commissioned CgMs Consulting to establish the archaeological potential of the site, and to provide guidance on ways to accommodate any archaeological constraints identified.
- 1.6 In accordance with central, and local government policy and guidance on archaeology and planning, including 'Standard and Guidance for Historic Environment Desk-Based Assessments' (Chartered Institute for Archaeologists August 2014), this assessment draws together the available archaeological, topographic and land-use information in order to clarify the archaeological potential of the site.
- 1.7 This desk-based assessment comprises an examination of evidence on the Greater London Historic Environment Record (GLHER) and other sources, including Hillingdon Local Studies, Archives and Museum Service. The report also includes the results of a comprehensive map regression exercise.
- 1.8 The Assessment thus enables relevant parties to assess the archaeological potential of various parts of the site and to consider the need for design, civil engineering, and archaeological solutions to the archaeological potential identified.

2.0 DEVELOPMENT PLAN FRAMEWORK

- 2.1 Legislation regarding archaeology, including scheduled ancient monuments, is contained in the Ancient Monuments and Archaeological Areas Act 1979, amended by the National Heritage Act 1983 and 2002.
- 2.2 In March 2012, the government published the National Planning Policy Framework (NPPF), which replaced previous national policy relating to heritage and archaeology (PPS5: Planning Policy Statement 5: Planning for the Historic Environment). The NPPF Planning Practice Guidance was published online 6th March 2014 and updated 10 April 2014 (<http://planningguidance.planningportal.gov.uk>).
- 2.3 The Planning Practice Guide previously issued in support of PPS5, together with accompanying English Heritage documentation, was cancelled 25 March 2015, to be replaced by three Good Practice Advice (GPA) documents published by Historic England: GPA 1: The Historic Environment in Local Plans; GPA 2: Managing Significance in Decision-Taking in the Historic Environment, and GPA 3: The Setting of Heritage Assets.
- 2.4 Section 12 of the NPPF, entitled *Conserving and Enhancing the Historic Environment* provides guidance for planning authorities, property owners, developers and others on the conservation and investigation of heritage assets. Overall, the objectives of Section 12 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 understanding of the past.
- 2.5 Section 12 of the NPPF recognises that intelligently managed change may sometimes be necessary if heritage assets are to be maintained for the long term. Paragraph 128 states that planning decisions should be based on the significance of the heritage asset, and that level of detail supplied by an applicant should be proportionate to the importance of the asset and should be *no more than sufficient* to review the potential impact of the proposal upon the significance of that asset.

- 2.6 *Heritage Assets* are defined in Annex 2 of the NPPF as: a building, monument, site, place, area or landscape positively identified as having a degree of significance meriting consideration in planning decisions. They include designated heritage assets (as defined in the NPPF) and assets identified by the local planning authority during the process of decision-making or through the plan-making process.
- 2.7 Annex 2 also defines *Archaeological Interest* as a heritage asset which holds or potentially could hold, evidence of past human activity worthy of expert investigation at some point. Heritage assets with archaeological interest are the primary source of evidence about the substance and evolution of places, and of the people and cultures that made them.
- 2.8 A *Designated Heritage Asset* comprises a: World Heritage Site, Scheduled Monument, Listed Building, Protected Wreck Site, Registered Park and Garden, Registered Battlefield or Conservation Area.
- 2.9 *Significance* is defined as: 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.
- 2.10 In short, government policy provides a framework which:
- Protects nationally important designated Heritage Assets (which include World Heritage Sites, Scheduled Ancient Monuments, Listed Buildings, Protected Wreck Sites, Registered Parks and Gardens, Registered Battlefields or Conservation Areas)
 - Protects the settings of such designations
 - In appropriate circumstances seeks adequate information (from desk based assessment and field evaluation where necessary) to enable informed decisions
 - Provides for the excavation and investigation of sites not significant enough to merit *in-situ* preservation.
- 2.11 The NPPG reiterates that the conservation of heritage assets in a manner appropriate to their significance is a core planning principle, requiring a flexible and thoughtful approach. Furthermore, it highlights that neglect and decay of heritage assets is best addressed through ensuring they remain in active use that is consistent with their conservation. Importantly, the guidance states that if complete, or partial loss of a

heritage asset is justified, the aim should then be to capture and record the evidence of the asset's significance, and make the interpretation publically available. Key elements of the guidance relate to assessing harm. An important consideration should be whether the proposed works adversely affect a key element of the heritage asset's special architectural or historic interest. Additionally, it is the degree of harm, rather than the scale of development, that is to be assessed. The level of 'substantial harm' is considered to be a high bar that may not arise in many cases. Essentially, whether a proposal causes substantial harm will be a judgment for the decision taker, having regard to the circumstances of the case and the NPPF. Importantly, harm may arise from works to the asset or from development within its setting. Setting is defined as the surroundings in which an asset is experienced, and may be more extensive than the curtilage. A thorough assessment of the impact of proposals upon setting needs to take into account, and be proportionate to, the significance of the heritage asset and the degree to which proposed changes enhance or detract from that significance and the ability to appreciate it.

- 2.12 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.
- 2.13 The relevant Strategic Development Plan framework is provided by the London Plan Consolidated with Alterations Since 2011. The Further Alterations to the London Plan (FALP) were adopted 10 March 2015. This document includes the revised early minor alterations to the London Plan were published in October 2013. There are no changes to Policy 7.8; slight amendments have been made to the wording of Policy 7.10 World Heritage Sites, cross referencing this policy with the Supplementary Planning Guidance document for the setting of World Heritage Sites prepared in 2012. Recent Minor Alterations to the London Plan (MALP) published 14 March 2016, concern housing standards and parking, with no alteration to heritage policies.

- 2.14 Policy in the Consolidated London Plan relevant to archaeology at the study site includes the following:

POLICY 7.8 HERITAGE ASSETS AND ARCHAEOLOGY

STRATEGIC

- A. LONDON'S HERITAGE ASSETS AND HISTORIC ENVIRONMENT, INCLUDING LISTED BUILDINGS, REGISTERED HISTORIC PARKS AND GARDENS AND OTHER NATURAL AND HISTORIC LANDSCAPES, CONSERVATION AREAS, WORLD HERITAGE SITES, REGISTERED BATTLEFIELDS, SCHEDULED MONUMENTS, ARCHAEOLOGICAL REMAINS AND MEMORIALS SHOULD BE IDENTIFIED, SO THAT THE DESIRABILITY OF SUSTAINING AND ENHANCING THEIR SIGNIFICANCE AND OF UTILISING THEIR POSITIVE ROLE IN PLACE SHAPING CAN BE TAKEN INTO ACCOUNT.**
- B. DEVELOPMENT SHOULD INCORPORATE MEASURES THAT IDENTIFY, RECORD, INTERPRET, PROTECT AND, WHERE APPROPRIATE, PRESENT THE SITE'S ARCHAEOLOGY.**

PLANNING DECISIONS

- C. DEVELOPMENT SHOULD IDENTIFY, VALUE, CONSERVE, RESTORE, RE-USE AND INCORPORATE HERITAGE ASSETS, WHERE APPROPRIATE.**
- D. DEVELOPMENT AFFECTING HERITAGE ASSETS AND THEIR SETTINGS SHOULD CONSERVE THEIR SIGNIFICANCE, BY BEING SYMPATHETIC TO THEIR FORM, SCALE, MATERIALS AND ARCHITECTURAL DETAIL.**
- E. NEW DEVELOPMENT SHOULD MAKE PROVISION FOR THE PROTECTION OF ARCHAEOLOGICAL RESOURCES, LANDSCAPES AND SIGNIFICANT MEMORIALS. THE PHYSICAL ASSETS SHOULD, WHERE POSSIBLE, BE MADE AVAILABLE TO THE PUBLIC ON-SITE. WHERE THE ARCHAEOLOGICAL ASSET OR MEMORIAL CANNOT BE PRESERVED OR MANAGED ON-SITE, PROVISION MUST BE MADE FOR THE INVESTIGATION, UNDERSTANDING, RECORDING, DISSEMINATION AND ARCHIVING OF THAT ASSET.**

LDF PREPARATION

- F. BOROUGHSHOULD, IN LDF POLICIES, SEEK TO MAINTAIN AND ENHANCE THE CONTRIBUTION OF BUILT, LANDSCAPED AND BURIED HERITAGE TO LONDON'S ENVIRONMENTAL QUALITY, CULTURAL IDENTITY AND ECONOMY AS PART OF MANAGING LONDON'S ABILITY TO ACCOMMODATE CHANGE AND REGENERATION.**
- G. BOROUGHSHOULD, IN CONSULTATION WITH ENGLISH HERITAGE, NATURAL ENGLAND AND OTHER RELEVANT STATUTORY ORGANISATIONS, SHOULD INCLUDE APPROPRIATE POLICIES IN THEIR LDFS FOR IDENTIFYING, PROTECTING, ENHANCING AND IMPROVING ACCESS TO THE HISTORIC ENVIRONMENT AND HERITAGE ASSETS AND THEIR SETTINGS WHERE APPROPRIATE, AND TO ARCHAEOLOGICAL ASSETS, MEMORIALS AND HISTORIC AND NATURAL LANDSCAPE CHARACTER WITHIN THEIR AREA.**

2.15 The relevant Development Plan framework for the study site is currently provided by the Local Plan: Part 1 (adopted November 2012) and the Unitary Development Plan (UDP) (adopted 1998). Part 1 of the Local Plan replaced a number of policies within the UDP, and the emerging Part 2 of the Local Plan is expected to replace the remaining saved policies within the UDP in 2017 (See 2.18-2.20).

2.16 Policy provided by the Local Plan: Part 1 relevant to archaeology includes:

STRATEGIC OBJECTIVES:

- **SO1: CONSERVE AND ENHANCE THE BOROUGH'S HERITAGE AND THEIR SETTINGS BY ENSURING NEW DEVELOPMENT, INCLUDING CHANGES TO THE PUBLIC REALM, ARE OF HIGH QUALITY DESIGN, APPROPRIATE TO THE SIGNIFICANCE OF THE HERITAGE ASSET, AND SEEK TO MAINTAIN AND ENHANCE THE CONTRIBUTION OF BUILT, LANDSCAPED AND BURIED HERITAGE TO LONDON'S ENVIRONMENTAL QUALITY, CULTURAL IDENTITY AND ECONOMY AS PART OF MANAGING LONDON'S ABILITY TO ACCOMMODATE CHANGE AND REGENERATION.**

POLICY HE1: HERITAGE

THE COUNCIL WILL:

1. CONSERVE AND ENHANCE HILLINGDON'S DISTINCT AND VARIED ENVIRONMENT, ITS SETTINGS AND THE WIDER HISTORIC LANDSCAPE, WHICH INCLUDES:

- **HISTORIC VILLAGE CORES, METRO-LAND SUBURBS, PLANNED RESIDENTIAL ESTATES AND 19TH AND 20TH CENTURY INDUSTRIAL AREAS, INCLUDING THE GRAND UNION CANAL AND ITS FEATURES;**
- **DESIGNATED HERITAGE ASSETS SUCH AS STATUTORILY LISTED BUILDINGS, CONSERVATION AREAS AND SCHEDULED ANCIENT MONUMENTS;**
- **REGISTERED PARKS AND GARDENS AND HISTORIC LANDSCAPES, BOTH NATURAL AND DESIGNED;**
- **LOCALLY RECOGNISED HISTORIC FEATURES, SUCH AS AREAS OF SPECIAL LOCAL CHARACTER AND LOCALLY LISTED BUILDINGS; AND**
- **ARCHAEOLOGICALLY SIGNIFICANT AREAS, INCLUDING ARCHAEOLOGICAL PRIORITY ZONES AND AREAS.**

2. ACTIVELY ENCOURAGE THE REGENERATION OF HERITAGE ASSETS, PARTICULARLY THOSE WHICH HAVE BEEN INCLUDED IN ENGLISH HERITAGE'S 'HERITAGE AT RISK' REGISTER OR ARE CURRENTLY VACANT.

3. PROMOTE INCREASED PUBLIC AWARENESS, UNDERSTANDING OF AND ACCESS TO THE BOROUGH'S HERITAGE ASSETS AND WIDER HISTORIC ENVIRONMENT, THROUGH SECTION 106 AGREEMENTS AND VIA COMMUNITY ENGAGEMENT AND OUTREACH ACTIVITIES.

4. ENCOURAGE THE REUSE AND MODIFICATION OF HERITAGE ASSETS, WHERE APPROPRIATE, WHEN CONSIDERING PROPOSALS TO MITIGATE OR ADAPT TO THE EFFECTS OF CLIMATE CHANGE. WHERE NEGATIVE IMPACT ON A HERITAGE ASSET IS IDENTIFIED, SEEK ALTERNATIVE APPROACHES TO ACHIEVE SIMILAR CLIMATE CHANGE MITIGATION OUTCOMES WITHOUT DAMAGE TO THE ASSET.

- 2.17 Saved policies provided by the Unitary Development Plan (UDP) relevant to archaeology includes:

BE1 ONLY IN EXCEPTIONAL CIRCUMSTANCES WILL THE LOCAL PLANNING AUTHORITY ALLOW DEVELOPMENT TO TAKE PLACE IF IT WOULD DISTURB REMAINS OF IMPORTANCE WITHIN THE ARCHAEOLOGICAL PRIORITY AREAS.

BE2 SCHEDULED ANCIENT MONUMENTS AND THEIR SETTING WILL BE PRESERVED.

BE3 THE LOCAL PLANNING AUTHORITY WILL ENSURE WHENEVER PRACTICABLE THAT SITES OF ARCHAEOLOGICAL INTEREST ARE INVESTIGATED AND RECORDED EITHER BEFORE ANY NEW BUILDINGS, REDEVELOPMENT, SITE WORKS, GOLF COURSE OR GRAVEL EXTRACTION ARE STARTED, OR DURING EXCAVATION AND CONSTRUCTION. DEVELOPMENT WHICH WOULD DESTROY IMPORTANT ARCHAEOLOGICAL REMAINS WILL NOT BE PERMITTED.

- 2.18 The emerging 'Local Plan: Part 2' is expected to replace the existing saved policies within the UDP. This plan comprises the Development Management Policies, Site Allocations, and Designations and Policies Map. Draft policies relevant to archaeology are detailed within proposed submission versions of these documents.

- 2.19 Development Management Policies (revised October 2015) includes:

Policy DMHB 1: Heritage Assets

A) Development that has an effect on heritage assets will only be supported where:

- i) it sustains and enhances the significance of the heritage asset and puts them into viable uses consistent with their conservation;*
- ii) it will not lead to substantial harm or total loss of significance without providing substantial public benefit that outweighs the harm or loss;*
- iii) it makes a positive contribution to the local character and distinctiveness of the area;*
- iv) any extensions or alterations are designed in sympathy, without detracting from or competing with the heritage asset;*
- v) the proposals would relate appropriately in terms of siting, style, scale, massing, height, design and materials;*
- vi) buildings and structures within the curtilage of a heritage asset, or in close proximity to it, do not compromise its setting; and*
- vii) opportunities are taken to conserve or enhance the setting, so that the significance of the asset can be appreciated more readily.*

B) Development proposals affecting designated heritage assets need to take account of the effects of climate change and renewable energy without impacting negatively on the heritage asset. The Council may require an alternative solution which will protect the asset yet meet the sustainability objectives of the Local Plan.

C) The Council will seek to secure the repair and reuse of Listed Buildings and monuments and improvements to Conservation Areas on the Heritage at Risk Register, through negotiations with owners, the provision of advice and guidance, the use of appropriate legal action, and through bids for external funding for improvement works.

Policy DMHB 7: Archaeological Priority Areas and Archaeological Priority Zones

The Council, as advised by the Greater London Archaeological Advisory Service, will ensure that sites of archaeological interest within or, where appropriate, outside, designated areas are not disturbed. If that cannot be avoided, satisfactory measures must be taken to mitigate the impacts of the proposals through archaeological fieldwork to investigate and record remains in advance of development works. This should include proposals for the recording, archiving and reporting of any archaeological finds.

- 2.20 The study site is located within 'Site B' of the 'Lands to the South of the Railway, including Nestle Site, Nestle Avenue, Hayes' identified within the Site Allocations and Designations document of the emerging Local Plan: Part 2.
- 2.21 In terms of relevant designated heritage assets as defined above and as shown on Figure 2, no World Heritage Sites, Scheduled Monuments, Historic Battlefield sites or Historic Wreck sites lie within the vicinity of the study site.
- 2.22 The study site is not located within an Archaeologically Significant Area, including any Archaeological Priority Zone or Area.
- 2.23 In line with existing national, strategic and local planning policy and guidance, this desk based assessment seeks to clarify the site's archaeological potential and the need or otherwise for additional mitigation measures.

3.0 GEOLOGY AND TOPOGRAPHY

3.1 Geology

3.1.1 The solid geology of the study site is shown by the British Geological Survey Online (BGS 2016) as London Clay (Clay, Silt and Sand) deposits forming the London Basin. Superficial deposits are recorded as Lynch Hill Gravel Member (Sand and Gravel).

3.1.2 No site-specific geotechnical data is currently available.

3.2 Topography

3.2.1 The study site is located in an area of level ground at approximately 33m AOD (Above Ordnance Datum).

3.2.2 The River Crane is located approximately 630m east of the study site. The Grand Union Canal is located approximately 120m northeast of the study site.

4.0 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND, WITH ASSESSEMENT OF SIGNIFICANCE

(Including Historic Map Regression exercise)

4.1 Timescales used in this report:

Prehistoric

Palaeolithic	450,000	-	12,000	BC
Mesolithic	12,000	-	4,000	BC
Neolithic	4,000	-	1,800	BC
Bronze Age	1,800	-	600	BC
Iron Age	600	-	AD 43	

Historic

Roman	AD 43	-	410	
Anglo Saxon/Early Medieval	AD 410	-	1066	
Medieval	AD 1066	-	1485	
Post Medieval	AD 1486	-	1749	
Modern	AD 1750	-	Present	

4.2 Introduction

- 4.2.1 What follows comprises a review of archaeological finds pots within a 750m radius of the study site, also referred to as the study area, held on the Greater London Historic Environment Record (GLHER) (Figure 2), together with a historic map regression exercise charting the development of the study area from the eighteenth century onwards until the present day.
- 4.2.2 This chapter reviews existing archaeological evidence for the site and the archaeological/historical background of the general area and, in accordance with the NPPF, considers the potential for as yet undiscovered archaeological evidence on the site.
- 4.2.3 Chapter 5 subsequently considers the site conditions and whether the theoretical potential identified in this chapter is likely to survive.

4.3 **Prehistoric (Palaeolithic, Mesolithic, Neolithic, Bronze Age and Iron Age)**

- 4.3.1 A number of Palaeolithic finds derived from the Lynch Hill Gravel terraces have been recorded in the study area. A find spot of five Lower Palaeolithic handaxes were recorded at the site of the former E.M.I factory, c. 390m northwest of the study site (MLO2923 at TQ 0950 7950). The precise context and method for how these finds were recovered is uncertain but other early Prehistoric find spots identified within the wider Hillingdon area of the Middle Thames Valley have been found during gravel extraction (Wymer 1999).
- 4.3.2 Palaeolithic finds, comprising three handaxes and a core, are recorded from the Provident Industrial Estate, c. 350m north of the study site (MLO68544 at TQ 1000 7970).
- 4.3.3 A Mesolithic tranche axe is recorded in the GLHER from Cannons Land c. 320m southeast of the study site (MLO25134 at TQ 1000 7900).
- 4.3.4 From around 4000 BC the mobile hunter-gathering economy of the Mesolithic gradually gave way to a more settled agriculture-based subsistence. The pace of woodland clearance to create arable and pasture-based agricultural land varied regionally and locally, depending on a wide variety of climatic, topographic, social and other factors. The trend was one of a slow, but gradually increasing pace of forest clearance.
- 4.3.5 By the 1st millennium, i.e. 1000 BC, the landscape was probably a mix of extensive tracts of open farmland, punctuated by earthwork burial and ceremonial monuments from distant generations, with settlements, ritual areas and defended locations reflecting an increasingly hierarchical society.
- 4.3.6 During an archaeological evaluation at Blair Close a number of residual Prehistoric finds were recovered from across the site, including burnt and knapped flint, and six sherds of possible Bronze Age pottery (MLO59169 at TQ 1018 7871).
- 4.3.7 No Iron Age evidence has been recorded within the study area.
- 4.3.8 The available evidence suggests that the wider Prehistoric landscape would have been favourable for occupation. However, no in situ evidence of this is recorded within the

study area. Based on the correlation between Lynch Hill Gravel terraces and early Prehistoric finds the study site can be considered to have a low to moderate potential for early Prehistoric artefactual evidence at depth, and a low potential for other later Prehistoric evidence.

4.4 **Roman**

4.4.1 The only Roman evidence recorded within the study area is Roman tile found within a pit excavated at Blair Close/Wyre Grove c. 680m southeast of the study site (MLO59171 at TQ 1021 7870).

4.4.2 The nearest recorded Roman road recorded by Margary (1955) passes over 4.8km southeast of the study site.

4.4.3 Based on the available evidence the study site can be considered to have a low/nil archaeological potential for the Roman Period.

4.5 **Anglo-Saxon & Medieval**

4.5.1 A number of Early Anglo-Saxon features have been excavated at Blair Close/Wyre Grove c. 680m southeast of the study site, including a probable ditch/gully containing pottery and fired clay, and two pits, one being a possible grubenhaus (MLO59171 at TQ 1021 7870).

4.5.2 Documentary evidence indicates a settlement probably existed at Botwell from Saxon times, c. 660m north of the study site, as it was mentioned in a grant of 831 (MLO68613 at TQ 0970 8000).

4.5.3 Other settlements recorded within 1086 Domesday Survey include a small settlement at Dawley approximately 300m to the northwest of the study site, and the large settlements of Hayes and Harlington centred some distance to the northeast and southwest respectively (Open Domesday 2016).

4.5.4 No other finds or features of Anglo-Saxon and Medieval date have been recorded within the study area.

4.5.5 The study site it likely to have lain within undeveloped agricultural land between various foci of Medieval settlement. Based on the available evidence the study site can be considered to have a low archaeological potential for Anglo-Saxon and Medieval periods.

4.6 **Post Medieval and Modern (including map regression exercise)**

4.6.1 John Rocque's Survey of Middlesex (Fig 3: 1754) shows the study site within a large undeveloped field to the south of the settlement at Botwell. A track or pathway passes close to the site. The 1805 Ordnance Survey Drawing (Fig 4) shows no significant change within the study site. The Grand Junction Canal (later the Grand Union Canal) shown some distance to the northeast of the study site was constructed in 1794 (Weinreb et al 2008).

4.6.2 The 1815 Hayes Enclosure Map (Fig. 5) identifies the study site within a large tithe allotment.

4.6.3 The First Edition Ordnance Survey (Fig 6: 1868) shows the site largely unchanged. The Great Western Railway line was constructed in 1838 within close proximity to the northern site boundary, with Hayes Station at Botwell opening in 1864 (VCH 1971). The Second and Third Edition Ordnance Surveys (Fig 7: 1897, Fig. 8: 1914) show no significant change within the study site. The railway line to the north was successively widened with additional sidings.

4.6.4 The 1914 Ordnance Survey (Fig. 8) shows the study site planted with trees within an orchard or wood adjacent to the railway line.

4.6.5 In 1915 the study site along with the surrounding grounds were compulsory purchased by the Government for the construction of Munitions Filling Factory No.7. This was in response to a critical shortage of shells and munitions required as part of the conflict raging on the Western Front. The Factory, when complete, covered 200 acres, with the site occupying the northern part of the complex. The immediate proximity of the Great Western Railway and Grand Union Canal made the site's location ideal for transporting material in and out of the plant (Collier 2014).

4.6.6 When completed, the Factory as a whole consisted of 397 buildings, constructed at approximately 75 foot (22.86m) intervals, connected by a network of raised walkways

along which ran narrow gauge railways (Plate 2). The floor level of the majority of buildings were raised up on brick foundations or columns to match the height of the walkways. The space in between the buildings, designed as a measure to minimise the effects of accidental explosions, was left as open space, and was even used to grow crops later in the war. The simplicity of the building design is demonstrated by the fact that the first elements of the factory were considered operational just 28 days following commencement of construction (Collier 2014).

- 4.6.7 A 1919 Ministry of Munitions plan of the factory (Fig. 9) indicates that study site was located on the northern periphery of the munition factory complex, occupied by partially by a large rectangular warehouse building and a second smaller square building to the west. Walkways/sidings cross the study site east-west.
- 4.6.8 Following the World War I armistice in November 1918 the factory was rapidly decommissioned with only a skeleton staff employed by the beginning of 1919 (Collier 2014).
- 4.6.9 By 1935 (Fig. 10) the warehouse and smaller square building occupying the study site remained, though the sidings had been removed. The north of the study site was planted with trees, and the southern part of the study site formed part of a sports ground.
- 4.6.10 By 1945 (Fig. 11) these buildings had been demolished and the study site was redeveloped with a single building occupying most of the study site adjacent to the newly established Viveash Close. The study site was part of new building complex identified as 'government offices'.
- 4.6.11 No significant changes occurred to the study site to present day (Fig. 12-16). The building is currently occupied by a food distribution business.
- 4.6.12 The available evidence indicates that the study site remained open land used as an allotment or market garden, then as an orchard, prior to being developed in the early 20th century as part of the WWI National Filling Factory. The potential of the study site for the Post-Medieval and Modern periods can be identified as low.

4.7 **Assessment of Significance**

- 4.7.1 Existing national policy guidance for archaeology (the NPPF as referenced in section 2) enshrines the concept of the 'significance' of heritage assets. Significance as defined in the NPPF centres on the value of an archaeological or historic asset for its 'heritage interest' to this or future generations.
- 4.7.2 No archaeological designated heritage assets as defined in the NPPF are recorded on or in close proximity to the study site.
- 4.7.3 Overall the site is considered to have a low to moderate potential for early Prehistoric artefactual evidence and a low archaeological potential for all other past periods. In the unlikely event that archaeological remains are present within the study site the balance of probability is that these will be purely of local significance. The structural remains of the WWI munitions factory buildings would have been of local or regional significance but are not expected to have survived later redevelopment.

5.0 SITE CONDITIONS AND THE PROPOSED DEVELOPMENT

(Review of potential impact upon Heritage Assets)

5.1 Site Conditions

- 5.1.1 The study site is currently occupied by modern warehouse for a food distribution business fronting Viveash Close, with an unloading area in the north (Plate 1).
- 5.1.2 The construction of the existing building can be considered likely to have had a severe negative archaeological impact, concentrated within the footprint of the building, through the cutting of foundations and services.
- 5.1.3 The construction and subsequent demolition of WWI munitions factory buildings will have had a severe negative impact on any below ground deposits.
- 5.1.4 The planting and removal of an orchard will have had a moderate, widespread negative archaeological impact.
- 5.1.5 Agricultural/horticultural use of the study site prior to development can be considered likely to have had a moderate, widespread negative archaeological impact.

5.2 The Proposed Development

- 5.2.1 The site is intended for a mixed-used residential and commercial development (Fig. 17).

5.3 Review of potential development impacts upon Archaeological Assets

- 5.3.1 There are no designated archaeological heritage assets as defined in the NPPF recorded on the study site.
- 5.3.2 As set out in Section 4 above, the available evidence suggests the study site has a low to moderate potential for early Prehistoric artefactual evidence at depth, and a low archaeological potential for all other past periods. If previously unknown remains were to be present, they are considered likely to be of local significance.
- 5.3.3 It is considered that due to the limited archaeological potential identified within the study site and the likely widespread truncation of subsurface horizons by 20th century

building developments, the redevelopment proposals are considered unlikely to have a significant or widespread negative archaeological impact.

6.0 SUMMARY AND CONCLUSIONS

- 6.1 The site at 3 Viveash Close, Hayes has been reviewed for its below-ground archaeological potential.
- 6.2 In terms of relevant designated heritage assets, the study site does not lie within the vicinity of a World Heritage Site, Scheduled Monument, Historic Battlefield or Historic Wreck.
- 6.3 The study site is not located within an Archaeologically Significant Area, including any Archaeological Priority Zone or Area.
- 6.4 The site can be considered likely to have a low to moderate potential for early Prehistoric artefactual evidence at depth, and a low archaeological potential for all other past periods.
- 6.5 Past post-depositional impacts are considered likely to have been severe as a result of existing development, together with the construction and demolition of former WWI munitions factory buildings.
- 6.6 The site is proposed for a mixed-used residential and commercial development.
- 6.7 Based on the generally limited archaeological potential of the study site and the severity of post-depositional processes, as demonstrated by this report, development proposals are considered very unlikely to have a significant or widespread negative archaeological impact and therefore no further archaeological work should be recommended.

SOURCES CONSULTED

1. **General**

British Library

Greater London Historic Environment Record

Hillingdon Local Studies, archives and museum service

2. **Internet**

<http://archaeologydataservice.ac.uk>

<http://www.britainfromabove.org.uk/>

<http://www.british-history.ac.uk/>

<https://finds.org.uk/database/>

<https://www.historicengland.org.uk/listing/the-list>

<https://opendomesday.org.uk>

<http://www.pastscape.org.uk>

<http://planningguidance.planningportal.gov.uk>

3. **Bibliographic**

Allen, M., Blick, N., Brindle, T., Evans, T., Fulford, M., Holbrook, N., Richards, J.D. and Smith, A. 2015. *The Rural Settlement of Roman Britain: an online resource*. Archaeological Data Service

British Geological Survey. 1996. *London and the Thames Valley (British Regional Geology)* Fourth Edition. Stationary Office Books

Chartered Institute for Archaeologists. 2014. *Standard & Guidance for historic environment desk based assessment* August. Unpublished document

Collier, M. *Crucial Role for Hayes in the First World War Effort* (<http://middex.net/articles/munitions.htm>) 2014

Department of Communities and Local Government. 2012. *National Planning Policy Framework*

Historic England (formerly English Heritage) *Conservation Principles, Policies and Guidance for the Sustainable Management of the Historic Environment* 2008

Historic England *Historic Environment*. 2015. *Good Practice Advice in Planning: 1 The Historic Environment in Local Plans*

Historic England. 2015. *Historic Environment Good Practice Advice in Planning: 2 Managing Significance in Decision-Taking in the Historic Environment*

Historic England. 2015. *Historic Environment Good Practice Advice in Planning: 3 The Setting of Heritage Assets*

Gibbard, P.L. 1994. *The Pleistocene History of the Lower Thames Valley* Cambridge University Press

Greater London Archaeological Advisory Service. 2015. *Guidelines for Archaeological Projects in Greater London*. Unpublished document

Margary, I. 1955. *Roman Roads in Britain: I South of the Foss Way*

Mills, A.D. 2010. *A Dictionary of London Place Names*. Oxford University Press

MoLAS/English Heritage. 2000. *The Archaeology of Greater London: An Assessment of archaeological evidence for human presence in the area now covered by Greater London*

Victoria County History 1971 *A History of the County of Middlesex: Volume 4, Harmondsworth, Hayes, Norwood With Southall, Hillingdon With Uxbridge, Ickenham, Northolt, Perivale, Ruislip, Edgware, Harrow With Pinner*.

Weinreb, B., Hibbert, C., Keay, J. and Keay, J. (eds.). 2008. *The London Encyclopaedia*. Macmillan London Limited

Wymer, J. 1999. *The Lower Palaeolithic Occupation of Britain*. Trust for West Sussex Archaeology Ltd

3. **Cartographic**

1754 John Rocque's Map of Middlesex

1807 Ordnance Survey Drawing

1815 Hayes Enclosure Map

1868 Ordnance Survey

1897 Ordnance Survey

1914 Ordnance Survey

1919 Ministry of Munitions National Filling Factory No 7

1935 Ordnance Survey

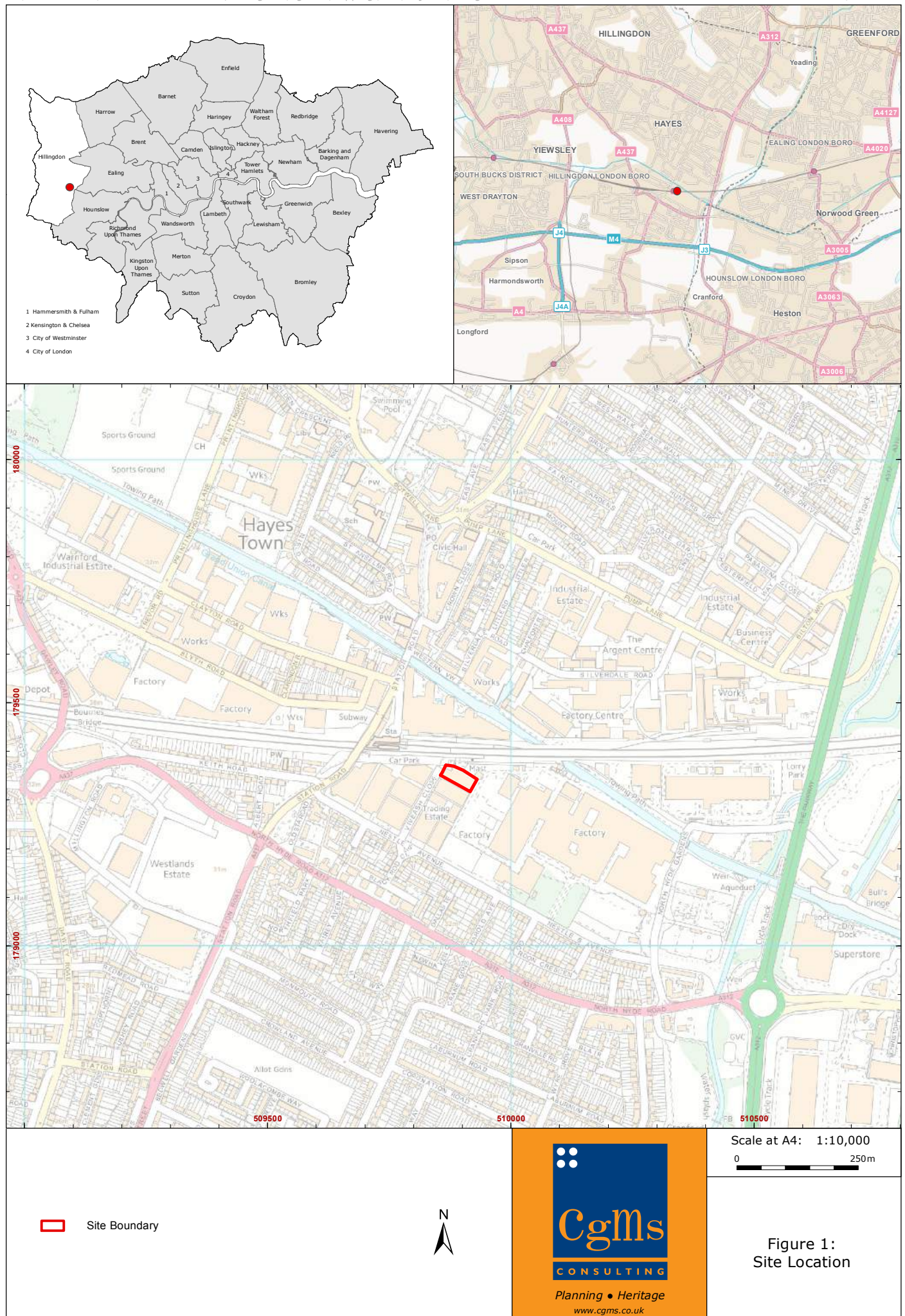
1945 Aerial Photograph

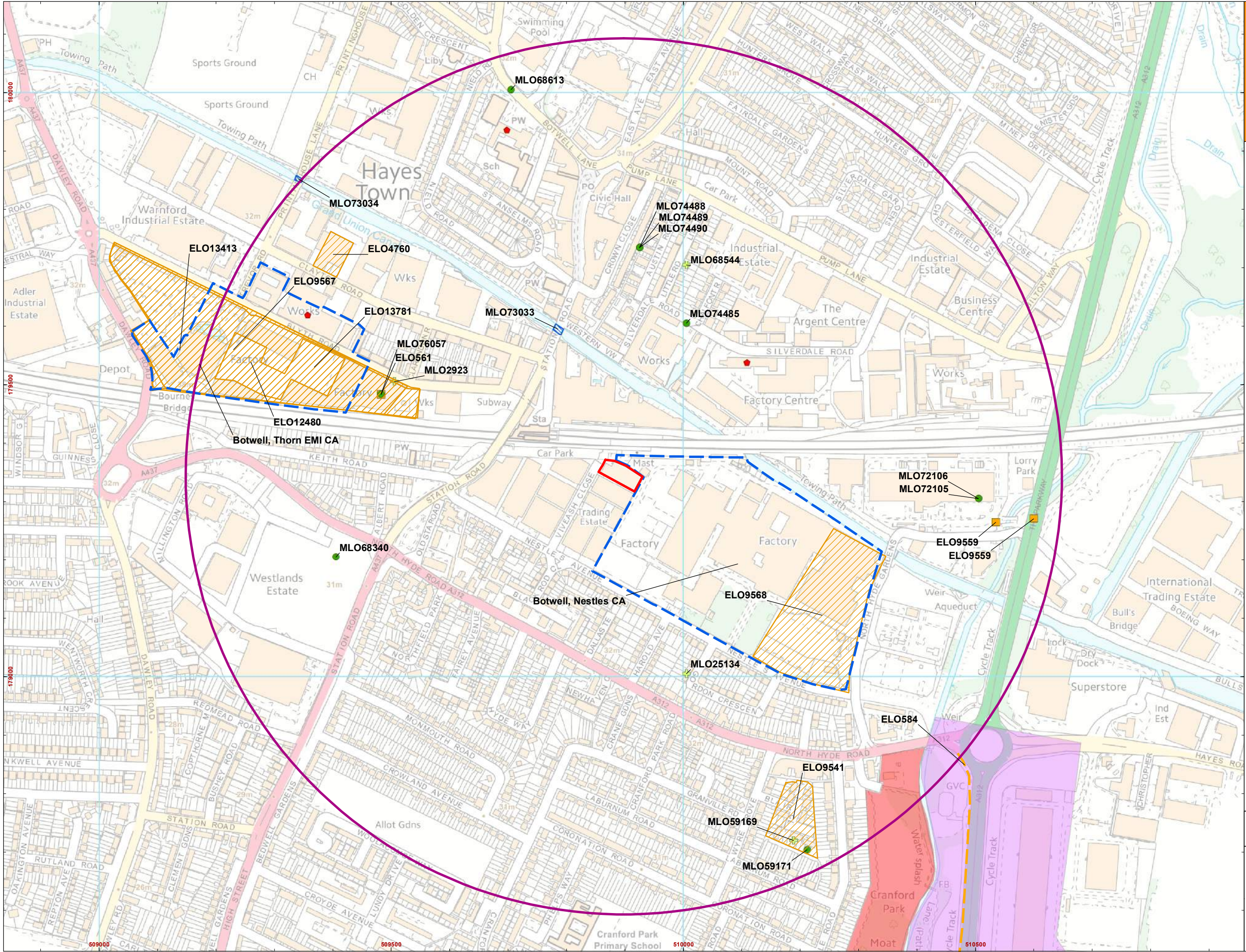
1963-66 Ordnance Survey

1974-75 Ordnance Survey

1999 Aerial Photograph

2016 Aerial Photograph







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Site Boundary

Search Radius
750m

Designated Assets:

- Listed Building
- Conservation Area

Archaeological Priority Area

- Cranford Park North
- Cranford and Cranford Moat

Non-Designated Assets:

HER Record (point)

- Find Spot
- Monment

HER Record (polygon)

- Building

Previous Archaeological Work:

- Event Records (point)
- Event Record (line)
- Event Record (polyon)

Scale at A3: 1:6,000

**Figure 2:
Summary of Cultural
Heritage Assets (data
from GLHER)**



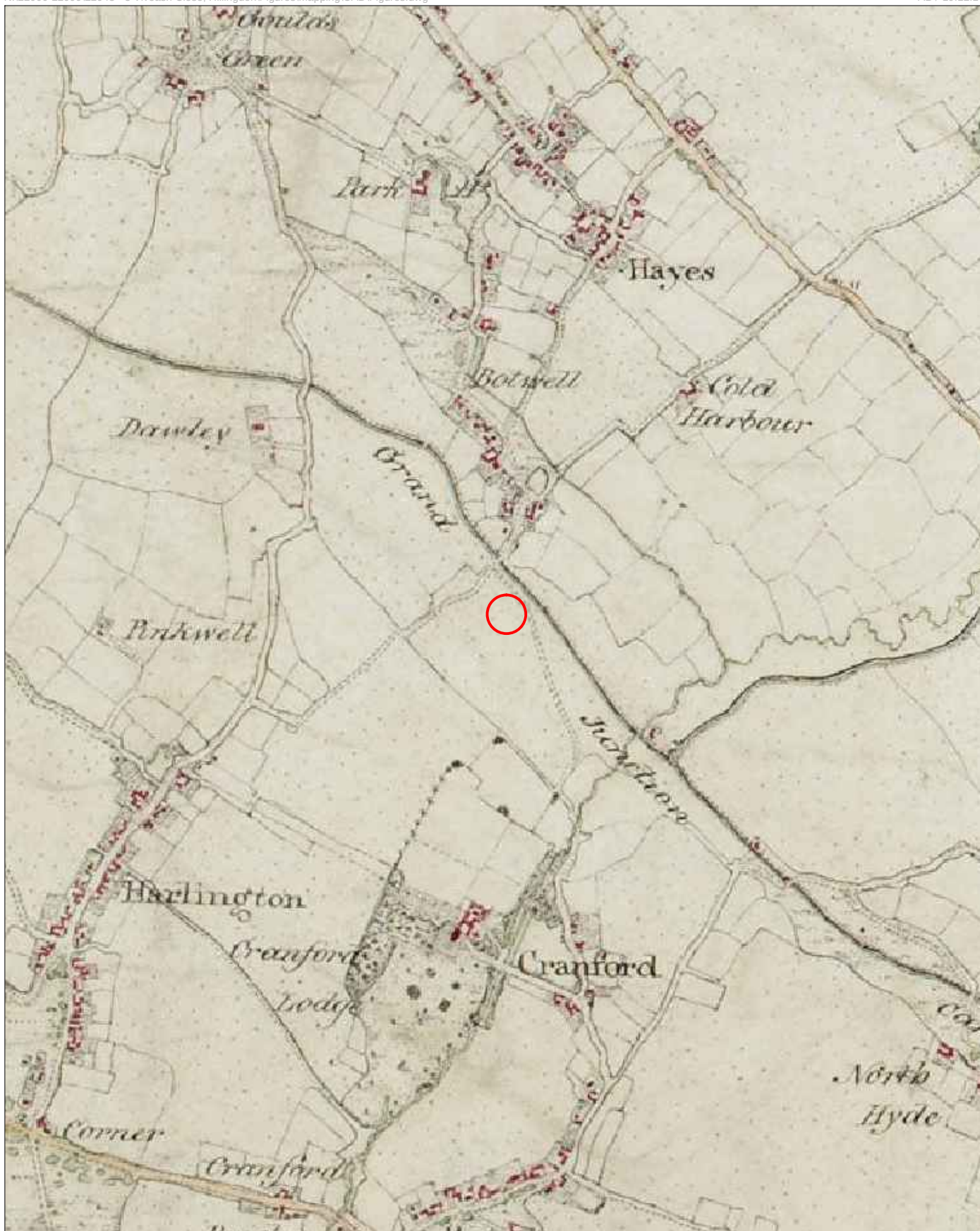
 Site Boundary



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Not to Scale:
Illustrative Only

Figure 3:
1754 John Rocque's Map of
Middlesex

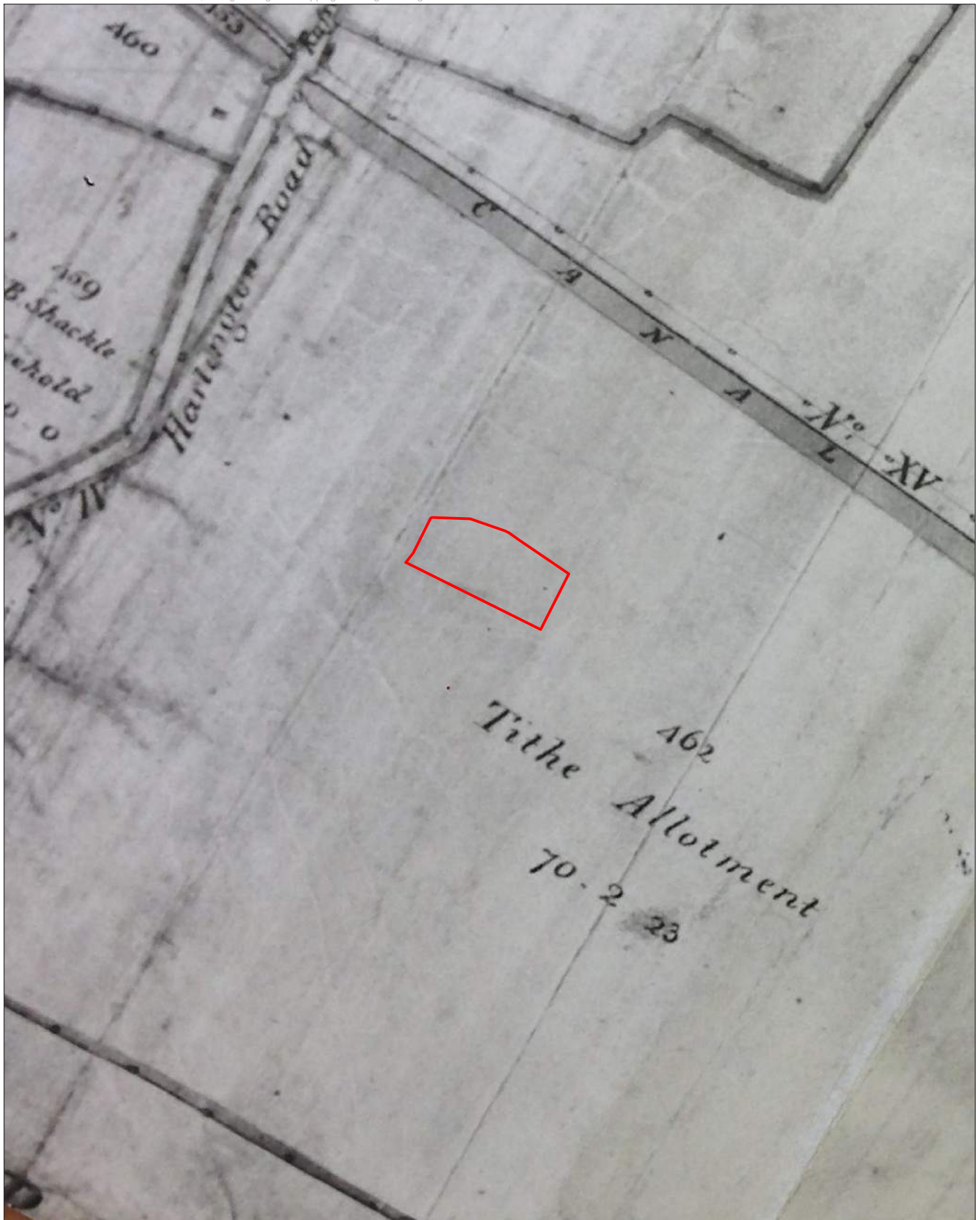


 Site Boundary



Not to Scale:
Illustrative Only

Figure 4:
1807 Ordnance Survey
Drawing



 Site Boundary



Not to Scale:
Illustrative Only

Figure 5:
1815 Hayes Enclosure Map



 Site Boundary



Not to Scale:
Illustrative Only

Figure 6:
1868 Ordnance Survey



 Site Boundary



Not to Scale:
Illustrative Only

Figure 7:
1897 Ordnance Survey

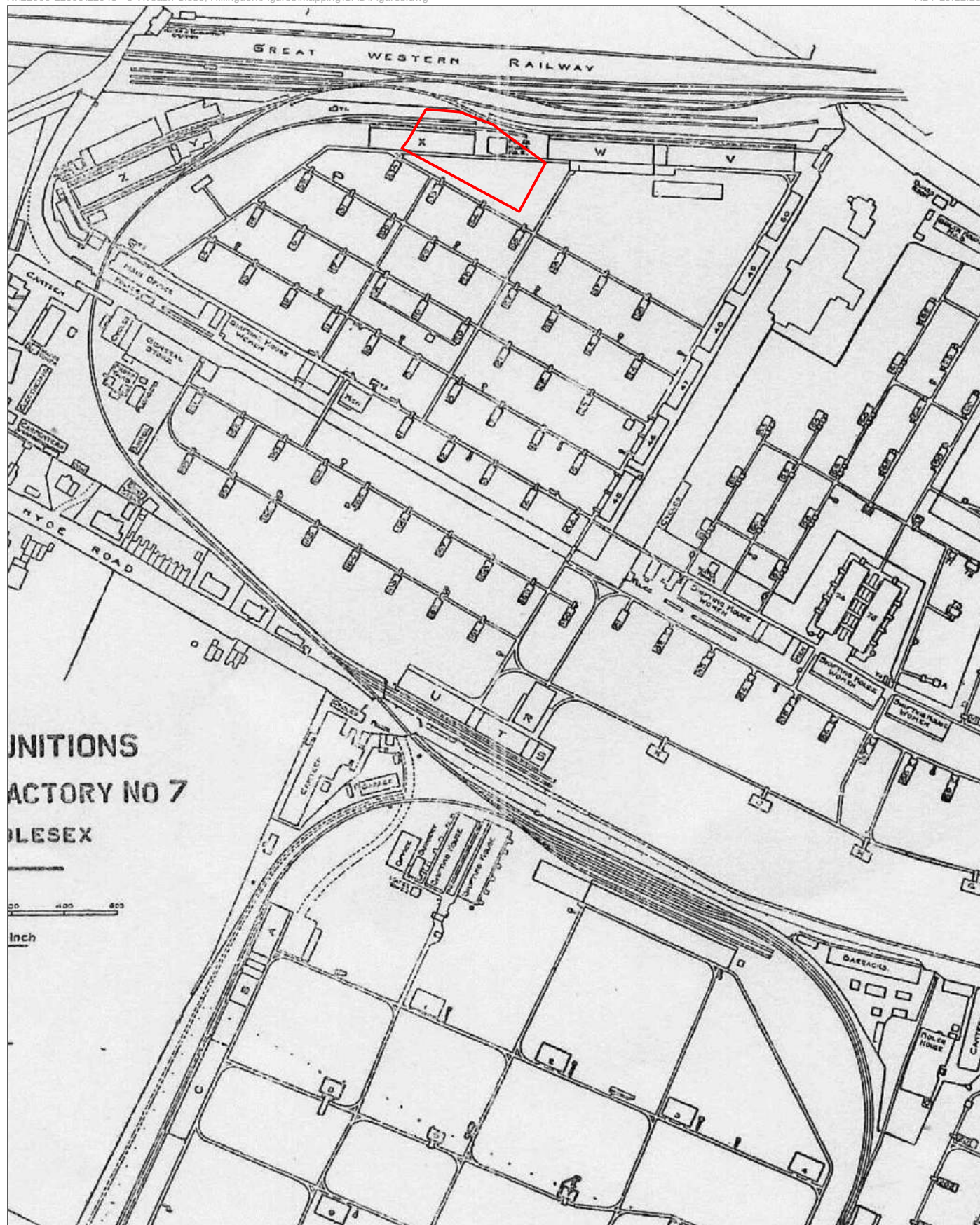


 Site Boundary



Not to Scale:
Illustrative Only

Figure 8:
1914 Ordnance Survey

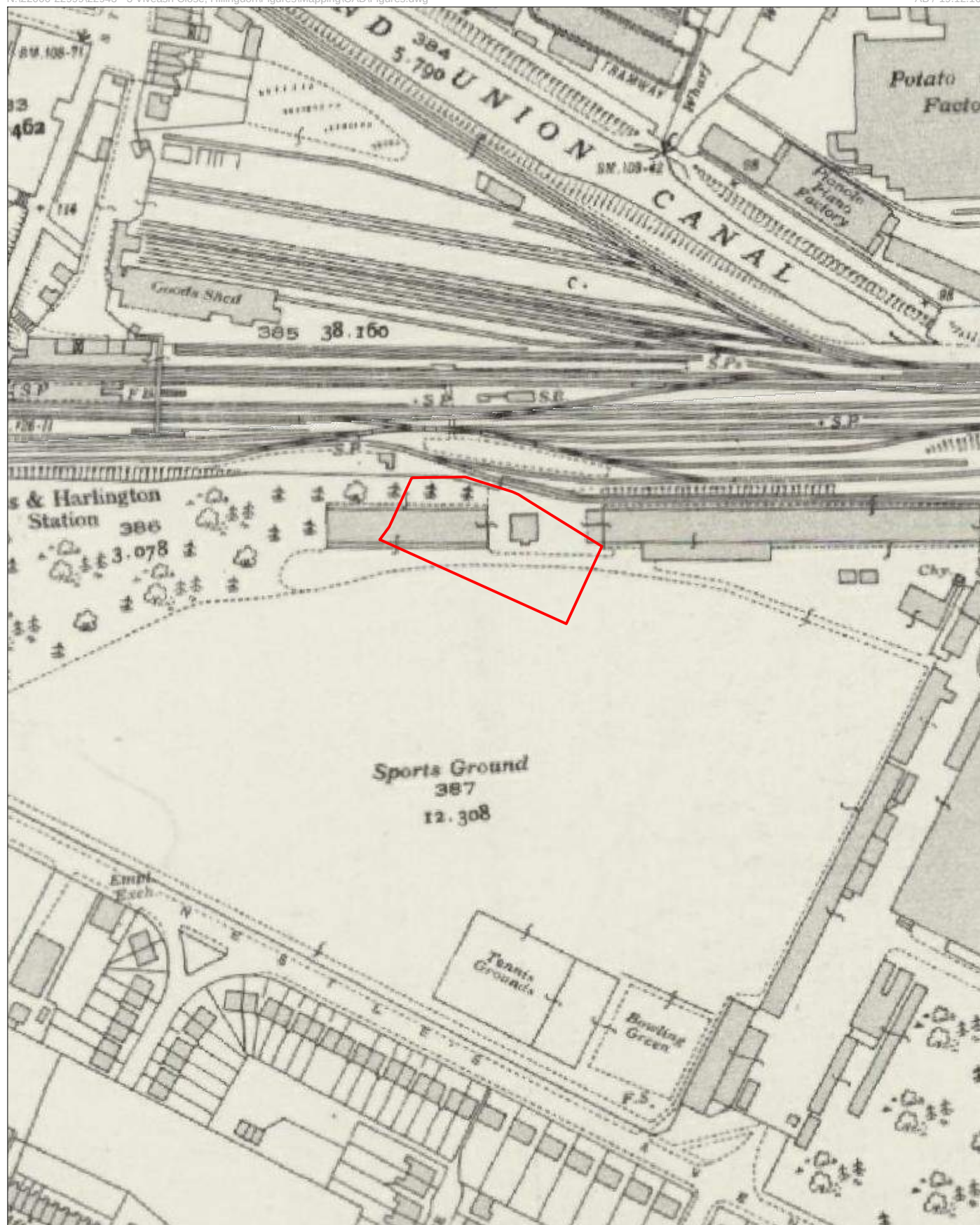


 Site Boundary



Not to Scale:
Illustrative Only

Figure 9:
1919 Ministry of Munitions
National Filling Factory No 7



 Site Boundary



Not to Scale:
Illustrative Only

Figure 10:
1935 Ordnance Survey



 Site Boundary



Not to Scale:
Illustrative Only

Figure 11:
1945 Aerial Photograph



 Site Boundary



Not to Scale:
Illustrative Only

Figure 12:
1963-66 Ordnance Survey