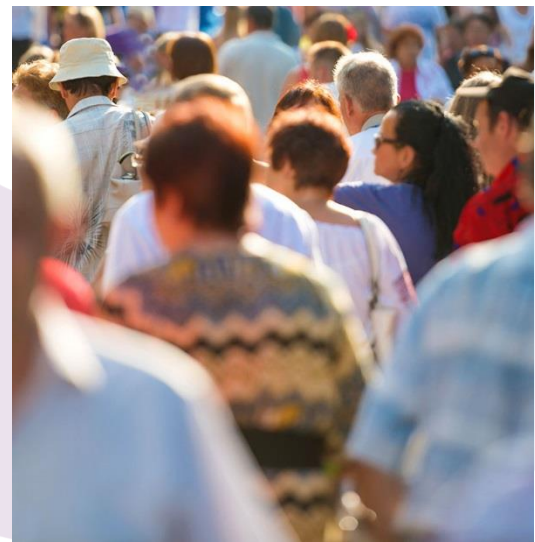
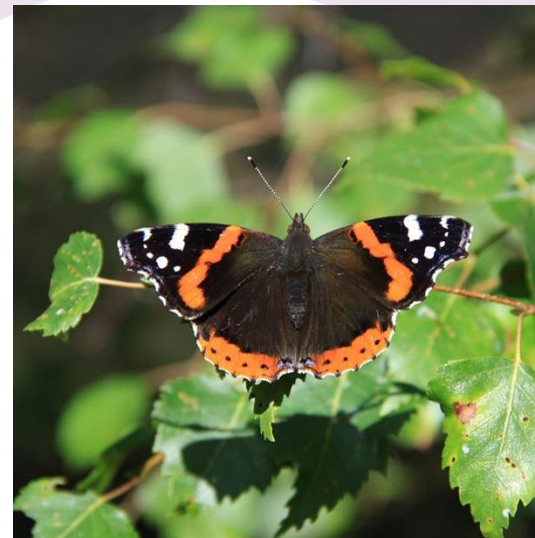


Humber Refinery, FAME Tank Development

Phase 1 Heritage/Archaeology
Desk Based Assessment



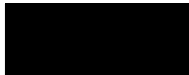
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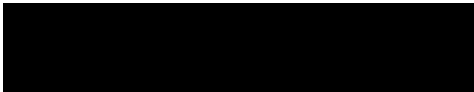
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Document revisions

No.	Details	Date
1	Draft for Internal Review	11/01/20



Executive Summary

Wood Group UK Ltd ('Wood') has been commissioned by Phillips 66 to undertake a Phase 1 Historic Environment Desk-Based Assessment (DBA) relating to a forthcoming planning application to construct two FAME (Fatty Acid Methyl Esters) storage tanks and associated infrastructure at the Humber Refinery South Tank Farm (STF). This report details the approach and findings of the assessment.

The proposed development would comprise the construction of two closed storage tanks to provide storage capacity for FAME products. There have been no previous archaeological investigations at the Site. Though archaeological investigations undertaken c. 700m north of the Site revealed the extensive survival of modest settlements dating to both the Iron Age and Romano-British periods.

There are no designated heritage assets located within the 1km study area, nor any non-designated records identified within the site boundary.

Evidence of prehistoric remains within the study area demonstrate a range of activity within the vicinity of the Site, supporting the idea that this marshland-riverside landscape was exploited for settlement and saltmaking purposes during this period. Evidence of domestic structures within the study area, suggests that, for at least some parts of the Bronze Age and Iron Age periods, this area demonstrated a relatively densely settled community within a rural hinterland. Therefore, there is a medium potential for archaeological activity dating to the prehistoric period at the Site.

Nearby archaeological investigations suggest a high likelihood that these Iron Age settlements and enclosures continued in use during the subsequent Romano-British period, indicating a medium potential for previously unrecorded archaeological activity dating to the Romano-British period at the Site.

The Site appears to have remained as agricultural land during the early medieval, medieval and post-medieval periods. Any previously unrecorded remains from these later periods encountered at the Site are therefore likely to relate to agricultural use or stray findspots, and the potential for their presence is anticipated to be low.

The significance of previously unknown archaeological remains will depend on the nature, extent and condition of their survival. Historically, the land is characterised as an unused greenfield site and did not suffer modern disturbance, thus enhancing the potential survival of any below-ground remains.

The proposed development is expected to cause direct effects on any below ground archaeological deposits that may be present within the site boundary. These effects are likely to comprise the removal or disturbance of buried deposits due to intrusive groundwork activities.

Further information, therefore, will be likely required about the presence, nature and condition of potential archaeological remains within the Site, ascertained prior to development. This will likely take the form of a small archaeological evaluation, comprising one or two trial trenches, which will help define the nature and extent of any archaeological resources present within the Site and determine the need for a future mitigation strategy.

Due to the lack of designated heritage assets and the nature of the Site's location, changes to the setting arising from any development within the Site are not expected to give rise to harm to the significance of any heritage assets located within the 1km study area.

Contents

1.	Introduction	6
1.1	Purpose of this Report	6
1.2	The Site	6
1.3	Scope	6
1.4	Proposed Development	7
2.	Legislative and Policy Background	8
2.1	Legislative Overview	8
2.2	Statutory Provisions	8
	Ancient Monuments and Archaeological Areas Act 1979	8
	Planning (Listed Buildings and Conservation Areas) Act 1990	8
2.3	National Planning Guidance	9
	National Planning Policy Framework (NPPF)	9
2.4	Local Planning Policy	11
3.	Methodology	12
3.1	Data Collection	12
3.2	Limitations and Assumptions	12
3.3	Site Visit	13
3.4	Assessment of Archaeological Potential	13
3.5	Heritage Significance	13
4.	Desk-Based Assessment	15
4.1	Location and Geology	15
4.2	Previous Archaeological Investigations	16
4.3	LiDAR	17
4.4	Historic Landscape Characterisation	17
4.5	Designated Heritage Assets	18
4.6	Non-Designated Heritage Assets	18
4.7	Archaeological and Historical Background	18
4.8	Archaeological Potential	23
5.	Statement of Significance	24
5.1	Archaeological Significance	24
	Potential Survival of Archaeological Remains	24
5.2	The Setting of Heritage Assets	24

6. Recommendations	26
Non-Designated Records within 1km Study Area	30
Previous Archaeological Events within 1km Study Area	33
<hr/>	
Bibliography	27
<hr/>	
Table 2.1 National policies	9
Table 2.2 The North Lincolnshire Core Strategy (Local Development Framework)	11
Table 3.1 Historic Environment Criteria to Assess the Significance of Features	14
Table A.1 North Lincolnshire HER Monument Records	30
Table A.2 North Lincolnshire HER Event Records	33
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Appendix A Heritage Asset Index	

1. Introduction

1.1 Purpose of this Report

- 1.1.1 Wood Group UK Ltd ('Wood') has been commissioned by Phillips 66 to undertake a Phase 1 Historic Environment Desk-Based Assessment (DBA) relating to a forthcoming planning application to construct two FAME storage tanks and associated infrastructure at the Humber Refinery South Tank Farm (STF) (hereafter referred to as "the Site")
- 1.1.2 This report details the approach and findings of the assessment. This DBA aims to provide a description of the historic character of the Site. It identifies the key features of historic environment interest which could be affected by development within the Site and provides recommendations of further assessment which may be required in the event that further development should be considered.
- 1.1.3 Section 2 presents the legislative and policy context for the study. Section 3 presents the methodology and Section 4 presents the results. A summary of the heritage significance of the Site is included in Section 5 and recommendations for any further actions required to support a potential planning application for the future development of the Site are detailed in Section 6.

1.2 The Site

- 1.2.1 The Site (**Figure 1**) covers an area of slightly less than 1 hectare (ha) and is located within the existing Humber Refinery STF, on land located to the south of the A160, at National Grid Reference (NGR) TA 16881642. The Site is characterised by flat, low-lying land that currently lies undeveloped, and is covered by untended grass and shrubs. It is bordered on all sides by existing features of the Humber refinery, with the A160 dual carriageway to the north and a PD Ports to the east.
- 1.2.2 The Site is directly accessed by road from the A160, and then via the existing internal access roads.

1.3 Scope

- 1.3.1 This is a preliminary desk-based appraisal which has been informed by a review of available information on the historic character of the Site.
- 1.3.2 The aim of this preliminary DBA is to identify the cultural heritage resources within the Site and the surrounding study area. The objectives of this assessment are to:
- Identify recorded archaeological and heritage features within the site boundary and assess their heritage significance;
 - Identify the potential for previously unrecorded features to be present within the Site;
 - Identify potential archaeological and heritage constraints and opportunities within the Site; and
 - Make recommendations for further work where required.
- 1.3.3 Cultural heritage within this context includes all buried and upstanding archaeological remains, built heritage sites, historic landscapes and any other features that contribute to the archaeological and historic interest of the area.

1.4 Proposed Development

1.4.1

A plan of the proposed upgrades at the Site is included within the Proposed Site Plan (**Figure 2**). The proposed development would comprise the construction of two closed storage tanks to provide storage capacity for FAME (Fatty Acid Methyl Esters) products. Elements of the construction are as follows:

- Each of the proposed tanks would be 23m in height with a diameter of 24m and with a storage capacity of approximately 10,400m³ (approximately 9,150 tonnes of FAME). The total capacity and resulting tonnage of the two proposed storage tanks would therefore be around 21,000m³ or 18,000 tonnes;
- Concrete cone foundations will be created for each tank and a 1.5m high bund will be created around the tank locations to form a secure containment area for both construction and operational activities;
- The proposed tanks would be constructed from carbon steel tank plates and the land within the bunded area, around the tanks, will incorporate an impermeable membrane with hardcore on top;
- Removal of the existing ditch on site and installation of a new land drain routed outside the bund wall;
- Removal of topsoil and laying of well compacted hardcore blinded with fines to be laid for membrane layer covered with gravel;
- Installation of sumps and pump;
- New pipelines will be installed within the existing pipetracks, and corridors to connect the oil storage tanks to the existing piping network on-site;
- The installation of industrial instrumentation and associated cabling, which will be used to control and monitor conditions, will also be required. Instrumentation could include switchboards, distribution boards, control panels and visual speed drives;
- It is expected that site access during and post-construction would be via the existing access point from the A160 to the wider site, with vehicles then using the existing internal access roads; and
- It is estimated that the construction programme, including mobilisation and de-mobilisation from the Site, would be approximately 24 months. This would include around 8 months for the civil engineering works (soil stripping, foundations, bunding etc.) and around 16 months for tank construction.

2. Legislative and Policy Background

2.1 Legislative Overview

- 2.1.1 Certain assets that are deemed to be of particular importance are given legal protection. The importance of heritage assets and the protection of these and their settings is recognised in legislation as well as national, regional and local planning policy.
- 2.1.2 European conventions relating to archaeological heritage include the 1985 Granada Convention for the Protection of Architectural Heritage, the 1992 Valetta Convention on the Protection of Archaeological Heritage, as well as the European Landscape Convention. The latter has been in force in the UK since 2007, promotes the protection of landscapes and recognises the role of landscape as a component of cultural heritage. These conventions are incorporated into UK policy and legislation.

2.2 Statutory Provisions

Ancient Monuments and Archaeological Areas Act 1979

- 2.2.1 The *Ancient Monuments and Archaeological Areas Act (1979)* sets out that sites considered to be of national importance are required to be compiled in a Schedule of Monuments. Scheduled monuments may include any above or below ground building, structure or work which fulfils the criteria for scheduling set out by the Secretary of State for Culture, Media and Sport. These sites are accorded statutory protection and Scheduled Monument Consent is required before any works are carried out which would have the effect of demolishing, destroying, damaging, removing, repairing, altering, adding to, flooding or covering up a Scheduled Ancient Monument. Scheduled monument protection is offered not only to the known structures and remains of a site but also to the soil under and around them to protect any archaeological interest. This act also provided for the designation of Areas of Archaeological Interest in which statutory provisions for access to construction sites for carrying out archaeological works apply.

Planning (Listed Buildings and Conservation Areas) Act 1990

- 2.2.2 *The Planning (Listed Buildings and Conservation Areas) Act 1990* covers the registration of Listed Buildings (buildings that are seen to be of special architectural or historic interest) and designation of Conservation Areas (areas of special architectural or historic interest the character or appearance of which it is desirable to preserve or enhance).
- 2.2.3 A Listed Building may not be demolished, altered or extended in any manner which would affect its character as a building of special architectural or historic interest without Listed Building Consent being granted. There are three Grades of listing (in descending order):
- Grade I: buildings of exceptional interest;
 - Grade II*: particularly important buildings of more than special interest; and
 - Grade II: buildings of special interest, warranting every effort to preserve them.
- 2.2.4 The 1990 Act requires local planning authorities to draw up and publish proposals for the preservation and enhancement of Conservation Areas and sets out a duty to consider the desirability of preserving the character of a Conservation Area in planning decisions. The act also

gives local planning authorities the ability to control demolition and other works in Conservation Areas which would not normally require planning permission.

2.3 National Planning Guidance

National Planning Policy Framework (NPPF)

2.3.1 The revised National Planning Policy Framework 2019 (NPPF)¹ sets out the Government’s planning policies for England and how these should be applied. The NPPF provides a framework for local development plans, against which planning applications are determined. Of relevance to the Historic Environment is Section 16: Conserving and Enhancing the Historic Environment. Guidance on the implementation of the NPPF is provided by the Planning Practice Guidance (PPG), published by the Department for Communities and Local Government (DCLG)². Key aspects of the NPPF relevant to this appraisal are set out in **Table 2.1**.

Table 2.1 National policies

Policy Document	Policy Reference	Summary
Revised National Planning Policy Framework (NPPF) (2019)	Section 16; paragraph 189	In determining applications, local planning authorities should require an applicant to describe the significance of any heritage assets affected, including any contribution made by their setting. The level of detail should be proportionate to the assets’ importance and no more than is sufficient to understand the potential impact of the proposal on their significance. As a minimum the relevant historic environment record should have been consulted and the heritage assets assessed using appropriate expertise where necessary. Where a site on which development is proposed includes, or has the potential to include, heritage assets with archaeological interest, local planning authorities should require developers to submit an appropriate desk-based assessment and, where necessary, a field evaluation.
	Section 16; paragraph 190	Local planning authorities should identify and assess the particular significance of any heritage asset that may be affected by a proposal (including by development affecting the setting of a heritage asset) taking account of the available evidence and any necessary expertise. They should take this into account when considering the impact of a proposal on a heritage asset, to avoid or minimise any conflict between the heritage asset’s conservation and any aspect of the proposal.
	Section 16; paragraph 192	In determining applications, local planning authorities should take account of: <ul style="list-style-type: none"> a) the desirability of sustaining and enhancing the significance of heritage assets and putting them to viable uses consistent with their conservation; b) the positive contribution that conservation of heritage assets can make to sustainable communities including their economic vitality; and c) the desirability of new development making a positive contribution to local character and distinctiveness.
	Section 16; paragraph 193	When considering the impact of a proposed development on the significance of a designated heritage asset, great weight should be given to the asset’s conservation (and the more important the asset, the greater the weight should be). This is irrespective of whether any potential harm amounts to substantial harm, total loss or less than substantial harm to its significance.
	Section 16; paragraph 194	Any harm to, or loss of, the significance of a designated heritage asset (from its alteration or destruction, or from development within its setting), should require clear and convincing justification. Substantial harm to or loss of:

¹ <https://www.gov.uk/government/publications/national-planning-policy-framework--2> accessed 08 October 2020

² <https://www.gov.uk/guidance/conserving-and-enhancing-the-historic-environment> accessed 08 October 2020



Policy Document	Policy Reference	Summary
		<ul style="list-style-type: none"> a) grade II listed buildings, or grade II registered parks or gardens, should be exceptional; b) assets of the highest significance, notably scheduled monuments, protected wreck sites, registered battlefields, grade I and II* listed buildings, grade I and II* registered parks and gardens, and World Heritage Sites, should be wholly exceptional.
	Section 16; paragraph 195	<p>Where a proposed development will lead to substantial harm to (or total loss of significance of) a designated heritage asset, local planning authorities should refuse consent, unless it can be demonstrated that the substantial harm or total loss is necessary to achieve substantial public benefits that outweigh that harm or loss, or all of the following apply:</p> <ul style="list-style-type: none"> a) the nature of the heritage asset prevents all reasonable uses of the site; and b) no viable use of the heritage asset itself can be found in the medium term through appropriate marketing that will enable its conservation; and c) conservation by grant-funding or some form of not for profit, charitable or public ownership is demonstrably not possible; and d) the harm or loss is outweighed by the benefit of bringing the site back into use.
	Section 16; paragraph 196	<p>Where a development proposal will lead to less than substantial harm to the significance of a designated heritage asset, this harm should be weighed against the public benefits of the proposal including, where appropriate, securing its optimum viable use.</p>
	Section 16; paragraph 197	<p>The effect of an application on the significance of a non-designated heritage asset should be taken into account in determining the application. In weighing applications that directly or indirectly affect non-designated heritage assets, a balanced judgement will be required having regard to the scale of any harm or loss and the significance of the heritage asset.</p>
	Section 16; paragraph 198	<p>Local planning authorities should not permit the loss of the whole or part of a heritage asset without taking all reasonable steps to ensure the new development will proceed after the loss has occurred.</p>
	Section 16; paragraph 199	<p>Local planning authorities should require developers to record and advance understanding of the significance of any heritage assets to be lost (wholly or in part) in a manner proportionate to their importance and the impact, and to make this evidence (and any archive generated) publicly accessible. However, the ability to record evidence of our past should not be a factor in deciding whether such loss should be permitted.</p>
	Section 16; paragraph 200	<p>Local planning authorities should look for opportunities for new development within Conservation Areas and World Heritage Sites, and within the setting of heritage assets, to enhance or better reveal their significance. Proposals that preserve those elements of the setting that make a positive contribution to the asset (or which better reveal its significance) should be treated favourably.</p>
	Section 16; paragraph 201	<p>Not all elements of a Conservation Area or World Heritage Site will necessarily contribute to its significance. Loss of a building (or other element) which makes a positive contribution to the significance of the Conservation Area or World Heritage Site should be treated either as substantial harm under paragraph 195 or less than substantial harm under paragraph 196, as appropriate, taking into account the relative significance of the element affected and its contribution to the significance of the Conservation Area or World Heritage Site as a whole.</p>
	Section 16; paragraph 202	<p>Local planning authorities should assess whether the benefits of a proposal for enabling development, which would otherwise conflict with planning policies but which would secure the future conservation of a heritage asset, outweigh the disbenefits of departing from those policies.</p>

- 2.3.2 The NPPF discusses the significance of assets and the weight of consideration that is to be given to both designated and non-designated assets. Within the Glossary of the NPPF, designated assets are listed as: a World Heritage Site, Scheduled Monument, Listed Building, Protected Wreck Site, Registered Park and Garden, Registered Battlefield or Conservation Area.
- 2.3.3 Further guidance on how to implement national planning policy and guidance is available from Historic England through a series of Good Practice Advice Notes (GPA) and Historic England Advice Notes (HEAN) which cover a number of topics and are available through the Historic England website.

2.4 Local Planning Policy

- 2.4.1 The Site is located within the administrative boundary of North Lincolnshire Council. The North Lincolnshire Local Plan was adopted in May 2003, and has since been replaced by the Local Development Framework. This contains a suite of Development Plan Documents (DPDs) which set out the local planning policy for the area. The North Lincolnshire Local Plan: Core Strategy,³ adopted in June 2011, is the key strategic planning document for the unitary authority area and is used to help shape development and determine planning applications.
- 2.4.2 The Core Strategy outlines the spatial framework for future development and land use within North Lincolnshire. It sets out the broad locations for delivering sustainable development and enhancement, including new housing and other important strategic development needs such as employment, retail, leisure, community, public services, and transport, as well as mitigating and adapting to the effects of climate change. As well as these strategic policies, the Core Strategy sets out more detailed policies to guide development. The key policy relevant to the historic environment is set out in **Table 2.2** below.

Table 2.2 The North Lincolnshire Core Strategy (Local Development Framework)

Policy	Provision
CS6: Historic Environment	<p>The council will promote the effective management of North Lincolnshire's historic assets through:</p> <ul style="list-style-type: none"> - Safeguarding the nationally significant medieval landscapes of the Isle of Axholme (notably the open strip fields and turbaries) and supporting initiatives which seek to realise the potential of these areas as a tourist, educational and environmental resource; - Preserving and enhancing the rich archaeological heritage of North Lincolnshire; - Ensuring that development within Epworth (including schemes needed to exploit the economic potential of the Wesleys or manage visitors) safeguards and, where possible, improves the setting of buildings associated with its Methodist heritage; and - Ensuring that development within North Lincolnshire's Market Towns safeguards their distinctive character and landscape setting, especially Barton upon Humber, Crowle and Epworth. <p>The council will seek to protect, conserve and enhance North Lincolnshire's historic environment, as well as the character and setting of areas of acknowledged importance including historic buildings, conservation areas, listed buildings (both statutory and locally listed), registered parks and gardens, scheduled ancient monuments and archaeological remains.</p> <p>All new development must respect and enhance the local character and distinctiveness of the area in which it would be situated, particularly in areas with high heritage value.</p> <p>Development proposals should provide archaeological assessments where appropriate.</p>

³ <https://www.northlincs.gov.uk/planning-and-environment/planning-policy-local-development-framework/#1591178700873-580a8a70-7d5e> accessed 16 December 2020

3. Methodology

3.1 Data Collection

3.1.1 HER data was collected on 11th January 2021 for both designated and non-designated heritage assets, for a study area extending 1km from the site's red line boundary (RLB) (see **Figure 3**).

3.1.2 For the purpose of this study, the following sources were consulted:

- National and County-based registers of known archaeological and historical sites;
- Cartographic and historic documents;
- Aerial photographs;
- Historic Landscape Characterisations;
- Geological mapping;
- Grey literature reports of previous archaeological investigations within the study area; and
- Published secondary historical and archaeological information.

3.1.3 These were obtained from the following organisations:

- Designation Data from the National Heritage List for England (NHLE), available from the Historic England website;
- The North Lincolnshire Historic Environment Record;
- Tithe Maps from The Genealogist (online website);
- Historic Ordnance Survey Maps (National Library of Scotland website);
- British Geological Survey Mapping;
- Consultation with the North Lincolnshire Historic Environment Officer; and
- other readily available secondary sources as referenced in the text.

3.1.4 The assistance of these bodies and their staff is gratefully acknowledged.

3.1.5 Each of the identified heritage asset and event records contained within the study area have been listed within the Historic Environment Records Index that forms **Appendix A** of this report. Their locations are shown on **Figure 3**.

3.2 Limitations and Assumptions

3.2.1 The HER is continually updated as further data regarding the historic environment becomes available; for example, when the results of recent archaeological investigations are made available. As the HER is only a record of known features, it is not a reliable predictive tool, but can provide useful information that can be used with other information to develop an understanding of the potential presence, nature and significance of archaeological remains.

3.2.2 An attempt has been made to consult all readily available documentary sources. However, it is always possible that there are additional documentary sources which have not been identified; for example, those held under obscure references.

3.3 Site Visit

- 3.3.1 A site visit was not deemed necessary for the purposes of this report. The nature of site's location, enclosed by modern refinery buildings, indicates that there are no settings issues to address, nor are there any heritage assets within visual proximity of the Site. A review of the available LiDAR data (see **Section 4.3**) reveals that the Site contains no examples of microtopography that could be archaeological in nature.

3.4 Assessment of Archaeological Potential

- 3.4.1 Professional judgement has been used to assign a level of potential for the Site to contain yet unknown below ground archaeological remains according to the system described below.
- **High** – There is recorded evidence that archaeological features and finds of a given period are likely to be represented on the Site;
 - **Medium** – Recovery of material, or observations of activity near the Site, suggests that archaeological features and finds of a given period may be represented on the Site; and
 - **Low** – There is no evidence which suggests that archaeological features and finds of a given period are likely to be represented on the Site.

3.5 Heritage Significance

- 3.5.1 Where the potential for the presence of heritage assets is rated as medium or high, an assessment of the heritage significance of these assets has been undertaken. This assessment considers the potential heritage interests of the assets in addition to their likely preservation and distribution and is based on professional judgement as informed by relevant guidance (Historic England, 2017; ClfA, 2017) and the NPPF.
- 3.5.2 The heritage significance of potential heritage assets within the site boundary are assigned to one of four classes (**Table 3.1**) shown below.

Table 3.1 Historic Environment Criteria to Assess the Significance of Features

Value	Asset Examples	Rationale
Very High	World Heritage Sites (WHS) and other assets of acknowledged international importance.	World heritage sites are designated on the basis of 'Outstanding Universal Value' and are of international importance.
High	Scheduled Monuments, Listed Buildings, Registered Battlefields, Registered Parks and Gardens, Registered Historic Landscapes. Other designated and non-designated assets of demonstrable national importance.	These asset classes are considered both in policy terms and through best practice to be of or equivalent to demonstrable national importance.
Moderate	Conservation Areas, locally listed buildings or non-designated monuments that have significance for a high level of archaeological, architectural, historic and/or artistic interest.	These include archaeological sites which do not merit scheduling, but which are nevertheless of interest or which could make a substantial contribution to established regional research agendas.
Low/Negligible	Non-designated assets that have significance for elements of archaeological, architectural, historic or artistic interest.	Locally-significant archaeological sites that do not contribute to wider areas.

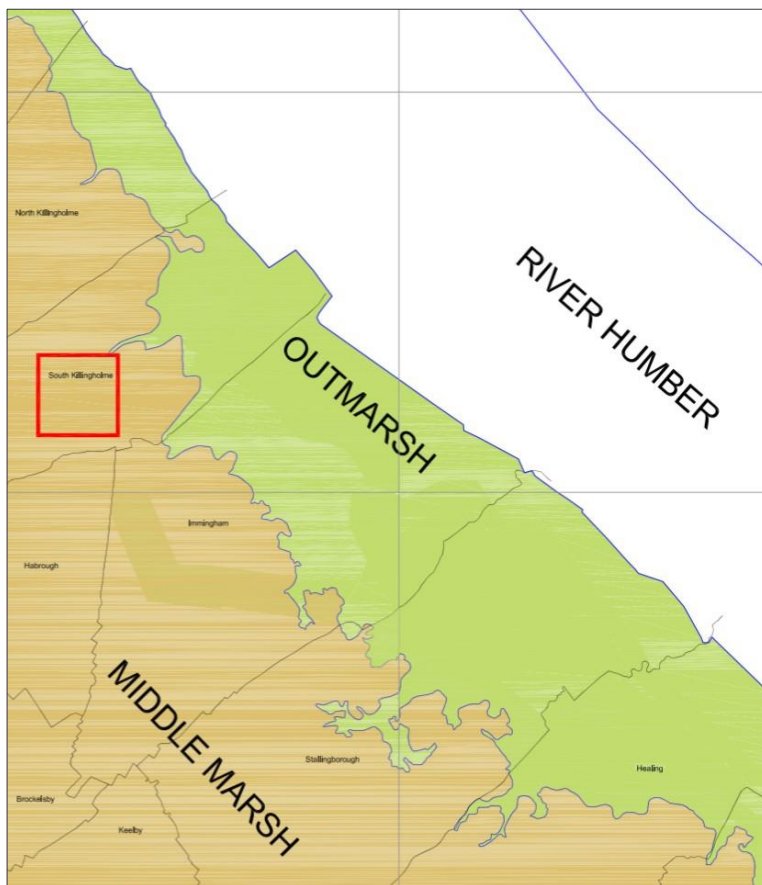
4. Desk-Based Assessment

4.1 Location and Geology

- 4.1.1 The Site is located within a predominantly industrial landscape (**Figure 1**), surrounded on all sides by the Humber refinery, with the nearest residential properties situated over 1.3km to the west in South Killingholme, and 1.5km to the south in Immingham. The Humber Estuary is located approximately 2km to the east of the Site. Agricultural land, areas of woodland at Houlton's Colvert and East End Farm, and a golf course, all characterise the wider landscape to the south and west.
- 4.1.2 The site of the proposed development lies entirely on the Lincolnshire Marsh, the strip of low-lying land extending from the foot of the Lincolnshire Wolds to the fringes of the Humber Estuary and the North Sea. The Site is generally level, varying between only 6.5m AOD and 4.8m AOD, with the highest elevations in the north-east of the RLB.
- 4.1.3 Assessment of the British Geological Survey (BGS) Geology of Britain Viewer⁴ data shows that the Site is underlain by sedimentary bedrock of the Burnham Chalk Formation. The chalk bedrock is overlain with superficial Till deposits, with Tidal Flat Deposits of Clay and Silt found to the east of the Site towards the River Humber. A historic borehole log for the Conoco Humber Refinery (BGS ID: 461087), located approximately 80m from the south-west corner of the Site boundary, recorded 42.06m of overburden formed of clay, silt and fine sand with cobbles of flint and chalk. The chalk is described as weathered with bands of grey flint and flint nodules present throughout the log.
- 4.1.4 The gently undulating till surface, at levels rising from 10m AOD to 25m AOD towards the Wolds, is known as 'Middle Marsh', and this flanked by the coastal plain known as 'Outmarsh' (**Plate 1**), land generally flatter, and below 10m AOD in level. The Outmarsh comprises estuarine and marine alluvial deposits resulting from Holocene sea-level rise and inundations, which overlie the till surface nearer the coast, whilst the Middle Marsh would have remained largely unchanged.
- 4.1.5 The formation of the upper estuarine alluvium has been variously dated to the early Iron Age (c. 1000 BC) and to the post-Roman period. It is clear that the rate and commencement of accumulation was highly variable, depending on localised and perhaps relatively minor changes in land levels and offshore features. The inland extent of the alluvium, shown on maps of the drift geology, can perhaps be taken as an indication of the coastline in the prehistoric period, when the episodes of tidal transgression described above extended the coast inwards at the expense of littoral marshland. The Site is located to the west of the present edge of the estuarine alluvium.

⁴ <http://mapapps.bgs.ac.uk/geologyofbritain/home.html> accessed 16 December 2020

Plate 1 Geographical areas, parish boundaries and approximate study area location (after Fraser, 2013: fig. 2)



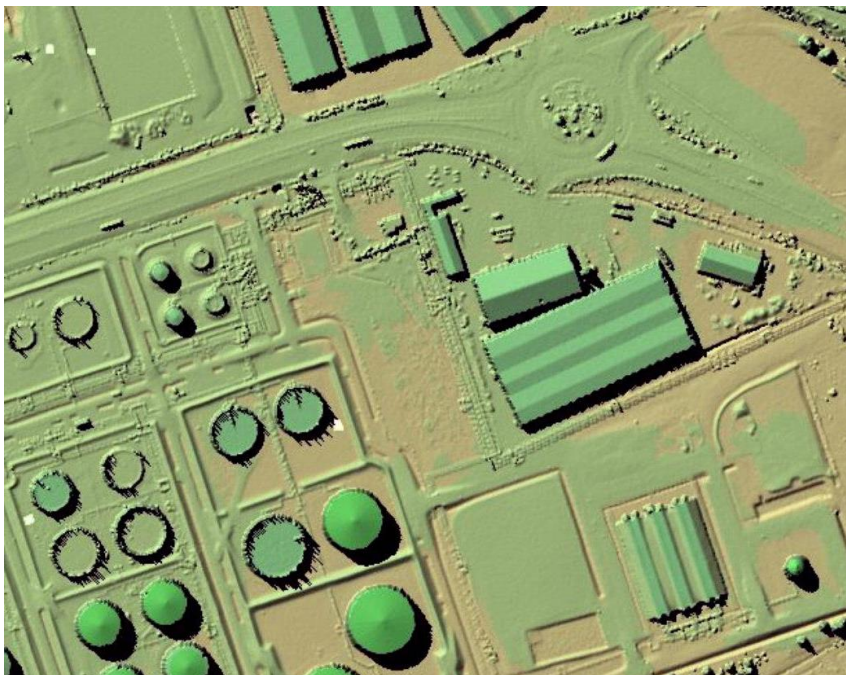
4.2 Previous Archaeological Investigations

- 4.2.1 There have been no previous archaeological investigations at the Site.
- 4.2.2 The closest archaeological investigation to the location of the proposed development were two phases of geophysical survey conducted in 2004. These were carried out by Geoquest associates at East End Farm (ELS2258), approximately 500m to the south-west, in advance of a tree planting scheme (Steedman, 2004). The survey detected a complex series of rectangular ditches conjoined to either side of a trackway, morphologically similar to a 'ladder settlement type'. A metal detecting survey, carried out at the same location in 2005, discovered a series of 3rd and 4th century AD coins and two Roman brooches (Staves, 2005). See **Section 4.7** below for further detail.
- 4.2.3 Archaeological investigations were also undertaken on the site of a Combined Heat and Power (CHP) plant, at North Killingholme, west of Rosper Road, approximately 700m north of the Site (Savage & Buglass, 2001; Noel, 1999), between 1999 and 2000. The geophysical survey, evaluation (ELS2947) and subsequent open-area excavation (ELS2948) revealed the extensive survival of modest settlements dating to both the Iron Age and Romano-British periods. See **Section 4.7** below for further detail.

4.3 LiDAR

- 4.3.1 The DEFRA Data Services Platform⁵ was used to access the LiDAR data for the Site (**Plate 2**). The image does not reveal any microtopographical features at the proposed development, with the exception of a modern surface water drain visible in the north-east of the Site. Given the small scale of the site it was not deemed necessary to do further detailed analysis of the raw LiDAR data in this instance.

Plate 2 LiDAR image (LiDAR Composite DTM 2019 1m Index) of the Site (DEFRA Survey Data Download)



4.4 Historic Landscape Characterisation

- 4.4.1 The Lincolnshire Historic Landscape Character Assessment (HLCA)⁶ provides a detailed review and description of the historic character of the Lincolnshire landscape (Lord & Macintosh, 2011). The HLCA allocates the Site within the NOM2: Immingham Coastal Marsh character zone (ibid: 27). The character zone is dominated by industrial activity, in particular installations related to the petrochemical industry and docks. The 'industrial' broad type accounts for 36% of the total land area within this character zone, including that of the proposed development.
- 4.4.2 Immingham is the only settlement within this character zone. There are still a few scattered isolated farmsteads, typically concentrated on the western periphery of this character zone. Several isolated farmsteads have been subsumed into industrial sites.
- 4.4.3 As a proportion of the total land area there are very few fields of any type within this character zone, due in the main to the development of agricultural land for industrial and port use during the

⁵ <https://environment.data.gov.uk/DefraDataDownload/> accessed 17 December 2020

⁶ <https://www.lincolnshire.gov.uk/historic-environment/historic-landscape-characterisation> accessed 17 December 2020

20th century. Those areas of surviving fields are fairly evenly split between modern consolidated fields and surviving planned enclosure.

4.4.4 The historic landscape evolution of the character zone will be discussed further in **Section 4.7**.

4.5 Designated Heritage Assets

4.5.1 There are no designated heritage assets located within the site boundary or the 1km study area.

4.6 Non-Designated Heritage Assets

4.6.1 There are no non-designated records identified within the site boundary.

4.6.2 There are 38 identified records and 26 archaeological events located within 1km of the Site on the HER. These do not all necessarily equate to heritage assets, as some records relate to chance finds which have since been moved, or to features which have subsequently been destroyed.

4.6.3 These heritage assets are mapped in **Figure 3** as well as tabulated in **Appendix A**. Some of the assets are also described in greater detail within the site chronology below.

4.7 Archaeological and Historical Background

4.7.1 The archaeological and historical background of the Site is discussed below. Using information held in the North Lincolnshire Historic Environment Record (NLHER), an overview of known archaeological investigations, observations, find-spots and other discoveries within the Site's 1km study area is given below.

4.7.2 **Figure 3** depicts the locations and references of archaeological sites recorded on the HER within the 1km study area of the Site.

Prehistoric Period

4.7.3 During the Early Mesolithic period, the coastline lay much further to the east. The landscape of the Lincolnshire Marsh would have been mostly wooded, but during the Late Mesolithic to the Late Neolithic period, the formation of peat deposits, dated to 3943 ± 100 BP (at Chapel Point, Lincolnshire), indicates that a wetter, more mixed woodland habitat, containing ferns and sedges (Van de Noort & Davies, 1993: 21). This was probably formed by water running off the Wolds. Meanwhile, sea levels rose rapidly, inundating the North Sea basin and leading to the formation of a new coastline much closer to the present alignment.

4.7.4 Pollen samples taken from higher peat deposits at Chapel Point, dated to the Neolithic period, seem to suggest that some farming may have been taking place in the area of the Lincolnshire Marsh at that time (*ibid.*), presumably with some forest clearance. To the north of the study area, settlement activity is represented by some Neolithic material in a flint assemblage recovered during trial excavations for the Able UK vehicle storage facility in North Killingholme. A Neolithic polished stone axe was found north of Immingham, and two stone axes were found near Manor Farm, North Killingholme (Loughlin & Miller, 1979: 207). A flint scraper (MLS1615) was recovered from the site of the original oil refinery development in 1966, approximately 250m south-west of the Site.

4.7.5 During the Mid to Late Bronze Age and possibly into the Iron Age, the habitat on the Lincolnshire Marsh seems to have consisted of a mixed landscape of alder carr, with areas of reeds, radio-carbon dated to 3340 ± 110 BP (Van de Noort & Davies, 1993: 21). Pollen analysis from a kettlehole

at Butterbump, in the Lincolnshire Marsh, shows that woodland clearance was taking place, and was probably directly related to the growth of mixed arable farming.

- 4.7.6 Worked flints of Bronze Age date have been recovered during fieldwalking within the study area, while a Bronze Age flint knife was discovered in 1967 at the site of the Humber Oil Refinery, approximately 750m north-west of the Site (MLS1614).
- 4.7.7 Bronze Age and Iron Age settlements associated with the making of salt have been documented on the Lincolnshire Marsh, especially around the area of Ingoldmells in Lincolnshire (Van de Noort & Davies, 1993: 70). The salt industry was established in scrubland that was cut by deep, estuarine creeks and it was from these creeks at high tide that the salt water was taken to be used in the salt-making process. Pottery recovered from these sites indicate that salt production in the area commenced as early as the 4th century BC, continuing through the Iron Age and into the Romano-British period (Baker, 1975).
- 4.7.8 Evidence of Iron Age saltmaking has been recovered from within the study area. An excavation 650m to the north of the proposed development, at the site of the Immingham CHP Plant (MLS19771), has provided evidence in the form of saltmaking vessels (briquetage) (Savage & Buglass, 2001). The earliest phase of the site, dating from the early to mid-Iron Age consisted of two conjoined rectangular enclosures (VPI Immingham, 2019: 14). Within the eastern of these was evidence of salt production and structures comprising a possible roundhouse and a post-hole structure. In addition, a boundary ditch aligned west-north-west/east-south-east was recorded at the southern end of the site. A roundhouse was located to the north, defined by two ditch features. A further roundhouse was also located in the north-western corner of the site (*ibid.*).
- 4.7.9 A Headland excavation in 2009 (MLS21556) at the Heron Renewable Energy Plant, 500m east of the Site, discovered fired clay fragments in their trenches, identified as ceramic trays or pans, evidence of salt production consistent with the Immingham CHP Plant site. Late Iron Age occupation was concentrated on the driest ground towards the west of the site, while it is possible that saltmaking was carried out on the wetter ground to the east (Stronach, 2010).
- 4.7.10 In 2010, three trenches were excavated by Archaeological Services WYAS on land west of Rosper Road, as part of the A160 Improvements, approximately 450m north-east of the Site (MLS22428). Two late Iron Age ditches were recorded, with pottery and animal bone found in both lower fills (WYAS, 2010). The archaeological evidence is suggestive of a pre-Roman Iron Age agricultural landscape, with livestock forming the bulk of the economy, with settlement foci that continued to be developed and exploited well into the Roman period (*ibid.* 53).
- 4.7.11 Further afield, at the site of a vehicle storage facility owned by Able UK, approximately 1.8km north of the Site, the remains of a late Iron Age settlement (MLS21567) comprising two large sub-rectangular enclosures and three roundhouses as well as numerous discrete features have been excavated (Glover, 2013). On the basis of the existing evidence from beyond the site, it appears that nearby areas may have been occupied by a number of shifting farmsteads and associated agricultural enclosures during the Iron Age.
- 4.7.12 The NLHER indicates that Iron Age settlement in the area was likely to have been relatively extensive, with recorded sites concentrated along the marshland and its fringes, where settlements would have grown up alongside the various creeks and inlets which penetrated the Lincolnshire Marsh.

Romano-British Period

- 4.7.13 Concentrations of Roman activity in the vicinity of the Site suggest that settlement from this period likely continued from the preceding Iron Age, and was relatively intensive within this area of the Lincolnshire Marsh. Late Iron Age occupation evidence from a Headland Archaeology excavation to

the east of the site (MLS21556) was shown to continue into the early Romano-British period, with several linear ditches found to contain pottery sherds from this period (Stronach, 2010).

- 4.7.14 A 'ladder settlement-type' (MLS20152), or a linear arrangement of enclosures alongside a track, perhaps representing a series of small farmsteads, was recorded during two phases of geophysical survey at East End Farm in 2004 (Steedman, 2004), approximately 500m south-west of the Site. Sixteen 3rd and 4th century AD coins were recovered, as well as two Roman brooches identified as a Dolphin brooch of the 1st century AD. The complex structural sequence may be indicative of settlement over a protracted period.
- 4.7.15 A cropmark of a possible rectangular building and associated enclosure (MLS1614) were visible on 1958 aerial photographs, located approximately 850m north-west of the Site, which now lies beneath the Humber Oil Refinery (AC Archaeology, 2000). The date of the cropmark is uncertain, however, Romano-British greyware pottery has been recovered from the same area.
- 4.7.16 The north-east to south-west boundary alignment of probable Roman remains identified in 2012 by geophysics at Greengate Lane, South Killingholme (Flintoft, 2012: 6), approximately 2km to the west of Site, is in keeping with the boundary alignments observed at the much better understood site of Chase Hill, another Romano-British ladder settlement, located further afield at North Killingholme.
- 4.7.17 The Iron Age site beneath the Immingham CHP plant, approximately 650m north of the Site, has already been mentioned and occupation of that settlement continued into the Roman period (Savage & Burgess, 2011). The settlement (MLS19771) lay adjacent to the northern edge of a stream channel and the excavations provided evidence for several phases of flooding. Activity in the Roman period near to the stream was broadly limited to the cutting and re-cutting of enclosure and drainage ditches, while further north there was an area of new Romano-British enclosures (MLS22743), with the ditches being repeatedly re-cut and new enclosures created (Savage & Buglass, 2001). Settlement here continued at a reduced scale into the 4th century AD.
- 4.7.18 The area around the refineries at South Killingholme has seen an incredible concentration of archaeological fieldwork in recent years, resulting in the discovery of several settlement sites from this period. These discoveries suggest a significant density of Romano-British settlement, particularly on the higher ground of the Middle Marsh and its fringes, with settlements in many cases lying alongside or close to the various creeks and inlets which crossed the marshland.

Early Medieval Period

- 4.7.19 The present-day settlement of South Killingholme is a linear settlements extending along a north-south road that hugs the slightly elevated ridge of ground at this point. This type of settlement is often labelled a 'row' village and the location of the present-day villages dates may date back into the early medieval period. Indeed, the place-name of Killingholme is a primary Anglo-Saxon name translating from Old English - *Cylfingas* - as village of the people of 'Killing'.
- 4.7.20 Killingholme is one of four 'group name', or *-ingas*, settlements north of Grimsby and these names are confidently believed to belong to an early period of Anglo-Saxon settlement in the areas in which they occur (Cameron, 1991: 164). Place-name evidence seems to suggest that early Anglo-Saxon settlement occurred on the higher and drier ground of the 'Middle Marsh', to the west of the wetter 'Outmarsh'.
- 4.7.21 There are no discoveries early medieval date in the 1km study area, though an 8th century coin was recovered from the upper fills of one of the former driveway ditches on the Iron Age and Romano-British settlement excavated beneath the Immingham CHP Plant (MLS19771) (Savage & Buglass, 2001).

- 4.7.22 The Humber would have been a main trading artery for bringing imported goods from the Continent into northern England, with a number of havens along its edges acting as landing areas; there is a possibility that the creeks along the coastline, directly east of the Site, may have been used for this purpose during this period.

Medieval Period

- 4.7.23 The early origin of the local village place-names (see above) confirms that the area under study had been settled by the late 11th century. The medieval village settlements such as Killingholme (North and South) and Immingham lay on the slightly higher and better-drained Middle Marsh with their accompanying common cultivated field strips (e.g. East Field and West Field).
- 4.7.24 An area of ridge-and-furrow representing cultivated open fields has been recorded just outside the study area, to the west of the Site (MLS1613). Here, very few areas now survive as earthworks, most having been ploughed out in the 19th and 20th centuries and most only survive on aerial photographs, dated 1946-1975 (Deegan, 2009).
- 4.7.25 Additionally, there have been a small number of isolated find-spots of medieval material on the edge or outside of the study area. While an archaeological evaluation on land west of Rosper Road (MLS20424), approximately 900m north of the Site, revealed a shallow ditch containing a single sherd of 13th-15th century 'Toynton Ware' pottery (Murphy, 2006).

Post-Medieval and Modern Periods

- 4.7.26 Enclosure in the 17th to 19th centuries saw the open fields and common lands of various settlements around the study area enclosed and allocated to a number of private landholders, with farmhouses established within the new field systems. Immingham was enclosed relatively early, by private agreement in the first half of the 17th century, while North and South Killingholme were enclosed through Acts of Parliament in the late 18th century (see **Plates 3 & 4**). The Site was originally located in 'East Field' in the South Killingholme parish. After the Enclosure Act of 1776, the surrounding fields were sub-divided into several smaller plots and allocated to a number of private landowners. Thus, the Site is shown located in the north-eastern corner of large field owned by 'Charles Anderson Pelham Esq', south of the junction between Ferry Road (now the A160) and Rosper Road.

for the first time. Existing streams or creeks – many marking parish boundaries – were deepened, dredged or straightened to take the water from the multitude of new field drains.

- 4.7.28 The 1st Edition OS map (**Figure 4**) illustrates that by the late 19th century the Site was located within a series of smaller fields. The landscape remains undeveloped, predominantly characterised by agricultural land and occasional woodland (e.g. Fox Covert to the south). Humber Road – previously Ferry Road – bisects the fields to the north of Site, leading eastwards to South Killingholme Haven on the Rover Humber. The nearest buildings were located at the linear 'row' village of South and Killingholme approximately 2km to the west, with Walmer House (MLS25004) a solitary farmhouse situated 850m to the west of the Site.
- 4.7.29 The Site continued to be characterised by open fields through to the late 1960's. A 1951 Ordnance Survey map (**Figure 5**) reveals that the context of the Site remained unchanged since the late 18th century. A number of railways were opened in the early years of the 20th century to service the docks and provide transport for goods and passengers (mostly workers) between and beyond the various dock facilities at Immingham and Grimsby. The Humber Commercial Railway (MLS21326), constructed in 1912, passes less than 260m to the north of the Site. Houlton's Covert, located to the south of the Site, appears to be the only alteration to the surrounding agricultural landscape.
- 4.7.30 The commissioning of the Humber Refinery in 1969, and subsequent expansions in the 1970's, marked the advent of a massive phase of industrialization in the study area, transforming the surrounding area of former marshland and low-grade farmland.

4.8 Archaeological Potential

- 4.8.1 There are no Historic Environment Records (HER) dating to the prehistoric period within the site boundary. However, the HER database for the surrounding area reveals that Iron Age settlement was likely to have been relatively extensive. Archaeological evidence demonstrates a range of prehistoric activity within the vicinity of the Site, supporting the idea that this marshland-riverside landscape was exploited for settlement and saltmaking purposes during this period. Evidence of domestic structures within the study area (e.g. at the CHP Plant), suggests that, for at least some parts of the Bronze Age and Iron Age periods, this area demonstrated a relatively densely settled community within a rural hinterland. Therefore, there is a **medium** potential for archaeological activity dating to the Prehistoric period at the Site.
- 4.8.2 There are no known Romano-British heritage assets located within the site boundary. However, the HER does attest to several examples of Romano-British settlement activity located within the study area (e.g. East End Farm, the CHP Plant, the Humber Oil Refinery). The likelihood that Iron Age settlements and enclosures continued in use during this period, concentrated on these areas of higher ground alongside or close to the various creeks and inlets which crossed the marshland, suggests a **medium** potential for previously unrecorded archaeological activity dating to the Romano-British period at the Site.
- 4.8.3 The Site appears to have remained as agricultural land during the early medieval, medieval and post-medieval periods. Any settlement activity was restricted to the nearby villages of South Killingholme, North Killingholme and Immingham, characterised as comparatively small rural settlements throughout these periods. There are no Historic Environment Records from these periods at the Site. Any previously unrecorded remains from the early medieval, medieval and post-medieval periods encountered at the Site are likely to relate to agricultural use or stray findspots, and the potential for their presence is anticipated to be **low**.

5. Statement of Significance

Archaeological Significance

- 5.1.1 Nearby archaeological investigations contain important prehistoric and Romano-British settlement and industrial remains. The coast and the variety of resources available in this littoral zone are likely to have been significant factors in the choice of location for ancient settlement.
- 5.1.2 Several prehistoric and Romano-British sites recorded within the 1km study area (e.g. East End Farm, the Immingham CHP Plant, the Humber Oil Refinery) are of regional significance for the archaeological information they provide in the understanding of the development of settlement and industry on the Humber Estuary. Knowledge of Late Bronze Age and Iron Age industries and crafts, including salt production, and understanding how and why 'village' or 'ladder' settlements developed during the Iron Age and Romano-British periods, are specified as key research aims in the regional framework for the East Midlands (Knight et al. 2012: 58). Therefore, any remains encountered at the Site dating to the prehistoric or Romano-British periods could be of up to a **moderate (local/regional)** archaeological significance, depending on their extent and condition.
- 5.1.3 Any features dating to the early medieval, medieval or post-medieval period are likely to be agricultural in nature, representing cultivation of the surrounding reclaimed marsh land, or small-scale domestic activity and isolated findspots related to the occupation of nearby Walmer House. Any remains associated with these periods are therefore considered likely to be of **low (local)** archaeological significance.

Potential Survival of Archaeological Remains

- 5.1.4 The significance of previously unknown archaeological remains will depend on the nature, extent and condition of their survival. Historic mapping (**Figure 4**) reveals that the Site has been characterised by open farmland, meaning archaeological preservation will be improved by the absence of truncation caused by modern development.
- 5.1.5 Although agricultural activities are likely to have had a low but widespread impact upon shallow buried deposits, archaeology at the nearby A160 Improvements, west of Rosper Road, was preserved at 0.50m below ground level (WYAS, 2010: 19, Table 2), despite similar extensive periods of ploughing, suggesting a degree of archaeological preservation for the area.
- 5.1.6 Recent aerial photographs display tyre tracks, though these are likely associated with only occasional inspections of the pipeworks that run along the eastern side of the Site. Apart from this, the land is historically characterised as an unused greenfield site throughout the post-medieval period and did not suffer modern disturbance, thus enhancing the potential survival of any below-ground remains.

5.2 The Setting of Heritage Assets

- 5.2.1 As previously described, there are no designated heritage assets included in the site boundary or within the 1km study area. Nor are there any non-designated assets within the study area that will be impacted by effects typically arising from visual or other perceptual (e.g. noise) changes to setting.
- 5.2.2 The Site is currently situated within an extensive 20th century industrial landscape. The settings of any assets located within the study area will already have been significantly impacted by the

modern Oil Refinery development. The landscape thus has low relative sensitivity. Consequently, any change is considered to be of minor/negligible magnitude and will not give rise to any significant adverse effects on the settings of the assets.

- 5.2.3 Due to the lack of designated heritage assets and the nature of the Site's location, changes to the setting arising from any development within the Site are **not** expected to give rise to harm to the significance of any heritage assets located within the 1km study area.

6. Recommendations

- 6.1.1 The Site has a long history of agricultural use. The available evidence indicates the Site has an overall low or/and uncertain potential for archaeological remains from the early medieval, medieval and post-medieval periods. Cartographic sources suggest evidence from these periods will be restricted to localised agricultural remains, which would be of low heritage significance.
- 6.1.2 There is medium potential, however, for remains of later prehistoric to Romano-British date to be present at the Site, given the proximity of settlement remains of Iron Age and Romano-British date recorded within the study area. Features indicating Iron Age and Romano-British agricultural settlement suggest remains of a medium heritage significance for these periods may be present within the Site. These have the potential to fill identified gaps in knowledge for the region and are of significance for the pre-medieval research agenda (Knight et al. 2012).
- 6.1.3 The proposed development is expected to cause direct effects on any below ground archaeological deposits that may be present within the site boundary. These effects are likely to comprise the removal or disturbance of buried deposits due to intrusive groundwork activities. Previous excavations at sites within the study area revealed that features were recorded up to a depth of up to 0.50m, suggesting a degree of archaeological preservation, despite extensive periods of agricultural activities and modern vehicle tracking.
- 6.1.4 Further information, therefore, will be likely required about the presence, nature and condition of potential archaeological remains within the Site, ascertained prior to development. Given the relatively small area of the proposed development it is suggested, based on the evidence provided in this DBA, that successful archaeological mitigation can be achieved by the fulfilment of a negative planning condition requiring a controlled strip in advance of construction with subsequent mapping and sampling of any features exposed, and publication or results in line with North Lincolnshire County standards.
- 6.1.5 Any further archaeological investigation would require liaison with the North Lincolnshire County Archaeologist.

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Figures

Figure 1	Site Location Plan
Figure 2	Site Development Plan
Figure 3	Non-Designated Assets
Figure 4	1887 1 st Edition Ordnance Survey Map
Figure 5	1951 Ordnance Survey Map

Appendix A Heritage Asset Index



Use **Figure 3 Non-Designated Assets** for reference.

Non-Designated Records within 1km Study Area

Table A.1 North Lincolnshire HER Monument Records

HER Reference	Mon Type	Name	Period	Easting	Northing
MLS1614	Findspot, Enclosure, Ditch	RB Occupation, Oil Refinery	Early Bronze Age to Roman	516080	416620
MLS1615	Findspot	Flint Scraper, RB Pottery, Oil Refinery (1966)	Early Neolithic to Roman	516600	416200
MLS19799	Findspot	Flint Flakes, East End	Late Mesolithic to Late Neolithic	516180	415730
MLS19827	Farmstead	Possible Medieval Farmstead	Medieval	517500	416400
MLS20078	Enclosure	Former Cropmark Enclosure	Early Iron Age to Roman	516128	416705
MLS20124	Ring Ditch/Ditch	Possible Cropmarks, south of East Middle Mere Road	Unknown	516552	417594
MLS20152	Settlement	RB Settlement, East End Farm	Roman	516631	415890
MLS20274	Ditch	Geophysical Anomalies, S of East End Farm	Unknown	516504	415572
MLS20274	Ditch	Geophysical Anomalies, S of East End Farm	Unknown	516504	415572
MLS20274	Ditch	Geophysical Anomalies, S of East End Farm	Unknown	516504	415572

HER Reference	Mon Type	Name	Period	Easting	Northing
MLS20275	Artefact Scatter	Medieval Finds, East End Farm	Medieval to Post Medieval	516568	415838
MLS20422	Boundary Ditch	Iron Age Ditches, W of Rosper Road	Early Iron Age to Middle Iron Age	516635	417601
MLS20424	Ditch	Medieval Ditch, W of Rosper Road	Medieval	516572	417336
MLS21101	Field Boundary	Cropmark Field Boundary	Post Medieval	516849	416980
MLS21315	Natural Feature?	Geophysical Anomaly, west of Rosper Road	Unknown	517143	416858
MLS21321	Square Enclosure?	Square Enclosure? West of Rosper Road	Unknown	516835	417030
MLS21544	Artefact Scatter	Worked Flint	Late Mesolithic to Early Bronze Age	516925	417065
MLS21553	Feature	Late Bronze Age Feature, N of Humber Road	Middle Bronze Age to Late Bronze Age	517458	416786
MLS21554	Ditch	Early Bronze Age Ditch, N of Humber Road	Early Bronze Age	517416	416829
MLS21555	Burnt Mound?	Middle Bronze Age Mound, N of Humber Road	Middle Bronze Age	517632	416686
MLS22428	Ditch, Enclosure?	Late Iron Age Ditches, west of Rosper Road	Late Iron Age to Roman	517088	416784
MLS22497	Mission Hall	Mission Room (site of) Rosper Road	Modern	517166	417028
MLS22499	House	Myrtle Villas (site of), Rosper Road, South Killingholme	Undated	517156	417041
MLS24941	Farmstead	Site of Unnamed Farmstead, South Killingholme	Post Medieval to Modern	516326	415622

HER Reference	Mon Type	Name	Period	Easting	Northing
MLS25004	Farmstead	Walmer House Farm, South Killingholme	Post Medieval to Modern	516007	416142
MLS25013	Farmstead	Site of Unnamed Farmstead, South Killingholme	Post Medieval to Modern	516879	417454
MLS26104	Chapel	Site of Chapel, West Side, Rosper Road	Modern	517013	417149
MLS26105	Farmstead	Site of Farmstead, north side of A160	Post Medieval to Modern	516230	416393
MLS26149	Bomb Crater	Second World War Bomb Crater, South Killingholme	Modern	517222	417381
MLS26168	Searchlight Emplacement	Second World War Searchlight Emplacement, North Killingholme	Modern	516069	416739
MLS19771	Settlement, Saltern?	Iron Age & Romano-British Settlement	Early Iron Age to Roman	516817	417139
MLS20078	Enclosure	Former Cropmark Enclosure	Early Iron Age to Roman	516128	416705
MLS21323	Terraced House	Marsh Row (site of)	Modern	517443	417374
MLS21556	Settlement, Saltern?, Iron Working Site	Iron Age & Roman Settlement, N of Humber Road	Early Iron Age to Roman	517500	416766
MLS22497	Mission Hall	Mission Room (site of) Rosper Road	Modern	517166	417028
MLS22498	School	Day School and School House (site of), Rosper Road	Modern	517226	416910
MLS22743	Ditch	Late Roman Ditches, north of Marsh Lane	Roman	517016	417404
MLS22743	Ditch	Late Roman Ditches, north of Marsh Lane	Roman	517016	417404

Previous Archaeological Events within 1km Study Area

Table A.2 North Lincolnshire HER Event Records

HER Reference	Record Type	Name	Easting	Northing
ELS1977	WB	Archaeological observations during the construction of the Immingham CHP Pipeline	516651	415730
ELS1450	WB	Watching Brief at Rosper Road, Immingham CHP	516890	416988
ELS2227	WB	Humber Refinery Substation Overhead Line	515942	418604
ELS2956	WB	Watching Brief at Immingham CHP, North Killingholme	516764	417221
ELS4281	WB	A160/A180 Monitoring	514675	415842
SLS2374	DBA	Immingham CHP Natural Gas Pipeline	515576	416743
SLS2033	DBA	Humber Link Project	515212	419056
ELS3308	DBA	A160-A180 Improvements Environmental Assessment	515265	415988
ELS3860	DBA	Greengate Lane, South Killingholme	514775	416323
ELS2517	ARCH	Evaluation on land at Rosper Road	516552	417654
ELS2948	ARCH	Phase 2 Excavations at Immingham CHP Plant	516857	417064
ELS2947	ARCH	Evaluation Trenches at Immingham CHP	516778	417158
ELS3317	ARCH	Heron Renewable Energy Plant - Archaeological Trial Trenching	517549	416807
ELS4011	ARCH	Trial Trenching, land at Able Marine Energy Park	516991	418088
ELS3578	ARCH	A160-A180 improvements, Immingham	514571	415641

HER Reference	Record Type	Name	Easting	Northing
ELS4142	ARCH	A160/A180 Improvements, North Lincolnshire	514497	415651
ELS4281	ARCH	A160/A180 Strip, Map and Sample	515907	416415
ELS1801	ARCH	Immingham CHP Gas Pipeline Project	516537	415654
ELS2947	ARCH	Phase 1 Excavations at Immingham CHP Plant	516772	417126
ELS2419	GEOPHYS	TOTAL Oil Refinery, North Killingholme	516579	417597
ELS3454	GEOPHYS	Able UK Marine Energy Park	517082	418111
ELS1410	GEOPHYS	Killingholme, North Lincolnshire	516634	417342
ELS3314	GEOPHYS	Heron Renewable Energy Plant	517574	416819
ELS2258	GEOPHYS	Geophysical Survey at East End Farm, South Killingholme	516574	415845
ELS2365	GEOPHYS	Sample Surveys within Area of Phase II Planting	516443	415520
ELS1975	GEOPHYS	CONOCO Gas Pipeline IV, South Killingholme	516683	415679

