

# Rampion 2 Wind Farm

# **Category 6:**

# **Environmental Statement**

Volume 4, Appendix 25.2: Historic environment desk study (part 1 of 2)



### **Document revisions**

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### 1. Introduction

### 1.1 Proposed Development and background

- Rampion Extension Development Limited (hereafter referred to as 'RED') is developing Rampion 2 (the 'Proposed Development') located adjacent to the existing Rampion Offshore Wind Farm (Rampion 1) located in the English Channel in the south of England.
- Rampion 2 will be located between 13km and 26km from the Sussex Coast in the English Channel and will occupy an area of 160km<sup>2</sup>.
- 1.1.2 The key offshore elements of the Proposed Development will be as follows:
  - up to 90 offshore wind turbine generators (WTGs) and associated foundations;
  - blade tip of the WTGs will be up to 325m above Lowest Astronomical Tide (LAT) and will have a 22m minimum air gap above Mean High Water Springs (MHWS);
  - inter-array cables connecting the WTGs to up to three offshore substations;
  - up to two offshore interconnector export cables between the offshore substations;
  - up to four offshore export cables each in its own trench, will be buried under the seabed within the final cable corridor; and
  - the export cable circuits will be High Voltage Alternating Current (HVAC), with a voltage of up to 275kV.
- 1.1.3 The key onshore elements of the Proposed Development will be as follows:
  - a single landfall site near Climping, Arun District, connecting offshore and onshore cables using Horizontal Directional Drilling (HDD) installation techniques;
  - buried onshore cables in a single corridor for the maximum route length of up to 38.8km using:
    - trenching and backfilling installation techniques; and
    - trenchless and open cut crossings.
  - a new onshore substation, proposed near Cowfold, Horsham District, which will connect to an extension to the existing National Grid Bolney substation, Mid Sussex, via buried onshore cables; and
  - extension to and additional infrastructure at the existing National Grid Bolney substation, Mid Sussex District to connect Rampion 2 to the national grid electrical network.
- 1.1.4 A full description of the Proposed Development is provided in **Chapter 4: The Proposed Development**, **Volume 2** of the ES (Document Reference: 6.2.4).



- As the Proposed Development will have a capacity greater than 100MW it is defined as a Nationally Significant Infrastructure Project (NSIP) under Section 15(3) of the Planning Act 2008. It, therefore, requires an application for a Development Consent Order (DCO) to be submitted to the Planning Inspectorate under the Planning Act 2008.
- The Site (**Figure 25.2.1**) presented within this Appendix represents the onshore part of the proposed DCO Order Limits (hereafter referred to as the 'Site') for the onshore elements of the Proposed Development across a linear area from Climping to Bolney, West Sussex.

### 1.2 Purpose of this Appendix

- This Appendix has been prepared using design information available on the onshore elements of the Proposed Development, together with background information used to inform the Scoping Report (RED, 2020), Preliminary Environmental Information Report (PEIR) (RED, 2021), PEIR Supplementary Information Report (SIR) (RED, 2022), PEIR Further Supplementary Information Report (FSIR) (RED, 2023a) and Bolney Preliminary Environmental Information (PEI) (RED, 2023b). This appendix details the known onshore historic environment baseline for the Study Area, which comprises the Site and an area extending 1km from this boundary (the Study Area) (Section 25.4, Chapter 25: Historic environment, Volume 2 of the ES (Document Reference: 6.2.25)).
- This appendix is intended to inform the identification and assessment of potential effects of the onshore elements of the Proposed Development, the scope of further survey and intrusive investigations, and requirement for potential mitigation.
- The information in this appendix is summarised in and appended to **Chapter 25**: Historic environment, Volume 2 of the ES (Document Reference: 6.2.25).
- In addition to this appendix, a separate geoarchaeological desk study has been prepared for the Site which provides further detail on the geoarchaeological and palaeoenvironmental resource and potential (Appendix 25.3: Onshore desk-based geoarchaeological and palaeoenvironmental assessment report, Volume 4 of the ES (Document Reference: 6.4.25.3). This geoarchaeological desk study informs the historic environment assessment in the ES in support of the DCO application.
- A separate marine archaeology desk study provides the marine archaeology baseline (Appendix 16.1: Marine archaeology technical report, Volume 4 of the ES (Document Reference: 6.4.16.1).



## 2. Legislation, Policy and Guidance

#### 2.1 Overview

2.1.1 Certain heritage assets that are deemed to be of particular importance are given legal protection. The importance of heritage assets and the protection of these assets and their settings is recognised in legislation as well as in national, regional and local policy.

### 2.2 Legislation

#### **Ancient Monuments and Archaeological Areas Act 1979**

This Act (Parliament of the United Kingdom, 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 (SoS). 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 in order to protect any archaeological interest.

### Planning (Listed Buildings and Conservation Areas) Act 1990

- This Act (Parliament of the United Kingdom,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).
- 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.
- 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.

#### The Hedgerow Regulations 1997

The Hedgerow Regulations (Parliament of the United Kingdom, 1997) set out criteria to be used to determine the importance of hedgerows and protect important hedges from removal. Selection criteria include heritage-based considerations.

#### **Burial Act 1857**

It is generally an offence to remove human remains from a place of burial without a licence from the SoS (Parliament of the United Kingdom, 1857).

#### **Protection Of Military Remains Act 1986**

Sets out specific protections for the remains of military aircraft and vessels that have crashed, sunk, or been stranded and of associated human remains, including a general prohibition on any disturbance or removal of such remains without a licence granted by the Secretary of State.

### 2.3 National planning policy

The national policy and guidance relevant to historic environment are set out in **Table 2-1**. **Chapter 25: Historic environment, Volume 2** of the ES (Document Reference: 6.2.25) considers the draft emerging National Policy Statements (NPSs) relevant to the historic environment.

Table 2-1 National policies and guidance

Policy document/reference	Summary
National Policy Statement for Energy (NPS EN-1) (Department of Energy and Climate Change (DECC) 2011a)	NPS EN-1 requires change to the significance of heritage assets to be considered in developing an understanding of the potential effects of the Proposed Development.  NPS EN-1 notes that setting contributes to an asset's significance and sets outs policies regarding change to the setting of heritage assets.
Paragraphs 5.8.8 and 5.8.9	Requires that "the applicant should provide a description of the significance of the heritage assets affected by the proposed development and the contribution of their setting to that significance", referencing the requirements to have consulted the Historic Environment Record, and where appropriate to carry out desk-based assessment and further field evaluation.



Policy document/reference	Summary
Paragraph 5.8.10	States that "The applicant should ensure that the extent of the impact of the proposed development on the significance of any heritage assets affected can be adequately understood from the application and supporting documents", referencing the need to understand the significance of heritage assets which might be affected.
National Policy Statement for Renewable Energy (EN-3) (DECC 2011b)	NPS EN-3 identifies policy for wind farm development and covers the onshore and offshore impacts to the historic environment.
Paragraphs 2.6.137-139	Outlines "Generic onshore historic environment effects are covered in Section 5.8 of EN-1. For offshore energy infrastructure, there are considerations for certain types of heritage assets.
	Heritage assets, as described in Section 5.8 of EN-1, may exist offshore and within the intertidal areas (the area between high tide and low tide marks). Such heritage assets can include remains from pre-historic settlements which existed prior to sea level rises as well as wreck sites and other features of historic maritime significance.
	Heritage assets can be affected by offshore wind farm development in two principal ways:
	<ul> <li>from the direct effect of the physical siting of the development itself such as the installation of the wind turbine foundations and electricity cables or the siting of plant required during the construction period;</li> </ul>
	<ul> <li>and from indirect changes to the physical marine environment (such as scour, coastal erosion or sediment deposition) caused by the proposed infrastructure itself or its construction (see the policy on physical environment starting at paragraph 2.6.189 of this NPS)."</li> </ul>
Paragraphs 2.6.145-146	The avoidance of important heritage assets, including archaeological sites and historic wrecks, is the most effective form of protection []".
National Planning Policy Framework (NPPF) (MHCLG 2019)	Section 16 of the NPPF relates to the Historic Environment and is consistent with the policies of NPS EN-1.



Policy document/reference	Summary
Section 16; Paragraph 194	States the requirement to describe the significance of heritage assets (and their setting) and any archaeological interest that may be impacted by the proposal.
Section 16; Paragraph 195	Requires local planning authorities to assess the significance of heritage assets (and their setting) that may be affected, to avoid or minimise any conflict between the heritage asset's conservation and any aspect of the proposal.
Section 16; Paragraph 199	Outlines "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 200	"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:  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; Footnote 68	"Non-designated heritage assets of archaeological interest, which are demonstrably of equivalent significance to scheduled monuments, should be considered subject to the policies for designated heritage assets."
Section 16; Paragraph 201	"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:  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;



Policy document/reference	Summary
	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 202	"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."
Section 16; Paragraph 205	"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."
Section 16; Footnote 69	"Copies of evidence should be deposited with the relevant historic environment record, and any archives with a local museum or other public depository."
Section 16; Paragraph 206	"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."
Section 16; Paragraph 207	"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."
Section 16; Paragraph 208	"Local planning authorities should assess whether the benefits of a proposal for enabling development, which would otherwise conflict with planning policies, but which



Policy document/reference	Summary
	would secure the future conservation of a heritage asset, outweigh the disbenefits of departing from those policies."
Guidance document / reference	Summary
Planning Practice Guidance: Historic Environment (Ministry of Housing, Communities and Local Government 2019)	This guidance provides advice on the conservation and enhancement of the historic environment.

### 2.4 Regional and local policy

- The Site and Study Area are entirely within the boundary of West Sussex and cross the three district authorities of Arun, Horsham and Mid Sussex, as well as the South Downs National Park Authority.
- 2.4.2 The planning policies pertinent to the Site are set out within:
  - The Arun Local Plan 2011-2031 (adopted July 2018) (Arun District Council, 2018). The relevant polices are HER SP1, HER DM1, HER DM2, HER DM3, HER DM4, HER DM6, LAN DM1 and LAN DM2;
  - Horsham District Planning Framework (adopted November 2015) (Horsham District Council, 2015). Of relevance is Policy 34;
  - Mid Sussex District Plan 2014-2031 (adopted March 2018) (Mid Sussex District Council, 2018). The relevant polices are DP18, DP34, DP35, DP36, DP37. SD12, SD13; SD15 and SD16; and
  - South Downs Local Plan and Policies Map 2014-2033 (adopted July 2019) (South Downs National Park Authority, 2019). The relevant polices are SD1, SD4, SD12, SD13, SD15 and SD16.
- A new Horsham Local Plan is currently being drafted, but publication is currently postponed (Horsham District Council, 2021).
- 2.4.4 Mid Sussex District Council have published the draft District Plan 2021-2039, consultation on which is expected to be open between Monday 7th November until Monday 19th December 2022 (Mid Sussex District Council, 2022).

### 2.5 Technical guidance

2.5.1 Guidance documents which are relevant to the historic environment baseline data collection and assessment are listed in **Table 2-2** below.



### Table 2-2 Guidance documents

Guidance document	Relevance		
Good Practice in Planning Advice 2 (GPA 2) Managing Significance in Decision- Taking in the Historic Environment (Historic England 2015)	This document provides guidance and information to assist local planning authorities, planning and other consultants, owners, applicants and other interested parties in implementing historic environment policy and ensuring compliance with NPPF fundamentals.		
2010)	It is important to understand the nature, extent and level of significance of an asset, and the contribution of its setting to its significance, in order to understand the impact of the proposals on that significance and for decisions to be made in line with legal requirements, objectives of the development plan and the policy requirements of the NPPF.		
Good Practice in Planning Advice 3 (GPA 3) The Setting of Heritage Assets 2nd Edition (Historic England 2017a)	Sets out guidance on managing change within the settings of heritage assets.		
Conservation Principles (Historic England 2008)	Sets out principles for the assessment of heritage significance and its management.		
Conservation Principles for the Sustainable Management of the Historic Environment - consultation draft (Historic England 2017b)	A consultation draft of the revised conservation principles for the sustainable management of the historic environment.		
Statements of Heritage Significance: Analysing Significance in Heritage Assets (Historic England 2019)	This Historic England advice note covers the NPPF requirement for applicants for heritage and other consents to describe heritage significance to help local planning authorities to make decisions on the impact of proposals for change to heritage assets.		
Commercial Renewable Energy Development and the Historic Environment (Historic England 2021c)	This Historic England advice note describes the potential impacts on the historic environment of commercial renewable energy proposals.		
Advice Note 10 Listed Buildings and Curtilage (Historic England 2018)	Provides worked examples to assist understanding of how to define the curtilage of a listed building.		
Geoarchaeology (Historic England 2015)	Provides guidance on the range of geoarchaeological techniques available to understand site formation processes and landscape-scale changes over time.		



Guidance document	Relevance
Standard and guidance for archaeological desk-based assessment (Chartered Institute for Archaeologists (ClfA 2017)	Sets out standards for the production of archaeological desk-based assessments.
Standard and guidance for commissioning work or providing consultancy advice on archaeology and the historic environment (CIfA 2014)	Sets out standards for the provision of consultancy advice in the historic environment.
Regional guidance	
South East Historic Environment Research Framework (SERF) consultation draft (2019) (Kent County Council 2019)	The resource assessment was aimed at better understanding the current state of knowledge and understanding within the region. This includes period-based summaries. The research agenda and strategy identify gaps in knowledge and research topics and presents a range of research issues which could usefully be addressed within the region.



#### 3. Methodology

#### Aim and objectives 3.1

- The aim of this appendix is to identify and characterise the historic environment 3.1.1 (archaeological, historic and built heritage) resource within the Site and Study Area.
- The objectives are to: 3.1.2
  - review and describe the historic environment resource within the Site and a 1km Study Area, in order to provide a proportionate and robust evidence base for the EIA (Chapter 25: Historic environment, Volume 2 of the ES (Document Reference: 6.2.25), Section 25.4; see Figure 25.2.1)<sup>1</sup>;
  - assess the potential for previously unrecorded archaeological remains within the Site; and
  - described the heritage significance of assets, in accordance with the NPPF (MHCLG 2019).

#### 3.2 Landscape approach

- 3.2.1 Following consultation and engagement with key stakeholders as part of the scoping stage of Rampion 2 (Planning Inspectorate, 2020), and on the advice of Historic England following the Expert Topic Group (ETG) 'Seascape, Landscape, Archaeology & Cultural Heritage and Marine Archaeology' meeting held by conference call on 15 September 2020, it was agreed that a landscape-based approach would be used to establish a historic environment baseline, which would allow for the appropriate management of future research and mitigation during the ongoing design evolution.
- The historic environment baseline has been undertaken within the context of 3.2.2 landscape characterisation (spatial and temporal), defined through incorporating historic environment data with geology and topography. These are listed below and characterised within Section 4: Historic environment baseline (Figure **25.2.1**):
  - Zone 1: South Coast Plain;
  - Zone 2: South Downs: and
  - Zone 3: Low Weald.
- Each of these zones has distinct geologies which, together with the natural 323 processes, has determined their distinctive topographies. The geological and topographic characteristics of these zones (as described in **Section 4**), and the changing geomorphology of these landscapes over time, has influenced the

<sup>&</sup>lt;sup>1</sup> A 1km area buffered from the Site for establishing a historic environment baseline was proposed at Scoping and deemed acceptable within the Scoping Opinion 2020



availability and exploitation of natural resources by humans. Past human interaction with their environment has in turn substantially altered and shaped these landscapes. Within the context of these broad landscape zones it is possible to observe differences and / or commonalities in the changing patterns of human inhabitation and land use over time. These landscape zones will provide the context for further surveys and characterisation.

### 3.3 Data gathering methodology

The sources consulted for relevant data in establishing the onshore historic environment baseline are listed in **Table 3-1**.

Table 3-1 Summary of data sources

Source	Data
Adur District Council and Worthing Borough Council	Conservation area data.
Annex C of the Phase 1 Geo-Environmental Desk Study (Appendix 24.1: Phase geo-environmental desk study, Volume 4 of the ES (Document Reference: 6.4.24.1))	UXO baseline and assessment
Arun District Council	List of Buildings and Structures of Character
British Geological Survey (BGS)	Solid and drift geology digital map; digital borehole record data.
Environment Agency, Defra	LiDAR data
Genealogist	Tithe mapping
Google Earth Pro	Modern satellite imagery
Groundsure	Historic and modern OS mapping. Ground investigation and geological data.
Historic England	National Heritage List for England (NHLE).



Source	Data
	For information on designated heritage assets (scheduled monuments, listed buildings, RPGs, registered battlefields, world heritage sites and conservation areas.
Historic England Archive, Swindon	Aerial photographs
Kent County Council	South East Research Framework (SERF) including resource assessment and research agendas
Natural England	National Character Area Profiles (NCAP), for information on National Landscape Character Areas:
	<ul> <li>NCAP 120: Wealden Greensand;</li> </ul>
	<ul><li>NCAP 121: Low Weald;</li></ul>
	<ul> <li>NCAP 122: High Weald;</li> </ul>
	<ul> <li>NCAP 125: South Downs; and</li> </ul>
	<ul> <li>NCAP 126: South Coast Plain.</li> </ul>
	Landscape Character Types and Landscape Description Units.
Oakendene parkland: historic landscape assessment report for Rampion 2 (Appendix 25.5: Oakendene parkland: historic landscape assessment, Volume 4 of the ES (Document Reference: 6.4.25.5)	Baseline information and assessment of historic parkland associated with Oakendene Manor (NHLE 1027074).
Onshore geoarchaeological and paleoenvironmental report for Rampion 2 (Appendix 25.4: Onshore geophysical survey report, Volume 4 of the ES (Document Reference: 6.4.25.4))	Geoarchaeological and paleoenvironmental baseline information and assessment.



Source	Data
PINS	Rampion 1 Scoping Report, Scoping Opinion, Environmental Statement and other relevant supporting technical documents.
RED	Magnetometry survey data and interpretation undertaken by AOC Archaeology Ltd for the Rampion 2 project between September 2021 and February 2022 (RED, 2022).  Results from subsequent geophysical survey between March 2022 and February 2023 (Appendix 25.4: Onshore geophysical survey report, Volume 4 of the ES (Document Reference: 6.4.25.4)) will be considered in the baseline within the Chapter 25: Historic environment, Volume 2 of the ES (Document Reference: 6.2.25)).
South Downs National Park Authority	Conservation area character appraisals. Landscape Character Assessment.
UK Hydrographic Office (UKHO)	GIS-based records of known wrecks.
Various	Published reports & regional syntheses (including those recommended in the Scoping Opinion)
West Sussex County Archive	Cartographic and documentary evidence
West Sussex Historic Environment Record (HER)	GIS-based records of a wide range of buildings, monuments, find spots, places, and landscapes of archaeological, architectural, artistic or historic interest.  Grey literature reports of previous archaeological investigations within the Study Area.

### 3.4 Site walkover survey

- 3.4.1 Site walkover surveys were conducted between 2020 and 2023, covering approximately 70% of the Site. These walkovers comprised a visual inspection of the Site, making a photographic record of existing land conditions and development within the Site. The aim was to make observations on the presence and condition of known or as yet unknown heritage assets within the Site, as well as to highlight areas of pre-existing impact and as such, assess the potential survival for the below ground archaeological resource.
- Observations made during the Site walkover survey have been incorporated into the following baseline within this report.



### 3.5 Aerial remote sensing

#### **LIDAR**

- Digital Surface Model (DSM) and Digital Terrain Model (DTM) LiDAR imagery published by Environment Agency (2020) and obtained from the Department for Environment, Food and Rural Affairs (Defra) Data Services Platform online portal (Defra, 2021) were both consulted, as the Study Area contains wooded areas. DSM LiDAR captures the first return of the pulse, meaning in the case of wooded areas the top of the canopy. DTM captures the last returns, those which pass between the canopy and hit the ground below. Composite tiles were stitched together to form a continuous dataset, with separate mosaics created for DSM and DTM.
- 3.5.2 The following visualisation techniques were employed:
  - A hillshade image was produced with a light source set at 270 degrees. This
    enabled a general view of the terrain; and
  - Local Relief Modelling (LRM) was performed on the original DSM. This
    technique effectively 'filters out' general terrain surface leaving the more subtle
    archaeological earthworks and their relative elevation above or below their
    terrain; and is widely thought to be the optimum visualisation tool for identifying
    archaeological features (Bofinger and Hess 2011; Novak 2014). To provide the
    best possible visualisation, the standard deviations were set to '0.5 standard
    deviations'.
- To perform a systematic and comprehensive analysis of LiDAR imagery, a 1km polyline grid was built, which was used as a framework to traverse the imagery, ensuring that nothing was inadvertently missed. The imagery was also analysed alongside other historic environment datasets (listed in **Table 3-1**). This reference material was used to cross-check features identified on the LiDAR imagery.
- The results of the LiDAR analysis are incorporated into the baseline within this appendix. Overall, the lowland area of Zone 1: South Coast Plain did not yield many features in comparison to the more upland regions covered by Zone 2: South Downs and Zone 3: Low Weald. This does not necessarily reflect a disparity in the presence of archaeological remains but more likely a consequence of the variability in the prevailing agricultural regimes and settlement across these zones.

### Aerial photography and satellite imagery

- In the absence of existing National Mapping Programme (NMP) coverage for the whole of the Site, searches of the Historic England Archive and local HERs for aerial imagery were completed. Results of this search was then filtered to select images within 100m of the Site.
- This initial search resulted in 311 oblique images (on inspection many of these were in effect vertical images) and 2338 vertical images. The large number of images covered by the Study Area entailed the requirement of a logical filter to undertake the physical review of the aerial photographs.
- 3.5.7 The following methodology was applied in this filtering:



- All oblique images were viewed as these would in theory be of targeted views, principally of archaeological features.
- For vertical images, the data provided in the search included the date the images were taken. This was used to apply a filter focusing on the following:
  - images captured between June and August to increase chance of picking up cropmarks; and
  - images captured between January and February where lower light shows earthworks more clearly.
- Images taken in spring and autumn were therefore not viewed nor were images taken post 1980. Furthermore, alternate images were selected as the scale of the images was such that stereo viewing would be unlikely to have revealed any significant useful information.
- The Historic England Archive was visited to review the selected images identified from the search request, which totalled 347 images. These comprised 234 verticals and 113 obliques. Digital SLR cameras were used to make copies of images where identified features were considered to be of significance or contribute to a better understanding of known archaeological remains. It was hoped that inspection would reveal evidence in the form of previously unknown cropmarks, but the majority of the archaeological oblique aerial photographs focused on known earthwork sites.
- The rectification and georeferencing of aerial photographs were undertaken in Aerial© 5.36 where control points or topography are complex, while nominal images were rectified in QGIS© 3.10.9. Rectified images will be imported into ArcMap© or QGIS© and features transcribed as shapefiles. The methodology for the transcription of archaeological features is informed by Historic England guidance² to retain consistency and represents best practice.
- Alongside the assessment of aerial photographs, the systematic analysis of Google Earth, Apple Maps and Bing online aerial and satellite imagery within the Site was undertaken to identify features of potential archaeological origin. No features were identified which had not already been recorded with LiDAR, aerial photography or historic mapping.
- Features identified by aerial mapping are listed in Appendix 25.1: Gazetteer of onshore heritage assets, Volume 4 of the ES (Document Reference: 6.4.25.1) and incorporated into the baseline discussion within this appendix.

### 3.6 Assessment of archaeological potential

Professional judgement has been used to assign a level of potential for the Site to contain as yet unknown below ground archaeological remains according to the system described below.

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<sup>&</sup>lt;sup>2</sup> Historic England (2019). Historic England Aerial Investigation and Mapping (formerly National Mapping Programme) Standards Technical Review [online]. Available at:



- Very High There is recorded evidence that archaeological features and finds are represented on the Site;
- High There is recorded evidence that archaeological features and finds are represented in close vicinity to the Site;
- Medium Recovery of material or observations of activity in the vicinity of the Site suggest that archaeological features and finds may be represented on the Site; or
- **Low** There is no to low evidence which suggests that archaeological features and finds are likely to be represented on the Site.
- Unknown Where a general potential for the presence of archaeological features is identified, but there is insufficient information available to make an informed judgement on the likely significance of any features which may be present.
- The results of this exercise are presented within the relevant chronological subsections in **Section 4** and in **Section 5**: **Archaeological potential and heritage significance**.

### 3.7 Assessment of heritage significance

- Where there is a potential for the presence of heritage assets, an assessment of the heritage significance of these assets has been undertaken. This assessment takes into account 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 (English Heritage, 2008; Historic England, 2015) and NPPF (MHCLG 2019).
- 3.7.2 NPS EN-1 (Department of Energy & Climate Change 2011) requires change to the significance of heritage assets to be considered in developing an understanding of the potential effects of the Proposed Development.
- The significance of a heritage asset is a product of the value which it holds to this and future generations as a result of its historic, archaeological, architectural or artistic interests. These interests are set out in NPS EN-1 and are discussed in more detail in Conservation Principles and GPA 2 (Historic England 2015):
  - archaeological: the potential of a heritage asset to hold evidence about the past which can be retrieved through specialist investigation;
  - historical: which can be through association with past events or people, or where a heritage asset is illustrative of a particular asset type, theme or period; and
  - architectural/artistic: values which derive from a contemporary appreciation of a heritage asset's aesthetics.
- NPS EN-1 notes that setting contributes to an asset's heritage significance and sets outs policies regarding change to the setting of heritage assets but does not offer an explicit definition. Setting is defined in both the NPPF (MHCLG 2019) and by Historic England in GPA 3 (Historic England 2017) as:



"The surroundings in which a heritage asset is experienced. Its extent is not fixed and may change as the asset and its surroundings evolve. Elements of a setting may make a positive or negative contribution to the significance of an asset, may affect the ability to appreciate that significance, or may be neutral." (NPPF, MHCLG 2019, 71)

Heritage significance is assigned to one of four classes, with reference to the heritage interests described above and relying on professional judgement as informed by policy and guidance. The hierarchy given in **Table 3-2** reflects the NPS EN-1 distinction between designated and non-designated heritage assets. NPS EN-1 distinguishes between designated assets of the highest heritage significance (i.e., scheduled monuments, protected wreck sites, battlefields, grade I and II\* listed buildings, grade I and II\* RPGs, and World Heritage Sites) and other designated heritage assets.

Table 3-2 Establishing the heritage significance of assets

Heritage significance	Criteria description
High	Assets of national importance, which have significance for an outstanding level of archaeological, architectural, historic and / or artistic interest.
	It is possible that low-moderate impacts upon these assets or their settings could lead to significant effects.  Designated heritage assets or non-designated assets of demonstrably schedulable quality.
Medium	The sensitivity of these assets will largely be dependent upon their current setting and their character. Asset has significance for a high level of archaeological, architectural, historic and / or artistic interest.
	Non-designated heritage assets of regional importance.
Low	Assets of local interest, which have significance for elements of archaeological architectural, historic or artistic interest.  Although these assets must be considered, and mitigation may be required, it is considered that significant effects will only exist if the assets were to be predominantly or totally destroyed as a result of the onshore elements of the Proposed Development.
	Non-designated heritage assets of local importance.
Very Low	Due to its nature of form/condition/survival, cannot be considered as an asset in its own right.
	Non-extant HER record.



### 3.8 Limitations and assumptions

- The data in the records supplied by HER is drawn from a variety of sources, which have variable precision and accuracy. Some records are based on recent professional archaeological investigations, which adhere to CIfA standards, whilst others are based on older records or are reliant on reporting by members of the public; the precision of these records cannot always be reliably assessed. Information on individual records is précised from the detailed description sheets provided by HER, supplemented by information gathered during the research for the report as appropriate. Each of the consulted data sources represents a collection of existing knowledge and is unlikely to be a complete record of all surviving heritage features.
- Limited available data may reflect a lack of research, especially if there has been little or no previous development activity, or methodological limitations (as in the case of aerial survey) rather than an absence of archaeological evidence itself.
- 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.
- The availability of data sources outlined in this appendix is considered sufficient to establish a desk-based historic baseline to determine archaeological potential and/or the need for further surveys.



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### 4. Historic environment baseline

### 4.1 Location and landscape context

#### **Zone 1: South Coast Plain**

This landscape zone comprises the southern area of the Site and Study Area from 4.1.1 landfall at Climping Beach to the A27 at Hammerpot, near the southern limit of the South Downs National Park (SDNP) (Figure 25.2.1). The river Arun winds southwards toward Littlehampton, crossing the Site east of Littlehampton. The landscape is relatively flat and open, very gently rising north / northeast towards the SDNP. The Study Area contains areas of urban and industrial development including the settlements of Climping, Littlehampton, Middleton-On-Sea, Poling, Angmering and Crossbush linked by road (A27, A259 and A284) and regional rail corridors. Elsewhere the agricultural landscape is characterised by large open fields with few trees and hedgerows. Drainage ditches, wire fences or low banks are commonly used as field boundaries. In the north of this zone, the upper coastal plain comprises flat, regular patterns of large fields with gentler forms and patterns, blending into the openness of the lower dip slope of the South Downs. Here the landscape is varied, incorporating both open arable farmland and lowdensity settlements, with a more wooded and semi-enclosed (somewhat suburban) character locally.

#### **Zone 2: South Downs**

Within Zone 2, the Site crosses the SDNP, between the A27 at Hammerpot and the A283 north of Washington, West Sussex. This area comprises a broad elevated east—west ridge with a predominantly steep, north facing scarp slope and a gentle southerly dip slope. Within the east of the Study Area is the river Arun valley characterised by large open arable and grassland fields, creating an open, exposed landscape. There are large areas of woodland between the Angmering and Harrow Hill, through which the Site traverses at Michelgrove Park. From here, the Site passes through the southern dip slopes of the SDNP. Roads and villages are mainly concentrated in the river valleys with the more elevated areas sparsely settled with scattered farmsteads.

#### **Zone 3: Low Weald**

This landscape zone comprises where the Site lies northeast of the A283, which forms the northern limit of the SDNP. The topography of the landscape drops sharply into the broad, low-lying vales before rising again towards the High Weald Area of Outstanding Natural Beauty (AONB) beyond. This landscape is predominantly agricultural, and largely pastoral with either grassland or meadows. Field boundaries of hedgerows enclose small, irregular fields linking small and scattered linear settlements. A number of smaller towns and villages are scattered among areas of woodland, where larger villages have grown around major transport routes including the A23, A272 and A281. Numerous woodland blocks



are scattered throughout this landscape along with many small rivers, streams and watercourses.

### 4.2 Historic landscape character and historic hedgerows

#### Overview

- The Historic Landscape Character (HLC) of the Site has been assessed as part of the Sussex Historic Landscape Characterisation project (Bannister 2010, see **Figure 25.2.2a-f**), and the SDNP Landscape Character Assessment (SDNPA 2020) (see **Graphic 4-1**). Below the HLC is described for each landscape zone.
- "Important" hedgerows were determined in line Hedgerow Regulations 1997 and are shown in the Tree Preservation Order (TPO) and Hedgerows Plan (Document Reference: 2.6). Those hedgerows considered important against the 'Archaeology and History' criteria set out at Schedule 1 of the Regulations, are relevant to the baseline presented in this Appendix (H521, H527, H549, H579, H181, H200, H228, H308, H507 and H515).

#### **Zone 1: South Coast Plain**

- The southern limit of this zone is occupied by Climping Beach, comprising shingle and dunes (HWS24916 and HWS24425), which contains remnants of WWII anti-invasion defences. These defences, which are evidenced by written records illustrating their historic function and activities relating to national defence, form part of a greater network of defences across the Sussex coastline. North of the shoreline, the Site is dominated by fieldscapes of the coastal plain and Arun floodplain, developed through a mixture of medieval assarting (woodland clearance for arable purposes), medieval and post medieval piecemeal enclosure and marshland enclosure ("brook innings"), and modern field amalgamation. Woodland is scarce, though an area of ancient semi-natural woodland lies within the north of the Study Area near the A27 (HWS24583).
- Early remnants of medieval and post medieval land management that survive in the Study Area within this zone are primarily found to the north and east of the river Arun, where a small area of probable medieval assarted land lies between the A27 and Crossbush Road (HWS24601), and a large area of medieval brook innings (the enclosure of alluvial flood plains and salt marshes) lie between the River Arun and Lyminster (HWS24410). Additionally, there are other areas of medieval/post medieval modern piecemeal enclosure in the Study Area between Crossbush and Lyminster (HWS24647); and within the south of this zone, adjacent to Atherington (HWS24930).
- An area of Parliamentary Enclosure is located partly within the Site immediately south and west of the village of Poling (HWS24592). The fieldscape here is characterised by straight and regular boundaries which were formed through the enclosure in the early 19th century.
- A large area of post medieval brook innings lies partly within the Site between Wick and the River Arun (HWS24611), which is occupied by the Arundel and Littlehampton railway junction. Southwest of the River Arun is dominated by fields



characterised as *modern field amalgamation* (with smaller areas found to the north), created through the removal of field boundaries and the erosion of the original field pattern. This was a major cause of landscape change within the 20<sup>th</sup> century (some in the late 19th century) and was a common process across the Sussex coastal plain, contributing to the more open landscape character of this area observed today.

- 4.2.7 Historic settlement within South Coast Plain was influenced by the presence of fertile soils and routeways, and the settlement form is largely of early medieval / medieval origin. There are extant remnants of medieval and post medieval settlement forming the core of existing villages or hamlets, and scattered farmsteads within the Study Area. This includes the early medieval historic core of Lyminster (HWS24602), the medieval historic core of Climping (HWS24895), as well as historic farmsteads at Atherington (HWS24918 and HWS24919), Kent's Farm (HWS24905) and Broomhurst Farm (HWS24612). Later settlement established by the post medieval period are present along Crossbush Road (HWS24642) and Lyminster Road (HWS24621).
- Subsequent modern urban and industrial development is a primary feature of the wider coastal plain landscape, with the Site located within the agricultural land between the modern urban expansions of Climping and Littlehampton.
- Overall, the southern coastal landscape is characterised by agricultural improvement and urban expansion, punctuated with historic farmsteads, which moving northwards, becomes more varied in the remnant survival of earlier forms of land management. There is limited potential for hedgerows of historic importance to be present within this zone, which are more likely to be found toward the north in the transitional upper coastal plain underlain by lower chalk.
- Two hedgerows (H521 and H527) within Zone 1 have been identified as important under the Hedgerow Regulations 1997(see **TPO and Hedgerows Plan** (Document Reference: 2.6). Both hedgerows are situated along historic parish boundaries: H521 along the historic boundary between parishes of Poling and Lyminster and H527 along that of Poling and Angmering.

#### **Zone 2: South Downs**

- The Site occupies multiple character areas identified in the SDNP Landscape Character Assessment (SDNPA 2020, see **Graphic 4-1**) which reflect variations in the underlying geology and topography, including:
  - Arun Valley Sides (G4), extending from the river Arun and its tributaries;
  - South Downs Upper Coastal Plain (R1), a narrow stretch of land between the A27 and Crossbush, and east of Clay Lane;
  - Angmering and Clapham Wooded Estate Downland (B4) east / northeast of Warningcamp;
  - Arun to Adur Downs Scarp (13) of Chantry and Sullington Hill; and
  - Arun to Adur Scarp Footslopes (J3) from Sullington Hill to Washington.

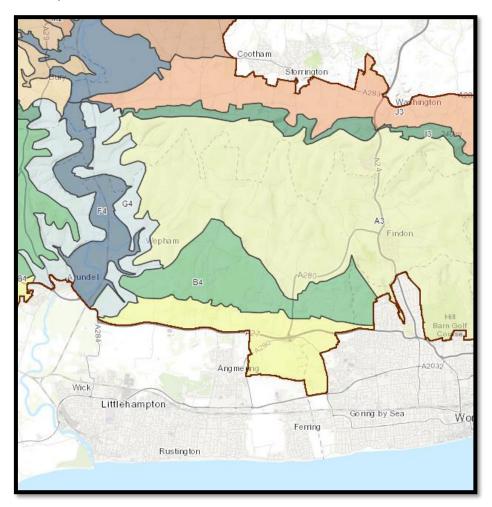


- Zone 2 is dominated by large open arable and grassland fields of the downlands, developed through a mixture of piecemeal, private and parliamentary enclosure, assarting and modern field amalgamation. Whilst fields on the downs are largely bounded by post and wire fencing, there may be hedgerows and tracks surviving from the earlier manorial downland landscape (SDNPA 2020).
- Whilst the South Downs landscape is generally open and exposed, there are pockets of woodland present within the Study Area in Zone 2 north of Poling (HWS24583), north of Angmering (HWS23941) and on the northern scarp east of Washington and across lower footslopes (HWS2528). The majority of woodland is post medieval and modern plantation, though there is some ancient woodland, including assart woodland around Warningcamp, the extent of which is a result of enclosure of surrounding fields (HWS24634). The Site does not intersect with any woodland in Zone 2.
- The Site intersects with areas of woodland north of Hammerpot and northwest of Patching. These areas represent a mix of semi-ancient woodland (HWS23881) and regenerated woodland (HWS23875) and mixed plantation comprising replanted and ancient-semi natural trees (HWS23876).
- An area of designed parkland (HWS23913), Angmering Park, containing ponds and isolated tree clumps, is located within the Site in Zone 2, surrounded to the north, east and west by plantation woodland and areas of extraction pits (HWS23882).
- 4.2.16 Significant elevations within the Study Area are Warningcamp Hill, Barpham Hill, Harrow Hill, Sullington Hill and Chantry Hill; and within the wider landscape are Cissbury and Blackpatch Hill. These peaks are important in terms of views across the landscape and as foci for human activity since the prehistoric period. There are surviving fragmented areas of unenclosed downland partly within the Site (HWS2619) and in the Study Area between Patching and Sullington Hill, likely resulting from an inability for arable farming on the steep slopes (HWS23863), which are partially covered by scrub and wood. This stretch of the open downland and the steep scarp is rich with prehistoric earthworks.
- The steep scarp here is cleared of woodland with surviving features relating to sheep-corn husbandry regime and former agricultural lime-burning industry. Beyond are the footslopes of the South Downs, a transition between the steep chalk scarp and the Low Weald to the north. Here the landscape is characterized by a mosaic of farmland and woodland comprising irregular fields of arable and pasture bounded by an intact network of thick hedgerows, with hedgerow oaks, and woodland (SDNPA 2020).
- 4.2.18 Historic settlement pattern is influenced by the availability of agricultural land and use of routeways. Along the river valley are small settlements with medieval origins at Warningcamp, Wepham and Burpham, and within the northern footslopes of the South Downs at Washington and Sullington. Nearby modern settlement is largely focused adjacent to the major road networks, to the north and south of the South Downs.
- Four hedgerows (H181, H200, H549 and H579) within Zone 2 have been identified as important under the Hedgerow Regulations 1997 (see **TPO and Hedgerows Plan** (Document Reference: 2.6). All are situated along historic parish boundaries:



H181 along the historic boundary between parishes of Washington and Wiston, H200 along that of Sullington and Washington, H549 along that of Clapham and Burpham and H579 along that of Patching and Clapham.

Graphic 4-1 South Downs National Park Landscape Character Assessment (SDNPA 2020)



#### **Zone 3: Low Weald**

- This landscape within this zone comprises the gently undulating low-lying vales of the Low Weald which begins to rise towards the High Weald AONB beyond.
- In Zone 3, the Site is dominated by fieldscapes developed through a mixture of medieval assarting, medieval and post medieval piecemeal enclosure, and modern field amalgamation. Cohesive assart field systems are present at Ashurst, south of Partridge Green, and more extensively in an area between Shermanbury, Cowfold and Twineham, reflecting the process of piecemeal enclosure of woodland in the medieval period. These field systems are associated with isolated farmsteads and are surrounded by fragmented patches of woodland comprising plantation or regenerated woodland of uncertain date. Overall, the field pattern is characterised by a patchwork of irregular enclosures defined by a network of hedgerows, which are likely to be of historical importance given the survival of field systems within this zone representative of medieval agricultural regimes.



- Areas of Parliamentary Enclosure can be found within the Study Area close to the settlements of Ashurst (HWS2097), Wiston (HWS2464) and Washington (HWS2579). These blocks of fields are characterised by straight regular boundaries which are the result of enclosure of either former open field agriculture or common land.
- There is a general absence of woodland along the valley and plains of the River Adur between Ashurst and Shermanbury. The Site intersects with remnant strips of woodland near Buncton Manor (HWS2434), Ashurst (HWS2055), and on Wineham Lane (HWS2299).
- 4.2.24 Historic settlement within this zone is characterised by isolated farmsteads and dispersed settlement. The Site partially intersects settlements with medieval origins at Ashurst (HWS2101), and the historic designed parkland (not designated) of grade II listed Oakendene Manor (NHLE 1027074; HWS2285) (see Appendix 25.5: Oakendene parkland: historic landscape assessment, Volume 4 of the ES (Document Reference: 6.4.25.5)), and also lies adjacent to numerous isolated 18th and 19th century farmsteads. Elsewhere within the wider landscape there are historic settlement cores at Bines Green and Wineham.
- Development of the historic landscape within Zone 3 will have been influenced by the River Adur, to which early 19th century improvements enabled important navigation for the trade of manure, coal and chalk, which was superseded in the late 19th century by the developments in the rail network, primarily the railway from Shoreham to Horsham.
- 4.2.26 Six hedgerows (H228, H308, and H527, H507 and H515) within Zone 3 have been identified as important under the Hedgerow Regulations 1997 (see **TPO and Hedgerows Plan** (Document Reference: 2.6). Five of these are situated along historic parish boundaries: H228 along the historic boundary between parishes of Wiston and Steyning, H308 along that of Shermanbury and Henfield, H527 along that of Poling and Angmering, with H507 and H515 all along that of Cowfold and Bolney.

### 4.3 Geology

Geology can provide an indication of suitability for early settlement, potential depth and preservation of remains. The geology varies across the Study Area, dominated by a series of chalk formations, climbing across clays to the mudstones, sandstones and clays of the Weald. Bedrock deposition predates the period of human evolution, and the focus for archaeology is therefore on the overlying superficial geology deposited during the Quaternary; the most recent period of Earth history. The Quaternary comprises the Pleistocene 2.6 to 11.5 thousand years ago (kya) and the Holocene period (11.5kya to present). The Pleistocene is characterised by high amplitude cold (glacial) to warm (interglacial) climate cycles and equivalent to the Palaeolithic. The Holocene is a warm and stable time encompassing archaeological periods from the Mesolithic to the post-medieval.



#### **Zone 1: South Coast Plain**

- The most southern extent of this zone in the area of the beach at Littlehampton lies on Cretaceous Newhaven Chalk Formation bedrock, formed approximately 72 to 86 million years ago (mya) within warm seas. The chalk is overlain by Holocene beach and tidal flat deposits (clay, silt, sand and gravel) on the shoreline, on lowlying flats, channels and creeks.
- From the beach north to Lyminster, bedrock comprises Cretaceous Lewes Nodular Chalk Formation, Seaford Chalk Formation, Newhaven Chalk Formation, Culver Chalk Formation and Portsdown Chalk Formation. North of Lyminster, there is an outcrop of Palaeogene Reading and London clays, formed in an environment dominated by swamps, estuaries and deltas or shallow seas.
- Superficial deposits across Zone 1 comprise Holocene sediments relating to the 4.3.4 river Arun and its tributaries and late Pleistocene sediments mantling the coastal plain at the margins of the floodplain. River alluvium (sand, silt, clay and sometimes peat) in the Arun and its tributaries gives way to estuarine alluvium (raised marine deposits) and tidal flat deposits as the river meets the coast. The alluvium was deposited by river and tidal processes and is thick in the lower reaches of the Arun (>30m). Raised beach deposits (found near the beach, at Climping, east of the railway junction and Lyminster, and south of the A27) and River Terrace deposits are coarser and older (late Pleistocene). River Terrace deposits are mapped at the margins of the Arun floodplain and were deposited in an active river environment probably in the Lateglacial (Devensian). On the terraces in the upper reaches of the Arun tributaries in Zone 1, sporadic slope deposits (Head) are mapped. Head consists of eroded bedrock and superficial material moved downhill by gravity, often redistributed freeze-thaw and wind, and weathered in-situ. In Zone 1, Raised Beach deposits are assigned to the Pagham Formation, the youngest raised beach (Ipswichian last interglacial 123 to 130 kya, a time of human absence from Britain) based on their altitude (circa (c.) 5.0m ordnance datum (OD) and location. The Raised Beaches of the West Sussex Coastal Plain are of considerable Pleistocene geological and Palaeolithic archaeological interest. The long-term uplift of southern Britain means that older beaches are at higher elevations and further from the present coast.
- As a result of the widespread and often deep cover of superficial geological deposits, the bedrock has relatively little direct effect on the form and character of the landscape in Zone 1 (Appendix 25.3: Onshore desk-based geoarchaeological and palaeoenvironmental assessment report, Volume 4 of the ES (Document Reference: 6.4.25.3)).

#### **Zone 2: South Downs**

- North of Angmering and the A27, Cretaceous Spetisbury Chalk is mapped, formed between 83.6 and 72.1 mya. In the north of Zone 2 is the boundary between the chalk formations at the foot of the escarpment and the sedimentary Cretaceous Gault Formation mudstones.
- 4.3.7 Across a large part of Zone 2 no superficial deposits are mapped and shallow lime-rich soils often directly overly the chalk. A substantial outcrop of Clay-with-flints (clay, silt, sand and gravel) is present on the southern flank of Barpham Hill



- and gives rise to the more clayey Paleo-argillic brown earths, productive for arable agriculture. The age of Clay-with-flints is uncertain, considered pre-Pleistocene, although Palaeolithic stone tools have been associated with these deposits.
- Elsewhere within the Site in Zone 2, Head is present within the relict, branching, dry valleys on the chalky slopes and on the lower chalk within the south (footslopes of Warningcamp Hill) and north (footslopes of Sullington Hill). Although often a mixture of material, Head can be stratified reflecting episodic accumulation under varying environmental conditions during the Pleistocene.

#### Zone 3: Low Weald

- Moving northwards from the Gault mudstones in Zone 2, the southern part of the Site in Zone 3 lies on a series of sedimentary Cretaceous deposits: the Upper Greensand and Lower Greensand (Folkstone Formation) siltstone and sandstone that form the higher ground on which Buncton Manor Farm and Ashurst are situated. The Weald Clay Formation (mudstones with thin beds of sandstone and limestone) characterises the majority of Zone 3, with Horsham Stone member in the north between Taint field Farm and Little Farm.
- The principal superficial deposits in Zone 3 are Holocene alluvium, Pleistocene River Terrace gravels and Head, mapped mainly where the route crosses Adur tributary floodplains. The Site traverses alluvium north of Bines Green that infills a major branch of the Adur River. The floodplain is underlain by gravels of River Terrace 1 (deposited in the Lateglacial) and flanked by Terrace 2 (approximately 4m above the floodplain) representing the early part of the last glaciation and River Terrace 3 relating to a previous glacial stage. Scattered outcrops of Head deposits cap the bedrock in the southern part of Zone 3 and on the Weald Clay and Lower Greensand, Head is found on the valley slides.

### 4.4 Designated heritage assets

This section provides an overview of the designate heritage assets within the Site and Study Area. Details of these are incorporated onto a period-based chronology of the Site in **Section 4.7: Site chronology**. Designated heritage assets have statutory protection, as described in **Section 2: Legislation, policy and guidance** and are recorded on the NHLE, together with conservation area data provided by West Sussex HER. Designated heritage assets within the Site and Study Area are shown in **Figure 25.2.3a-f** and listed in **Appendix 25.1: Gazetteer of onshore heritage assets, Volume 4** of the ES (Document Reference: 6.4.25.1).

#### Within the Site

One scheduled monument is located within the Site, Medieval earthworks east and southeast of St Mary's Church (NHLE 1005828) in Zone 1. A further four scheduled monuments are located immediately adjacent to the Site. These are Itford Hill style settlement and an Anglo-Saxon barrow field at New Barn Down (NHLE 1017446), Prehistoric flint mine and part of a round barrow cemetery at Blackpatch, Farm (NHLE 1015880), a group of four bowl barrows at the Chantry Post (NHLE 1015713) and Muntham Court Romano-British site (NHLE 1005850). These are all located within Zone 2.



The Site also narrowly intersects Sullington Conservation Area (shown on in **Figure 25.2.3e**). There are no further designated heritage assets within the Site.

#### Within the Study Area

- Designated heritage assets within the Study Area (listed in **Appendix 25.1: Gazetteer of onshore heritage assets, Volume 4** of the ES (Document Reference: 6.4.25.1) and shown on **Figure 25.2.3a-f**) include:
  - 20 Scheduled Monuments;
  - 261 Listed Buildings; and
  - 12 Conservation Areas.
- There are no world heritage sites, registered parks and gardens, registered battlefields, protected wreck sites or protected military sites within the Study Area.

#### Scheduled monuments

- Within Zone 1, three scheduled monuments are present relating to remains of a Roman villa (NHLE 1015886) a deserted medieval settlement (NHLE 1005828, Medieval earthworks E and SE of St Mary's Church) and a 19<sup>th</sup> century military defence of the Sussex coast (NHLE 1005809, Littlehampton Fort).
- The highest concentration of scheduled monuments within the Study Area are located within Zone 2, reflecting multi-period occupation and exploitation of the downland landscape from the prehistoric onwards. These include:
  - prehistoric barrow sites (NHLE, 1020352, 1015713 and 1016407), earthworks (NHLE 1015712, 1015715, 1015714,1015237), Itford Hill Style settlements (NHLE 1015881 and 1017446) and flint mines (NHLE 1015239; 1015237; 1015238; 1015880);
  - Iron Age settlement (NHLE 1005823; 1005850);
  - Romano-British shrine (NHLE 1005850);
  - Anglo-Saxon barrow cemeteries (NHLE 1017446; 1015880); and
  - Deserted medieval settlements (NHLE 1015882, 1015883 and 1005828).
- Within the Low Weald landscape of Zone 3 there is one scheduled monument relating to a moated medieval manor (NHLE 1009868 Ewhurst Manor).

#### Listed buildings

There are 12 Grade I listed buildings within the Study Area, comprising primarily parish churches with surviving medieval building fabric, together with St John's Priory incorporated into a later farmhouse (NHLE 1217172), and the gateway and porters lodge northwest of Ewhurst Manor (NHLE 1194178) (shown on **Figure 25.2.3g**). There are 11 Grade II\* listed and 267 Grade II listed buildings including a mix of churches, farmhouses and outbuildings, houses, cottages and a monastery.



Across the Study Area, the listed buildings are largely concentrated within Zone 1 and Zone 3. Within the Low Weald (Zone 3) individual or small groupings of listed buildings are generally scattered across the landscape. Where listed buildings lie within Zone 2, these are limited to the southern Arun valley (c, Burpham and Wepham) or the northern scarp footslopes of the downland (Washington and Sullington) and the Findon Valley. The distribution of listed buildings within the Study Area reflects the development of historic settlement patterns which have persisted to the present day (as discussed in **Section 4.2: Historic landscape character and historic hedgerows**).

#### Conservation Areas

Within the Study Area, the conservation areas encompass the historic core of settlements with medieval and post medieval origins in which survive extant buildings these periods, many of which are listed. Of the 12/ Conservation Areas within the Study Area, Lyminster and Washington and are located immediately adjacent to the Site.

### 4.5 Non-designated heritage assets

- This section provides an overview of the type and distribution of non-designated heritage assets within the Site and Study Area. Details of these are incorporated onto a period-based chronology of the Site in **Section 4.7**.
- These comprise of assets or records identified through other sources listed in **Section 3.3: Data gathering methodology**.

#### **HER Monument Records**

- The HER Monument Records identified within the Site (**Figure 25.2.4a-f** and **Table 4-1** to **Table 4-3**) represent all periods from Palaeolithic to modern and comprise a range of record types including small find locations, historic landscapes, farmsteads, extant monuments, earthworks, buildings, military structures, memorials, telephone boxes, and archaeological sites and deposits. HER records within the Study Area are listed in **Appendix 25.1: Gazetteer of onshore heritage assets, Volume 4 of the ES (Document Reference: 6.4.25.1).**
- In addition to these records, the HER identifies two projected Roman roads routes crossing the Site, broadly east-west. The most southerly is broadly projected along that of the A27, at the boundary of Zone 1 and Zone 2. The second is the Hardham to Barcombe Mills Roman Road through the Districts of Horsham and Mid Sussex, located near the boundary of Zone 2 and Zone 3.



Table 4-1 Zone 1: South Coast Plain – HER Monument Records within the Site

MonUID	Name	Description	Туре	Period
MWS9428	Multi-Period Site, Land off Courtwick Lane, Littlehampton - Archaeological Evaluation	A multi-period site identified through archaeological evaluation with features dating mainly from the Bronze Age, Late Iron Age and Roman periods, but several Saxon and Medieval features were also present. The majority of features and finds were found to the southeastern part of the site <sup>3</sup> , where there is certainly a Late Iron Age to Roman settlement.	Ditch; pit; gully; ditch; ditch; post hole; ditch; settlement; ditch; pit; gully; linear feature; cremation; pit; gully; pit; gully; pit; gully; gully; ditch; wall; gully; pit; layer; ditch; gully; tree throw; post hole	Prehistoric to Roman
MWS9869	Site of Common Barn Historic Outfarm, Climping	Identified as a Historic Outfarm dating to the 19 <sup>th</sup> century - the Outfarm has been totally demolished/lost.	Outfarm	Post Medieval
MWS14581	Lyminster Bypass, Lyminster - Archaeological Investigations	A trial trench and geoarchaeological borehole evaluation. The evaluation recorded a small number of features and finds. The borehole evaluation revealed a very deep sequence of marine and intertidal clays, silts and sands overlying 0.4m of peat, over weathered Chalk.	Palaeochannel; ditch; ditch; gully; ridge and furrow; ditch	Prehistoric to Roman
MWS3371	Site of a Deserted Medieval Village, Climping	Comprises a deserted medieval village in two separate areas of protection surviving as earthworks and below ground remains.	Deserted Settlement; Earthwork; House Platform; Trackway; Wall	Medieval

 $<sup>^{\</sup>rm 3}$  As defined by the extent of the HER polygon shown in Figure 25.2.4a



MonUID	Name	Description	Туре	Period
MWS6778	Bognor Regis & Littlehampton Transfer Pipelines - Segment 32	Excavated remains including 1 flint flake; several post-Medieval peg tile frags; 2 sherds of modern pottery.	Site	Lower Palaeolithic to Modern
MWS7544	Anti-Tank Block, Cubes	-	Anti-Tank Block	World War Two
MWS7123	Anti-Aircraft Artillery - Ford	WWII Anti-aircraft artillery. Unarmed and no radar.	Anti-Aircraft Battery	World War Two
MWS8294	Anti-tank wall - Climping	A 2 ft thick anti-tank wall was built along the rear of the beach between the points indicated. Many anti-tank cubes survive in the area. There is evidence for a prepared position, at the east end, comprising a section of raised wall into which 4 loopholes have been incorporated.	Anti-Tank Wall; Anti-Tank Block	World War Two
MWS3544	Cropmark from Aerial Photo, Arundel Road	Ovoid cropmark visible on aerial photograph of 1981.	Macula	Unknown
MWS3543	Possible Brick Kiln, Arundel Road	Place name 'Kiln Field' attached to parcel of land (no 170) on Angmering Tithe Map of 1838-9 may suggest presence of nearby brick kilns.	Brickworks	Post Medieval
MWS3113	Bronze Age Finds - Bayliffscourt	A Bronze Age hoard is said to have been found at Bayliffscourt.	Findspot	Bronze Age
MWS3895	Pottery - Littlehampton	Roman coarse earthenware. Finds also included a number of	Findspot	Late Iron Age to



MonUID	Name	Description	Туре	Period
		relatively large flint waste flakes and two fire-fractured flints, suggesting prehistoric (Neolithic?) settlement.		Roman, Prehistoric
MWS3638	Palaeolithic handaxe - West Beach	Early-Mid Acheulean flint handaxe found 16 June 1984 on pebble beach not far from Atherington Mill. Middle Acheulean type. Heavily water worn with modern damage.	Findspot	Palaeolithic
MWS3459	Roman Pottery, West Beach	Romano-British pot found eroding out of the low cliff face	Findspot	Roman
MWS3458	Roman pottery - Wick	1st century Roman pottery and other rubbish found in a gravel pit c.1920.	Findspot	Roman
MWS3396	Prehistoric Finds - Bayliffscourt	Bronze objects reported recovered on the foreshore, identified by Chichester Museum as the tip of a socked axe, a gouge, a ring and some slag.	Findspot	Neolithic /Bronze Age
MWS5230	Atherington armament - Loopholed Wall	Documentary evidence of loopholes covering the beaches in the remains of a trench on the north side of Mill Lane.	Loopholed Wall	World War Two



Table 4-2 Zone 2: South Downs – HER Monument Records within the Site

MonUID	Name	Description	Туре	Period
MWS6592	Barrow - Sullington Hill	A possible ploughed down bowl barrow 13.5 m in diameter and 0.7 m high; no sign of berm or ditch. No trace could be found in 1970.	Barrow?	Bronze Age
MWS6581	Barrow - Sullington Hill	A tumulus on Sullington Hill. Saxon cremations found within (MWS2804). By 1970 it had been ploughed out and nothing remained.	Barrow	Bronze Age
MWS7566	Defended locality - WWII	Evidenced through documentary sources.	Defended Locality	Modern/World War Two
MWS5726	Brickyard, Hammer Pot Field	Site of a brickyard observed during ploughing and as a depression in the field. Some in-filling was carried out during road widening so contamination of the site with material from elsewhere. Field walking was carried out to determine the extent of the flint site (see 4486) but with little result.	Brickworks	Post Medieval
MWS2804	Saxon cremations - Sullington Hill	Two Saxon secondary cremations and a cinerary urn were found in a barrow on Sullington Hill (MWS6581).	Cremation	Early Medieval
MWS3311	Terrace way - Sullington Hill	A graded, metalled farm track 4m in width descends the eastern slopes of Sullington Hill from the top of the South Downs escarpment as far as the foot of the Downs, where it is continued as a modern tarred road to Sullington village. The track, still in use, is typical of many	Terraced Walk	Unknown



MonUID	Name	Description	Туре	Period
		such terrace ways, which are probably of Medieval date or later, and which connected the hill pastures with the settlements below. There is no evidence for dating this road Roman.		
MWS1122	Bowl Barrow south west of Muntham Farm, Findon	One of five Bronze Age barrows are situated on a ridge to the southwest of Muntham Farm.	Barrow	Bronze Age
MWS1221 6	Earthwork Remains of a Post Medieval Hollow Way, Church Hill, Findon	The earthworks of three possible Post Medieval hollow ways are visible on aerial photographs taken in 1945, 1946 and 1965.	Hollow Way	Post Medieval
MWS9665	Chantry Farm Historic Farmstead, Storrington and Sullington	A 19th century dispersed multi-yard farmstead.	Farmstead	Post Medieval
MWS9337	Barns Farm Historic Farmstead, Storrington	A 19 <sup>th</sup> century dispersed cluster farmstead. It is in an isolated location and has suffered significant loss (more than 50% alteration).	Farmstead	Post Medieval
MWS1243 0	Muntham Farm Historic Farmstead, Findon	A 19 <sup>th</sup> century U-Plan regular courtyard farmstead with additional detached elements to the main plan. The farmhouse is detached and set away from the yard. It is in an isolated location and has suffered significant loss (more than 50% alteration).	Farmstead ; U Shape Plan	Post Medieval
MWS1226 9	Earthwork Remains of a Post Medieval	The earthwork remains of this Post Medieval dewpond are visible on	Dewpond	Post Medieval



MonUID	Name	Description	Туре	Period
	Dewpond, Tolmere Pond, Findon	aerial photographs taken in 1945. The pond is oval and measures approximately 40m by 14m but contained no water.		
MWS1150 6	Hill Barn Historic Outfarm, Storrington and Sullington	A 19 <sup>th</sup> century T-Plan regular courtyard outfarm or field barn.	Outfarm; T Shape Plan	Post Medieval

Table 4-3 Zone 3: Low Weald – HER Monument Records within the Site

MonUID	Name	Description	Туре	Period
MWS7031	Earthworks north of Buncton	A number of earthworks were observed in this field. They could possibly be seen in connection with the medieval settlement at Buncton.	Earthwork	Medieval
MWS9446	Bloques (Blocks) Farm, Ashurst	Double sided loose courtyard farmstead with a detached farmhouse.	Farmstead	Post Medieval
MWS9503	Brightman's Farm Historic Farmstead	A medieval U-Plan regular courtyard farmstead with additional detached elements to the main plan. The farmhouse is detached and set away from the yard. It is in an isolated location and has suffered partial loss (less than 50% loss). Large modern sheds are on the site of the historic farmstead and may have destroyed or obscure historic buildings.	Farmstead	Medieval- Post Medieval
MWS11752	Homelands Historic Farmstead, West Grinstead	A 19 <sup>th</sup> century 4-sided loose courtyard farmstead with additional detached elements to the main plan. The farmhouse is	Farmstead	Post Medieval



MonUID	Name	Description	Туре	Period
		detached and set away from the yard. It is in an isolated location and has suffered partial loss (less than 50% loss).		
MWS14632	Morley Manor, Shermanbury - Watching Brief	A watching brief carried out on excavation of a pond [outside the Site]. Identified land drain and a fence line from a removed field boundary. An assemblage of finds was recovered [from outside the Site], including prehistoric flintwork and fire-fractured flint as well as medieval and post medieval pottery sherds.	Finds	Prehistoric/ Medieval
MWS10096	Dragons Farm Historic Farmstead, Cowfold	A 19 <sup>th</sup> century 3-sided L-Plan loose courtyard farmstead with additional detached elements to the main plan. The farmhouse is detached and set away from the yard. It is in an isolated location and has suffered partial loss (less than 50% loss).	Farmstead	Post Medieval
MWS9939	Crateman's Farm Historic Farmstead, Cowfold	A 17 <sup>th</sup> century 3-sided L-Plan loose courtyard farmstead with additional detached elements to the main plan. The farmhouse is detached and set away from the yard. It is in an isolated location and has suffered partial loss (less than 50% loss).	Farmstead	Post Medieval
MWS15278	Rectangular Field System, Bolney Substation, Bolney and Twineham	A series of intercutting ditches which together delineate a rectangular field system oriented on a north-south/east-west axis.	Field System	Unknown



MonUID	Name	Description	Туре	Period
MWS13064	Site of Historic Outfarm North West of Twineham Court, Twineham	Former 19 <sup>th</sup> century single sided loose courtyard outfarm or field barn. It was in an isolated location but the outfarm has been totally demolished/lost.	Farmstead	Post Medieval
MWS12642	Rampion Offshore Wind Farm - Archaeological Investigations	Features identified on geophysical survey plots and excavated through trial trenching. Late Iron Age to early Roman field system and associated pits, with a large assemblage of pottery and some stone fragments (Sheehan and Krawiec 2018).	Linear ditches	Unknown

## Locally listed buildings

Of the three Districts which the Site cross, only Horsham and Arun have identified locally listed buildings (Buildings and Structures of Character), which have some historical interest. Of those listed in Horsham, none are located within the Site or Study Area. Of those listed in Arun, none are located within the Site (Arun District Council 2005). Those within the Study Area are largely residential buildings with a few public houses and a World War Two (WWII) machine gun post. Buildings or structures identified on local lists do not receive any additional statutory protection.

### **UKHO** wrecks and obstructions

There are four UKHO records within the Study Area, which relate to wreck sites (see **Figure 25.2.4a**). One is identified on the west bank of the river Arun (1001702015) and is characterised as a wreck showing any portion of hull / structure which has been lifted. The other three are located below MHWS and will be considered within the marine archaeology baseline report (**Appendix 16.1: Marine archaeology technical report, Volume 4** of the ES (Document Reference: 6.4.16.1).

# **Archaeological Notification Areas**

The Site intersects with 14 Archaeological Notification Areas (ANA) (listed in **Table 4-4** and shown in **Figure 25.2.5a-h**). ANAs delineate the existence, or probable existence, of archaeological heritage assets. These are located along the length of the Site and Study Area but are more concentrated and cover a larger land area within the Zone 1 and Zone 2. Within Zone 3, the ANAs cover relatively discreet areas of land.



Table 4-4 Archaeological Notification Areas within the Site

DesigUID	Preferred Ref	Name	Grade
Zone 1: So	uth Coast Pla	in	
DWS8486	Arun 040	The Church of St Mary and the Deserted Medieval Village of Climping	Red
DWS8498	Arun 049	Multi-Period Site off Courtwick Lane and the surrounding area to the South, Littlehampton	Red
DWS9207	Arun 062	Multi-period occupation at land off Church Lane, Climping.	Red
Zone 2: So	uth Downs		
DWS8201	SDNPA 076	Prehistoric features on Barnsfarn Hill and Highden Hill, Storrington, Sullington and Washington.	Red
DWS8203	SDNPA 078	Multi-Period Features on Chantry Bottom, Sullington Hill and Kithurst Hill, Storrington and Sullington	Red
DWS8153	SDNPA 030	Multi-Period Archaeological Features on Harrow Hill, Angmering	Red
DWS8154	SDNPA 031	Multi-Period Archaeological Features on Blackpatch Hill and Cock Hill, Patching	Red
DWS8164	SDNPA 041	Multi-period features on Church Hill, Muntham Court, Findon	Red
Zone 3: Lov	w Weald		
DWS8571	Horsham 054	Medieval Moated Site at Buncton Manor Farm, Wiston	Red
DWS8725	Horsham 078; Mid Sussex 044	Section of the Hardham to Barcombe Mills Roman Road through the Districts of Horsham and Mid Sussex	Amber
DWS8907	Horsham 048	Ashurst Historic Core	Amber
DWS8949	Horsham 139	Oakendene Manor Medieval Historic Farmstead, Cowfold	Amber
DWS8954	Horsham 144	Crateman's Farm 17 <sup>th</sup> Century Historic Farmstead, Cowfold	Amber



DesigUID	Preferred Ref	Name	Grade
DWS8956	Horsham 146	Parkminster Medieval Farm, Little Parkminster 17 <sup>th</sup> Century Historic Farmsteads and St Hugh's Carthusian Monastery, Cowfold.	Red

- Of these ANAs, 10 are categorised as red, defined as, "very sensitive area for Archaeology, where new building(s), ground excavation or landscaping may have major adverse impact on nationally important and other significant archaeological sites." The other five ANAs are categorised as amber, defined as "a sensitive area for Archaeology, where new building(s), ground excavation or landscaping may have adverse impact upon an archaeological site/sites, depending upon scale and exact location of development." (West Sussex County Council 2016). Horsham 139, Horsham 048, Horsham 054 and SDNPA 076 only very narrowly intersect with the Site.
- Within the Study Area there are a further 60 ANAs, which provide additional contextual information (**Figure 25.2.5a-f** and **Appendix 25.1: Gazetteer of onshore heritage assets, Volume 4** of the ES (Document Reference: 6.4.25.1), four of which lie adjacent or very close to the Site.

## **LiDAR** features

The features interpreted from analysis of LiDAR imagery within the Site are shown 4.5.10 on Figure 25.2.6a-f. Features identified within Zone 1 include the remains of former field systems, drainage ditches and flood defences, and natural phenomena such as paleochannels. The higher ground of the South Downs in Zone 2 contains numerous features relating to relict field systems. Some of these were extensions of previously recorded field systems, but other examples are previously unrecorded. Some of those which share similar orientations to existing fields in the vicinity are likely to be related to the enclosure of open fields and common during the late medieval and post medieval periods. Other examples, such as features which are on a different alignment to existing field patterns, may have pre-medieval origins. Other LiDAR feature types identified within Zone 2 may indicate possible barrow sites, routeways and/or former boundaries. Across the Low Weald in Zone 3, large areas of relict ridge and furrow surviving as faint earthworks were observed, alongside evidence for relict field boundaries and ridge and furrow. The results of the LiDAR review are incorporated into the chronological baseline and listed within **Table 4-5**. Whilst these features remain undated, an attempt has been made to assign a period based on morphology and consideration of other evidence as described. Each feature has been given a unique identification (ID) number for ease of reference.



Table 4-5 LiDAR features within Site

Reference ID	Feature	Description	Possible period of origin
Zone 1: South C	oast Plain		
LDr_002 LDr_003, LDr_001	Linear bank	Earthworks relating to the remains of former field boundaries.	Post Medieval
LDr_005, LDr_011, LDr_012, LDr_013, LDr_014	Irregular ditches	Low depressions relating to the remains of paleochannels.	Uncertain
LDr_015, LDr_016	Irregular ditches	Low depressions relating to the remains of paleochannels.	Uncertain
LDr_020	Linear Bank	Flood defences associated with unnamed tributary of the river Arun.	Uncertain
Zone 2: South D	owns		
LDr_128, LDr_134, LDr_140	Circular depression	Nothing visible above ground during Site walkover survey. Possible remnant of former extraction activity.	Uncertain
LDr_028	Field Boundary	Linear banks forming part of a former field system located approximately 150m south of ANA SDNPA 025, the location of a DMV and field system on Warningcamp Hill.	Medieval
LDr_129	Linear bank	Possible former field boundary	Uncertain
LDr_092, LDr_095, LDr_094, LDr_099, LDr_114, LDr_117, LDr_121, LDr_131, LDr_135, LDr_137-139, LDr_145-147, LDr_149-150,	Linear banks and ditches	Possible remains of former field boundaries, though LDr_149-150 are within the vicinity of the site of a WWII firing range (MWS11270), which lies adjacent to the Site.  LDr_099 aligns with an extant field boundary and pathway which is also shown on 19 <sup>th</sup> century OS mapping.	Uncertain



Feature	Description	Possible period of origin
Circular depressions	Possible quarry pits.	Uncertain
Linear ditch	Possible trackway.	Uncertain
Circular depressions	Possible quarry pits.	Uncertain
Circular depression	Possible quarry pit.	Uncertain
Circular Mounds	Possible Barrows.  Other known barrows within the vicinity including the scheduled group of four barrows at the Chantry Post (NHLE 1015713).	Bronze Age/Early medieval
Linear Banks	Low earthwork traces of possible former field boundaries north and northwest of Washington.  Located within an area characterised as planned formal enclosure (HWS2587), with HWS151 situated within a sports field (HWS2609).	Medieval to Post Medieval
ıld		
Linear Banks	Low earthwork traces of possible former field boundaries south of Dove's Farm.  Located within an area characterised as modern field amalgamation (HWS2078).	Medieval to Post Medieval
Circular depression	Feature likely related to agriculture or extraction activity. Possibly of medieval to modern date.  No feature correlating with this location shown on historic mapping, though it does lie adjacent to an existing pond at the junction of three field boundaries, evident since the 1875 OS.	Undated
	Circular depressions  Linear ditch Circular depression Circular Mounds  Linear Banks  Ald Linear Banks  Circular	Circular depressions  Linear ditch Circular depressions  Possible quarry pits.  Circular depression  Circular Mounds  Circular Mounds  Circular Possible quarry pit.  Circular Mounds  Circular Mounds  Circular Possible Barrows.  Other known barrows within the vicinity including the scheduled group of four barrows at the Chantry Post (NHLE 1015713).  Linear Banks  Low earthwork traces of possible former field boundaries north and northwest of Washington.  Located within an area characterised as planned formal enclosure (HWS2587), with HWS151 situated within a sports field (HWS2609).  Ald  Linear Banks  Low earthwork traces of possible former field boundaries south of Dove's Farm.  Located within an area characterised as modern field amalgamation (HWS2078).  Circular depression  Feature likely related to agriculture or extraction activity. Possibly of medieval to modern date.  No feature correlating with this location shown on historic mapping, though it does lie adjacent to an existing pond at the junction of three field boundaries,



Reference ID	Feature	Description	Possible period of origin
LDr_164; LDr_166, LDr_169	Ridge and furrow	Traces of ridge and furrow which are aligned with surrounding extant boundaries. Located within land characterised as medieval to post medieval irregular piecemeal enclosure (HWS2120), immediately east of historic Wellen's Farm (MWS12613) and medieval hamlet of Ashurst (ANA Horsham 048).	Medieval to post medieval
LDr_178	Linear bank	Probable former historic boundary not depicted on historic mapping	Medieval to Post Medieval
LDr_180-182	Relict field system	Low earthwork banks containing traces of ridge and furrow. Probably remnants of former medieval open field.  Located within land characterised as modern field amalgamation (HWS3503) and medieval to post medieval planned private enclosure (HWS1994) immediately north of Home Farm Historic Farmstead, Shermanbury (MWS11733).	Medieval to Post Medieval
LDr_189, LDr_190, LDr_193	Ridge and Furrow	Earthwork traces of ridge and furrow located north and south of Oakfield Farm.  Located within land characterised as medieval cohesive assart (HWS2296).	Medieval to Post Medieval
LDr_194	Linear Ditch	Possible linear ditch related to former field boundaries.  Located within land characterised as medieval cohesive assart (HWS2296).	Medieval to Post Medieval
LDr_195-197	Linear Banks	Low linear earthworks relating to possible former field boundaries.  Located within land characterised as medieval cohesive assart (HWS2296).	Medieval to Post Medieval



# Historic map features

As part of the historic map regression exercise detailed in **Section 4** and **Table 4-6** to **Table 4-10**, certain structures and features were identified within and adjacent to the Site which were not already identified by the HER (shown on **Figure 25.2.6a-f**). Each feature has been given a unique ID number for ease of reference. These features may represent sources of disturbance to below ground deposits and therefore archaeological survival or may indicate the presence of archaeological remains.

Table 4-6 Historic map features within Site or adjacent

Reference ID	Name/Type	Description	Period	Map source	Extant
Zone 1: Sou	uth Coast Plain				
MPi_001	Building	Small structure east of Climping	Post Medieval	1845 Climping Tithe	No
MPi_002	Pond	Irregular shaped pond feature within the Site.	Post medieval	1845 Climping Tithe	No
MPi_003	Pit	Small irregular shaped feature within the Site	Post medieval	1896 OS	No
MPi_004	Pit	Square shaped pit south of Arundel Junction within the Site.	Modern	1932-1938 OS	No
Zone 2: Sou	uth Downs				
MPi_005	Well	Structure identified as a well. Set within rectangular parcel of land. Name High Titton.	Post Medieval	1896 OS	No
MPi_006	Pond	Circular pond feature within parkland of Rowdell House (MWS34) (within the Site).	Post medieval	1875 OS	Yes
Zone 3: Lov	w Weald				



Reference ID	Name/Type	Description	Period	Map source	Extant
MPi_007	Building	Small rectangular building set within enclosed field	Post medieval	1896 OS	No
MPi_008	Shermanbury Grange	Agricultural field boundaries prior to emparkment around Shermanbury Grange within the Site.	Post medieval	1847 West Grinstead Tithe	No
MPi_009	Shermanbury	Small building present along the Site boundary.	Post medieval	1850 Shermanbury Tithe	No
MPi_010	Ponds north of Cornerhouse	Sub-circular and rectangular ponds at junction of four fields. Along the Site boundary.	Post medieval	1850 Shermanbury Tithe	No
MPi_011	Parkminster Woods	A small enclosure adjoining two field boundaries. Adjacent to the Site.	Post medieval	1850 Shermanbury Tithe	No
MPi_012	Building	One of two former buildings at Cratemen's Farm. Within Plot 834 orchard	Post medieval	1839 Cowfold tithe	No
MPi_013	Crateman's Farm	One of two former buildings at Cratemen's Farm. Within Plot 834 orchard. Located within the Site.	Post medieval	1839 Cowfold Tithe	No
MPi_014	Twineham Court	Possible pond within Site.	Modern	1912 OS	No
MPi_015	Twineham Court	Small structure within Site.	Post medieval	1896 OS	No
MPi_016	Dragon's Farm	Additional building within Site.	Post medieval	1896 OS	No



Reference ID	Name/Type	Description	Period	Map source	Extant
MPi_017	Oakendene	Additional building	Post medieval	1896 OS	No

# 4.6 Archaeological investigations

- 4.6.1 Geophysical survey (magnetometry) and archaeological trial trenching have been undertaken within the Site to enhance the historic environment baseline, as part of the Rampion 2 project. Results of the first phase of the geophysical survey between September 2021 and February 2022 (RED, 2022) and the trial trenching at Brook Barn Farm (Appendix 25.6: Archaeological trial trenching at Brook Barn Farm, Volume 4 of the ES (Document Reference: 6.4.25.6)) have been considered within this appendix. Results from subsequent geophysical survey between March 2022 and February 2023 (Appendix 25.4: Onshore geophysical survey report, Volume 4 of the ES (Document Reference: 6.4.25.4)) will be considered in the baseline within the Chapter 25: Historic environment, Volume 2 of the ES (Document Reference: 6.2.25).
- Previous archaeological investigations within the Site have been limited (see **Table 4-7**) and relate to previous archaeological desk studies, geophysical survey, trial trenching and excavation.
- Results of these investigations and those within the Study Area (listed in a gazetteer in Appendix 25.1: Gazetteer of onshore heritage assets, Volume 4 of the ES (Document Reference: 6.4.25.1) and shown on Figure 25.2.7a-h), where relevant, are incorporated into the chronological baseline and discussion on archaeological potential of the Site. As a result of how the HER is organised, some previous investigations do not have a specific event record number and are identified only as monuments where finds or features of archaeological interest where identified.



Table 4-7 HER Event records within Site (West Sussex HER 2022)

EvUID	Investigation type	Name	Date	Location relative to Site	Implications for baseline (coverage/results)
Zone 1: South (	Coast Plain				
EWS500	Excavation	Part Excavation, Southern Archaeology, Dec 94	1994	Largely overlaps Site, north of Brook Barn Farm (KM 03).	Negative evidence. No archaeological features were identified within the four trenches that were excavated.
EWS1641	DBA	Littlehampton Arun Tidal Walls (East Bank) Scheme - Heritage Appraisal	2009- 2010	Minor overlap with Site - operational access A-08.	General baseline.
N/A <sup>4</sup>	Watching brief	Bognor Regis & Littlehampton Transfer Pipelines	1999	Linear scheme crossing the Site at Accesses A-05 and A-06.	Section 32 of the pipeline crossed arable field within the Site northwest-southeast from Church Lane to the A259 ( <b>Plate 1</b> ). Section 34 crossed the Site south of Ferry Road.  No archaeological features recorded. Single find within the Site of Palaeolithic flint (MWS6778). Further finds of Mesolithic and Bronze Age flints

<sup>&</sup>lt;sup>4</sup> Event UID number not given for this investigation. Only recorded as monuments where investigations identified archaeological remains or finds.



EvUID	Investigation type	Name	Date	Location relative to Site	Implications for baseline (coverage/results)
					within the vicinity of the Site (MWS6780). Finds recovered from alluvium deposits associated within Rifebank.
					Pipeline installation will have truncated buried deposits of potential archaeological interest within footprint of development, and therefore within the Site.
EWS1854	DBA	Lyminster By-Pass, Lyminster - Desk Based Assessment	2013- 2018	Narrowly overlaps with Site (KP05), east of Lyminster.	Report records known potential for paleoenvironmental remains associated with a feature known as the Black ditch. This feature is outwith the Site. Medium to high potential was recorded for archaeological remains dating to the Roman period, with low potential recorded for all other periods.
EWS1125	EVT	Land off Courtwick Lane, Littlehampton - Archaeological Investigations	2014	Intersects operational access A-10.	Evaluation trenching uncovered archaeological remains relating to settlement and land-use primarily dating to the Roman-British period, with further early medieval and medieval remains also present (Plate 2 and 3).



EvUID	Investigation type	Name	Date	Location relative to Site	Implications for baseline (coverage/results)
EWS1854  Zone 2: South	Borehole log, Evaluation and Geoarchaeologic al Test Pits  h Downs	Lyminster Bypass, Lyminster - Archaeological Investigations	2017	Linear scheme crossing the onshore part of the Site (KM 05).	Paleoenvironmental: superficial deposits of river terrace gravels. Boreholes in the Black Ditch (outwith the Site) revealed a 21.1m deep sequence of marine and intertidal clays, silts and sands overlying 0.4m of peat. Results indicate Holocene (11,500BP) deposits and suggest that at one time the sea extended up to the Black Ditch. High concentrations of microcharcoal and the opening up of the hazel woodland indicate Mesolithic activity. Archaeological deposits: a north to south aligned ditch containing Romano-British period pottery. This is located outwith the current Site; however, a further, undated ditch is located within the Site.
EWS1404	Geophysical Survey (magnetometer and earth resistance)	Land at Rock Common, Washington - Geophysical Survey	2008	Entirely within the Site (between KM 20 and KM 21).	No anomalies identified that are thought to be caused by underlying archaeological features, therefore archaeological potential was considered to be low.



EvUID	Investigation type	Name	Date	Location relative to Site	Implications for baseline (coverage/results)
					No subsequent investigations known within this area. No evidence to indicate that the surveyed area was subsequently development as landfill. Only known source of modern impacts is agricultural.  Further archaeological investigation or mitigation unlikely to be required in this area of the Site.
EWS460	Excavation	Part excav, Sainsbury EC, 2017		Fully within the Site (between KM 16 and KM 17).	Partial excavation of a barrow, revealing early medieval cremations (MWS2804).
Zone 3: Low W	eald				
EWS1517	DBA	EDF Cable Route from Bolney Grid Substation to Westridge Farm, Henfield - Desk Based Assessment	2008	Minor overlap with Site (KM 1).	Only archaeological potential along EDF cable route likely to be associated with road surfaces and field boundaries, and possible footings to a building shown on an 1813 map. Desk Based Assessment recommended a watching brief during construction



EvUID	Investigation type	Name	Date	Location relative to Site	Implications for baseline (coverage/results)
					but no indication this were carried out.
					No subsequent investigations known within this assessed area and the HER does not record any findings.
					If EDF cable installed, this would represent a source of negative impact upon buried deposits within the Site and will have removed any archaeological potential within the footprint of development.
EWS1639 (see also entry below)	Evaluation, Geophysical Survey	Rampion Offshore Wind Farm - Archaeological Investigations	2012- 2014	Survey and intrusive investigations fall partly within Site (KM 2).	Subsequent cable installation and substation construction will have removed any buried archaeological remains within footprint of development, and therefore within the Site.
					Previous intrusive archaeological investigations will also have removed any archaeological remains.
					Findings indicate a high potential for further archaeological remains



EvUID	Investigation type	Name	Date	Location relative to Site	Implications for baseline (coverage/results)
					to be present within this area of the Site.
Additional to EWS1639	Excavation	Rampion Offshore Wind Farm - Archaeological Investigations (Sheehan and Krawiec 2018, <b>Plate 12</b> ) (this phase of investigation is not included within the HER)	2018	Overlap with Site – excavation Area A (KM 02 (400Kv)).	Remains of late Iron Age to early Roman activity recorded – field system and pits. Pottery and stone recovered from features. Three prehistoric flints. These features not identified within geophysical survey, suggesting limitations of this survey technique within this area.  Findings considered to be of local significance.
EWS1866	Watching brief	Morley Manor, Shermanbury - Watching Brief	2015	Overlap with the Site (KM 33)	Identified land drain and a fence line from a removed field boundary and an assemblage of finds was recovered, including prehistoric flintwork and fire-fractured flint as well as medieval and post medieval pottery sherds.



Within the Study Area there are a further 42 HER event records relating to previous archaeological desk studies, geophysical survey, trial trenching and excavation (listed in a gazetteer in **Appendix 25.1: Gazetteer of onshore heritage assets, Volume 4** of the ES (Document Reference: 6.4.25.1)).

# 4.7 Site chronology

## **Prehistoric**

The prehistoric is divided into several time periods, which are each discussed below. However, some finds and features within the Study Area lack precise dating information and are classified under the broad heading of *prehistoric*. These include a background scatter of worked and burnt flints (MWS3079, MWS4373, MWS5738, MWS1039, MWS2841), features (MWS13678, MWS14581, MWS14655) and a prehistoric working site (MWS1045) often identified with other datable phases of activity, primarily within Zone 1 and Zone 2.

## Palaeolithic (1,000,000 BC to 10,000 BC)

- The earliest archaeological period in Britain is the Palaeolithic dating from over 700 kya to the Holocene (approximately 11.5 kya). Spanning at least ten glacial—interglacial cycles (long glacial and shorter warm stages), it is a period characterised by dramatic changes in climate, landscape, environmental resources (Wenban-Smith et al. 2019, p.4) and saw intermittent, perhaps seasonal Hominin occupation of Britain.
- The Palaeolithic or Old Stone Age is divided into the Lower (780 to 250 kya), Middle (250 to 40kya) and Upper (40 to 11.5 kya). The typology of stone tools is one of the major elements of Palaeolithic archaeology (Wymer 1999). The Lower Palaeolithic is known for the Clactonian and Acheulian handaxe industries and human species such as *Homo Heidelbergensis* at important sites such as Swanscombe, Kent and Boxgrove on the Goodwood-Slindon Raised Beach of the West Sussex Coastal Plain. The Middle Palaeolithic or Mousterian is characterised by Levallois handaxe industries made by *Homo Neanderthalis*, with several sites in east Kent and Essex (Crayford, Aveley, Ebbsfleet and Thurrock).
- The Upper Palaeolithic saw the emergence of anatomically modern humans (Homo sapiens sapiens). It spans the last glacial cycle of the Pleistocene (the British Devensian) and the dramatic Lateglacial transition into the Holocene. The archaeology of the Upper Palaeolithic is characterised with a range of new stone-working techniques, the use of bone, antler and other materials and the advent of art. After the last glacial maximum (c. 20 kya), climatic conditions improved for a few thousand years before descending into a cold snap c. 13 to 11.5 kya called the Younger Dryas (Loch Lomond stadial). The current warm, stable period (the Holocene) began, and the environment developed from steppe-tundra to birch and pine woodland. A separate desk-based geoarchaeological and palaeoenvironmental assessment report has been prepared for the Site (Appendix 25.3: Onshore desk-based geoarchaeological and palaeoenvironmental assessment report, Volume 4 of the ES (Document



Reference: 6.4.25.3)) which provides further detail on the potential and significance within the Site.

- The coastline changed dramatically during the Palaeolithic period, with large areas of what was once dryland now seabed. During this period, the coastline would have fluctuated as sea levels were governed by the climate cycles and global ice volume. Successive high sea stands during the warm stages of the last 500,000 years shaped the West Sussex Coastal Plain (Bates et al., 2010 and 2007). As described in **Section 4.3**, the long-term uplift of southern Britain means that older beaches are at higher elevations and further from the present coast. Four marine terraces are identified within these deposits including the Goodwin-Slindon (c. 500 kya), Aldingbourne (c. 240 kya), Brighton-Norton (190 kya) and Pagham-Selsey (120 kya) (oldest to youngest).
- Data gathered from outside of the Study Area provides evidence for the formation and geoarchaeological potential of the Raised Beaches. Boxgrove, northeast of Chichester, is the site of the earliest human remains found in England dates to between 525 and 478 kya (Whittaker & Parfitt 2017). Investigations recorded a palaeo-land surface rich in lithic evidence and well-preserved faunal remains formed during a warm stage (the Cromerian) on the Goodwin-Slindon Raised Beach when Britain was connected to mainland Europe. In contrast, the other Raised Beaches have produced relatively little archaeological material, some of which is not securely dated (Bates et al. 2007).
- The coast and the river Arun are the key landscape features of Zone 1 and would have attracted humans to the gravel terraces of the river margins to hunt and fish. River Terraces are known to be archives of Palaeolithic archaeology, although often reworked and redeposited (ex-situ). A worn Acheulean flint handaxe was recovered from Climping beach (MWS3638), and a flint flake (MWS6778) in a field east of Church Lane.
- Within the Arun valley floodplain deposits (which are later, Holocene deposits), the potential for Palaeolithic material is considered to be low and finds are likely to be derived and reworked (Bates *et al.* 2007). Documentary evidence suggests multiple find spots of Palaeolithic implements have been recovered northeast of Angmering (MWS3050), though no further information is provided in the HER. A HER point relating to this is recorded approximately 370m south of the Site. Gravels buried beneath the alluvium comprise the valley floor, deposited in the Devensian. Where the Site crosses raised beach deposits in the northeast of Zone 1, there is a potential for undisturbed occupation horizons sealed within or under fine-grained slope deposits (colluvium) or within intertidal / estuarine sediments (Bates et al. 2007).
- There is plentiful evidence of paleoenvironmental remains within boreholes within the floodplain of the river Arun which would likely contain an important record of landscape development, including changing climactic conditions, changing patterns of vegetation, sea level behaviour and the impact of anthropogenic occupation and land-use (Appendix 25.3: Onshore geoarchaeological and palaeoenvironmental assessment report, Volume 4 of the ES (Document Reference: 6.4.25.3)). These may relate to deposits associated with Palaeolithic



activity. Numerous paleochannels have been identified in Zone 1 through analysis of LiDAR imagery (LDr\_005, LDr\_009 for example). Some of these may have been the focus for human activity in the Palaeolithic and could contain paleoenvironmental deposits.

### Zone 2: South Downs

A review of existing data has not identified any records of Palaeolithic artefactual 4.7.10 material or palaeoenvironmental evidence within the Site in Zone 2 or the Study Area. The Palaeolithic potential is inferred from geomorphology, geological context and sites outside of the Study Area. Palaeolithic activity is known on the coastal plain and the Weald within West Sussex suggesting that the chalk upland may also have seen transitory activity by Palaeolithic groups. However, the erosional history and paucity of superficial deposits means that survival is unlikely on the higher ground. Artefactual survival within Zone 2 would therefore be limited to reworked and redeposited material within the river terrace deposits, Head deposits on dry valley floors and within Clay-with-Flints. Lower Palaeolithic flint axes have been found on Kithurst Hill (outside of the Study Area) indicating the potential for flint findspots on the scarp, which may have been sealed by colluvial deposits and exposed through weathering and slope wash during the Holocene (Sussex Archaeological Collections 2000). There is also a possibility for the preservation of palaeoenvironmental remains within the Head deposits. As above (4.2.8), Head is typically a poorly sorted deposit, but occasionally can be stratified reflecting episodic accumulation under varying environmental conditions during the Pleistocene/Palaeolithic.

## Zone 3: Low Weald

- 4.7.11 Prior to the last glacial retreat, sea level high stand during interglacial periods would have rendered large areas of the lower-lying areas of the Weald uninhabitable (Sheehan & Krawiec 2018, p.15). The river Adur flows through the east of the Study Area within Zone 3 for much of its length, crossing the Site near Henfield). There is extensive gravel terrace associated with the river, which for the most part, cross Weald Clay (Wenban-Smith et al. 2019, p.46).
- There are no known finds dated to the Palaeolithic within the Site in Zone 3, however a limited amount of material from this period is recorded within the Study Area and includes:
  - an Acheulian handaxe (MWS446) was found by chance by a walker following the course of the Hardham to Barcombe Mills Roman Road (Horsham 078; Mid Sussex 044) which runs through the Site at the southern end of Zone 3 in a northwest-southeast alignment. The handaxe was found on a section of the road located to the south of Little Alder Wood, approximately 810m southeast of the Site;
  - another Acheulian type handaxe was found by chance in a strip of woodland to the west of Loves Rough, 160m southeast of the Site (MWS454);
  - a Levalloisian flake axe recovered approximately 510m to the east of the Site from soil dredged from the bed of the river Rother, east of Eatons Farm (MWS412); and



- some residual finds of Late Glacial artefacts were recovered during investigations at a Mesolithic flint working site at Rock common (MWS4488; EWS497) c. 600m north of the Site. A hollow way at the working site was also sampled and contoured and seen to contain a palaeosoil thought to contain Late Glacial artefacts (SAC 2000)
- Aside from the Late Glacial material recovered during investigations at Rock Common, the finds detailed above are all individual chance finds of the Lower to Middle Palaeolithic and are thus most likely to be residual finds, deriving from deeply buried deposits which have either been redeposited or buried during subsequent geological climatic events. Overall, the potential for Palaeolithic archaeology within the Site in this zone is considered to be **low**, with possible finds more likely to be recovered from gravel terrace deposits associated with the Adur.

## Mesolithic (10,000 BC to 4,000 BC)

- After the Devensian Lateglacial retreat, southern England became suitable for permanent human exploitation. The Mesolithic hunter-gatherers of the postglacial period would have favoured locations and geologies that provided a predictable range of resources. Evidence for activity during the Mesolithic is characterised by flint assemblages rather than structural remains.
- Within the Sussex landscape, activity is evidenced from over 500 findspots, with hunting camps found at rock shelters in the High and Low Weald, on the Downs and the coastal plain (Sheehan & Krawiec 2018) indicating a seasonal and transitory, but notable presence in the area.

- 4.7.16 Mesolithic sites are known within the wider alluvial context of major river valleys and the coastal plain of Sussex (Pope et al. 2018). Activity appears to be focused on elevated ground near water sources.
- There are no known Mesolithic sites or recovered finds within the Site in Zone 1 and there are no securely dated features of the Mesolithic period identified within the Study Area. Approximately 120m east of the Site, northwest of Littlehampton, a Mesolithic flint scatter (MWS3463) was recorded within the vicinity of later prehistoric site, though no further contextual detail of this find is known.
- Further eastwards, more struck flintwork was recovered in high quantities from the topsoil during an archaeological evaluation (MWS4531), 370m east of the Site, which also included implements of Mesolithic date. Due to quantity of finds and the unrolled condition of the material it was considered possible that an in-situ activity site could be located close by.
- Archaeological monitoring of pipeline works 30m south of the Site (MWS6779), recorded a high concentration of worked flint on a promontory of brickearth south of Ferry Road, including soft hammer flakes of probable Mesolithic date and a small Mesolithic pick. These finds were not derived from in situ deposits and are thought to have been discarded at a possible campsite on the fringes of the Arun floodplain (RPS 1999).



- A concentration of Mesolithic flint from a trench excavated at the Former Ford Airfield was suggested to be derived from a truncated Mesolithic land surface (MWS6921,760m northwest of the Site). A generally low density of residual Mesolithic flint was recovered during several phases of archaeological investigation at the former airfield (MWS9678, 500m northwest of the Site). Numerous Mesolithic flint implements, including axeheads, knife blade, worked flakes, a core and waste flakes, were recovered from Seven Acres Nursery, Angmering (MWS3004) in the 1950s, approximately 350m south of the Site. Extensive Mesolithic flint scatters were also recorded south of Decoy Wood (MWS4178), approximately 530m south of the Site.
- There is plentiful evidence of paleoenvironmental remains within boreholes beneath the floodplain of the river Arun which would likely contain an important record of landscape development, including changing climactic conditions, changing patterns of vegetation, sea level behaviour and the impact of anthropogenic occupation and land-use (Appendix 25.3: Onshore geoarchaeological and palaeoenvironmental assessment report, Volume 4 of the ES (Document Reference: 6.4.25.3)). These may relate to deposits associated with Mesolithic activity. Numerous paleochannels have been identified in Zone 1 through analysis of LiDAR imagery (LDr\_005, LDr\_009 for example). Some of these may have been the focus for human activity in the Mesolithic period and could contain paleoenvironmental deposits.
- During geoarchaeological investigations for the Lyminster Bypass (MWS14581), a 21.1m sequence of Holocene deposits overlying the chalk bedrock was identified. This indicates that the sea extended up to the extent of the Black Ditch (an east-west tributary of the river Arun lying approximately 100m south of the Site, prior to marine regression and subsequent marshland reclamation (Cotswold Archaeology 2017). The organic strata within the sequence are considered likely to date from 10,000 to 8500 Before Present (BP), which includes evidence indicating the presence of Mesolithic hunter-gatherers.
- Offshore examples of Mesolithic sites are known along the Sussex coastline (Marine Archaeology 2021) and reconstruction of the Palaeo-Arun valley (MWS10387, Gupta et al. 2004 and 2008) indicates the wider availability of land for exploitation during this period that now lies below sea level. This was a circumstance of changing geomorphology of the coastal landscape, as well as the ability of waterborne travel, likely using log boats or skin / hide boats (McGrail 2001).

### Zone 2: South Downs

A review of existing data has not identified any records of Mesolithic remains within the Site in Zone 2. Within the Study Area, there are also no records of Mesolithic activity on the chalk upland where, as already described in the baseline for the Palaeolithic, colluviation may have removed material from the hilltops. However, Mesolithic assemblages are known elsewhere on the South Downs and wider chalk uplands of southeast England (Pope et al. 2019), which indicate a preference for elevated ground and dry soils within close proximity to water sources (Pope et al. 2019). The context of these finds appears to correlate with the Head deposits and Clay-with-Flints, suggesting a general potential for remains within deep sealed deposits in the valleys.



Known Mesolithic activity within the Study Area appears to be focused on the Lower Green Sandstone to the north of this zone (see further discussion in Section 4.7, Mesolithic, Zone 3: Low Weald). This includes a Mesolithic flint scatter site (MWS4488, c. 609m north) and other redeposited flint (MWS7255, c. 450m north) at Rock Common and a second flint working site nearby at Warren Hill (MWS3178, c. 390m north). These sites are discussed in more detail in the baseline for Section 4.7, Mesolithic, Zone 3: Low Weald below and suggest a high potential for occurrence of Mesolithic finds within the very northern part of the Site in Zone 2 Compared with elsewhere.

### Zone 3: Low Weald

- Areas of Lower Greensand geologies appear to have provided particularly suitable zones for activity, and this has formed a core area of research into Mesolithic activity in south-east England (Pope et. al. 2018, p.10). Two belts of Lower Greensand bedrock run laterally through Zone 3, at its southern limit and further north at Henfield. The river Adur and its various tributaries and streams would also have provided a range of essential resources to these early communities.
- There are no finds of Mesolithic date recovered from within the Site. A small assemblage of prehistoric debitage material, which included a Mesolithic bladelet, along with burnt flint was recovered during a watching brief at Morley Manor (EWS1866; MWS14632). The western area of this HER event record (<15% of the total area) lies within the Site but was not subject to intrusive works; the finds were recovered from trenches sited adjacent to the Site in the east. The flintwork assemblage was recovered from a maximum depth of 0.5m below ground level (bgl). This area sits on a gentle slope of the Adur valley over mudstone and sandstone of Weald Clay Formation. The presence of a number of streams and the river Adur nearby to the east would provide an ideal landscape for huntergather activities, however, although the material recovered from Morely Manor hints at prehistoric activity in the vicinity of the Site, its scattered distribution is more indicative of casual loss, rather than a specific area of activity.
- Within the Study Area in Zone 3 several discrete areas of Mesolithic activity, predominantly lithic working sites, are recorded:
  - A concentration of Middle to Late Mesolithic flintwork was recorded during excavations in 1995 and 2001 at Rock Common, (MWS4488; MWS7255). On the western slope of the central hill, test pits produced evidence of relatively undisturbed Mesolithic flint working, while on the eastern slope, another concentration of worked flints was discovered. The Mesolithic assemblage comprised over 50,000 pieces of worked flint; some residual finds of Late Glacial material were also recorded, as was flintwork of Neolithic date. The Mesolithic material appeared to have been largely undisturbed, aside from some localised movement of artefacts through the sandy subsoil which led to a blurring of the spatial patterning. The distribution is interpreted as suggesting that repairing and re-tooling of hunting equipment was undertaken around a series of hearths, which were represented by burnt flint. Colluvial deposits at the base of the eastern slope were also sampled and found to contain derived Mesolithic material (SAC 2000, pp. 29-48); an associated ANA (Horsham 066) is identified on the lower northeast slope of the hill within 170m of the Site.



- Within the vicinity of Rock Common at Warren Hill, 380m northwest of the Site in Zone 3 (MWS3178), a perforated quartzite pebble macehead with found at a depth of 0.6m bgl in a sand quarry pit. Sufficient flint debitage material was also found in pits at the site to indicate the presence of chipping floors.
- A Mesolithic lithic working site (MWS1212) is recorded 280m southeast of the Site in and around the area of Wiston Park. Finds from the working site include microlithic-type flakes, scrapers and cores. The location of the working site on the lower greensand, along with its microlithic cores and one true microlith, indicates a Mesolithic date for the activity.
- A large collection of flints has also been recovered from a number of fields
  which lie along the margin of water meadows on the eastern bank of the river
  Adur to the west of Henfield (MWS1157) approximately 750m east of the Site;
  the area has been designated as an ANA (Horsham 156). All finds were made
  on the surface and include bladelet cores, flakes, blades and microliths. The
  assemblage is likely representative of a series of hunting and other taskspecific camps positions on the edge of the Adur flood plain at the forest
  margin in the Mesolithic, Neolithic and earlier Bronze Age.
- At the northern limit of the Study Area, a large collection of prehistoric flint implements, including Mesolithic cores, microliths and burins was recorded from a field approximately 500m up the hill northwest of Walhurst Manor in the early 20th century around 850m north of the Site. The area has been designated an ANA (Horsham 136).
- While survey and desk-based work has demonstrated the potential for Mesolithic 4.7.29 activity on the Weald Clay (Sheehan & Krawiec 2018, p.16; Appendix 25.3: Onshore geoarchaeological and palaeoenvironmental assessment report, Volume 4 of the ES (Document Reference: 6.4.25.3)), current evidence from within Zone 3 confirms the general trend seen elsewhere across southeast England for activity being focussed on locations underlain by Lower Greensand, with all but two (EWS1866 and ANA Horsham 136) of the areas discussed above being situated on this geology. Known Mesolithic activity within the Study Area is thus focused on the two belts which run laterally through the zone at its southern limit and further north near Henfield; both of which bisect the Site. As such, there is potential for similar areas within the Site to contain further evidence of Mesolithic activity; higher areas of ground in close proximity to water sources in particular are most likely to have been favoured. There is also potential for activity at these locations as both of these Lower Greensand areas lie between contrasting geological formations; sites located in such 'catchment' areas would be ideally suited to exploit ecologically distinct areas, habitats and resources and a concentration of sites located over similar geological conditions (the Lower Greensand ridge immediately north of the South Downs) in the east of the county has recently been noted. The site at Streat Lane (Butler 2007), c. 15km east of the Site in particular is of interest because of the excavation of a dished oval area defined by irregular flints with a single post hole in the middle, pointing to the possible existence of a simple hide shelter (Pope et al. 2019, p.10).
- Within Zone 3, the Mesolithic evidence from Morley Manor (EWS1866) was situated on Weald Clay; while the scattered distribution of the material was more suggestive of casual loss than specific areas of activity, there is nevertheless



some potential for other similar areas within the Site. Again, particularly at areas of higher ground located in proximity to water.

# Neolithic (4,000 – 2,200 BC)

During the Neolithic, people began to settle and develop horticulture and agriculture. With this increasing sedentism many innovations were introduced including monument building, new stone tool-making technologies, the use of pottery and, most importantly, the domestication of plants and animals. This changing way of life led to a remodelling of the landscape as people cleared woodland to create farms and fields.

- Within the Site in Zone 1 potential evidence for Neolithic activity is limited to findspots of prehistoric flint and pottery sherds of only tentative Neolithic date found near Bayliffscourt (MWS3396) and Brook Barn Farm (MWS3895).
- 4.7.33 Within 20m east of the Site, is a Neolithic flint scatter site comprising large numbers of pot-boilers, scrapers, burins, axes and a polished axe (MWS3118) suggesting the presence of a site within the area, although no Neolithic features were recorded during archaeological investigations ahead of residential development of this area (EWS1125). In broadly the same geographical location in an area between 70m and 750m east of the Site, further Neolithic artefacts have been found, including pottery sherds (MWS3119), flint implements (MWS3896 and MWS3123), a polished flint axe (MWS3474). Other flint artefacts have been recovered 75m north of the Site from near the shore at Cudlow (MWS1017).
- Elsewhere within the Study Area, further flintwork of possible Neolithic date have 4.7.34 been found, some as part of larger material assemblages recovered from features and deposits typically dated to later prehistoric periods. Examples include Neolithic flint recovered at a Late Bronze Age activity site comprising ditches, postholes and pits south of Toddington Lane (MWS14382, 648m east of the Site). Sherds of early Neolithic pottery were recovered from a possible tree pit/throw (MWS14397) during the same excavations around 400m south of the Site. A Neolithic flint axe found within a Roman occupation site recorded during the construction of Crossbush Bypass (MWS3542; 275m east of the Site), and Neolithic worked flints found within a buried plough soil at a multi-period site of Late Bronze Age and Late Iron Age and Roman date excavated at the former Ford Airfield (MWS9678, 506m) northwest of the Site). Other Neolithic flint findspots recorded in this area of Ford comprise a polished flint axe and sandstone rubber (MWS3221). How this Neolithic flint material relates to these later periods of activity is unclear but may point to as yet unknown precursor Neolithic activity sites within the vicinity.
- Archaeological monitoring of a pipeline installation within a field on the opposite side of Church Lane, 235m west of the Site, recovered prehistoric flints, along with Roman pottery (MWS6777) from a disturbed brickearth subsoil (RPS 1999) (**Plate 1**). Whilst the grey literature report for this investigation does not detail if these included Neolithic flints, these are noted as being recovered along the wider pipeline route in general.



- Other evidence of Neolithic activity, comprising scatters of Neolithic and Bronze Age flints, has been recorded east of Angmering at New Place Farm (MWS3894), 473m south of the Site and New Barn (MWS4181), 640m south of the Site.
- Evidence of Neolithic activity from the within the Study Area relates primarily to the manufacturing and use of flints. There is evidence from the South Downs (not within the Study Area) of Neolithic settlements whose occupants were exploiting marine resources, in addition to the typical subsistence agriculture of cereal cultivation and the rearing of stock (Gale & Fenwick 1998). This generally infers Neolithic activity on the south coast plain for the purposes of exploiting natural resources. The extent of these activities, and the survival of material evidence, within the area through which the Site crosses is uncertain. Should Neolithic remains be present within the Site in Zone 1, these are likely to be in the form of residual flintwork.
- There is plentiful evidence of paleoenvironmental remains within boreholes beneath the floodplain of the river Arun which would likely contain an important record of landscape development, including changing climactic conditions, changing patterns of vegetation, sea level behaviour and the impact of anthropogenic occupation and land-use (Appendix 25.3: Onshore geoarchaeological and palaeoenvironmental assessment report, Volume 4 of the ES (Document Reference: 6.4.25.3)). Evidence of this nature may relate to deposits associated with Neolithic activity. Numerous paleochannels have been identified in Zone 1 through analysis of LiDAR imagery (LDr\_005, LDr\_009 for example). Some of these may have been the focus for human activity in the Neolithic period and could contain paleoenvironmental deposits.

### Zone 2: South Downs

- There are no known records of Neolithic remains within the Site in Zone 2, however evidence for Neolithic activity has been recovered through archaeological excavations of a scheduled ltford Style settlement (NHLE 1017446) immediately north of the Site. Known and recorded archaeological remains here have been found to date mainly to the Bronze Age and Early Medieval periods, however archaeological excavations in 1933 led to the discovery of Windmill Hill style pottery and a flint axe head within a pit which is suggestive of Neolithic activity.
- A scheduled flint mine dating to the late Neolithic is recorded immediately west of the Site on the south-western slope of Blackpatch Hill north of Longfurlong Farm (NHLE 1015880). This is part of a complex of remains that includes an early Bronze Age barrow site (discussed in **Section 4.7, Bronze Age, Zone 2: South Downs**). Archaeological excavations of shafts in the 1920s recovered struck flints dating from the Late Neolithic to the Bronze Age, along with traces of working areas associated with the processing of mined flint, defined by flint scatters, in areas around the shafts. The upstanding elements of the shafts were largely levelled in the 1950s, but low earthworks relating to these features are visible on LiDAR imagery within the scheduled area and further buried archaeological features are likely to survive in and around this area.
- To the southeast of Lee Farm, Harrow Hill (approximately 750m west of the Site was also the focus for Neolithic flint mining activity, the remains of which are scheduled (NHLE 1015239; MWS6496). Around 245 flint mine shafts and pits



have been identified across an 8-hectare (ha) area of the hill, with some of the gallery entrances being marked with pictograms, or engraved designs. Finds recovered during previous archaeological excavations include mining tools made from worked flints and animal bones, carved chalk blocks and charcoal. Environmental deposits accumulated within the shafts indicate the hill was covered in woodland at the time they were in use.

- Further scheduled remains of Neolithic flint mining are recorded southeast of Tolmare Farm (NHLE 1015237), approximately 35m south of the Site), and on Church Hill (NHLE 1015238), approximately 600m south of the Site and on Harrow Hill (NHLE 1015239), 625m west of the Site. The boundaries of the scheduled monuments discussed in Zone 2 have been defined on the basis of survey data available at the time of scheduling. Most of the monuments are located within ANAs and there is potential for associated archaeological remains to extend beyond the scheduled areas.
- Elsewhere within the Study Area, evidence for the Neolithic period is primarily in 4.7.43 the form of chance finds of flintwork, which have been recovered along the length of the Study Area in Zone 2 from Warningcamp to Rock Common. These include stone axes or axe fragments at Blakehurst Farm (MWS2710 592m east), and west of Hallow Hill (MWS4613 594m east). At Barnsfarm Hill in an area of known late prehistoric activity (ANA SDNPA 076), a Neolithic arrowhead (MWS419 397m east) and chert axe (MWS428 167m east) have been found. Flints including axe roughouts, scrapers, the broad blade of a polished flint axe, retouched flakes and waste flakes from Kithurst Hill (MWS2887 846m west) within an extensive area of known prehistoric activity (ANA SDNPA 078). North of this area, west of Chantry Lane, there have been further finds of Neolithic flint implements (MWS2779 247m northwest) and a leaf arrowhead has been found within the vicinity of Barns Farm (MWS4622 15m west). Archaeological investigations at Rock Common which recorded a Mesolithic flint knapping site, also recovered some Neolithic flintwork (MWS4488).
- The precise provenance of the chance finds is often in doubt but their relatively 4.7.44 common occurrence within the Study Area attests to the presence of Neolithic peoples across the downland landscape, who will have been attracted not only by important sources of flint but also by agricultural opportunities of the soils which would have capped the chalk uplands during this period. Woodland clearance occurred across the downlands during the Neolithic, though the extent and rate of this activity across the Site and Study Area is unknown. There is potential for the dry valleys to contain paleoecological evidence of Neolithic date which may contribute to the debate concerning the extent to which the chalk downland was forested, and where more open grassland existed. The evidence referred to above from the flint mine on Harrow Hill suggests that activities occurring within the landscape were not necessarily only taking place within cleared areas. Together with flint mines, causewayed enclosures and long / oval barrows, are typical features of the wider South Downs Neolithic landscape (Thorne and Bennett 2015), though none are known within the Study Area.

#### Zone 3: Low Weald

4.7.45 The Neolithic is usually seen as the period when the hunter-gatherer lifestyle gave way to farming and settled communities. These changes led to large scale forest



clearance in order to provide suitable land for the cultivation of crops, communal monuments and settlement.

- There are no finds of Neolithic date recovered from within the Site in Zone 3. A small assemblage of prehistoric debitage material, which included a broken axethinning flake of possible Neolithic date, was recovered during a watching brief at Morley Manor (EWS1866; MWS14632). The western area of this HER event record (<15% of the total area) lies within the Site but was not subject to intrusive works; the finds were recovered from trenches sited adjacent to the Site in the east. The flintwork assemblage was recovered from a maximum depth of 0.5m bgl. The number of easily accessible watercourses would provide an ideal landscape for hunter-gather and later prehistoric activities, however, the scattered distribution of material at the Morley Manor site is more indicative of casual loss, rather than a specific area of activity.
- 4.7.47 Elsewhere within the Study Area, evidence of Neolithic activity is limited. The HER records a polished axe which was present among a collection of prehistoric flints held at Walhurst Manor (MWS650). The axe was picked up from a heap of road metal at Walhurst brought from the Downs thus, although the HER records the findspot location as within the Study Area, 520m northwest of the Site, its original findspot is uncertain. A note that some Neolithic flintwork was recovered during investigations of a sand quarry pit at Rock Common was also made within the HER record for the Mesolithic flint working site identified at that location (MWS4488; see **Section 4.7, Mesolithic, Zone 3: Low Weald**), though no further details were given.
- Overall, the evidence for Neolithic activity within Zone 3 is scant. It is likely that this 4.7.48 area remained heavily wooded throughout this period and, combined with the heavy, wet clay soils which underly much of this zone, did not provide particularly favourable conditions for these first agricultural communities. The communities established during this period would most likely have sought more easily worked areas of the landscape, such as the Downs to the south of the zone, which environmental evidence suggests were lightly wooded and subject to extensive but localised clearance (Sheehan & Krawiec 2018, p.17). Although the development of settled agriculture is a key feature of this period, evidence suggests that gathering of resources continued to form a significant component of the Neolithic diet (Thomas 1999; Drewett 2003). As such, the river Adur and its tributaries which run through this zone potentially provided important resources during this period, and the forests of the Weald were used as a woodland resource from at least the Neolithic onwards (Drewett 1978). Whilst the limited evidence available for this zone indicates a Neolithic presence within the area, it does not suggest a likelihood for settlement. Potential evidence within the Site is likely to be of a similar character.

# Bronze Age (2,600 - 700 BC)

The Bronze Age was the period when metal, particularly copper, gold and later bronze, began to be widely used in Britain, possibly because of increased contact with Europe and the arrival of Beaker culture. Permanent settlement becomes more apparent in the archaeological record from the middle of the second millennium BC, which coincides with woodland clearance for agriculture. Scattered



farming communities formed chiefdoms based around a largely pastoral agricultural economy, metalworking and house building (round houses). Typically, the settlement sites in Sussex which become apparent from the Middle Bronze Age comprise small groups of roundhouses, often incorporating a principal house with one or two ancillary houses (Drewett 1982) and associated field systems. Evident are new burial practices where individuals are placed in a crouched position beneath round barrows with ditches.

- There is little evidence for early Bronze Age activity on the West Sussex coastal plain, however, late Bronze Age occupation sites and field systems are widespread, with a marked concentration to the west of the river Adur. During this period, there is thought to have been a shift in settlement away from the downs to the plains (Sheehan and Krawiec 2018), and increasingly sedentary populations, inevitably gave rise to increased communications along the coast and waterways of the region (Marine Archaeology 2021). This settlement trend is apparent within the archaeological record of the Study Area, with activity primarily dating to the mid to late Bronze Age.
- Within the Study Area the only known early Bronze Age site is an enclosure interpreted as having a probable agricultural function based on the lack of settlement evident (MWS7434), 476m east of the Site at Arunside Industrial Estate.
- Evidence for late Bronze Age settlement activity has been recorded immediately north of the Site in Zone 1 at The Vinery (MWS14193), comprising numerous buried features such as ditches, pits, a gulley, a possible burnt mound, and a series of post holes and stakeholes forming the partial remains of five possible structures. A large assemblage of late Bronze Age pottery was recovered with evidence suggesting small scale pottery production, alongside specialised crop farming (Webster 2015). Other evidence of Bronze Age activity within the Site in Zone 1 is limited to a Bronze Age pottery sherd and waste flake (MWS3396) on the foreshore within the vicinity of Bailiffscourt. The hoard comprised the tip of a socked axe, a gouge, a ring and slag thought to be indicative of bronze working.
- Elsewhere within the Study Area, evidence of mid to late Bronze Age settlement, agricultural and mortuary activity has been recorded at:
  - Courtwick Lane (MWS9428), immediately east of the Site, comprising ditches and pits with a small assemblage of middle to late Bronze Age pottery sherds together with struck and fire cracked flint (Wallis 2010 and Rouard 2018, MWS3120; 440m east of the Site), together with other undated features;
  - Horsemere Green, 350m west of the Site, late Bronze Age pits, post-holes, ditches and gullies (MWS6998, MWS6999 and MWS7001);
  - Toddington, 470m east of the Site, settlement and associated field system comprising numerous pits, gullies, ditches and post-holes with finds of mid to late Bronze Age pottery (MWS12071, MWS13627, MWS13666, MWS13678, MWS14363, MWS14382). Mid to late Bronze Age occupation extends to the southeast (outside the Study Area) where a hollow way, waterholes / wells and a possible roundhouse with associated spreads of domestic rubbish are



- recorded (Wessex Archaeology 2008). Other undated features, including a ditch, pit and post holes were also recorded;
- Ford, 480m west of the Site, comprising a co-axial field system, with deposits
  of pottery vessels and burnt material. Other features of the same phase
  included a number of pits and postholes (MWS9678, MWS6921 and
  MWS14871). This represents the second phase of activity at this site, following
  Mesolithic / Neolithic period activity, and prior to a later Roman phase;
- Grevatt's Lane, 750m west of the Site, comprising a middle to late Bronze Age cremation other pits containing probably pyre deposits (MWS7709);
- Wick, 750m east of the Site, two Middle Bronze Age burial urns (MWS5757, HER record location is estimated); and
- Poling Copse, 790m east of the Site, the site of a possible barrow, which would be the only known surviving example on the West Sussex coastal plain (MWS7949).
- The site of a possible barrow is located within The Isles woodland (MWS4505) 800m east of the Site. The exact function of this circular mound is uncertain but if it is a barrow then it is the only surviving example on the coastal plain. This area is depicted as 'The Hoyles Wood' on the Tithe map for Poling dated 1838. One interpretation of the name 'Isles', or 'Hoyles' on historic mapping relates to the presence of 'hillocks' (Field 1989: 115). This name may therefore have been derived from the presence of this feature which indicates its potential antiquity.
- Elsewhere within the Study Area there have been finds of Bronze Age material including worked flint (MWS6781), 155m east of the Site, as well as pottery and flintwork recovered from an area of undated features including a ditch and post hole (MWS11449), 560m east of the Site.
- There is plentiful evidence of paleoenvironmental remains within boreholes beneath the floodplain of the river Arun which would likely contain an important record of landscape development, including changing climactic conditions, changing patterns of vegetation, sea level behaviour and the impact of anthropogenic occupation and land-use (Appendix 25.3: Onshore geoarchaeological and palaeoenvironmental assessment report, Volume 4 of the ES (Document Reference: 6.4.25.3)). These may relate to deposits associated with Bronze Age activity.

### Zone 2: South Downs

- Little is known of early Bronze Age occupation of the chalk upland. A HER record relating to early Bronze Age occupation debris comprising pot-boilers and a sherd of Beaker ware found on Cock Hill (MWS3009) is located within 15m the Site. The exact extent to which this occupation debris was recovered is uncertain, but the Site occupies the same field and therefore it's possible some of this material may have been recovered from within the Site itself.
- The site of a barrow on Blackpatch Hill, which possibly dates to the early Bronze Age (MWS8026 and MWS3388, TQ 0965 0908), lies within a field adjacent to operational access A-27.



- However, mid to late Bronze Age activity across the South Downs is well attested by the survival of mortuary monuments, large-scale earthworks and agricultural features. Mid to late Bronze Age settlements sites are known on the hills across the Sussex Downs (outside of the Study Area), with examples at Rackham Hill and Cock Hill, of the Itford Hill style which typical comprise round houses with pits and post structures. From the late Bronze Age, we also start to see the earliest occurrences of hillforts on the South Downs (Champion 2019).
- 4.7.60 Woodland clearance created a more open landscape during the later Bronze Age. Analyses of the fills of dry valleys on the dip slope on the South Downs indicates a general picture of widespread accumulation of colluvium, presumably deriving from human agricultural activity, by the late Bronze Age (Champion 2019). LiDAR analysis has identified relict field systems covering extensive areas of the Site and Study Area within Zone 2. Some are of more than one phase and their date of origin / use is currently unknown. Given the existing evidence for Bronze Age activity across the South Downs, there is potential for remnant Bronze Age field systems to survive as buried archaeological deposits, particularly in association with known cross dykes.
- 4.7.61 Over 90% of the prehistoric round barrows and ring ditches recorded in Sussex are situated in the South Downs (Garwood 2003). Unless surviving as extant earthworks (and often scheduled) barrow sites are identified through aerial photography and not commonly visible on the ground. Within the Site there is a known barrow site (MWS6581) and a second possible barrow (MWS6592), as recorded on the HER. Numerous circular mound features identified within the Site through LiDAR which may indicate presence of barrows (LDr\_130, LDr\_132-133 LDr\_136 and LDr\_144). LDr\_132 which extends into the Site, is within the same location as known barrows MWS6690 and MWS6691 (HER points lie outside of the Site). Similarly, LDr\_133 lies within the vicinity of MWS6688 (HER point outside of the Site. The other LiDAR features do not correlate with any previously recorded evidence for barrows. No traces of these features were observed during the site walkover.
- The Site is located immediately adjacent to a scheduled area encompassing a group of four bowl barrows (List entry no. 1015713). Three of these have been identified as earthworks on LiDAR imagery (LDr\_143; LDr\_142 and LDr\_141) and on an historic aerial photograph (APi\_03). These barrows lie within the vicinity of scheduled large Bronze Age dispersed, linear barrow cemetery stretching across the ridge on Kithurst Hill (NHLE 1016407), and outside the Study Area (NHLE 1015711, NHLE 1016408, NHLE 1015709 and NHLE 1015724).
- There are numerous records of potential barrows surviving as earthworks close to the Site, including:
  - A Scheduled monument comprising four upstanding bowl barrows and the buried remains of further 12 north of Longfurlong Farm (NHLE 1015880), immediately adjacent to the Site;
  - A cluster of barrow sites on Sullington Hill (MWS2827, MWS3410, MWS6688, MWS6689, MWS6690 and MWS6691 not extant) between 3m and 100m from the Site;



- A group of six probable Bronze Age barrows are located New Barn Down (MWS3056; MWS3055; MWS3052; MWS3054; MWS3053; MWS3042), around 180m east of the Site:
- Five potential barrows situated southwest of Muntham Farm (MWS1120; MWS1121; MWS1122; MWS1216; MWS12250) located less than 10m from the Site;
- Numerous barrows are recorded on Blackpatch Hill, including (MWS1099) 540m south of the Site, three located immediately west of the Site (MWS5581; MWS6593; MWS2810, MWS2811), one located 55m north of the Site (MWS3047) and a further possible example (MWS1100) 8500m south of the Site;
- A barrow on Harrow Hill (MWS3032) which survives as a low earthwork, located 515m north of the Site; and
- A cluster of Platform Barrows on Church Hill, Findon (MWS1128; MWS1129; MWS1139; MWS1355 MWS1356; MWS1357), around 250m south of the Site).
- The environmental context of the known barrows is uncertain. Barrows are often considered to indicate an open environment based on analysis of buried soils but there have been early to mid-Bronze Age examples on the South Downs which were proven to be constructed in a locally cleared landscape (Thorne and Bennett 2015).
- 4.7.65 Many other barrow sites are known within the Study Area on Wepham Down and Barpham Hill, Barnsfarm Hill and Highden Hill, and Chantry Bottom (Sullington Hill and Kithurst Hill, Sullington Warren, Blackpatch Hill (MWS2999) and Chanctonbury Hill. Of these, one is scheduled, a bowl barrow on Chanctonbury Hill (NHLE 1020352) which lies 10m southeast of the Site.
- 4.7.66 Monumental land division is a significant feature of the Bronze Age landscape, with substantial earthworks in the form of cross dykes acting as possible territorial boundary markers, demarcating land allotment within communities together with other substantial linear boundaries. Cross dykes may also have been used as trackways, cattle droveways or defensive earthworks. Evidence of these large-scale features are found within the Study Area at:
  - Barpham Hill and Wepham Down: scheduled cross dyke (NHLE 1015715) and linear boundary (NHLE 1015716), 820m northwest of the Site;
  - Ridge of Chantry Hill and Kithurst Hill cross dykes (NHLE 1015714 and 1015712), 125m east of the Site.; and
  - Barnsfarm Hill and Highden Hill cross dykes (MWS1167, MWS1168 and MWS1169) around 400m east of the Site.
- Within the Study Area, Harrow Hill is a known focal point of Bronze Age activity where a settlement was established in the site of an earlier Neolithic flint mine (MWS6495, 844m west of the Site). The remains are scheduled and comprise a Martin Down style enclosure dating to the Late Bronze Age-Early Iron Age (NHLE 1015239). The recovery through archaeological excavations of around 100 ox skulls, indicates a probable primary purpose of stock rearing, meat processing



- and / or feasting. Below the hill Bronze Age ditches have been recorded (MWS2864) 975m west of the Site.
- A scheduled Itford Hill style enclosed settlement (NHLE 1017446) is located immediately north of the Site. This has mostly been levelled by modern ploughing, but linear earthworks and cropmarks identified through analysis of LiDAR imagery and aerial photography within the scheduled area may relate to elements of the settlement (LDr\_096 to LDr\_098; APi\_01). The main settlement foci are located in the northern part of the scheduled area and comprises a sub-oval, east-west aligned enclosure. Archaeological excavations in 1933 revealed traces of Bronze Age occupation with the suggestion of a phase of preceding Neolithic activity.
- A further scheduled Itford Hill style enclosed settlement (NHLE 1015881) is located 80m west of the Site. This was partly excavated in the 1950s, through which the remains of three timber roundhouses dating to the Late Bronze Age were discovered, along with traces of previous settlement activity in the Middle Bronze Age. A late Bronze-Age farmstead is recorded on Blackpatch Hill, 430m east of the Site (MWS5599). Archaeological excavations revealed the presence of one hut circle, but more may be present within the sub-circular enclosure. The recovery of Iron Age and Roman pottery is suggestive of potential long-term occupation of the farmstead. Any remains associated with this farmstead will be as buried deposits as the whole area was ploughed flat by the early 1970s. It should be noted that the defined boundaries of the scheduled monuments discussed in Zone 2 may not reflect the true extent of archaeological remains associated with these sites.
- 4.7.70 It should also be noted that settlements and field systems of known Bronze Age date are likely to represent a high level of landscape organisation during the period.
- In addition to the known sites and monuments listed above, there is a record of a Bronze Age arrowhead (MWS455).

### Zone 3: Low Weald

- In comparison to the coastal plain of Sussex, which is one of the earliest areas to suggest continuous occupation from at least the Bronze Age, there is little settlement evidence from within the Low Weald the escarpment of the Downs possibly acting as a natural landscape boundary between the settlement to the south and the natural 'wilderness' of the Weald to the north (Field 1998).
- Within the Site in Zone 3 the only recorded Bronze Age evidence relates to an abraded sherd of Early Bronze Age Beaker pottery dating to 2400-1800BC, possibly belonging to a Beaker, which was recovered from medieval ditch deposit during an archaeological evaluation for the Rampion Offshore Wind Farm development (Wessex Archaeology 2014) (Trench 1410: TQ 24343 21016, not specifically located on HER but relates to MWS12642 and EWS1639) (**Plate 11**).
- 4.7.74 Elsewhere within the Study Area, at its northern limit a large collection of Bronze Age and other prehistoric flint implements, was recorded from a field approximately 500m up the hill northwest of Walhurst Manor in the early 20th century (ANA Horsham 136), 850m north of the Site; the area has been designated an ANA (Horsham 136). Other findspots of Bronze Age material include



a barbed and tanged arrowhead that was found with Mesolithic material (see **Section 4.7, Mesolithic, Zone 3: Low Weald**) near Wiston Park (MWS455), 310m southeast of the Site, and two bronze swords and spearheads (MWS1182) discovered in 1812 when land was being drained near Sandgate around 700m northwest of the Site.

- At the southern end of Zone 3 within the Study Area evidence comprises a broken crowned urn dated to the Middle Bronze Age (MWS1193) and possibly used as a cremation urn is also recorded towards the southern end of Zone 3, around 930m north of the Site. The discovery was made in a trench used for a freshwater tank at some point prior to 1957; the sherds were passed to Worthing Museum, along with a fragment of calcined bone.
- Overall, there is little indication of sustained activity or settlement during the Bronze Age within Zone 3 As with the preceding Neolithic period (see **Section 4.7**, **Neolithic, Zone 3: Low Weald**), the thick woodland and heavy, wet clay soils which covered much of the zone were likely a deterrent to Bronze Age settlement and agriculture; the area more likely being exploited as an area suitable for pasture and possible extraction of wood and minerals (Champion 2019). The mortuary evidence recorded at the southern end of the zone appears isolated within the overall context of Zone 3 and appears more akin to evidence discussed above in Zone 2 from the nearby South Downs.
- 4.7.77 Although there is little evidence for settlement from within Zone 3, recent investigations to the east of the Study Area as part of Rampion Offshore Wind Farm development (Wessex Archaeology 2014; Sheehan & Krawiec 2018; **Plate 11** and **Plate 12**) have however recorded ditches and pits suggestive of field divisions and settlement enclosures in the Weald and Greensand / downland margin. These investigations have demonstrated that land clearance and agricultural activity had commenced on the Weald margin by the Late Bronze Age. This was supported by geoarchaeological data which indicated open landscapes in these areas from the Middle-Late Bronze Age.

# Early to middle Iron Age (800 BC-100 BC)

- During the Iron Age, the climate deteriorated and the weather became colder and wetter. The period is characterised by population expansion, which necessitated the intensification of agricultural practices and the utilisation of marginal land. Settlement evidence from this period is diverse and plentiful, ranging from individual farmsteads to hillforts.
- 4.7.79 Under the threat of Belgic invasions, territorial groupings initiated at the end of the Bronze Age were consolidated during the Iron Age (Armstrong 1995). Sussex lay within the territory of the Regnenses.

### Zone 1: South Coast Plain

Within the West Sussex coastal plain early Iron Age occupation appears to have been relatively sparse, with a phase of major land organisation beginning in the middle Iron Age (Davenport 2003). Though remains of early to mid-Iron Age activity are not recorded within the Site, there is direct evidence for Iron Age occupation and land organisation within the Study Area. Small-scale farming



settlement is generally represented by ditches, pits and occupational debris (i.e., pottery) (MWS3899, MWS14363, MWS13627, MWS13678), rather than structural remains. Field systems are represented by a series of ditches, usually associated with occupational debris (MWS7709).

- 4.7.81 Within the Study Area, recorded Iron Age activity appears to be focused at:
  - Littlehampton bypass (MWS3899 and MWS3900) approximately 40m to the east of the Site which included occupation debris and a series of pits and post holes:
  - Toddington (MWS14363, MWS13627 and MWS13678) between 270m and 500m east to the Site comprising a series of occupation features with evidence for animal husbandry related activities;
  - Between Poling and Angmering previous excavations have recorded evidence for Iron Age occupation (MWS3129), 860m south of the Site in the form of a boundary ditch and a group of associated pits containing discarded early Iron Age pottery and animal bones at the site of a scheduled Roman villa (NHLE 1015886);
  - Iron Age pottery sherds have been recovered from northeast Angmering but the precise dating of these is unclear (MWS1222, 580m south of the Site);
  - Wick Farm (MWS3083) 830m east of the Site where a multi-phased settlement site dating to the early Iron Age to Roman period was recorded. The earliest phase comprised a hut, a gulley, postholes and 6 pits with finds of an iron billhook, Iron Age 'A' pottery, a bone comb, a bone needle or spearhead and baked clay objects. Within close proximity of these remains, a further six early Iron Age to Roman ditches containing concentration of burnt flint have also been recorded (MWS3916); and
  - Grevatt's Lane (MWS7709) 750m west of the Site including a probable Iron Age field system with associated features relating to occupation, and a possible Iron Age track or droveway.
- 4.7.82 Additional Iron Age findspots recorded within the Study Area include pottery (MWS3902) and copper objects (MWS7704).
- There is plentiful evidence of paleoenvironmental remains within boreholes beneath the floodplain of the river Arun which would likely contain an important record of landscape development, including changing climactic conditions, changing patterns of vegetation, sea level behaviour and the impact of anthropogenic occupation and land-use (Appendix 25.3: Onshore geoarchaeological and palaeoenvironmental assessment report, Volume 4 of the ES (Document Reference: 6.4.25.3)). These may relate to deposits associated with early to middle Iron Age activity.

#### Zone 2: South Downs

4.7.84 Similar to the Zone 2: South Coast Plain, available evidence indicates a less dense pattern of early Iron Age settlement across the South Downs (Champion 2019). The existing archaeological record indicates that together with small agricultural settlements, a new trend of defended settlements sited on elevated



ground, was established in the late Bronze Age/early Iron Age. These settlement types vary in size and are not thought to have been intensely occupied (Champion 2019). Chanctonbury Ring (NHLE 1015114), an example of an early Iron Age hillfort, lies approximately 1.2km southeast of the Site. By the middle Iron Age, four hillforts, Torberry, the Trundle, Cissbury and the Caburn (all outside of the Study Area), dominated the South Downs (Champion 2019). The Site lies adjacent to Muntham Court, a scheduled monument comprising buried remains of an Iron Age defended settlement (1005850 and MWS5598) including several hundred postholes, the probable sites of huts and corn drying racks, as well as a storage pit (Historic England, 2014). Near Muntham Court, 300m west of the Site, there are a series of earthworks which were visible on aerial photographs which are thought to be remnants of an Iron Age or Roman field system (MWS246 and MWS415).

- There is further evidence for field systems of potentially Iron Age or Roman date near Longfurlong Barn (MWS5718, 280m east of Site) and at Harrow Hill (MWS3057, 420m west of Site). At Highden Barn, the HER records a series of mounds containing Iron Age flints and fragments of pottery, set within the remains of a former field system has been recorded, 400m east of the Site (MWS1171). However, observations in 2012 suggest that only one mound was visible and the field system was ploughed out.
- There are instances within the Study Area where Iron Age remains have been recovered from earlier Bronze Age sites. On Harrow Hill, pottery sherds dating to c. 600 BC were recovered from the site of a late Bronze Age enclosure (MWS6495, NHLE 1015239, 625m east of the Site) suggesting potential limited activity on the hill was occurring into the early Iron Age. On Chanctonbury Hill, Iron Age pottery sherds and a pot which may have contained the disturbed cremation were found during excavation of a Bronze Age bowl barrow (MWS421). Similarly, finds of Iron Age pottery were recovered during excavation of a barrow on Chantry Bottom (MWS2836). The scheduled settlement remains on Itford Hill (NHLE 1015881), 70m west of the Site have been found to contain evidence for early Iron Age occupation in the form of pottery (MWS2994).
- Elsewhere within the Study Area, occupation debris has been recorded on Blackpatch Hill, finds of early Iron Age pottery have also been recovered. Barnsfarm Hill and Kithurst Hill. On Blackpatch Hill (MWS2849) On Barnsfarm Hill finds have been made of Hallstatt pottery and triangular loom weights with probably hut floors (MWS5640, 394m southeast of the Site). Pottery and iron slag have been recovered during ploughing on Kithurst Hill within 680m northwest of the Site (MWS2838).
- Whilst there are no records of early to middle Iron Age archaeological remains within the Site, the available evidence from the Study Area and beyond demonstrate occupational use and exploitation of the chalk uplands and indicate a general potential for archaeological remains of domestic and agricultural activity of this period to be present within the Site in Zone 2.

#### Zone 3: Low Weald

Following the last glaciation (c. 8,500BC), deciduous woodland developed across the Low Weald. While there is evidence of a human presence in the area from the Mesolithic onwards, this activity is most likely related to exploitation of the natural



resources of the area and transient in nature. As discussed previously for the earlier prehistoric periods for Zone 3 (**Section 4.7**), defined areas of settlement and human activity within Zone 3 are lacking; the settled communities who established themselves across Sussex from the Neolithic onwards became increasingly reliant on agriculture and were likely deterred by the dense woodland and heavy, wet clay soils (SDNPA 2020). The same remains true for the later prehistoric communities of the Iron Age where, although the evidence for settlement elsewhere in Sussex is growing, at present the majority of occupation appears to be concentrated on the higher ground of the Downs (Hamilton 2003; see **Section 4.7, Zone 2: South Downs**).

- Although the details of activity remain obscure, various strands of evidence now suggest a continuous interest in the resources of the Weald throughout later prehistory; the Weald Clay being suitable for pasture, as well as the extraction of wood and minerals (Champion 2019, p.9); the woodland present across much of the area in particular would have provided an important source of fuel for iron production (Bannister 2010, 12).
- Evidence for human activity from the earlier part of the Iron Age is lacking, and no sites or finds from within the Site in Zone 3 are known. Investigations as part of the Rampion Offshore Wind Farm Development (EWS1639; MWS12642) did produce palaeoenvironmental evidence from an in-filled former tributary of the Adur in the Herrings Stream field, approximately 1.2km east of the Site near Wineham, which demonstrated that sediment was accumulating within the channel from at least the Early Iron Age, however whether this was related to human activity (e.g., agriculturally derived soil erosion), is unclear (Sheehan & Krawiec 2018,109).
- Within the Study Area, the findspot of an Iron Age coin, is recorded at Wiston (MWS5644), 240m to the northwest of the Site. The coin is recorded as an uninscribed stater. No further details of the object were provided in the HER report; however, coins of this type are thought to have begun being produced in Britain shortly after 100BC (Curteis 2001). Thus, if the coin is of British manufacture, it most likely dates to the Later Iron Age.

# Late Iron Age to Romano-British (100 BC - AD 410)

- By the late Iron Age, settlement was more widespread, and a new major phase of landscape organisation occurred across the region (Champion 2019). In West Sussex, new site types were established which have been grouped under the term 'oppida' or 'territorial oppida', characterised by the defensive enclosure of large areas (Ibid).
- The Sussex landscape during the Roman period was varied, scattered with rural farmsteads, villas, roadside settlements and industrial sites, with the major town established at the local capital at Chichester (*Noviomagus*), located approximately 14km west of the Site, founded as a local capital by Togidubnus, leader of the Regni. There was a network of major and minor roads and trackways across the region. Two core roads, which linked London (*Londinium*) with the South Downs and the coastal plain lie either side of the Study Area: Stane Street lies c. 10km to the west and connects Chichester to London, while the main road linking Brighton to London lies c. 11km to the east. Connecting these roads east-west are two routes which cross the Study Area and Site: the Hardham to Barcombe Mills road,



near the boundary of Zone 2 and Zone 3, and the projected route from Chichester toward Brighton broadly projected along that of the A27 and Crossbush Road at the boundary between Zone 1 and Zone 2.

#### Zone 1: South Coast Plain

- Within the wider West Sussex coastal plain development-led excavation has demonstrated a distinct phase of landscape division and the establishment of new occupation sites (Taylor et al. 2014 and Davenport 2003), which began in the late Iron Age and into the Roman period. The period is characterised by small scale-settlement with associated irregular rectangular field systems. These settlements were based on a mixed agricultural economy with access to imported finewares (Taylor et al. 2014 and Davenport 2003). Roman settlement across the Sussex coastal plain is well attested with a concentration of Roman villas, though none are known within the Study Area.
- Recorded evidence of this period within the Site in Zone 1 is largely limited to features identified through recent geophysical survey, in particular a complex of buried enclosure ditches west of Brook Barn Farm (Appendix 25.6:

  Archaeological trial trenching at Brook Barn Farm, Volume 4 of the ES (Document Reference: 6.4.25.6)). The main sub-rectangular enclosure, which contains numerous possible entrances, appears to be associated with a number of projecting linear features. Subsequent archaeological evaluation by trial trenching has found these features to represent two phases of activity, comprising a field system and trackway of Iron Age date, and the sub rectangular enclosure related to late Iron Age and Roman date (Appendix 25.5: Oakendene parkland: historic landscape assessment, Volume 4 of the ES (Document Reference: 6.4.25.5)

  The features also correspond with the recorded locations of Roman pottery found within a gravel pit (MWS3458).
- 4.7.97 The geophysical survey has also led to the identification of a trapezoidal shaped enclosure close to the shorefront in Zone 1 (RED, 2022). The survey shows a well-defined entrance to the southeast and a possible pit in the north of the enclosure. Morphologically this feature is likely to represent a late Iron Age or Romano-British period settlement enclosure. No associated features were identified through the survey which may suggest that any related boundary ditches have been severely truncated by modern ploughing.
- At Courtwick Lane (MWS9428 and MWS5737) immediately adjacent to the Site (**Plate 2 and 3**), remains of a Late Iron Age and Roman of a modest rural settlement have been recorded, including mid-1st century sherds of imported Gallo-Belgic fineware or their local imitations. Further to the southeast 1st to 2nd century pottery was recovered from a probable refuse pit (MWS3902). At Lyminster (MWS14581), c. 240m southeast of the Site, a ditch containing Roman pottery sherds together with a series of other undated cut features has been recorded through excavation (EWS560).
- Findspots of pottery also comprise evidence for this period within Zone 1, including pottery found in a cliff face on Climping Beach (MWS3459) and near Brook Barn Farm (MWS3895). The route of a former Roman road corresponding with that of the A27 intersects with the Site. This is the route which leads eastwards from



Chichester and ends near Brighton,<sup>5</sup> which passed through Arundel to east of the Site (Margary 1955).

- Late Iron Age and Roman remains relating to settlement, agriculture, funerary and possible industrial activity have been found within the Study Area, with evidence primarily focused west and north of Littlehampton and south of Ford at:
  - Toddington (MWS13678, MWS12071, MWS13666 and MWS14363) approximately 270m south of the Site where there is evidence of late Iron Age and Roman period phases of occupation within the vicinity of a mid-late Bronze Age or early Iron Age site. Five phases of activity were recorded dating from the late Iron Age to 4th century AD. Remains comprised a series of pits, gullies, post-holes and ditches including an early Roman cremation with macrofossil evidence indicating the utilisation of cereal grains over the period of occupation and a wooded environment with waterlogged and damp soils. The recorded features and deposits reflect a shift of settlement south and westwards compared with the earlier prehistoric phases of occupation. Within the same vicinity a watching brief recorded mortuary evidence comprising two Romano-British cremation vessels (MWS3492);
  - Intensive cereal production during the Romano-British period is indicated by environmental remains recovered from a double-ditched field system which may have been part of a wider agricultural complex associated with the estate of the nearby Angmering Roman Villa (MWS8084), located 860m south of the Site and discussed below;
  - Wick Farm (MWS3083) c. 830m east of the Site, where a multi-phased early Iron Age to Roman period settlement probably representing a farmstead has been identified. The later phases comprising, a rectangular ditched enclosure with an early inner ditch; and phase three comprised ditches of field system with finds of a brooch and pottery. Within close proximity of these remains, a further six early Iron Age to Roman ditches containing concentration of burnt flint have also been recorded (MWS3916);
  - Wick (MWS5756) c. 500m east of the Site where two L-shaped ditches between which 3rd and 4th century pottery was recovered, as well as the remains of two corn drying kilns during 1950s construction activities;
  - Arunside Industrial Estate (MWS7435 and MWS7436) c. 500m east of the Site. Remnants of an Iron Age field system were recorded during an archaeological excavation comprising a series of parallel, narrow and fairly shallow ditches. The field system was subsequently altered and in use during the Late Roman period, with the most easterly ditches being more substantial and possibly representing a boundary between the arable land to the west and the settlement at Wick to the east:
  - The route of a major Roman road from Chichester to Brighton, broadly projected along that of the A27, intersects with the Site at the boundary of Zone 1 and Zone 2;
  - A scheduled Roman villa site (NHLE 1015886 and MWS6497, 790m south of the Site, over a kilometre to the south of the projected route of the Roman road

<sup>&</sup>lt;sup>5</sup> Margary 153



from Chichester to Brighton. The villa is on a site of previous Iron Age settlement activity. There is the possibility of a Roman road at the villa site below the existing modern path linking Poling and Angmering, but this has not been confirmed (MWS7091). A HER record refers to an area of very hard ground within the adjacent field which could potentially be the position of possible agger (MWS8286). Human remains of unknown date were also found at the site of the villa during the 1960s, which were recovered with numerous finds including at least two 'filigree' silver rings (MWS8285). Roman pottery fragments were recovered west of the villa site on the line of a footpath from Toddington to Black Ditch/ Poling (MWS3471);

- Poling Corner (MWS3541, MWS3873 and MWS3872) c. 300m east of the Site. Investigations during the construction of the Crossbush-Bypass in the 1990s recorded two hearths and a shallow ditch containing 200 to 300 sherds of 2nd/3rd century pottery and a large quernstone fragment;
- Bailiffscourt (MWS6994 and MWS6995) c. 380m northwest of the Site. Ditches containing Roman pottery and residual prehistoric pottery;
- Ford (MWS9678 and MWS6921) approximately 500m west of the Site. Two Late Iron Age cremation burials and two Late Iron Age to Roman dated linear ditches containing burnt flint, fired clay and pottery, with other Roman features (pits, ditches and possible shelter) indicating metalworking were recorded. Within closer proximity to the Site (MWS9678) investigations recorded an extension to this Late Iron Age and Roman activity comprising a series of boundaries laid out on an east-west orientation, a similarly aligned drove way and some low-level pitting, representative of agricultural activity dating to the Roman period. Pottery recovered from these deposits suggests that much of this activity dated to the 2nd-3rd century AD;
- Grevatt's Lane (MWS7709) c. 750m west of the Site. A late Iron Age to Roman boundary ditch, together with other features (a further eight ditches, one pit and four possible post-holes) possibly dating to this period; and
- Around Angmering, archaeological horizons containing Roman pottery fragments with tile, brick and quernstone were observed during construction of houses at Decoy Close (MWS3645), 620m southeast of the Site. Some potential for Roman activity and possible remains of Roman building are located west of Angmering (MWS3146).
- Elsewhere across the Study Area, other evidence for Roman activity comprises small finds of coins (MWS7715, MWS3078, MWS3087, MWS5734 and MWS3088), including a silver hoard (MWS7072, ranging from AD81-91 to AD 135-161) and pottery sherds (MWS3465, MWS 6383, MWS6683, MWS3870 and MWS 3872), including 2nd century pottery recovered from a ditch at Crossbush (MWS5715).
- Taken together, the evidence shown above (and within paragraph 25.5.76, Chapter 25: Historic environment, Volume 2 of the ES (Document Reference: 6.2.25)) suggests a landscape containing a dense settlement pattern arranged amongst field systems in the pre-Roman Iron Age which may have been replaced in some areas by distinctive Roman villa-type farmsteads such as has been identified east of Poling and described above, and at Wick Farm (MWS3083), with



other farmsteads established in the late Iron Age perhaps persisting into the Roman period.

There is plentiful evidence of paleoenvironmental remains within boreholes beneath the floodplain of the river Arun which would likely contain an important record of landscape development, including changing climactic conditions, changing patterns of vegetation, sea level behaviour and the impact of anthropogenic occupation and land-use (Appendix 25.3: Onshore desk-based geoarchaeological and palaeoenvironmental assessment report, Volume 4 of the ES (Document Reference: 6.4.25.3). These may relate to deposits associated with late Iron Age to Romano-British activity.

## Zone 2: South Downs

- 4.7.104 Major changes in the settlement pattern were taking place across Sussex in the late Iron Age, with hillforts across the South Downs typically going out of use, new occupation sites being established and reorganisation of the landscape (Champion 2019). The Romano-British period saw the height of arable cultivation of the downland and sheep pasture along the steep scarp (SDNPA 2020). Roman rural settlement is characterised by isolated farmsteads with associated field systems. Enclosed farmsteads are clustered on the chalk downland, though examples are not common within this area of the South Downs.
- The route of a major Roman road from Chichester to Brighton broadly projected along that of the A27 intersects with the Site in Zone 2 along the southern limit of the South Downs. Another major Roman route, the Greensand Way, lies north of the escarpment of the South Downs (see discussion **Section 4.7, Zone 3: Low Weald**). Across the South Downs, trackways linking field systems and farmsteads have been identified (Allen et al. 2018).
- The scheduled Muntham Court Iron Age defended settlement and Romano-British shrine (NHLE 1005850) is located immediately adjacent to the Site, northwest of Tolmare Farm Bungalow. The Iron Age defended settlement survives largely as buried archaeological deposits at the summit of the hill on which the scheduled area is located. Remains comprise several hundred post holes which represent the possible sites of huts and corn drying racks, along with a storage pit, all of which were at least partly enclosed by a palisade and external ditch.
- As well as joining the north-south trunk roads, the Greensand Way, which runs through the southern end of the Site, also linked numerous villa estates located along the greensand ridge. At Buncton, 120m south of the Site, the location of a possible Roman building is recorded (MWS1291; TQ 1459 1338) and may be a potential candidate for one of these villa estates. Situated on the northern slope of a hill to the north of Chanctonbury, approximately 200m south of the Roman road, fragments of Roman building material, including roof tile, flint nodules and brick were found scattered over an area of approximately 40 m², with brick and tile also recorded during road widening of the crossroads 190m northwest of the recorded site. A substantial assemblage of pottery, including Samian wares, has been found at the site over the years. Its location on the belt of greensand which runs across Zone 3 between contrasting geological zones may also support its possible interpretation as a villa as it has been suggested that villas were carefully sited in the landscape and their frequent location near geological boundaries may have



- allowed different landscapes and environments to be exploited together (Allen et al. 2019, p.13). The location is now under crop.
- 4.7.108 Within the Study Area other evidence of late Iron Age and Roman occupation and / or land division are recorded across Chantry Bottom, Harrow Hill, Blackpatch Hill, Highden Hill and Buncton:
  - On Blackpatch Hill (MWS2849 and MWS2850), potential Iron Age and Roman activity is evidenced through finds of pottery sherds recovered from the plough soil and as residual finds from a pit and ditch features;
  - At Chantry Bottom (NHLE 1005823) scheduled remains of a Roman settlement site occupies a south facing slope 110m west of the Site and comprise extant earthworks and buried remains of a villa or farmstead with associated field system, fieldway and finds of pottery and coins (MWS2814, MWS5812, MWS3310, MWS2821, MWS2834, MWS2837, MWS2839, MWS2847). Elements of a relict field system identified on LiDAR data which covers a large area extending across the Site (LDr\_114; LDr\_121) could be associated with this settlement;
  - On the southern slopes lies a possible Roman farmstead site (MWS3020) comprising a rectangular enclosure with finds of 2nd to 4th century pottery, and a Roman lynchets system and two probable hut sites (MWS8478 and MWS5724). Possible associated lynchets are also known at the summit of the Harrow Hill (MWS4965) where finds of Roman pottery and two bronze coins of Domitian have been recovered (MWS3201);
  - Roman period settlement remains north of Angmering (MWS1044; DWS8155)
    have been recorded 720m west of the Site, however the evidence is confined
    to scatters of Roman brick and tile observed in ploughsoil;
  - Surface finds including Roman pottery have been recovered in ploughsoil on Blackpatch Hill (MWS1112), 720m east of the Site;
  - Surface finds of Romano-British pottery, small tile fragments and oyster shell have been recorded at Findon Place (MWS1110), 665m southeast of the Site;
  - Occupation debris recorded approximately 800m northwest of the Site within an area of surface depressions on Kithurst Hill (MWS2809) comprising Samian ware, fragments of New Forest ware, brick tiles, flue tiles, burnt flint nodules, potboilers, oyster shells and fragments of bone; and
  - On Highden Hill where fragments of earthworks and cropmarks have been identified on aerial photographs (MWS12211), approximately 780m east of the Site.
  - A scatter of Roman pottery sherds was recovered from a field west of Blakehurst Farm (MWS1041), 570m southwest of the Site.
- Within the Site in Zone 2, another HER Record of Roman pottery sherds lies within the Site at Lee Farm (MWS2866). However, the exact provenance for the pottery is uncertain and the farmstead track within the Site has been given as the generic location.



- Elsewhere across the Study Area, Roman pottery and a 4th century coin were recovered along with medieval and later pottery during surface clearance prior to sand extraction at fields near Washington (MWS439) 160m northwest of the Site. The base of a fire containing tiny fragments of bone, possibly an unurned cremation, was also found.
- Sporadic findspots have been made elsewhere across the Study Area, including 4.7.111 Roman pottery sherds during the excavation of a late Bronze Age settlement at New Barn Down (NHLE 1017446), pottery sherds north of Blackpatch Hill (MWS2818, 250m northwest of the Site) and Tormur Hill (MWS254, 520m from the Site) Roman pottery and a 1st century coin of Nero around Chanctonbury Hill (MWS1181; MWS3834; MWS422; MWS436, 860m southeast of the Site); a 2nd century coin of Faustina on Washington Hill (MWS433, 910m southwest of the Site); and a Roman brooch and fibula from around Chantry Farm (MWS2819; MWS3863, 650m north of the Site). Within the Site, there is a high archaeological potential for the late Iron Age and Roman period. Surviving remains are likely to relate to agricultural activity, primarily features of land division, as well as finds and ephemeral occupation features within proximity to known or potential farmstead sites. This is particularly the case at Chantry Bottom. Buried remains of the road from Chichester to Brighton may also be present within the southern limits of the Site in Zone 2, as well as remains of roadside activity here and in the northern limits of this zone.

#### Zone 3: Low Weald

- In comparison with the Zone 1 and Zone 2, the late Iron Age and Roman periods in the Weald is poorly represented. This relative absence of evidence is both a reflection of the comparative lack of urban development, and subsequent planning-led development in this area, and that the Wealden Clays are less favourable for arable farming.
- The Weald is primarily known for its ironworking sites and current evidence for domestic settlement of the area is limited; it seems likely that Wealden settlements may have focussed on pastoral farming, woodland management and hunting, rather than arable farming, potentially making sites more difficult to recognise (Allen 2016, p.78).
- The Wealden iron industry was one of the most important in Britain and has been well studied with evidence indicating large-scale production at a few sites, and smaller localised production at many more. The known large-scale production sites are all located in the vicinity of Beauport Park, Sussex which lies a considerable distance to the east of Zone 3 (c. 60km) (Allen et al. 2019) and no evidence of iron working activity is at present known within the Study Area of Zone 3.
- 4.7.115 The Sussex landscape during the Roman period was varied, scattered with rural farmsteads, villas, roadside settlements and industrial sites, with the major town of Chichester (*Noviomagus*), located c. 25km to the southwest of Zone 3, founded as a local capital by Togidubnus, leader of the Regni. All these elements within the landscape were linked by a network of major and minor roads and trackways. Two core north-south trunk roads which linked London (*Londinium*) with the South Downs and the coastal plain run either side of the Site and Study Area in Zone 3:



Stane Street lies approximately 10km to the west and connected Chichester to London, while the main road linking Brighton to London lies c. 11km to the east. These core routes were linked by the Greensand Way (Margary's route 140), which runs east to west along an outcrop of Lower Greensand approximately 1 mile north of the escarpment of the Sussex Downs and bisects the Site at the southern end of Zone 3 on a southeast to northwest alignment; the whole route is designated as an ANA (Horsham 078; Mid Sussex 044).

- Elsewhere within the Site, in its north-eastern corner at the existing National Grid 4.7.116 Bolney substation, excavations as part of the Rampion Offshore Wind Farm Development (Investigation Site A; EWS1639; MWS12642; MWS15278) recorded remains of a late Iron Age to early Roman rectangular field system and associated features. These features comprised a pit, an isolated post-hole and a probable hearth or fire-pit. A large assemblage of pottery and some stone fragments were also recovered; the pottery sherds were grog-tempered fabrics of probable mid-1st century date; a date seemingly confirmed by the presence of a triangular loom weight in the terminus of one of the ditches (Sheehan and Krawiec 2018). The presence of a hearth and a loom weight was suggested to indicate the presence of settlement nearby (Sheehan and Krawiec 2018, p.110). During these investigations, palaeoenvironmental assessments from areas outside the Site in the north of the Study Area around the Herring stream, near Wineham also demonstrated that a more open environment suitable for cultivation and crop processing was present from at least the Late Iron Age (Sheehan and Krawiec 2018, p.118).
- There is no further evidence of Late Iron Age activity recorded within the Site or Study Area.
- 4.7.118 Further recorded remains dated to the Roman period present within the Study Area include evidence of settlement and industrial activity. These remains are clustered at the southern end of the Study Area and are located in close proximity to the Greensand Way route which bisects the Site.
- 4.7.119 Roman tiles were found on Fair Oak Farm (MWS430) 240m northwest of the Site, while others were found built into Buncton Chapel (MWS425), 60m north of the Site. Both HER records note that the tiles possibly came from a Roman site located to the south; it is unclear if these records are referring to the Buncton site discussed above (MWS1291).
- A Roman tile kiln was discovered in 1848 (MWS5509), 280m south of the Site and c. 100m north of the Roman road. Investigations during the mid-20th century found no further evidence for the site, and only one coin, a debased Antininianus of Gallienus was found. The site now lies under arable land and there are no visible remains. A second reference based on documentary evidence for a 2nd or 3rd century tile kiln, north of Washington Road (MWS4818), 250m south of the Site, is also recorded on the HER; no further details are given but the locations given for these records are almost identical thus it is likely they are referring to the same kiln site.
- 4.7.121 A number of fragments of Roman building material, including flue tile, tegulae, brick and glass was found to the west of Cherrytree Rough (MWS1202) 390m southeast of the Site on ploughed land located on the crest of a ridge. Further investigation of this area produced negative results. Although this material may



indicate the presence of a possible building in the area, its location 350m northeast of the tile kiln site discussed above, and the negative results from further investigation, perhaps more likely represents waste material associated with the kiln site.

- 4.7.122 Elsewhere across the Study Area, a worn coin from Wiston (MWS5297), 210m to the north of the Site, was found, and a metal detecting rally in a field to the north of Wiston (MWS6812), 740m to the north of the Site also produced fragments of Roman building material and pottery, as well as coins and two as yet unidentified metal objects. Roman and later pottery along with a coin of 4th century date and tiny fragments of cremated bone were also uncovered during surface clearance for sand extraction near Washington (MWS439), 160m north of the Site.
- 4.7.123 Within the north of the Site, there is a strong potential for further remains relating to the recently identified late Iron Age to early Roman field system to be present within the Site. Additional remains would likely be of a similar nature to those already encountered (e.g., pits, post holes and ditches). The finds assemblage from these investigations also suggests a settlement may lay in the vicinity. Although the specific nature of activity in this area and how it related to the wider landscape is unclear at present, with the specialist iron industries of the Weald being located at some distance from the Site and palaeoenvironmental assessment of the area demonstrating that an open environment suitable for crop processing was present from at least the late Iron Age, some form of agricultural activity is thus likely.
- Aside from the field system and associated features discussed above, there is no further evidence for late Iron Age activity within the Site or Study Area. It is possible that the Roman activity recorded in the south of the Study Area within Zone 3 was focussed on, or a continuation of, prior developments begun during the late Iron Age, as has been suggested for other areas of Sussex (Cunliffe 1973), however as this activity appears to be concentrated along the roadside of the Greensand Way, a planned Roman road, it is possible that the new road provided the initial impetus for the activity that surrounded it.
- Within the southern limits of the Site in Zone 3, there is high potential for further remains relating to the Roman road which is known to bisect the Site, as well as remains associated with roadside settlement or activity.

# Early medieval (AD 450 - AD 1066) and Medieval (AD 1066 - AD 1540)

The period following the end of the Roman occupation of Britain is poorly understood. During the 5th century distinct cultural transitions occurred which are considered to have been triggered by an influx of Germanic migrants, who began to settle toward the end of Roman occupation of Britain (Thomas 2013). Up until the 9th century, population levels were relatively low with agrarian and craft production on a domestic scale and exchange networks operating locally. A network of tribal units developed into kingdoms, within the 6th or 7th centuries including that of Sussex, so called after the *suthsaexe* or South Saxons, the people who occupied the territory. The latter part of the Early Medieval (otherwise known as Anglo-Saxon, or Saxon) period saw population growth, intense agriculture and establishment of regional / international exchange networks. An



- evolving pattern of administrative, tenurial and ecclesiastical boundaries creation resulted in a highly manorialised landscape.
- Following the Norman invasion, Sussex was administered through a system of rapes, which by 1086 there were six, Hastings, Pevensey, Lewes, Arundel, Bramber and Chichester. The Site falls within the rape of Arundel, with the town of Arundel located at a strategic crossing point of the river Arun. Arundel Castle (NHLE 1012500, outside of the Study Area) was established around 1070, which may have been sited on former late Saxon defences (Baggs et al., 1997). Feudalism, by which all land was owned by the king and gifted to followers, formed the basis of social, economic and cultural life for most in the medieval period.

#### Zone 1: South Coast Plain

- There is limited evidence for the early medieval period within the Site or Study Area. An operational access in the Site intersects with the HER record relating to multiperiod remains at Courtwick Lane (**Plate 2 and 3**), which included pits containing early medieval pottery and a sunken featured building and possible timber post building (MWS9428, ANA Arun 049) (Bray and Porter 2015, Wallis 2010).
- 4.7.129 Elsewhere within the Study Area, Climping, Lyminster, Angmering and Littlehampton are all recorded in the Domesday book of 1086, indicating a settled manorial geography was established in the early medieval period, which is likely to have influenced the medieval settlement pattern.
- 4.7.130 At Poling in Zone 1, the grade I listed Parish Church of St Nicholas (NHLE 1275560, MWS3105) c. 680m southeast of the Site contains early medieval architectural elements with several phases of gradual development through the medieval period.
- 4.7.131 The probable site of the Preceptory of the Knights Hospitallers at Poling (MWS4265) thought to have been established within the 12th century but dissolved in 1540, is located around 245m north of the Site. The 13th century remains were incorporated into the grade I listed Fairplace Farm (NHLE 1217172; MWS10196), 260m north of the Site. A high status open-hall house was constructed at the Peckhams at Poling in 1405, as evidenced by the dendro-dated timbers within the existing grade II\* listed building (NHLE 1217152), 310m south of the Site.
- A Priory of Benedictine Nuns was founded in the 10<sup>th</sup> or 11<sup>th</sup> century in Lyminster and dissolved c. 1414. The nave and chancel of the Parish Church of St Mary Magdalene, around 180m north of the Site, is thought to be of a late 10th century date (MWS3068). The church itself is grade I listed (NHLE 1027604). Burials of possible early medieval date have been found in the church yard (MWS3068).
- Lyminster is recorded as having 68 villagers and 43 cottages, with 44 ploughlands, eight acres of meadow, woodland enough for 30 pigs, one mill, two salthouses and a church (Open Domesday 2021).
- 4.7.134 Excavations at Toddington found ditches and a cobbled surface, which possibly mark the medieval boundary between the eastern limits of Toddington and agricultural land (MWS8084), 860m south of the Site.



- The grade I listed St Andrew's Church at Ford (NHLE 1233989; MWS3101) approximately 800m west of the Site, was established between 700 and 1400, with the earliest architectural elements of the present church being the 11th century nave and piece of early medieval sculpture built into the vestry wall (MWS3102). Within the churchyard burials of early medieval or medieval date have been found (MWS6290). Elsewhere, early medieval and medieval features have been recorded within sites of pre-existing prehistoric and Roman activity, as at Grevatt's Lane (MWS7709), 750m west of the Site, where remains were recorded of an early medieval sunken-featured building (otherwise known as Grubenhaus) comprising a large sub-rectangular feature, gulley and stakeholes with five small pits located within the floor and a possible latrine.
- Sherds of 11<sup>th</sup> to 12<sup>th</sup> century pottery were recovered during a watching brief 235m west of the Site (MWS6777), west of Church Lane. These are thought to be derived from manuring of fields within the vicinity nearby farmsteads.
- 4.7.137 The medieval period is represented by documentary and archaeological evidence for the founding of ecclesiastical establishments, villages and historic farmsteads within a largely agricultural landscape.
- In addition to the Benedictine priory at Lyminster, other religious centres were established at Atherington and Poling. A grange with a chapel for Benedictine monks at Atherington was founded after 1102 and dissolved c. 1414 (MWS3067). The 13th century chapel and moat of Bailiffscourt still survive. The Preceptory of the Knights Hospitallers at Poling (MWS4265) thought to have been established within the 12th century but dissolved in 1540, was located c. 240m east of the Site. The 13th century remains of the chapel were incorporated in Fairplace Farm.
- There is evidence for several former medieval villages, commonly known as deserted medieval villages (DMV) within the Study Area, including:
  - Cudlow DMV adjacent to the southern Site, which was reportedly lost to the sea by coastal erosion, with traces of the submerged village including house foundations and walls said to be visible at very low spring tides (MWS3384). The extent of this former village is uncertain, and whilst it may not fall within the onshore part of the Site, it is likely to fall within the proposed offshore part of Site (Chapter 16: Marine archaeology, Volume 2, Volume 2 of the ES (Document Reference: 6.2.16) and Appendix 16.1: Marine archaeology technical report, Volume 4 of the ES (Document Reference: 6.4.16.1));
  - Atherington DMV adjacent to the southern Site, with remains including graves now submerged and buried beneath sand and shingle (MWS3385) (also within the proposed offshore part of Site, Chapter 16: Marine archaeology, Volume 2 of the ES (Document Reference: 6.2.16) and Appendix 16.1: Marine archaeology technical report, Volume 4 of the ES (Document Reference: 6.4.16.1).
  - West of the church of St Nicholas at Poling are the earthwork remains of a DMV and moated site (MWS5761), around 680m south of the Site. These remains are likely to represent the former extent of Poling in the medieval period;
  - Islesham DMV (MWS3100) and site of Islesham Church (MWS3104) in the vicinity of Brookpit Lane (encompassed by ANA Arun 042). Their approximate



- location is recorded within 90m of the Site. Though the extent of the former village is uncertain, it is unlikely to have extended into the Site; and
- A DMV at Church Farm, southeast of St Mary's Church, Climping survives as earthworks and below-ground remains, which are protected as two scheduled areas, one of which lie partially within the Site (NHLE 1005828, MWS3371), encompassed by ANA Arun 040. Pits of medieval and post medieval date, with finds of medieval pottery and animal remains, have been recorded within the vicinity (MWS6993).
- 4.7.140 One farmstead of medieval date was identified during the Historic Farmsteads and Landscape Character project which lie within the Study Area, Elmer Farm farmstead, Middleton-on-Sea (MWS10187), 930m west of the Site.
- The agricultural landscape in the medieval period along the coastal plain was likely characterised by open field systems clustered around the villages and religious houses established by this time (Baker 1973: 426-427). Buried remains relating to ridge and furrow of possible medieval date have been identified in many parts of the Site through geophysical survey (RED, 2022), and geophysical survey (MWS15130), around 500m from the Site.
- 4.7.142 Other evidence for medieval activity within the Study Area in Zone 1 includes:
  - the site of a former well at Elmer exposed in high tides c. 450m west of the Site, which yielded some fragments of medieval jugs, though no archaeological remains were found during subsequent investigations (MWS7002);
  - medieval pottery fragments within a field northwest of Littlehampton (MWS3466) c. 110m east of the Site, and during construction at Lyminster Nursery (MWS7073) c. 30m east of the Site;
  - a ditch containing pottery and fire-cracked flints (MWS7003) 440m west of the Site; and
  - a medieval cemetery (MWS7092) 190m east of the Site at Poling Priory.
- There is plentiful evidence of paleoenvironmental remains within boreholes beneath the floodplain of the river Arun which would likely contain an important record of landscape development, including changing climactic conditions, changing patterns of vegetation, sea level behaviour and the impact of anthropogenic occupation and land-use (Appendix 25.3: Onshore geoarchaeological and palaeoenvironmental assessment report, Volume 4 of the ES (Document Reference: 6.4.25.3)). These may relate to deposits associated with early medieval to medieval activity.

#### Zone 2: South Downs

4.7.144 Early medieval settlement evidence is relatively limited, with no in situ remains known within the Site in Zone 2. An Anglo-Saxon burh was established on a former Iron Age promontory fort at Burpham (NHLE 1005894; MWS3790) 220m west of the Site, with remains comprising earthworks, pits, and timber structures. Burpham is recorded in the early 10th century AD Burghal Hideage list (a survey of defended places) and may have been established in the ninth century AD as a



- result of King Alfred's response to the threat of Danish invasion (Historic England 2021a).
- The Domesday Book of 1086 (Open Domesday 2021) records settlements on the periphery of the South Downs, including Warningcamp and Wepham to the southwest which lie in the Arun valley, and Sullington and Washington to the north of the steep scarp. Their historic cores are now conservation areas. Their location indicates that the settlement geography established in the early medieval period did not favour the higher ground of the downlands. However, archaeological investigations at the site of a DMV on the chalkland at Upper Barpham Farm recorded the foundations of a parish church constructed during the early medieval period (NHLE 1015882, MWS6399) 650m west of the Site.
- A scheduled barrow cemetery (NHLE 1017446) is recorded immediately north of the Site at New Barn Down on the southern slope of a chalk hill. The barrows partly overlie Bronze Age field within the eastern part of the monument. Records suggest the presence of at least 16 circular burial mounds, most of which have been levelled by modern ploughing. Archaeological excavations of two of the barrows in 1933 showed these were constructed over rectangular, east-west aligned graves dated to between AD 600-800. It is possible that further, unmarked graves may await discovery in the areas around and between the known barrows.
- Early medieval mortuary evidence is more prevalent on the South Downs and is commonly represented by barrow burials, on Sullington Hill, Barpham Hill and Wepham Down:
  - Two early medieval period barrows are recorded on New Barn Down (MWS3000; MWS3363), 320m east of the Site. This forms part of the scheduled Itford Hill style multi period settlement. Archaeological excavations in 1933 uncovered human remains and associated finds dating to the 7<sup>th</sup> and 8<sup>th</sup> centuries AD. These remains were recorded as no longer upstanding by the 1970s, having been levelled through modern ploughing; and
  - On Sullington Hill, a group of ploughed out prehistoric barrows located immediately adjacent to the Site were found to contain remains of early medieval cremations (MWS6688, MWS6689, MWS6690 and MWS6691). Elsewhere on Sullington Hill, a HER record for a possible early medieval cemetery (MWS2833) lies 10m north of the Site but the specific location of the graves referred to is unclear. This record gives details of buried remains of barrows attested to the early medieval which collectively form a mixed inhumation and cremation cemetery. There are other barrow sites recorded within this vicinity which may have included early medieval burial remains, in addition to multiple LiDAR features suggestive of barrow site located within and outside the Site (LDr\_130, LDr\_132-133, LDr\_136 and LDr\_136). Two early medieval secondary cremations and a cinerary urn were found in a barrow within the Site (MWS2804).
- 4.7.148 It should be noted that the defined boundaries of the scheduled monuments and HER records discussed in Zone 2 may not reflect the true extent of archaeological remains associated with these sites.
- The only other known records relating the early medieval period relate to two separate discoveries of coin hoards, one at Sullington Manor Farm 250m



- northwest of the Site comprising hundreds of coins ranging from Edward the Confessor to Harold (MWS2873) and the second near Washington, around 900m south of the Site, which included an example of Ceolwulf II of Mercia (MWS437).
- Some of the earliest surviving evidence of the medieval period is found in the parish churches with Norman architectural elements, such as the parish churches at Sullington and Buncton (see **Section 4.7, Early medieval and medieval, Zone 3: Low Weald** for discussion on Buncton).
- At Sullington, located on the foothills to the north of the steep scarp of the South Downs, the grade I listed Parish Church of St Mary (NHLE 1354077, MWS2870, 35m north of the Site) has a Norman tower, nave and chancel. Sullington is the site of a medieval manor, and the grade II listed manor house itself still survives with some medieval building fabric dating to the 13th and 14th centuries (NHLE 1285147, MWS13952). The manor developed as a dispersed regular multi-yard farmstead, with a surviving grade II listed 17th century barn (NHLE 1027240, MWS13687).
- The remains of a church (MWS3001) with possible early medieval construction phases were discovered through excavation within the scheduled remains of the DMV at Upper Barpham (NHLE 1015882), 670m west of the Site. It is possible that further associated settlement remains dating to an early medieval phase may lie undisturbed within the scheduled area, although no evidence for this has been found to date.
- Whilst there was relatively large early medieval settlement at Washington (Milner-Gulland 2013, Open Domesday 2021), the present church, the grade II\* listed Parish Church of St. Mary (NHLE 1027198), is of 12th century origin and the churchyard lies adjacent to the Site and is encompassed by an ANA (SDNPA 075). The Washington conservation area contains over 40 listed buildings, some of which also have medieval origins.
- The grade II listed ruins of Michelgrove House (NHLE 1353888) are all that remain of a former elite residence occupied from between the 15<sup>th</sup> and 19<sup>th</sup> centuries. These remains, comprising a castellated brick wall and castellated octagonal tower, are located around 40m north of the Site.
- Numerous linear earthworks identified through analysis of LiDAR imagery are currently undated but may relate to medieval agricultural practices. Notable examples have been identified on LiDAR DTM imagery in woodland north of Angmering Park Farm (LDr\_057, LDr\_061, LDr\_063, LDr\_067, LDr\_077, LDr\_079), 80m south of the Site.
- 4.7.156 During the medieval period, activity across the downland was primarily influenced by changing agricultural regimes which fluctuated with changing economic and environmental conditions. The development of poor soils following centuries of arable farming, saw land being given over to pasture and the development of a sheep-corn husbandry system during the medieval period. This involved bringing sheep flocks to graze on the downlands in the day and down to the arable lands for manuring at night (SDNPA 2020). Population growth in the 12<sup>th</sup> and 13<sup>th</sup> centuries led to an increase in arable cultivation on the downland, though contraction of settlement and arable agriculture occurred in the 14<sup>th</sup> century due to



- an economic downturn following the Black Death and climate change (SDNPA 2020, Thorne and Bennett 2015).
- The routes by which sheep were herded between the downland pastures and the scarpfoot arable fields are evident in the landscape and may originate from earlier periods of farming on the downland (MWS3308, MWS11251, MWS11259, MWS11265, MWS423), around 800m northwest of the Site. Many of the routes or trackways recorded within the HER are undated, as are the linear depressions recorded in the LiDAR data on Sullington Hill and steep scarp (LDr\_129, LDr\_131, LDr\_135, LDr\_138, LDr\_146, LDr\_147) (see **Table 4-5**). Earthwork remains of possible medieval lynchets are also known within the Study Area on the steep northern scarp of the South Downs, the nearest within 40m of the Site on Barnsfarm Hill (MWS417, MWS10810, MWS10834, MWS11264).
- The site of the former Romano-British farmstead at Chantry Bottom was reoccupied during the medieval period, again as a farmstead (NHLE 1005823, MWS2846) which includes two rectangular enclosures denoted by banks as well as a house platform and terracing. Pottery recovered from the site dates to the 14th and 15th centuries, though it is uncertain when the farm was established or abandoned. To the northeast of Harrow Hill, earthwork enclosures previously observed on the ground and on aerial photographs are thought to be of the remains of a medieval farm (MWS2853, 380m south of the Site). Within the same vicinity a possible medieval hut site is also identified (MWS2854). On the southern slopes of Harrow Hill, approximately 480m west of the Site, is the site of a possible medieval rectangular enclosure (MWS8478) originally observed as earthworks.
- In addition to the settlements recorded in the Domesday book (Open Domesday 2021) there are also former medieval settlements identified within the Study Area. One, known as Barpham, at Upper Barpham Farm (NHLE 1015882, MWS6399) 640m west of the Site and another at Lower Barpham Farm (NHLE 1015883) 315m west of the Site Another possible site of a DMV is recorded on Warningcamp Hill, suggested by earthworks and pottery scatters in the ploughsoil (MWS3375). The HER record for the DMV is located 615m west of the Site but the associated ANA (SDNPA 025) occupies an area of the hill which extends across the Site. Undated earthworks are identified further east within the ANA (MWS1042).
- The site of the DMV of Cobden (MWS5642) is located 136m west of the Site. Remains comprise low earthworks, identified through analysis of LiDAR imagery immediately north of the Site (LDr\_110), and pottery scatters dating to the 13th century AD.
- The possible site of the DMV of Myrtle Grove (MWS5725) is located 70m east of the Site. Evidence for this comprises linear earthworks, which have been mapped through analysis of LiDAR imagery (LDr\_089), and scatters of pottery recovered from ploughsoil.
- 4.7.162 Remains of medieval occupation at Stoneyland Copse (MWS5579) are recorded 400m east of the Site. Archaeological excavation here led to the discovery of pits, wall foundations and floors. Recovered pottery sherds ranged from 12th-16th centuries in date. This site is located within the ANA of Roman and Medieval Occupation and Evidence of Lime Kilns, Angmering and Patching (DWS8156).



- 4.7.163 Elsewhere within the Study Area, other remains of medieval settlement on the South Downs are also recorded, including two possible house platforms east of Washington (MWS442, 250m south of the Site). Documentary evidence identifies possible sites of a medieval farmstead at Blackpatch Hill (MWS2843, 225m west of the Site).
- The recorded location of the former Angmering Park is recorded 380m northwest of the Site). Although little is known of its history, the park is shown on historic maps dating to the 16<sup>th</sup> century, which implies it may have been in existence in the medieval period.
- Other evidence from the Study Area for the medieval period comprise finds of pottery at the extraction site at Rock Common (MWS438) 160m northwest of the Site, and other findspots of pottery (MWS3833) on Highden Hill, 900m south of the Site.

#### Zone 3: Low Weald

- During the medieval period settlement patterns within the Wealden landscape, as for much of south-east England, were largely characterised by scattered farmsteads and hamlets. Whilst this pattern becomes more clearly established and better documented after the Norman conquest, it is likely that was based on foundations put down during the preceding centuries (Thomas 2019, p.9).
- The Domesday book of 1086 (Open Domesday 2021) records eight settlements of varying sizes within the Study Area of Zone 3 and which are predominantly focussed on the south of the Study Area. The largest of these are Washington, Wiston and Buncton, which record 158, 39 and 26 households respectively, and indicate a settled manorial landscape was established by the late 11th century. The settlement at Washington is known to have developed from an earlier major early medieval estate for which there are two surviving 10th century charters (WPC 2018); and similar origins are likely for many of the medieval settlements present within the Study Area in Zone 3. The charters also provide boundary points for the estate and research has demonstrated that the estate limits largely correspond with those of the historic parish, with evidence to suggest parts of the boundary are delineated by the course of the Roman Greensand Road (Robin Milner-Gulland 2005).
- A network of droveways across Sussex linked coastal and downland communities in the south with summer pastureland in the interior of the Weald. Many being probably of pre-Roman origin, the droving roads were used throughout the early medieval period and are suggested to have influenced settlement patterns across Sussex (Brandon 2006).
- 4.7.169 Archaeological evidence for early medieval activity within the Study Area is very limited and there are no known or securely dated sites or finds within Site or Study Area In the north of the Study Area at Shermanbury, however, a survey of earthworks in the area in the mid-20th century recorded remains of a hollow way like feature (MWS828) 820m east of the Site. Based on conjectural evidence, the earthworks were suggested to potentially represent remains of an early medieval fortification, however the remains on the ground are insufficient to be securely dated.



- 4.7.170 For the medieval period, in addition to archaeological remains, evidence for activity, settlement and land use is also well supported by documentary resources. Evidence from Domesday Book (AD 1086) provides an indication of landscape use within Zone 3 during this period. The settlements documented in the south of the Study Area record a mix of resources including ploughland, meadow and woodland used for swine render. Several salthouses, along with a mill at Buncton and a church at Wiston were also extant. Further north within Zone 3, three small settlements each with fewer than 10 households are recorded at Eatons, Sakeham and Shermanbury. The land resources recorded here are predominantly ploughlands, the church at Shermanbury is the only structure noted within these settlements. As was the case for the early medieval period, the medieval road / trackway system was vital to the exploitation and development of the Weald, initially through transhumance and likely provided an initial impetus for settlement (Weekes 2019, p.14).
- 4.7.171 By the 12th-13th centuries, piecemeal clearance of the woodland was in progress, evident today from the large proportion of cohesive assart field systems that are scattered throughout the landscape, for example at Ashurst, south of Partridge Green, and more extensively in an area between Shermanbury, Cowfold and Twineham. The process of assarting, along with diverse manorial exploitation led to a dispersed settlement pattern of isolated farmsteads and hamlets surrounded by fragmented patches of woodland across much of the Study Area. To these landscape features can be added ecclesiastical, industrial and economic infrastructures (Weekes 2019, p14 and p.31).
- The historic cores of medieval settlements, manors, churches and isolated farmsteads are still identifiable through surviving historic buildings and archaeological remains across Zone 3.
- 4.7.173 Within the Site, available recorded evidence for the medieval period includes:
  - A low-level of medieval activity was recorded during investigations as part of the Rampion Offshore Wind Farm Development by Wessex Archaeology in 2014 (Site A; EWS1639; MWS12642); three trenches were found to contain features and material of medieval date. These comprised a north-south aligned ditch containing two sherds of 12th/13th century medieval pottery and a northwest-southeast aligned gully containing pottery of 14th/15th century date; these features probably represent drainage channels though may also have served as paddock or field boundaries. A third trench also contained a single east-west aligned ditch; a single sherd of Bronze Age pottery (see Section 4.7, Bronze Age, Zone 3: Low Weald) was recovered from this ditch however the feature itself was assumed to be medieval or later;
  - Medieval pottery was recovered during a watching brief at Morley Manor (EWS1866; MWS14632). The western area of this investigation (<15% of the total area) lies within the Site but was not subject to intrusive works; the finds being recovered from trenches sited adjacent to the Site in the east of the area. The presence of two sherds of medieval pottery, both of which were heavily worn, probably relates to a background manuring scatter, suggesting the fields may have been cultivated at this time. A small assemblage of worn 13th 15th century ceramic building material was also recorded. The single sherd of late medieval pottery that was also retrieved during the investigation was not,</p>



however, worn, suggesting that if this piece had derived from manuring, it has not been subjected to repeated reworking thus arable cultivation may have been interspaced by long periods of pasture from the mid-15th century;

- From Ashurst heading north, analysis of LiDAR data has identified numerous features within the Site of possible medieval origin (LDr\_164, LDr\_166, LDr\_169 for example) (see **Table 4-5**). These predominantly relate to the agricultural history of the zone and comprise relict field systems and traces of ridge and furrow. Two circular depressions were also noted within the north of the Site, south of Little Parkminster, and may relate to agriculture or extraction activity from this period;
- The ANA boundary of the historic core of the medieval hamlet of Ashurst (ANA Horsham 048) lies partially within the western edge of the Site. The village of Ashurst today is scattered but in the 16th century there was a settlement to the south of the parish church of St James which is located 400m to the west of the Site. The church itself is grade I listed, with its main nave probably of early 12th century date. (NHLE1027453; MWS1156; ANA Horsham 055);
- At the southern end of Zone 3, a number of earthworks (MWS7031) possibly connected with the medieval settlement at Buncton lie within a field inside the Site; and
- A small section of the medieval farmstead at Brightham's Farm (MWS9503) lies within 40m of the Site south of Partridge Green; the farmhouse, and the cart shed and granary to its east are grade II listed buildings (NHLE 1354245; NHLE 1181633).
- There are a number of religious establishments with medieval origins present 4.7.174 within the Study Area. The nearest to the Site is Buncton chapel (MWS1183; Horsham 065), which lies 60m north of the Site at the southern end of Zone 3. The chapel dates from the Norman period, with later 13th century additions. Roman tiles are also incorporated into the building and possibly derive from a Roman building thought to lay nearby. Approximately 110m south of the church, lies the medieval moated site of Buncton (ANA Horsham 054; MWS5639). The site consists of a sub-circular moat and associated earthworks which are visible on aerial photographs. The moat was once linked to a watercourse to the west by a channel, of which the earthworks survive. To the south, another channel opens out into the remains of a possible pond. The manor farmhouse (NHLE 1182594) is grade II listed and dates from the 15th or 16th century. Both the chapel and the moated site are ANAs. The designated area polygon of the moated site (ANA Horsham 054) extends partially across the southern boundary of the Site, the known physical remains of the manor and moat however are located approximately 110m south of the Site.
- Further afield, the grade II\* listed parish church of St. Giles, Shermanbury (NHLE1194079; MWS879; ANA Horsham 059) lies 770m east of the Site. Whilst reference to a church is made in the Domesday record (Open Domesday 2021), the nave and chancel of the existing church appear to be of 13th century date, but may incorporate earlier, probably 12th century work. The church at Shermanbury sits within an ANA (Horsham 059) that also contains the scheduled remains of a 13th century moated site at Ewhurst Manor (NHLE 1009868; MWS3539; EWS51; EWS52) and a DMV (MWS551). Traces of the moated site's fortifications survive



on a low hill situated in a fork of the river Adur. Documentary evidence from 1361 also notes a medieval park at Shermanbury (MWS3346). The settlement at Shermanbury has been dispersed in its layout since the Middle-Ages, with foci around Shermanbury Grange, Ewhurst Manor and Shermanbury Place visible on 19th century maps.

- A comparatively large number of moated sites are known throughout Sussex, with most thought to have been constructed between the mid-12th and 14th centuries. Though the reasons behind their apparent abundance in the county remain unclear, research suggests that areas where the water table was more easily accessible, such as the Weald and Greensand regions, was an important factor. Beyond pragmatic considerations, it also appears that these sites rapidly attained a certain social status, being associated with aristocratic, ecclesiastical and other manorial dwellings, which led to their adoption by those lower down the social hierarchy (Weekes 2019, p.10). In addition to the moated sites discussed above, there are a number of other moated sites and extant vernacular buildings (i.e., hall houses and manors) located within the Study Area, these include:
  - Walhurst manor (MWS5469) dates from the 13th century and is located 750m to the north of the Site at the northern end of Zone 3. The original house timbers have been retained but the exterior of the building is almost exclusively of late 19th century date;
  - A medieval hall house mentioned in documents from 1374 at Eastlands Farm, near Cowfold (ANA Horsham 142; MWS7217) is located 575m to the west of the Site. The building has been used as a barn since 1585;
  - The grade II listed Coombe House, an open hall house dating to the 15th century (NHLE1025752; MWS13848) is located 440m to the east of the Site at Bolney; and
  - A sub-rectangular homestead moat was identified at West Grinstead (ANA Horsham 167; MWS5636), 250m to the west of the Site. No traces of the original buildings with which it was associated survive; the current building probably dates from the 17th century and is grade II listed (NHLE1026865).
- Isolated farmsteads are by far the most pervasive category of medieval settlement present across the Study Area in Zone 3, with nucleated settlements relatively scarce. Many of the existing farmsteads have medieval origins, though the present farmhouses and outbuildings are of a later date and are listed. Some of the farmsteads are also included within ANAs. Those farmsteads which lie in close proximity to the Site (i.e., within 100m) include:
  - Oakendene Manor Medieval Farmstead, extent of which is reflected in ANA Horsham 139, which lies adjacent to the Site;
  - Blakes Farm (ANA Horsham 104; MWS9444) lies 75m to the east of the Site, the farmhouse dates to the post medieval period and is grade II listed (NHLE 1353943);
  - Bines Farm at West Grinstead (MWS9409) lies 100m to the west of the Site, the farmhouse is grade II listed (NHLE1026867); and



- Butchers Farm (MWS9616) lies 70m south of the Site at Buncton. The farmhouse is grade II listed (NHLE1182603).
- 4.7.178 The medieval Collegewood Farm (ANA Horsham 110; MWS9860) lies 200m to the south of the Site, the farmhouse dates to the post medieval period and is grade II listed (NHLE.1191847).
- Other evidence for medieval activity within the Study Area comprise earthwork remains of holloways close to Washington (MWS11265, 910m north of the Site; MWS4974, 320m north of the Site), relict field systems (EWS497; MWS4490, 320m north of the Site; ANA Horsham 066; MWS11166, 880m north of the Site) as well as finds of pottery (MWS438). Documentary evidence also indicates the possible location of a medieval water mill (MWS6340), 165m north of the Site along Dragons Lane, Cowfold.

## Post medieval (AD 1540 - AD 1900)

- 4.7.180 The medieval settlement pattern largely persists into the post medieval period, except those settlements which were abandoned or contracted following significant events such as the Black death in the mid-1300s AD and social and economic changes of the 15th century AD.
- There are numerous buildings located across the Study Area with post medieval origins, many of which are listed and others which have some heritage value, such as the large number of historic farmsteads.
- The threat of Napoleonic invasion at the end of the 18th century and beginning of the 19th century saw significant military activity across West Sussex, particularly along the coast and South Downs, where defences were installed, and garrisons of militia established (Butler 2008).
- Overall, the later post medieval period is more 'visible' through the survival of historic buildings from this period, many of which are listed (see **Appendix 25.1: Gazetteer of onshore heritage assets, Volume 4** of the ES (Document Reference: 6.4.25.1) and **Figure 25.2.3a-f**).

#### Zone 1: South Coast Plain

- The settlement geographic established in the medieval periods largely persisted, except where some medieval villages had been abandoned (as described in **Section 4.7, Medieval, Zone 1: South Coast Plain**). The medieval religious establishments which were dissolved were redeveloped and either persisted with an ecclesiastical function, as parish churches (as at Lyminster and Ford), or where subsequently adapted as secular farmsteads (as at Pynham and Atherington).
- 4.7.185 At the time the Tithe maps were drawn in the 1840s, the land which the Site occupied within Zone 1 was divided between the parishes of Leominster (now Lyminster), Poling and Angmering.
- The post medieval period saw changes in the land use and organisation, with piecemeal enclosure, creation of brook innings and emparkment. Parklands established during this period include Brookfield Park (MWS2993) shown on the OS in 1872-4 and 1898-9 660m north of the Site.



- The field pattern shown on the Tithe maps was largely still in place by the 1880s when the first edition OS map was produced. The field pattern at this time is largely the result of piecemeal enclosure of former medieval open fields, with an area of Parliamentary Enclosure around Poling.
- Heritage assets within the Site and Study Area dating from this period therefore largely comprise agricultural features and buildings. Agricultural features include enclosure patterns surviving as existing land boundaries, earthworks, cropmarks or buried archaeological remains. There are many farmsteads across the Study Area dating to between the 17th and 19th centuries, though none are located within the Site.
- A number of 19th century farms are recorded within the Study Area. The site of Common Barn Historic Outfarm west of Poling (MWS9870) is situated 30m west of the Site, and the courtyard farmstead northwest of Brook Lawn (MWS10347) is located approximately 800m north of the Site. Broomhurst Farm (MWS9560) is located 910m north of the Site.
- Evidence for post medieval military activity is primarily focused within the southeast of the Study Area and includes the scheduled remains of Littlehampton Fort (NHLE 1005809; MWS3361) approximately 200m east of the Site, together with the lines of two rifle ranges (MWS8297) shown on late 19th century OS mapping c. 150m northeast of the Site. Along the line of this rifle range, a square soilmark has been previously observed, but with no related surface remains (MWS6570). Littlehampton Fort was an artillery fort built to replace a gun battery (built in 1764 and dismantled c. 1834) on the east side of the harbour as a deterrent to French privateers after the new river outlet was cut (Historic England 2021b). Whilst the fort was taken out of action in 1873, it would be later refortified during WWII.
- A railway network was developed within the region from the 1840s, with several branches (West Branch, Littlehampton Branch and Mid Sussex Line) of the London Brighton and South Coast Railway crossing Zone 1 and joining east of the Arun before entering Ford railway station. Prior to the end of the 19th century a new junction was established east of the river and the West Branch was partially rerouted. The Site intersects with the redundant branch in the Arun valley floodplain.
- Other evidence of activity within this period includes the site of a former flour windmill (MWS413) which lies on the beach adjacent to the southern Site (though is likely to lie within the area for offshore part of the Site). The windmill was built in the 18th century and is indicated on the 1875 OS mapping. However, it was blown down in 1929 and reportedly subsequently removed.
- On the Angmering Tithe map of 1838-9, a field within the Site is identified as "Kiln Field", which may suggest presence of nearby brick kilns (MWS3543). A brickworks is shown at Poling Corner (MWS5158) on the 1875-6 OS, approximately 530m northwest of the Site.
- Along the coast there is also evidence of historic beach management, with the installation of groynes pre-1845, with construction appearing to intensify toward the of the 19th century (1845 Climping Tithe and 1896 OS mapping).



Historic map regression - Zone 1: South Coast Plain

4.7.195 **Table 4-8** below provides details on how the Site in Zone 1 has changed since the earliest available mapping for the area, up to the end of the 19th century.

Table 4-8 Zone 1: South Coast Plain – Post medieval historic map regression

Table 4-8	Zone 1: South C	oast Plain – Post medieval historic map regression
Date	Name	Site description
1778-1783	Sussex by Yeakell & Gardner	<ul> <li>Site occupied largely by agricultural fields and marsh within the Arun floodplain, which appear to be divided by a network of drains;</li> <li>The Ryebank Rife, a tributary of the River Arun, is shown distinctly crossing the Site broadly along is current course east-west;</li> <li>Clusters of buildings are shown within the vicinity of the Site at Atherington, Bailiffs Court Farm, along Climping Street, Kent's Farm and Brookpits.;</li> <li>The main north-south roads connecting settlements on the east and west side of the river Arun are established;</li> <li>Nearby settlements at Climping, Ford and Leominster are all shown with a church;</li> <li>A possible trackway providing access to floodplain on the east of the river Arun is shown crossing the Site north-south;</li> <li>Buildings are shown in the location of present-day Calcetto Farm; and</li> <li>South of Crossbush Lane is occupied by regular-shaped fields and small blocks off woodland.</li> </ul>
1837	Leominster Tithe Map and Award	<ul> <li>Site occupied largely by agricultural fields;</li> <li>Site extends into the periphery of the historic core of Lyminster, between the church and Church Farm;</li> <li>Site of house and yard (plot 175);</li> <li>Watercourse / bodies within the Site: <ul> <li>Black Ditch west of Lyminster.</li> </ul> </li> <li>Site crosses block of plantation forming part of Broomhurst Coppice (plot 125);</li> <li>Numerous footpaths cross the Site;</li> <li>Other routes crossing the Site include: <ul> <li>Driftway crossing east-west (plot 248a);</li> <li>Unnamed road crossing north-south (later Lyminster Road); and</li> </ul> </li> <li>Unnamed road between Arundel and Brighton crossing east-west (later The Causeway and Crossbush Lane).</li> </ul>



Date	Name	Site description
1843	Climping Tithe Map and Award	<ul> <li>Site occupied largely by agricultural fields (those nearer the river Arun bounded by drains);</li> <li>Site includes beach with access track adjacent to farmstead at Atherington;</li> <li>A number of groynes (shore protection structure) are visible along the beach, extending into the Site;</li> <li>Watercourses / bodies:</li> </ul>
		<ul><li>Pond feature (MPi_002); and</li><li>Ryebank Rife.</li></ul>
		<ul><li>Numerous footpaths cross the Site; and</li><li>Other routes crossing the Site include:</li></ul>
		<ul> <li>Bread Lane between the beach and Kent's Farm;</li> <li>Unnamed road (later Crookthorn Lane);</li> <li>Ferry Road leading from the River Arun toward Climping; and</li> <li>Ford Lane connecting settlements at Climping and Ford.</li> </ul>
1837	Poling Tithe Map and Award	<ul> <li>Site occupied largely by agricultural land comprising enclosed fields, some of which look to be the result of Parliamentary Enclosure;</li> <li>An area of woodland occupying the northern portion, which is shown as "tithe free land"; and</li> <li>The village of Poling is located in the south of the parish.</li> </ul>
1838-39	Angmering Tithe Map and Award (LACR- 01a/ACR)	<ul> <li>Site is occupied largely by agricultural land comprising enclosed fields;</li> <li>A group of three ponds are located directly south of the Site;</li> <li>Enclosed areas of woodland and rough pasture are located directly adjacent to the Site;</li> <li>The village of Angmering is located in the south of the parish.</li> </ul>
1876 and	Ordnance Survey 1:10,560	Boundary loss within the Site:
1896 1897 and 1898	Ordnance Survey 1:2,500	<ul> <li>south of the river Arun short stretches of drains have been infilled; and</li> <li>southwest of junction of Crookthorn Lane and Bread Lane;</li> <li>Branches of the London Brighton and South Coast</li> </ul>
		Railway cross the Site, though the West branch of London Brighton and South Coast Railway is partially



Date	Name	Site description
		rerouted to the north, with the former railway embankment still present (MWS3300);  • Additional buildings constructed in the vicinity of Broomhurst Cottage;  • Small irregular shaped pit feature within field;  • The easternmost pond of the three located close to the Site has been infilled and is now rough pasture or woodland.  • Additional planting established south of The Causeway reflecting development of designed informal parklands around site of former priory; and  • Additional groynes are shown along the beach, indicating a growing effort in beach management to prevent coastal erosion within the latter part of the 19 <sup>th</sup> century.

#### Zone 2: South Downs

- 4.7.196 Similar to the Zone 1: South Coast Plain, the settlement geography established in the medieval period largely persisted into the post medieval period, except where some medieval villages had been abandoned (as described in **Section 4.7**). The area of the South Downs east of the river Arun was characterised by open sheepwalk until the middle of the 20th century (SDNPA 2020). There are numerous farmsteads across the Study Area which date to the 18th to 19th centuries. The Site traverses the access tracks of numerous historic farmsteads including Hill Barn outfarm (MWS11506), Barns Farm (MWS9337), Lee Farm (MWS11948), Chantry Farm (MWS9665) and Lower Chancton Farm (MWS12195), all with 19th century origins (as listed in **Table 4-3**).
- 4.7.197 Many HER entries relating to the post medieval period in Zone 2 comprise historic farmsteads. These are recorded at Hill Barn Farm (MWS11504) immediately south of the Site, Swillage Barn (MWS13703), 37m west of the Site, within Angmering Park (MWS12893), 100m west of the Site, Myrtle Grove (MWS12433) 270m west of the Site, New Barn, Michelgrove (MWS9112), 228m west of the Site, Tolmare Farm (MWS13785) 360m west of the Site, Muntham Farm (MWS12430) 25m south of the Site, Site of New Barn historic Outfarm (MWS12486), 625m east of the Site, and Cockhill Outfarm (MWS9847), 310m west of the Site.
- Dew ponds, an agricultural feature commonly found on the South Downs, were historically dug for watering livestock. One is recorded within the Site, east of Tolmare Farm (MWS12269). A few post-medieval examples survive in the Study Area, southwest of Muntham Farm (MWS10688), near Cobden Farm (MWS11266 and MWS11267) and Highden Hill (MWS11325, MWS11326 and MWS11327). Other undated dewponds are also known on Wepham Down (MWS3944 and MWS3945) and Highden Hill (MWS5643). Other dewponds are recorded close to Cobden (MWS12287), 225m west of the Site, and south of Muntham Farm (MWS10693) 14m west of the Site.



- The South Downs continued to principally be concerned with the production of wool through sheep farming. A water-powered fulling mill was sited 25m north of the Site on Chantry Lane (MWS7629). The mill was in operation during the 18th century at a time when the woollen industry was largely in decline (Barber 2013).
- The Site of a brickyard within the Site is recorded at Hammerpot Field (MWS5726). This has been observed as a shallow depression and the presence of burnt brick fragments within the recorded area.
- Other industrial activity within Zone 2 relates primarily to small-scale mineral extraction. Historic mapping indicates numerous small quarry pits along the northern downs scarp. Many of these have been identified and transcribed through analysis of LiDAR imagery. These may relate to the production of lime for the improvement of agricultural soils or the production of building materials. Numerous brickwork sites are identified in the Study Area, though these are commonly found on the northern footslopes of the South Downs (see **Section 4.7, Post Medieval, Zone 3: Low Weald** discussion). Lime kilns are known to have been in use by farmers on the chalk downs between the 18th and 20th centuries during periods of agricultural improvements and kiln sites are identified within the Study Area at Chantry Hill (MWS2884, 470m northwest of the Site), and south of Washington (MWS5838, 580m southwest of the Site).
- The Site intersects with areas of historic parkland extant in the post medieval period north of Angmering (MWS3066, HWS23913) and at Michelgrove (MWS3065). The latter is associated with the grade II listed Michelgrove House (NHLE 1353888), which was built in multiple phases throughout the late medieval and post medieval periods, before being largely demolished in the 19th century.
- Other high-status residences occupied in the post medieval period within the Study Area of Zone 2 are Muntham Court (MWS24) of which little now remains 80m east of the Site and the grade II\* listed Findon Place (NHLE 1027620) which sits in close proximity to the grade I listed Parish Church of St John the Baptist (NHLE 1027619). Both are located around 780m southeast of the Site.
- The later post medieval wind and watermills within the Study Area are sited off the downs, either on the river Arun floodplain or northern scarp footslopes.

Historic map regression – Zone 2: South Downs

4.7.205 **Table 4-9** below provides details on how the Site in Zone 2 has changed since the earliest available mapping for the area, up to the end of the 19th century.

Table 4-9 Zone 2: South Downs – Post medieval historic map regression

Date	Name	Site description
1778- 1783	Sussex by Yeakell & Gardner	<ul> <li>Site occupied primarily by agricultural fields, except on higher ground where there is some unenclosed open downland;</li> <li>Agricultural land within Site near Warningcamp and Wepham organised into a mix of large and small fields;</li> </ul>



Date	Name	Site description
Dute	raine	<ul> <li>Woodland and parkland (Angmering Park) shown north of Angmering and northwest of Patching;</li> <li>An earlier fieldscape pattern comprising small rectilinear fields survives within the Site north of the steep downland scarp; and</li> <li>Higher ground of the downland is crossed by a network of tracks and footpaths which connecting the upland with routes to lowlands north and south.</li> </ul>
1837- 47	Tithe Maps and Awards for Leominster, Warningcamp and Wiston, Burpham, Sullington, and Ashington Cum Buncton	<ul> <li>Site occupied primarily by agricultural fields with pasture dominating the higher ground of the downland;</li> <li>Parcel of land north of Crossbush Lane is identified as Barrack Ground (Leominster apportionments plot 63);</li> <li>No buildings / structures identified within the Site;</li> <li>Site crossed by numerous unnamed roads now known as Clay Lane and Blakehurst Lane between Crossbush and Warningcamp, and London Road and The Pike in Washington;</li> <li>Ditched field boundary east of Clay Lane forming the boundary between parish of Leominster and Warningcamp;</li> <li>Site passes immediately adjacent to Lower Chancton Farm Historic Farmstead (MWS12195); and Hill Barn Historic Outfarm (MWS11506); and</li> <li>Site accesses pass through Barns Farm (MWS9337), and Combe Log Farm (MWS9867).</li> </ul>
1837- 1847	Tithe maps and awards for Clapham, Findon, and Patching	<ul> <li>Site largely comprised of enclosed agricultural fields with boundaries characteristic of piecemeal enclosure;</li> <li>Muntham Court shown in an area depicted as 'Down Muntham';</li> <li>Area immediately west of Muntham shown as largely unenclosed land; and</li> <li>Small, enclosed fields immediately between Clapham Wood and the western boundary of Clapham parish.</li> </ul>
1876 and 1896	Ordnance Survey 1:10,560 and 1:2,500	<ul> <li>Field boundary loss within the Site:         <ul> <li>Minor loss between Crossbush Lane and Warningcamp Hill;</li> <li>Major loss between footslopes of Sullington Hill to Washington; and</li> <li>Boundary loss west of Michelgrove Farmhouse in the Parish of Patching.</li> <li>Enclosures removed west of Clapham Wood.</li> </ul> </li> <li>Structure identified as a well and named High Titton constructed within rectangular parcel of land adjacent</li> </ul>



Date	Name	Site description
		<ul> <li>to a northeast-southwest track adjacent to the Site near Chantry Cross (MPi_005);</li> <li>Parkland surrounding Rowdell House (MWS34), including a pond feature (MPi_006) within the Site;</li> <li>Brickworks yard extending slightly into the Site with evidence of extraction, north of Washington;</li> <li>Site crosses allotment gardens and recreation ground, also north of the Washington; and</li> <li>Evidence of extraction activity within vicinity of Site near Barns Farm and Lee Farm;</li> </ul>

### Zone 3: Low Weald

- As is typical for the south-east, the pattern of settlement established during the medieval period within Zone 3 was little changed in the early post medieval period; the landscape across the Study Area continuing to be scattered with isolated farmsteads, market villages and hamlets (Barber 2019).
- Areas of the Low Weald did, however, also see some industrial development during the post medieval period. This process began in the 16th century with the exploitation of the local iron ores and sands in the ironworking and glassmaking industries. These industries were manifested in the landscape as small-scale concerns, often set apart from the farmsteads and worked by non-local specialists. The most notable impacts on the landscape resulted from comprising extensive tree clearance and coppicing to provide fuel, and the damming of small valleys through the construction of earthen dams (pond bays) to create hammerponds, which fed water-powered machinery. Many of the pond bays still survive (SDNPA 2020).
- A number of the parish churches also present within Zone 3 which were established during the medieval period (see **Section 4.7, Medieval, Zone 3: Low Weald**) were revived following the dissolution, whilst others such as St. Michael and All Angels (MWS10040) Partridge Green, 690m west of the Site, were newly founded in the late 19th century to provide for the expanding population in the area.
- The expansion of settlement at Partridge Green was largely driven by the arrival of the Shoreham to Horsham Railway (MWS5508). The railway and its station (MWS11333) at Partridge Green were opened in 1861, the line of which crosses the Site on a northwest-southeast alignment. The railway was vital to Southwater Brickworks industry and for people travelling to London and the coast. The railway and station were closed in the 1960s and today the disused line is maintained as a footpath. The original bridges along the route have also been retained.
- 4.7.210 Several brickworks were also established within Zone 3 and were predominantly focused on the area around Partridge Green in the vicinity of the railway and its station to the west of the Site (MWS4808; MWS4809; MWS4810; MWS4831), with



- other isolated examples known at Rock Common (MWS4812) Spithandle Lane, Ashurst (MWS4814).
- As well as the brickworks discussed above, other evidence of small-scale, localised industry within the Study Area during this period includes several types of post medieval mills, including windmills (MWS413; MWS552), watermills (MWS443; MWS552) and a steam mill (MWS411). The closest to the Site is the 18th century flour windmill at Ashurst (MWS413) which was located 40m west of the Site and was blown down in the early 20th century; the parts which survived were removed from the site in the 1950s.
- There is also documentary and place-name evidence for lime kilns in the Study Area (MWS6337; MWS7820; MWS7821), with a small probable quarry or clay pit also having been mapped from aerial photographs at Wiston (MWS11164).
- Under an act of Parliament obtained in 1807 (Hadfield 1955), improvements were made to the river Adur to aid both navigation and drainage, allowing barges to reach Bines Bridge, 280m west of the Site on the Western Adur, with an extension to Baybridge further northwest, begun in 1825. Although called a canal, the River Adur and Baybridge canal (MWS5531) was essentially a river navigation, as it followed the course of the river to West Grinstead, to terminate at a wharf near the Worthing to Horsham turnpike road, now the A24. The canal bisects the Site south of Bines Bridge. Bines lock is located 570m southeast of the Site, at the junction of the two branches of the Adur (MWS5531). The main trade carried along the Adur's route was manure, coal and chalk. The canal was closed in 1875 due to competition from the railways, having been little used after the opening of the railway from Shoreham to Horsham line in 1861 (Vine 1985).
- Agriculture continued to form a fundamental part of the economy of the region throughout the post medieval period. Related heritage assets within the Site and Study Area dating from this period are largely comprised of agricultural features and buildings. Agricultural features include field boundaries, earthworks, crop marks or buried archaeological remains. Within the Site a number of relict field systems and areas of ridge and furrow have been identified from analysis of LiDAR data to be of medieval to post medieval date (Section 4.7, Table 4-5). These are focused on areas of the Site from Ashurst, heading north to Partridge Green, and Bolney and often appear to be located in close proximity to identified historic farmsteads.
- It is likely that the field patterns which exist today are partly the result of numerous phases of piecemeal enclosure of former medieval arable and common land during the post medieval period (Roberts and Wrathmell 2000: 43). This is shown in the HLC across much of this zone. Only a small portion of enclosure in this zone is result of Parliamentary Act in the early 19th century, such as the fields directly adjacent to the Site between Ashurst and Bines Green.
- Archaeological interventions which have recorded post medieval agricultural remains include a watching brief carried out at Morley Manor, Shermanbury (EWS1866; MWS14632) recorded two field boundaries of post medieval date, along with pottery sherds. The western area of this investigation (<15% of the total area) lies within the Site but was not subject to intrusive works; the finds and features discussed above being recovered from trenches sited adjacent to the Site in the east. Morley itself is referred to in documentary evidence c. 1650 (Baggs et



- al. 1987) and is later recorded as a farmhouse and tenements in the 1837 Shermanbury tithe. The surviving house is grade II listed (NHLE 1027330). Around 35m to west of the Site (EWS1936; MWS14968) a magnetometer survey carried out on land at Spithandle Lane, Ashurst, recorded anomalies corresponding to post medieval features identified on historical mapping. These features consisted of a former trackway and an area of magnetic debris which corresponded with the location of the former 19th century Upper Barn (MWS13846).
- 4.7.217 Numerous isolated farmsteads are scattered across the Study Area. Many of those identified are of medieval origin and appear to have persisted into the post medieval period. Of the buildings which survive today within these medieval farmstead complexes, most are of post medieval date, presumably replacing earlier constructions.
- 4.7.218 Of particular note is the farmstead complex of Twineham Court (MWS 12965) which contains the Grade II listed Twineham Court Farmhouse and numerous potential archaeological features identified on LiDAR imagery and historic mapping (listed below in **Table 4-10**). Although Twineham Court is situated adjacent to an existing substation, parts of the former informal parkland landscape character (HCH6267) survive intact within the Site.
- With the significant improvements in agriculture in the 19th century, new farms were also established away from villages where space allowed for a planned complex designed to accommodate the new methods and machinery (Barnwell and Giles, 1997). There are numerous farmsteads across the Study Area dating between 17th to 19th century which are representative of these changes. The Site in Zone 3 intersects with a number of these historic farmsteads (listed in **Table 4-4**). Whilst no extant farm buildings fall within the Site, historic mapping indicates that elements of former structures lie within the Site. These are detailed in **Table 4-10**.
- Other landscape changes during this period include the designed landscapes relating to country house parks and gardens (Courtney 2001; Pittman 2012). The parkscape at Oakendene Manor (MWS96, HWS2285), which is shown on late 19th century OS mapping, is situated along part of the Site. The parkscape at Little Parkminster (MWS90; ANA Horsham 146), also evident in historic mapping, lies 400m northwest of the Site. The park at Little Parkminster is incorporated within an ANA together with the 19th century Parkminster Farm (MWS13258). This complex also includes the grade II listed 17th century Little Parkminster historic farmstead (NHLE1286321; MWS12020), and the 19th century grade II\* Carthusian monastery of St Hugh's (NHLE 1027084; MWS90) along with its grade II listed lodge (NHLE 1193051). This complex of features lies 400m northwest of the Site. A number of other parks are also recorded on late 19th century mapping within the north of the Study Area (MWS1009; MWS97; MWS3325).

Historic map regression – Zone 3: Low Weald

4.7.221 **Table 4-10** below provides details on how the Site in Zone 3 has changed since the earliest available mapping for the area, up to the end of the 19<sup>th</sup> century.



Table 4-10 Zone 3: Low Weald – Post medieval historic map regression

Map date	Title/Name	Site description
1778- 1783	Sussex by Yeakell & Gardner	<ul> <li>Site occupied largely by agricultural fields; and</li> <li>Some enclosed fields shown waste or common around Buncton Chapel.</li> </ul>
1839-50	Tithe Maps and Awards for Wiston, Cowfold, Twineham, Henfield, Ashurst, Ashington cum Buncton, West Grinstead and Shermanbury	<ul> <li>Site occupied by agricultural fields;</li> <li>A track extends north to Guessgate Farm;</li> <li>A road traverses north-south from what is now Washington Road to Upper Buncton Farm;</li> <li>Lands around Shermanbury Grange are in primary agricultural use prior to emparkment;</li> <li>A small pond and watercourse are shown east of Withy Leg Farm;</li> <li>Rectangular buildings (MPi_009) are present within agricultural fields (MPi_008) on land later emparked at Shermanbury Grange;</li> <li>Two ponds located at the junction of four field boundaries approximately 200m north of Cornerhouse (MPi_010);</li> <li>A small enclosure and possible building south of Parkminster Wood (MPi22), adjacent to Site;</li> <li>Former enclosed fields between Ashurst and Eaton's Farm (MWS10159); and</li> <li>A former irregular shaped field boundary, probably the result of a phase of piecemeal enclosure, shown to the east of Farmgate House.</li> </ul>
1875	Ordnance Survey 1:2,500	<ul> <li>Site largely occupied by agricultural fields with small areas of plantation;</li> <li>Additional building at Withy Leg Farm;</li> <li>Boundary loss across the Site: <ul> <li>West of Eaton's Farm;</li> <li>East of Bine's Farm;</li> <li>East of Brightham's Farm;</li> <li>East of Farmgate House;</li> <li>Within parkland attached to Shermanbury Grange; and</li> <li>West of Wyndham.</li> </ul> </li> <li>Shoreham and Horsham Line (MWS5508) crosses the Site east of Brightham's Farm, and east and northeast of Homeland's Farm.</li> </ul>
1896	Ordnance Survey 1:10,560	<ul> <li>Site largely occupied by agricultural fields;</li> <li>A small structure and possible yard are shown southwest of Old Homelands, within Site (MPi_007);</li> <li>A small structure is shown within emparked Twineham Court (MPi_015);</li> </ul>



Map date	Title/Name	Site description
мар дате		<ul> <li>A possible pond is shown within emparked Twineham Court (MPi_014);</li> <li>Boundary Loss occurs: <ul> <li>within Twineham Court;</li> <li>west of Eaton's Farm; and</li> <li>north of Shermanbury Grange.</li> </ul> </li> <li>Building loss occurs at: <ul> <li>Meathogs Farm; and</li> <li>Crateman's Farm.</li> </ul> </li> <li>Additional buildings within Site: <ul> <li>Dragon's Farm (MPi_016); and</li> <li>Oakendean (MPi_017).</li> </ul> </li> </ul>

## Modern (1901 AD - present)

#### Zone 1: South Coast Plain

- Within the Site, changes to land division continued to occur within the 20th century, primarily with the loss of field boundaries and the creation of larger fields. There are also changes associated with rearrangement of farmsteads resulting in the loss or construction of agricultural buildings (as at Calcetto Farm, see **Figure 25.2.6a-f**) 360m southeast of the Site, and the occasional excavation and infilling of pits / ponds, possibly for extraction or animals.
- The threat of German invasion in the 1940s led to the construction of substantial defences at Climping Beach, which was considered an ideal landing place for enemy forces invading by sea (Butler 2008, p.32). Surviving elements of these defences fall within the Site including supposed remains of a loopholed wall (MWS5230); and two anti-tank artillery sites, one within a field behind the beach (MWS7123) and the second on the beach (MWS7130), no trace of which were observed during the Site visit. Other defensive remains in the vicinity of the Site include concrete anti-tank blocks 37m north of the Site (MWS5228) originally placed along the line at the top of the beach, though most are not likely to be in their original position; and an anti-tank wall (MWS8294) originally built along the rear of the beach; The beach itself was also reportedly used for D-Day landing rehearsals (Butler 2008, p.32).
- In April 1938, Royal Air Force (RAF) Poling (TQ 043051) was established as a Chain Home Radar Station (**Plate 4**). At Poling, the HER record for the Radar Station (MWS7102) is 185m south of the Site. The Radar Station was protected by a line of pillboxes. The HER record relating associated former infrastructure comprising two masts and other small buildings belonging to the Station (MWS7103) is located within 120m of south of the Site. RAF Poling was heavily bombed during WWII, where there is a medium potential for unexploded bombs (UXB) (Annex C of **Appendix 24.1: Phase 1 geo-environmental desk study, Volume 4** of the ES (Document Reference: 6.4.24.1), Figure 16). Following the war, RAF Poling was maintained as part of the Rotor Radar Programme but by the



1970s the station was closed, the masts were removed, and the land was given over to agricultural use. No corresponding LiDAR features have been identified within the Site. A surviving Type 22 pillbox (MWS8163) and is located approximately 350m south of the Site.

- Further inland within the Study Area, loopholes have been identified within the brick and flint wall of a retirement home at Broomhurst Farm (MWS8122) which lies 740m north of the Site; and the site of the former WWI and WWII Ford Airfield (MWS14655) lies approximately 490m to the west (according to the HER record, though the WWII extent of the airfield shown in the UXO Desk Study (Plate 5, Appendix B of Appendix 24.1: Phase 1 geo-environmental desk study, Volume 4 of the ES (Document Reference: 6.4.24.1)) lies within c. 70m of the Site), together with an anti-tank artillery site which faced the railway bridge and Arundel Junction (MWS7129).
- Parts of Ford airfield were subsequently redeveloped with Her Majesty's Prison Ford (MWS2412; opened in 1960), an industrial estate, sewage works or returned to agriculture. Despite surrounding modern industrial development, the layout of the former airfield can still be observed on modern OS mapping.
- Multiple WWII aircraft crash sites are recorded within the Site in Zone 1, though there is no evidence that any wreckage from these crashes remains on the Site (Section 3.4 Annex C of Appendix 24.1: Phase 1 geo-environmental desk study, Volume 4 of the ES (Document Reference: 6.4.24.1)).
- 4.7.228 During the 20th and 21st centuries there has been significant urban and industrial expansion primarily on the east side of the river Arun along the coast, which extends northward just beyond the railway line. The Site lies within the agricultural land between pockets of modern and early development. The primarily sources of change within the Site are major developments in the road network, which saw the construction of the A289 between Littlehampton and Middleton-on-Sea in the 1960s, which crosses the Site north of Ferry Road.

Historic map regression – Zone 1: South Coast Plain

4.7.229 **Table 4-11** below provides details on how the Site in Zone 1 has changed between beginning of the 20th century to the present day.

Table 4-11 Zone 1: South Coast Plain – Modern historic map regression

Date	Title/Name	Site description			
1910	Ordnance Survey 1:10,560	<ul> <li>Site largely occupied by enclosed fields with little change from the pattern depicted on the OS map of 1896.</li> </ul>			
1932 and 1938	Ordnance Survey	<ul> <li>Square-shaped pit, possibly a result of quarrying within the Site (MPi_004);</li> </ul>			
	1:10,560	<ul> <li>Additional planting within the Site:</li> </ul>			
		<ul><li>strip of woodland behind the beach; and</li></ul>			



Date	Title/Name	Site description
		<ul> <li>south of Ferry Road;</li> <li>Boundary loss within the Site:</li> <li>Sections of drains northwest of Lyminster.</li> </ul>
1957	Ordnance Survey 1:10,560	<ul> <li>Loss of early 20th century planting behind the beach;</li> <li>Construction of sewage works adjacent to Site, south the river Arun, together with access track north of St Mary's Church; and</li> <li>An additional building or extension is present at Calcetto Farm within Site.</li> </ul>
1980	Ordnance Survey 1:10,000	<ul> <li>Loss of building at Calcetto Farm replaced by trackway;</li> <li>Infilling of square-shaped pit (MPi_004) within the Site; and</li> <li>Field boundary lost between the beach and River Arun.</li> </ul>
Present day	Google Earth 2021	No significant changes within the Site.

## Zone 2: South Downs

- 4.7.230 The 20th century saw developments in the major road network and some expansion to existing settlements along these routes. There has also been significant large-scale extraction within the Study Area across the northern scarp footslopes at Sandgate and Rock Common.
- During WWII large areas of the South Downs became a restricted area and was utilised for training purposes (Annex B, Plate 5 and Annex C of Appendix 24.1: Phase 1 geo-environmental desk study, Volume 4 of the ES (Document Reference: 6.4.24.1)). Significant military activity was seen in the South Downs Training Area (SDTA), which was used for live-fire training exercises by the Allied forces until the end of WWII (see Annex B, Plate 6). A WWII Category 'A' Nodal point is recorded west of Findon Place, 30m south of the Site at its nearest recorded point (MWS10683). This area was known as a Nodal Point, with features such as extensive anti-tank works focused on and around Church Hill. Washington also became a Category A Nodal Point<sup>6</sup> and Chanctonbury Ring was turned into a defended locality<sup>7</sup> (MWS7567) (Butler 2008, p.80), together with a defended

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<sup>&</sup>lt;sup>6</sup> Butler. (2008). Nodal Points, towns and villages on roads and river routes considered strategic locations and requiring defences, p.16.

<sup>&</sup>lt;sup>7</sup> Defended localities, designed to act as a focal point for a defending force, are known across the downs.



locality recorded 830m of the Site on Sullington Hill (MWS7566). Barnsfarm Hill and Highden Hill were taken over as military training areas (MWS11179), around 130m south of the Site. To access these training areas on the South Downs a series of concrete roads were also constructed, which are now used as farm tracks (Butler 2008).

- 4.7.232 Military camps were established on the footslopes of the South Downs, one such example was located at Barns Farm, immediately adjacent to the Site, which housed British and Canadian soldiers (MWS7547) and was subsequently used as a refugee camp after the war. It was decommissioned in the 1950s and much of the camp has been demolished and redeveloped, though some of the original buildings may survive including the perimeter fence (Butler 2008, p.81). The Site incorporates the access to the modern depot which now occupies much of the former military camp.
- Firing ranges were also set up in the dry valleys of the South Downs, like the one situated southwest of Barns Farm military camp which measured approximately 525m in length and partly located immediately adjacent to the Site (MWS11270). No remains of the firing range were observed during the Site visit. Surrounding the former camp on Barnsfarm Hill were a series of pillboxes, three of which are identified within the Study Area. They are all of an experimental design; one is partly collapsed (MWS11328), another only survives as reinforced concrete at ground level (MWS11329) and a third survives with a collapsed roof, 560m, 340m and 830m southeast of the Site respectively. Further east on Highden Hill is an assault training pillbox (MWS10671).
- Other training camps are known at Sandgate Park, which is now demolished and subsequently development as a quarry (MWS10698, 410m northwest of the Site); and at Findon (MWS11448, MWS7683, immediately adjacent to the Site).
- Following the end of WWII, the SDTA was subject to Explosive Ordnance Clearance (EOC) operations, which was completed in the 1950s (Appendix B of Appendix 24.1: Phase 1 geo-environmental desk study, Volume 4 of the ES (Document Reference: 6.4.24.1). Results of the geophysical survey show numerous isolated and clusters of strong ferrous anomalies on the South Downs (RED, 2022). The origin of these anomalies is unclear, but they could be associated with former military activity or ordnance clearance activities within the former SDTA, or maybe even represent existing UXO in the ground.
- Multiple WWII aircraft crash sites are recorded within the Site in Zone 2, though there is no evidence that any wreckage from these crashes remains on the Site (Section 3.4 Annex C of Appendix 24.1: Phase 1 geo-environmental desk study, Volume 4 of the ES (Document Reference: 6.4.24.1)).
- Historic aerial photographs show a linear service pipe under construction (Api\_02) 730m west of the Site, approximately 300m southeast of the scheduled Settlement Site at Chantry Bottom (NHLE 1005823).

Historic map regression – Zone 2: South Downs

4.7.238 **Table 4-12** below provides details on how the Site within Zone 2 has changed between beginning of the 20th century to the present day.



Table 4-12 Zone 2: Modern historic map regression

Map date	Title/Name	Site description
1910, 1913 and 1914	Ordnance Survey 1:10,560 and 1:2,500	<ul> <li>Site largely unchanged;</li> <li>Primarily occupied by agricultural fields; and</li> <li>Minor boundary loss on Wepham Down.</li> </ul>
1938 and 1946	Ordnance Survey 1:10,560	<ul> <li>Site largely unchanged; and</li> <li>By 1946 the greenhouses at Crossbush House were demolished</li> <li>Industrial/farm buildings north of Barns Farm.</li> </ul>
1961, 1972 and 1973	Ordnance Survey 1:10,560 and 1:2,500	<ul> <li>Structure at High Titton (MPi_005) no longer extant;</li> <li>Greater enclosure of land on the South Downs has occurred, which is characterised by large open fields;</li> <li>Area of planting established within Site south of Chantry Post;</li> <li>Communication changes near Washington, including construction of the A24; and</li> <li>Industrial units north of Barns Farm removed and replaced with a mix of hard standing for vehicles and grassed areas.</li> </ul>
Present day	Google Earth 2021	<ul> <li>No significant changes within the Site; and</li> <li>Large-scale extraction activity within pre-existing quarry at Rock Common extended southwards, abutting the Site. Though no activity of extraction within Site itself.</li> </ul>

#### Zone 3: Low Weald

- The largely undeveloped rural nature of the Site continues to be maintained throughout the 20<sup>th</sup> century, however certain changes to land management are apparent, primarily boundary loss or change, and the contraction of parkland and plantations in favour of agricultural land. Several modern drainage systems are also inserted within fields during this period.
- The most significant development within the Site is the construction of Bolney Electricity Transforming Station first shown on Ordnance Survey mapping from 1970 within the former parkland of Twineham Court; the Shoreham to Horsham railway (MWS5508), which closed in 1965 is shown to have been dismantled by this point.
- Historic mapping indicates no discernible changes have occurred within the Site since the 1980s, though modern satellite imagery evidences construction works within the vicinity of the National Grid substation at Bolney between 2015 and 2022 (see **Plates 7 to 10, Annex B**).
- The majority of heritage assets of 20th century date present within the Study Area relate to the history of the two World Wars. Several WWII gun emplacements were



sited to cover the railway and roads at points crossing the river Arun and Adur across central areas of Zone 3 (MWS5290; MWS5292; MWS5552; MWS5554; MWS5553) and three First World War (WWI) memorial monuments have been erected (MWS12289; MWS9136; MWS10041). None of these assets are located within the Site.

Elsewhere within the Study Area, several anomalies identified during a magnetometer survey on land at Spithandle Lane, Ashurst (EWS1936; MWS14968), 40m north of the Site are likely to relate to the installation of modern services and modern agricultural activity. A brick and tileworks at Rock common (MWS4812), 450m south of the Site, which operated during the 1950s and 1960s is recorded in the HER, and a linear earthwork observed at Partridge Green (EWS1671; MWS13112), 750m west of the Site is likely the result of the insertion of modern services. Further evidence of pipeline construction has been identified on an historic aerial photograph roughly 330m northeast of the Site between Southlands Farm and Greenacres Farm (APi\_05).

Historic map regression - Zone 3: Low Weald

4.7.244 **Table 4-13** below provides details on how the Site within Zone 3 has changed between beginning of the 20th century to the present day.

Table 4-13 Zone 3: Modern period historic map regression

Map date	Title/Name	Site description
1911 and 1914	Ordnance Survey 1:2,500	<ul> <li>Site is largely occupied by agricultural fields;</li> <li>Contraction of plantation is shown east of Yokenclose Barn;</li> <li>Boundary loss at: <ul> <li>east of Old Homelands; and</li> <li>within emparked Shermanbury Grange.</li> </ul> </li> <li>Establishment of new copse planting adjacent to Site, New Barn Copse, north of Washington.</li> </ul>
1947	Ordnance Survey 1:10,560	<ul> <li>Site largely occupied by agricultural fields;</li> <li>Boundary contraction occurs north of Eastridge; and</li> <li>Possible pond feature (MPi_014) shown within Twineham Court no longer depicted and remaining boundaries within the park have been straightened in what may be representative of contraction of parkland in favour of agricultural use.</li> </ul>
1974, 1976 and 1978	Ordnance Survey 1:1,250	<ul> <li>Site largely occupied by agricultural fields;</li> <li>Bolney Electricity Transforming Station is shown within the former parkland of Twineham Court;</li> <li>Further tree lined boundary loss occurs within emparked Shermanbury Grange;</li> <li>Shoreham to Horsham railway is shown to have been dismantled within the Study Area; and</li> </ul>



Map date	Title/Name	Site description
		A watercourse east of Furzefield Shaw is shown to have been converted to a drain.
1980 and 1981	Ordnance Survey 1:10,000	<ul> <li>Site largely occupied by agricultural fields;</li> <li>Drains inserted: <ul> <li>south of Wellen's Farm; and</li> <li>south of Yokenclose Barn</li> </ul> </li> </ul>
1992 and 1993	Ordnance Survey 1:10,000	<ul> <li>Site largely occupied by agricultural fields;</li> <li>No further discernible changes from 1980s OS within the Site.</li> </ul>
Present day	Google Earth 2015 to 2022	<ul> <li>Works within the Site relating to the National Grid substation at Bolney and Rampion 1, are evident between 2015 and 2022. This includes access tracks, surfaced compounds, and substation extension within the Site (see Plates 7 to 10, Annex B).</li> <li>No significant changes elsewhere from the 1990s OS within the Site.</li> </ul>

# **Undated**

As is shown above, records of undated remains commonly relate to surviving earthworks or cropmarks observed by remote sensing data, including aerial photography and LiDAR (see **Table 4-5**, without being subject to intrusive investigation. Where possible these features have been discussed within the chronological baseline discussions above having made broad interpretive assumptions based on their form and possible associations with known archaeological features / sites. Other undated remains include features identified through intrusive investigation but which no dating evidence was recovered. Where these features are identified with other datable phases of archaeological remains, these are also discussed within the above chronological baseline sections.

#### Zone 1: South Coast Plain

- At the multiperiod site off Courtwick Lane (MWS9428, **Plate 2 and 3**) within the Site, a series of features were recorded that could not be dated to any datable phase of occupation. Elsewhere reported find of ditches in section of a trench but no datable finds during construction of Littlehampton By-pass (MWS3898), 550m east of the Site.
- 4.7.247 An ovoid cropmark identified on aerial photograph within the Site (MWS3544) could represent former settlement or land use of late prehistoric or Romano-British date. Further cropmarks (MWS3545) representing linear features of unknown date are also observed on aerial photograph within the same field (HER record lies adjacent to the Site).



4.7.248 Recent geophysical survey (RED, 2022) undertaken as part of the Project has led to the identification of numerous sub surface features of probable archaeological origin within the Site in Zone 1, but which remain undated at this stage.

#### Zone 2: South Downs

- Within the Study Area there are also a series of field ways or terrace ways observed on aerial photographs (MWS3309, MWS3311, MWS5720). These are former tracks or routes which may have prehistoric origins and be associated with remanent field systems.
- 4.7.250 A linear earthwork identified through LiDAR imagery analysis (LDr\_121) within the Site west of Muntham Farm has been tentatively interpreted as a lynchet of unknown date.
- 4.7.251 Recent geophysical survey (RED, 2022) undertaken as part of the Project has led to the identification of numerous sub surface anomalies of probable archaeological origin within the Site in Zone 2 but remain undated at this stage.

#### Zone 3: Low Weald

- 4.7.252 A magnetometer survey was carried out on land at Spithandle Lane, near Ashurst (EWS1936; MWS14968), 40m north of the Site and revealed limited evidence for possible archaeological features that may represent pits and ditches. However, these features may also relate to infilled natural features or more modern agricultural activity.
- 4.7.253 A cluster of undated features are known at Rock common; these include ditches, banks and field or woodland boundaries (MWS4970; MWS4976; MWS4980; MWS4977; MWS4978; MWS4972; MWS4971; MWS4982; MWS5647; MWS4979; MWS4975), the closest (MWS4975) lies 300m north of the Site.
- The HER also records 'the site of Wyndham Chapel' (MWS8080) as being marked on the 1st edition Ordnance Survey 25" inch map 800m east of the Site, near Wineham. The chapel is omitted from later editions.
- Parch marks possibly relating to the foundations of a former building were identified on an aerial photograph (RAF/58/2939 197) between Partridge Green and Shermanbury Grange (APi\_04). This feature is located immediately adjacent to the Site and a circular depression identified on LiDAR imagery (LDr\_179).
- 4.7.256 Recent geophysical survey (RED, 2022) undertaken as part of the Project has led to the identification of numerous sub surface anomalies of probable archaeological origin within the Site in Zone 3 but remain undated at this stage.



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# 5. Archaeological potential and heritage significance

- Identification of archaeological evidence across the Site and Study Area has primarily been through development-led archaeological investigations. This will have influenced the nature and distribution of known sites and finds, rather than this necessarily reflecting the prehistoric and historic patterns of settlement and activity.
- Historic patterns of land-use heavily influence the survival of archaeological remains. Extensive ploughing of the south coast plain means that extant earthworks are unlikely to survive, as is evident in a review of the LiDAR data. Artifact scatters and crop / soil marks are possible, though none have been identified in a review of readily available modern satellite imagery. A general absence of settlement on the South Downs within the later periods, means that archaeological remains are more likely to survive as extant features, but even this may vary across the downs as arable farming since the 1950s has had a significant impact on archaeological survival within the ploughzone.
- As already described in **Section 4.5**, ANAs are located within the Site which indicate the potential for archaeological remains, as defined by West Sussex County Council. Below, **Table 5-1** to **Table 5-3** provide a summary of the known and archaeological potential within the Site (as discussed in **Section 4**) and likely heritage significance.
- The following sections present a summary of the known and potential heritage resource within the different zones of the Site, based on the existing baseline. The methodology for establishing archaeological potential is given in **Section 3**. The archaeological potential is determined on the basis of known features and / or finds recorded within the Site or Study Area. The archaeological potential of the Site presented below is by chronological period and asset type. The spatial extent of the archaeological potentials discussed range from discrete locations or areas to much wider geological and geomorphological contexts. Where a very high archaeological potential has been identified, this indicates that archaeological features for a particular chronological period / feature class are known to exist through previous investigation and residual buried remains are considered very likely to be present, though their condition and extent maybe uncertain. The presence of a HER record within the Site does not necessarily indicate a very high archaeological potential.

### Zone 1: South Coast Plain

- Overall, there is potential for archaeological remains to occur relating to all periods within the Site in Zone 1 ranging from very low to high heritage significance (see **Table 5-1**), which are anticipated to form elements of the following assets groups or themes:
  - early prehistoric artefactual material;



- buried prehistoric landscapes;
- later prehistoric settlement and agriculture practices;
- later prehistoric funerary activity;
- late Iron Age to Romano-British settlement and land-use;
- medieval settlement and agriculture;
- post medieval settlement agriculture; and
- military coastal defences.
- Within Zone 1, the potential for remains of **high** heritage significance is indicated by the scheduled Medieval earthworks east and southeast of St Mary's Church (NHLE 1005828; MWS3371), which the Site intersects. The ANA relating to these scheduled remains of the DMV (ANA Arun 040) is also intersected by the Site and is categorised as red inferring the potential for "nationally important and other significant archaeological sites" (Salter 2016, p.2).
- There is also potential for deeply buried palaeoenvironment deposits within the Arun floodplain and at tributary crossings, which may be of **medium to high** heritage significance. These deposits have evidential value for the past environments and landscapes in which prehistoric communities lived.
- A single record of negative evidence where investigations recorded no finds or features of archaeological interest is located 74m east of the Site. This investigation took place at Brook Barn Farm (EWS500; MWS4229; centred on TQ 0160,0410) and comprised the excavation of four trenches from which no features or finds were recovered. Results of recent trial trenching undertaken further west at Brook Barn Farm which recorded archaeological remains of Iron Age and Romano-British date are incorporated into **Section 4.7** and **Table 5-1**.
- 5.1.9 Within Zone 1 various activities which are predicted to have negatively impacted buried deposits of potential archaeological interest include:
  - Landfill and modern landscaping activities at Brook Barn Farm as indicated by the geophysical survey results (RED, 2022) and evidenced in two of the trenches in the trial trenching (Appendix 25.6: Archaeological trial trenching at Brook Barn Farm, Volume 4 of the ES (Document Reference: 6.4.25.6));
  - Construction of the former section of the West Branch, Littlehampton Branch and Mid Sussex Line constructed and reroute in the 19th century (MWS3300) which is likely to have had a very localised impact to buried deposits;
  - Installation of modern utilities, the location of which are indicated by geophysical survey results (RED, 2022); and
  - Historic and modern agricultural activity, where activities such as ploughing are likely to have had a widespread impact on shallow deposits within arable land.



Table 5-1 Zone 1: South Coast Plain - Summary of archaeological potential and significance

Period	Landscape context	Asset type/name	Potential to occur within the Site 8	Evidence	Heritage significance <sup>9</sup>	Comments on heritage interests <sup>10</sup>
Prehistoric	Arun floodplain and coastal plain	Palaeoenviron mental deposits	Low to very high	Valleys and rivers may represent attractive environments for hunter-gatherer groups.  Potential dependant on geological context. River Terrace deposits have low potential, Raised Beach deposits have medium potential, and Alluvium (mapped by the BGS as Raised Marine Deposits) has high potential.	Medium (River Terrace and Raised Beach deposits) and High (Alluvium)	Palaeoenvironmental remains have evidential value for the past environments and landscapes in which prehistoric communities lived.  Deep alluvium deposits present within the floodplain have potential for environmental reconstruction of the Holocene, as do marine deposits. The raised beach deposits represent changes in the prehistoric coastline.  See Section 3 and Section 6, Appendix 25.3:

Assessed in line with methodology detailed in Section 3.6.
 Assessed in line with methodology detailed in Section 3.7.

<sup>&</sup>lt;sup>10</sup> Heritage interests considered with reference to the overarching research agenda for the South-East of England (SERF), available as individual chapters compiled by different authors (2013 with additions in 2019), (Kent County Council, 2019).



Period	Landscape context	Asset type/name	Potential to occur within the Site 8	Evidence	Heritage significance <sup>9</sup>	Comments on heritage interests <sup>10</sup>
				See Section 3 and 6, Appendix 25.3: Onshore desk- based geoarchaeological and palaeoenvironmenta I assessment report, Volume 4 of the ES (Document Reference: 6.4.25.3) for discussion on palaeoenvironmental potential.		Onshore desk-based geoarchaeological and palaeoenvironmental assessment report, Volume 4 of the ES (Document Reference: 6.4.25.3) for discussion on palaeoenvironmental deposits.
Prehistoric	Intertidal	Buried / submerged prehistoric landscapes.	Low to medium	No recorded evidence within the Site but potential in offshore contexts along the southeast coast, as identified in Chapter 16: Marine archaeology, Volume 2 of the ES (Document Reference: 6.2.16) and Appendix 16.1: Marine archaeology	Low to medium	Examples of in situ sites are rare and would be of regional importance evidencing prehistoric human occupation and environmental change. Where exposed by weathering the survival condition may be poor.  Weathered / rolled material would be of more limited significance.



Period	Landscape context	Asset type/name	Potential to occur within the Site 8	Evidence	Heritage significance <sup>9</sup>	Comments on heritage interests <sup>10</sup>
				technical report, Volume 4 of the ES (Document Reference: 6.4.16.1). Changing coastline means areas now submerged would have been dry land, though as risen sea levels by the Neolithic and Bronze Age reduce the potential for submerged landscapes relating to these periods.		
Palaeolithic	Coastal plain and Arun floodplain	Flint artefacts	Low/uncertain to medium	Material evidence recorded within the Site includes an Acheulean flint handaxe recovered from Climping beach (MWS3638), which was found worn with modern damage and a flint flake	Low to high	Degree of archaeological interest dependant on context of recovery.  Isolated finds likely to be reworked and redeposited within all secondary contexts are of reduced value compared to artefacts which might be recovered from primary contexts (Medium for Alluvium and



Period	Landscape context	Asset type/name	Potential to occur within the Site 8	Evidence	Heritage significance <sup>9</sup>	Comments on heritage interests <sup>10</sup>
				(MWS6778) in a field east of Church Lane.		River Terrace deposits and High for Raised Beach
				A spread of prehistoric flints recovered from an area of 100m or more (MWS1045), 40m east of the Site.		deposits).  See Section 3 and Section 6, Appendix 25.3: Onshore desk-based geoarchaeological and palaeoenvironmental
				Archaeological potential dependent on context of recovery. Alluvium and Raised Beach deposits have lower potential compared with River Terrace deposits.		assessment report, Volume 4 of the ES (Document Reference: 6.4.25.3) for discussion on geoarchaeological.
				See Section 3 and Section 6, Appendix 25.3: Onshore desk- based geoarchaeological and palaeoenvironmenta I assessment report, Volume 4 of the ES		



Period	Landscape context	Asset type/name	Potential to occur within the Site 8	Evidence	Heritage significance <sup>9</sup>	Comments on heritage interests <sup>10</sup>
				(Document Reference: 6.4.25.3) for discussion on geoarchaeological potential.		
Mesolithic	Arun floodplain and coastal plain	Flint artefacts and scatters	Low	Mesolithic flint scatter (MWS3463) found within 120m of the Site and other finds of Mesolithic flints within the Study Area.  A spread of prehistoric flints recovered from an area of 100m or more (MWS1045), 40m east of the Site.	Low to high	In situ occupation and flint working sites are rare and would be of at least regional importance. Such sites would contribute to knowledge of settlement distribution and resource exploitation, and how Mesolithic people may have responded to climatic and landscape changes (Pope et al., 2018).  Isolated finds and residual material reincorporated into later deposits / features have limited value.
Neolithic	Coastal plain	Flint artefacts, pottery sherds	Medium to high	Trial trenching at Brook Barn Farm (Appendix 25.6:	Low to medium	Isolated finds and residual material would make a very limited contribution to



Period	Landscape context	Asset type/name	Potential to occur within the Site 8	Evidence	Heritage significance <sup>9</sup>	Comments on heritage interests <sup>10</sup>
		and artefact scatters		Archaeological trial trenching at Brook Barn Farm, Volume 4 of the ES (Document Reference: 6.4.25.6)) recovered multiple worked flints of probable Neolithic or Early Bronze Age date.  A Neolithic flint scatter (MWS3118; EWS1125) recorded 20m east of the Site.  Other findspots of flint and pottery sherds tentatively dated to Neolithic (MWS3396; MWS3895) within the Study Area.  A spread of prehistoric flints recovered from an area of 100m or more		existing knowledge and understanding of Neolithic activity across the coastal plain.  Flint assemblages may provide evidence for utilisation, working and processing of implements. Their presence and distribution may contribute to an understanding of patterns of Neolithic activity and settlement across the wider landscape.



Period	Landscape context	Asset type/name	Potential to occur within the Site 8	Evidence	Heritage significance <sup>9</sup>	Comments on heritage interests <sup>10</sup>
				(MWS1045), 40m east of the Site. In situ Neolithic site are not anticipated.		
Bronze age	Coastal plain	Bronze Age settlement deposits and features.  Finds of different object types (isolated/residu al).	Low to High	Multiperiod site recorded off Courtwick Lane (MWS9428 and MWS3120) (ANA Arun 049) including evidence for Bronze Age settlement activity partly within the Site (operational access only). The majority of the features and finds were recorded in the south-eastern part of the evaluation area. The majority of the features and finds were recorded in the south-eastern part of the evaluation area (Plate 2 and 3).	Low to Medium	Sites of this period on the Sussex coastal plain rarely produce convincing evidence of structures. Archaeological survival of occupation sites, the significance of which would derive from archaeological interest, may contribute to an understanding of distribution of human settlement activity, the variability of settlement forms across the coastal plain and wider region and understanding of agricultural practices.  Isolated finds and residual material would make a very limited contribution to existing knowledge and



Period	Landscape context	Asset type/name	Potential to occur within the Site 8	Evidence	Heritage significance <sup>9</sup>	Comments on heritage interests <sup>10</sup>
				Trial trenching at Brook Barn Farm (Appendix 25.6: Archaeological trial trenching at Brook Barn Farm, Volume 4 of the ES (Document Reference: 6.4.25.6)) recovered multiple residual worked flints of probable Neolithic or Early Bronze Age date.		understanding of Bronze Age activity across the coastal plain.
				Elsewhere within the Site on land adjacent to the Courtwick Park site, very few geophysical anomalies were detected, none of which are ascribed a possible archaeological origin (RED, 2022).		



Period	Landscape context	Asset type/name	Potential to occur within the Site 8	Evidence	Heritage significance <sup>9</sup>	Comments on heritage interests <sup>10</sup>
				Archaeological excavations at the Vinery (MWS14193) adjacent to the Site recorded numerous features relating to Late Bronze Age settlement and landuse (specialised crop farming and potential small-scale pottery production).  Undated cropmarks within (MWS3544) and close to (MWS3545) the Site in the vicinity of the		
				Vinery excavations could be associated with recorded Bronze Age remains.		
				High potential for isolated finds.		



Period	Landscape context	Asset type/name	Potential to occur within the Site 8	Evidence	Heritage significance <sup>9</sup>	Comments on heritage interests <sup>10</sup>
Bronze Age	Coastal Plain	Field systems and residual finds	Low	Bronze Age pottery sherds found within ditch fills during excavation of land off Toddington Lane (MWS14363), 300m south of the Site.	Low to Medium	Archaeological survival of remnant field systems may contribute to an understanding of their construction, use and abandonment. Isolated finds and residual material reincorporated into later deposits/features generally have limited value. Though consideration should be made for the purposeful deposition of bronze objects, an activity in the later Bronze Age.
Iron Age	Coastal plain	Settlement deposits and features (e.g., pits, ditches and post holes) and associated field boundaries.	Very High	Geophysical survey (RED 2022c) and trial trenching within the Site at Brook Barn Farm (Appendix 25.6: Archaeological trial trenching at Brook Barn Farm, Volume 4 of the ES (Document Reference: 6.4.25.6))	Low to Medium	In situ occupation remains within the Site are likely to be of relatively low density and scale, as represented by known sites within the Study Area.  Archaeological survival of remnant field systems may contribute to the phase of major land organisation



Period	Landscape context	Asset type/name	Potential to occur within the Site 8	Evidence	Heritage significance <sup>9</sup>	Comments on heritage interests <sup>10</sup>
				recorded ditches and pits which relate to Iron Age field systems and droveways.		evidence in the archaeological record across the wider south coast plain.
				Evidence of Iron Age field systems found prior to the construction of Arundel Industrial Estates, Littlehampton (MWS7435), 500m southeast of the Site.		Isolated finds and residual material reincorporated into later deposits / features generally have limited value.
Late Iron Age to Roman	Coastal plain	Settlement deposits and features. Field systems. Isolated finds.	High to Very high	Geophysical survey (RED 2022c) and trial trenching within the Site at Brook Barn Farm (Appendix 25.6: Archaeological trial trenching at Brook Barn Farm, Volume 4 of the ES (Document Reference: 6.4.25.6)) recorded late Iron	Low to Medium	Archaeological survival of similar sites within Site may contribute to our understanding the rural economy and spatial organisation of settlement and land.  Archaeological survival of environmental and faunal remains may contribute to an understanding of local



		Age and Deman	
		Age and Roman settlement enclosure.	vegetation and resource exploitation.
		Multiperiod site off Courtwick Lane (MWS9428 and MWS5737) (ANA Arun 049) which contains evidence for Late Iron Age/Roman activity partly within the Site (operational access only). The majority of the features and finds were recorded in the south-eastern part of the evaluation area (Plate 2 and 3).  Scheduled Romano-	Presence of imported wares and other items would contribute to understanding of trade networks.
		British Villa and traces of Iron Age occupation (NHLE 1015886) approximately 800m south of the Site.	



Period	Landscape context	Asset type/name	Potential to occur within the Site 8	Evidence	Heritage significance <sup>9</sup>	Comments on heritage interests <sup>10</sup>
				High potential for isolated/residual finds.		
Roman	Upper coastal plain	Roman road from Chichester to Brighton	Low to Medium	Route broadly projected along that of the A27. <sup>11</sup> No extant features observed. Potential archaeological survival within undeveloped areas of the Site. If present, remains likely to have been truncated by road construction / improvements and agricultural activity (ploughing).	Low	Survival of archaeological deposits relating to the Roman road and any potential related activity may contribute to an understanding of construction techniques, maintenance and dating of these features, plus final use.  Isolated finds of Roman material of limited archaeological interest.
Early medieval	All	Settlement features Finds of different object types	Low to medium	Pits containing early medieval pottery and a sunken featured building and possible timber post building recorded at Courtwick	Low to Medium	Archaeological remains of this nature are typically ephemeral, and isolated finds are rare. Where present, remains relating to early medieval settlement

<sup>&</sup>lt;sup>11</sup> Margary 153



Period	Landscape context	Asset type/name	Potential to occur within the Site 8	Evidence	Heritage significance <sup>9</sup>	Comments on heritage interests <sup>10</sup>
		(isolated/residu al).		Lane (Plate 2 and 3) (MWS9428, ANA Arun 049). Extend of HER record and ANA intersected by an operational access in the Site.  Trial trenching at Brook Barn Farm recorded no early medieval features or finds (Appendix 25.6: Archaeological trial trenching at Brook Barn Farm, Volume 4 of the ES (Document Reference: 6.4.25.6)).  Geophysical survey within the Site on land adjacent to the Courtwick Lane, recorded only a few anomalies, none of which were ascribed a possible		contribute an understanding of settlement distribution and type.  Isolated finds of early medieval material of limited archaeological interest.



Period	Landscape context	Asset type/name	Potential to occur within the Site 8	Evidence	Heritage significance <sup>9</sup>	Comments on heritage interests <sup>10</sup>
				archaeological origin (Appendix 25.4: Onshore geophysical survey report, Volume 4 of the ES (Document Reference: 6.4.25.4)).		
Medieval	Intertidal zone	Cudlow DMV (MWS3384) and Atherington DMV (MWS3385)	High	HER record for Cudlow DMV (MWS3384) lies below MHWS but potential for remains to extend into the Site.  Traces of the submerged village including house foundations and walls said to be visible at very low spring tides.  HER record for Atherington DMV (MWS3385) is located below MHWS potential for remains	Medium	If present, archaeological remains of DMVs in the intertidal zone are anticipated to be in a poor state of preservation. DMVs would be of archaeological and historic interest, potentially contributing to an understanding of the local and regional medieval settlement patterns and farming economy.



Period	Landscape context	Asset type/name	Potential to occur within the Site 8	Evidence	Heritage significance <sup>9</sup>	Comments on heritage interests <sup>10</sup>
				to extend into the Site.		
				Remains are said to be visible at very low tides, including graves which are now buried by sand and shingle. Anticipated poor state of preservation.		
	Coastal plain	Medieval earthworks east and southeast of St Mary's Church (NHLE 1005828; MWS3371)	Very High	The scheduled areas contain upstanding earthworks and bury archaeological remains relating to former settlement close to the church. The Site intersects the southernmost area of the scheduled monument.	High	Scheduled monument of high significance for archaeological and historic interest contributing to an understanding of the local and regional medieval settlement patterns and farming economy.
	Coastal plain - inland	Agriculture and land division features	Medium to very high	Medieval settlement and land-use in Zone 1 evidenced through the presence of	Low to medium	Archaeological remains of agricultural activity may contribute to understanding of the agricultural regimes



Period	Landscape context	Asset type/name	Potential to occur within the Site 8	Evidence	Heritage significance <sup>9</sup>	Comments on heritage interests <sup>10</sup>
				DMVs (NHLE 1005828, MWS3371, ANA Arun 040; MWS3100, ANA Arun 042; MWS3384 and MWS3385), therefore archaeological potential of associated agricultural activity within wider landscape.  Remains of medieval agricultural practices in the form of probable ridge and furrow ploughing were uncovered during archaeological excavations at the Vinery (MWS 14153).		and land use employed during the occupation of these DMVs.
				Further potential remains of ridge and furrow ploughing identified within the Site through recent		



Period	Landscape context	Asset type/name	Potential to occur within the Site 8	Evidence	Heritage significance <sup>9</sup>	Comments on heritage interests <sup>10</sup>
				geophysical survey immediately south of the river Arun and south of Ferry Road (RED 2022c).		
Post Medieval	Coastal plain	Historic Outfarm	Medium to high	Site of a Common Barn Climping (MWS9869) adjacent to the coast visible on 19 <sup>th</sup> century OS mapping. All buildings demolished but buried deposits may survive within the Site.	Low	Remains would be of archaeological and historic interest, with the potential to provide information of post medieval agricultural buildings and to contribute to an understanding of the chronology of farmsteads in this period.
		Agricultural and land division features	Medium to high	Site largely agricultural land during this period so likely that remnant field boundary ditches survive where there has been subsequently boundary loss. Further potential remains identified	Very low	Remains would be of limited archaeological and historic interest but may contribute to the chronology and development of methods of ploughing during the post medieval period and changes in land organisation.



Period	Landscape context	Asset type/name	Potential to occur within the Site 8	Evidence	Heritage significance <sup>9</sup>	Comments on heritage interests <sup>10</sup>
				within the Site through recent geophysical survey immediately south of the river Arun and south of Ferry Road (RED 2022c).  Possible remains associated within historic farmsteads immediately adjacent to the Site such as Brook Barn Farm (MWS9521) and the site of Common Barn Historic Outfarm (MWS9870).		
	Upper coastal plain	Possible brick kiln	Medium	On the Angmering Tithe map of 1838-9, a field within the Site, is identified as "Kiln Field", which may suggest presence of nearby brick kilns (MWS3543).	Low	Remains of archaeological and historical interest could contribute to knowledge of industrial development during the post medieval period.



Period	Landscape context	Asset type/name	Potential to occur within the Site 8	Evidence	Heritage significance <sup>9</sup>	Comments on heritage interests <sup>10</sup>
	Arun floodplain	Former railway embankment	High	Former section of the West Branch, Littlehampton Branch and Mid Sussex Line constructed and reroute in the 19th century (MWS3300).	Very low	Very limited historic interest has a minor contribution to the development of transport network in this area.
Modern/W WII	Coastal plain - inland	Former site of WW2 Anti- Aircraft Artillery (MWS7123).	Low	No extant remains observed during Site walkover.	Very Low	Little to no archaeological interest. Historic interest relating to military defence of the coast in WWII.
	Coastline/ beach	WWII coastal defence features	Low	Anti-tank wall (MWS8294), Loopholed Wall (MWS5230) and Anti- Tank Block, Cubes (MWS7544)	Medium	Where features survive these are extant within the landscape with little to no archaeological interest. Features have some group value as they provide their collective physical evidence for the coastal defence of this part of the West Sussex coast during WWII.
Undated	Coastal plain	Cropmarks south of A27	Medium to high	Ovoid cropmark identified on aerial	Low to medium	If the cropmarks relate to a late prehistoric or Romano-



Period	Landscape context	Asset type/name	Potential to occur within the Site 8	Evidence	Heritage significance <sup>9</sup>	Comments on heritage interests <sup>10</sup>
		Arundel Road (MWS3544 and MWS3545)		photograph within the Site (MWS3544). Could represent former settlement or land use of late prehistoric or Romano-British date. Further cropmarks (MWS3545) representing linear features of unknown date are also observed on aerial photograph within the same field (HER record lies adjacent to the Site).  Potential for association with Bronze Age settlement activity or medieval field system recorded within the vicinity (MWS14193).		British settlement and associated land-use it would be a regionally important heritage asset which holds medium significance for its archaeological interest.  Where the cropmarks relate to medieval or post medieval land-use this would be of local importance as a heritage asset holding low significance for its archaeological interest.



#### Zone 2: South Downs

- Overall, there is potential for archaeological remains to occur relating to all periods within the Site in Zone 2 ranging from very low to high heritage significance (see **Table 5-2**), which are anticipated to form elements of the following assets groups or themes:
  - early prehistoric artefactual material;
  - prehistoric settlement and agriculture practices;
  - prehistoric flint mining activity;
  - prehistoric monumental funerary activity;
  - medieval settlement and agriculture;
  - post medieval settlement agriculture; and
  - military activity.
- Of the known archaeological heritage assets within the Site in Zone 2, some are of **medium** or **high** heritage significance.
- Within the Site, there is one record of negative evidence where investigations observed no finds or features of archaeological interest. This investigation comprised a geophysical survey on land at Rock Common (EWS1404, see Figure 25.2.7a-f) which was carried out in advance of a development for a landfill site. The area of investigation, centred on TQ 1240 1318, lay entirely within the Site at the northern end of Zone 2. A number of anomalies were identified and were considered likely to have been caused by natural changes in the composition of the soils / drift geology. No anomalies were thought to be the result of underlying archaeological features. Overall, on the basis of the geophysical survey, the potential of the land at Rock Common was considered to be low.
- 5.1.13 Within Zone 2 various activities which are predicted to have negatively impacted buried deposits of potential archaeological interest include:
  - WWII military activity and subsequent EOC operations across the former SDTA
     (Appendix B of Appendix 24.1: Phase 1 geo-environmental desk study,
     Volume 4 of the ES (Document Reference: 6.4.24.1)) within the Site between
     Angmering Park and Sullington Hill. Such activity is likely to have a sporadic
     but widespread impact to shallower deposits with archaeological interest
     relating to pre-modern periods;
  - Installation of modern utilities, the location of which are indicated by geophysical survey results (RED, 2022); and
  - Historic and modern agricultural activity, where activities such as ploughing are likely to have had a widespread impact on shallow deposits within arable land.



Table 5-2 Zone 2: South Downs – Summary of archaeological potential and significance

Period	Landscape context for survival	Asset type/name	Potential to occur within the Site <sup>12</sup>	Evidence	Heritage significance <sup>13</sup>	Comments on heritage interests <sup>14</sup>
Prehistoric	Downland dry valleys	Palaeoenvironmental deposits	Medium	Medium potential within Head deposits as evidenced elsewhere in Southern England.  See Section 4 and Section 6, Appendix 25.3: Onshore deskbased geoarchaeological and palaeoenvironmenta I assessment report, Volume 4 of the ES (Document Reference: 6.4.25.3) for discussion on	Medium	Possible to reconstruct palaeoenvironmental conditions and prehistoric land use during the Holocene.  See Section 4 and Section 6, Appendix 25.3: Onshore deskbased geoarchaeological and palaeoenvironmental assessment report, Volume 4 of the ES (Document Reference: 6.4.25.3) for discussion on palaeoenvironmental deposits.

Assessed in line with methodology detailed in **Section 3.6**.Assessed in line with methodology detailed in **Section 3.7**.

<sup>&</sup>lt;sup>14</sup> Heritage interests considered with reference to the overarching research agenda for the South-East of England (SERF), available as individual chapters compiled by different authors (2013 with additions in 2019), (Kent County Council, 2019).



Period	Landscape context for survival	Asset type/name	Potential to occur within the Site <sup>12</sup>	Evidence	Heritage significance <sup>13</sup>	Comments on heritage interests <sup>14</sup>
				palaeoenvironmental potential.		
Palaeolithic	Chalk upland	Flint artefacts.	Low	No recorded evidence within Site, though Palaeolithic visitors on chalk upland theoretically possible, relating to activity recorded in the wider Sussex coastal plain.  See Section 4 and Section 6, Appendix 25.3: Onshore deskbased geoarchaeological and palaeoenvironmenta I assessment report, Volume 4 of the ES (Document Reference: 6.4.25.3) for discussion on geoarchaeological potential.	Low to medium	Degree of archaeological interest dependant on context of recovery.  Isolated finds likely to be reworked and redeposited within secondary contexts are of reduced value compared to artefacts which might be recovered from primary contexts.  See Section 4 and Section 6, Appendix 25.3: Onshore deskbased geoarchaeological and palaeoenvironmental assessment report, Volume 4 of the ES (Document Reference: 6.4.25.3) for discussion on geoarchaeological potential.



Period	Landscape context for survival	Asset type/name	Potential to occur within the Site <sup>12</sup>	Evidence	Heritage significance <sup>13</sup>	Comments on heritage interests <sup>14</sup>
Mesolithic	Upper coastal plain and chalk upland, scarp footslopes,	Flint artefacts and scatters.	Low	No recorded evidence within Zone 2, but evidence in Zone 3 (e.g., MWS3178) reflects increased potential within the north of Zone 2, which lies adjacent to the Lower Green Sandstone, compared with elsewhere.  Mesolithic assemblages are known elsewhere on the South Downs and wider chalk uplands of southeast England correlating with correlate with the Head deposits and Clay-with-Flints (Pope et al. 2019).	Low to medium	Significance of any Mesolithic remains would depend on the nature and extent of survival. Residual finds, being most likely, have limited value and would be of low significance, derived from archaeological interest.  In situ occupation and flir working sites are rare and would be of at least regional importance. Such sites would contribute to knowledge of settlement distribution and resource exploitation and how Mesolithic people may have responded to climatic and landscape changes (Poplet al., 2018).



Period	Landscape context for survival	Asset type/name	Potential to occur within the Site <sup>12</sup>	Evidence	Heritage significance <sup>13</sup>	Comments on heritage interests <sup>14</sup>
Neolithic	Chalk upland	Flint mines and mortuary remains	Medium to High	Known scheduled flint mining sites within the Study Area (e.g., NHLE 1015880 adjacent to Site, NHLE 1015237 35m south, NHLE 1015238 600m south and NHLE 1015239 625m west). There is potential for as yet unknown archaeological remains of this nature to be present within the Site. Sites of flint mining largely confined to buried deposits comprising infilled shafts containing flint and pottery fragments, flint-knapping floors, hearths, traces of timber buildings, and human burials.	High	Sites of this type are rare regionally and nationally, with some of the earliest examples known on the Upper Chalk of the South Downs. All well-preserved examples are considered to be of national importance with potential to contain evidence relating to technology and work organisation in the period and represent the source of the most commonly used and widespread material available for making edged tools and implements.



Period	Landscape context for survival	Asset type/name	Potential to occur within the Site <sup>12</sup>	Evidence	Heritage significance <sup>13</sup>	Comments on heritage interests <sup>14</sup>
	Chalk upland	Flint artefacts	Low to high	Chance finds of worked flint have been recovered along the length of the Study Area in Zone 2 including stone axes or axe fragments at Blakehurst Farm (MWS2710 590m south of the Site), and west of Hallow Hill (MWS4613 700m east of the Site). Flint mining activity evidence in the Study Area indicates potential for isolated finds of flint artefacts.	Low to medium	Isolated finds may make a limited contribution to existing knowledge and understanding of Neolithic activity across the South Downs.
	Chalk upland	Settlement features and deposits	Low to medium	No recorded evidence specific to settlement activity within the Site. Neolithic artefacts found within a pit within the scheduled Itford Hill style	High	Sites of this type are rare regionally and nationally. Examples are often scheduled and would be of high heritage significance derived from archaeological interest. If present, settlement sites



Period	Landscape context for survival	Asset type/name	Potential to occur within the Site <sup>12</sup>	Evidence	Heritage significance <sup>13</sup>	Comments on heritage interests <sup>14</sup>
				settlement at New Barn Down (NHLE 1017446). There is potential for remains settlement activity associated with recorded flint mining sites within the Study Area.		may contribute to understanding of nature and organization of Neolithic occupation sites, economic regimes and social structures.
Bronze Age	Chalk upland	Settlement features and deposits.  Field systems.  Cross dykes.	Medium to High	Early Bronze Age occupation debris found on Cock Hill (MWS3009). Potential for similar finds to be present within the Site.  Scheduled monument at New Barn Down (NHLE 1017446) located adjacent to the Site. Evidence for Bronze Age occupation comprises an enclosure surrounding at least	Medium to High	Settlement sites of this type are rare nationally. Examples are often scheduled and would be of high heritage significance derived from archaeological interest, evidencing human use of this area of the downland.  Prehistoric cross dykes surviving as extant earthworks within Study Area are scheduled. These features are of high heritage significance derived from



Period	Landscape context for survival	Asset type/name	Potential to occur within the Site <sup>12</sup>	Evidence	Heritage significance <sup>13</sup>	Comments on heritage interests <sup>14</sup>
				six roundhouse plots and internal enclosure boundaries and tracks, along with remains of field systems. Linear earthworks identified on LiDAR imagery within the Site in close proximity to the scheduled area may be related (LDr_092, LDr_094-095). As yet unrecorded remains associated with the monument may extend into the Site.  A total of four cross dykes are recorded within the Study Area, the closest to the Site being part of the scheduled monument also containing flint mining activity close to Tolmere Farm		archaeological interest, providing evidence which contributes to understanding of prehistoric land management.  Group value of contemporary prehistoric monument types within the chalk upland landscape, where their association may provide evidence for the relationship between settlement, exchange and burial practices during the prehistoric period.



Period	Landscape context for survival	Asset type/name	Potential to occur within the Site <sup>12</sup>	Evidence	Heritage significance <sup>13</sup>	Comments on heritage interests <sup>14</sup>
				(NHLE 1015237), approximately 30m south of the Site.		
				Relict field boundaries surviving as upstanding and buried remains are undated but could relate to Bronze Age activity. Examples within the Site on the slopes of Harrow Hill (LDr_113, LDr_114, LDr_118, LDr_121) and Chantry Bottom (MWS2863, LDr_129, LDr_131, LDr_135, LDr_137, LDr_138, LDr_139, LDr_145-147).		
				Archaeological survival of expansive field systems unlikely.		



Period	Landscape context for survival	Asset type/name	Potential to occur within the Site <sup>12</sup>	Evidence	Heritage significance <sup>13</sup>	Comments on heritage interests <sup>14</sup>
Bronze age	Chalk upland	Bronze Age barrow/barrow cemetery	High	A known barrow site (MWS6581) and a second possible barrow (MWS6592), as recorded on the HER. MWS6581 is ploughed out and previously excavated, though potential remnants of this asset to still be present. Should MWS6592 be evident as a barrow, any surviving archaeological remains are anticipated to be heavily truncated by existing trackway and previous agricultural activity.  Scheduled bowl barrows survive as extant earthworks and buried	Low to medium	The heritage significance of these asset types is derived from archaeological interest and is dependent on condition of survival, where examples surviving as extant earthworks are often scheduled, whilst others may only survive as buried archaeological remains with potential to provide evidence for the individuals buried within but also evidence for the ideology, variation in burial practices and social organisation of the communities and social networks.  Barrow sites are common across the South Downs. Known examples within Site are truncated by previous archaeological investigation and



Period	Landscape context for survival	Asset type/name	Potential to occur within the Site <sup>12</sup>	Evidence	Heritage significance <sup>13</sup>	Comments on heritage interests <sup>14</sup>
				archaeological remains at Chantry Post (NHLE 1015713) adjacent to		agricultural activity. Potential for reuse in the early medieval period.
				Site.		Group value of contemporary prehistoric
				Other known barrows within the Study Area, some very close to		monument types within the chalk upland landscape, where their
				the Site ( <b>Section 4.7</b> ).		association may provide evidence for the relationship between
				LiDAR features within the Site may represent further barrows (LDr_130,		settlement, exchange and burial practices during the prehistoric period.
				LDr_132-133, LDr_136, LDr_144). Two of which		MWS6581 is assessed as being of low heritage significance for
				(LDr_132-133) may be related to known		archaeological interest, where there is potential
				barrows near to Site boundary (MWS6690 and MWS6691). No traces of these		for survival of remains not previously truncated by excavation and ploughing. MWS6592
				features observed		would also be assessed of being low heritage



Period	Landscape context for survival	Asset type/name	Potential to occur within the Site <sup>12</sup>	Evidence	Heritage significance <sup>13</sup>	Comments on heritage interests <sup>14</sup>
				above ground during the Site walkover.  Group of 12 barrows on Blackpatch Hill (MWS3388), 90m east of the Site largely ploughed out.  As yet unrecorded remains of similar archaeological features may extend into the Site.		significance due to anticipated condition of remains, should these be present.  Where potential barrows are indicated by LiDAR,
Iron Age	Chalk upland	Finds of different object types	Low	No known occupation sites within the Site but finds of Iron Age objects recovered from the Study Area indicating a general potential for incidental discovery of similar objects within the Site.	Low	Heritage significance derived from archaeological interest. Finds, such as pottery sherds, possible in secondary contexts which would be limited value. If present, finds may provide evidence for Iron Age activity within the vicinity.



Period	Landscape context for survival	Asset type/name	Potential to occur within the Site <sup>12</sup>	Evidence	Heritage significance <sup>13</sup>	Comments on heritage interests <sup>14</sup>
	Chalk upland	Agricultural and land division features	Low to medium	Relict field boundaries surviving as extant earthworks and potentially buried remains are undated but could relate to Iron Age activity. Examples within the Site on the slopes of Harrow Hill (LDr_113, LDr_114, LDr_118, LDr_121) and Chantry Bottom (LDr_129, LDr_131, LDr_135, LDr_137, LDr_138, LDr_139, LDr_145-147).  Field systems of potentially Iron Age or Roman date recorded within the Study Area (see <b>Section 4.7</b> ).	Low to Medium	Heritage significance derived from archaeological interest, with the potential to contribute to the development of land-use and territory during the Iron Age.
	Chalk upland	Settlement features and deposits	Medium to high	Scheduled Iron Age defended settlement on Muntham Hill	Medium to High	Heritage significance derived from archaeological interest,



Period	Landscape context for survival	Asset type/name	Potential to occur within the Site <sup>12</sup>	Evidence	Heritage significance <sup>13</sup>	Comments on heritage interests <sup>14</sup>
				(NHLE 1005850) immediately adjacent to the Site.  Remains comprise buried features and deposits including ditches, pits and post holes, along with associated small find assemblages.		which would contribute to knowledge of development of settlement and religious practices within this landscape and wider region.
Iron Age to Romano- British	Chalk upland	Features and deposits relating to settlement and religion	Medium to high	Scheduled site of Iron Age defended settlement and Romano-British Shrine, on Muntham Hill (NHLE 1005850) immediately adjacent to the Site.  Remains comprise buried features and deposits including ditches, pits and post holes, along with associated small find	Low to High	Heritage significance derived from archaeological interest, which would contribute to knowledge of development of settlement and religious practices within this landscape and wider region.  Isolated finds of Roman material are of limited archaeological interest, though spread of



Period	Landscape context for survival	Asset type/name	Potential to occur within the Site <sup>12</sup>	Evidence	Heritage significance <sup>13</sup>	Comments on heritage interests <sup>14</sup>
				assemblages. The shrine survives as low earthworks. Further associated remains may extend into the Site. Within the Study Area, other evidence of Roman activity recorded in the form of occupation debris (e.g., MWS2850).		occupation debris may inform the potential for Roman activity and settlement within the vicinity.
Roman	Upper coastal plain	Roman road and roadside activity.	Medium to High	Route broadly projected along that of the A27. No extant features observed. Potential archaeological survival within undeveloped areas of the Site. If present, remains likely to have been truncated by road construction / improvements and	Medium	Survival of archaeological deposits relating to the Roman road and any potential related activity may contribute to an understanding of construction techniques, maintenance and dating of these features, plus final use.  Isolated finds of Roman material of limited archaeological interest, such as the pottery



Period	Landscape context for survival	Asset type/name	Potential to occur within the Site <sup>12</sup>	Evidence	Heritage significance <sup>13</sup>	Comments on heritage interests <sup>14</sup>
				agricultural activity (ploughing).  Potential for activity associated with route of the Hardham to Barcombe Mills Roman road, the Greensand Way (ANA Horsham 078; Mid Sussex 044) which lies within Zone 3. Occupational debris recorded on a minor hill south of the road indicative of Roman building 380m east of the Site within Zone 2 (MWS1291).		sherds recovered from Blakehurst Farm (MWS1041).
	Chalk upland	Agricultural and land division features	Low to High	Relict field systems on and Chantry Bottom and Sullington Hill. Undated but could relate to Roman activity: (LDr_113,	Low to Medium	Heritage significance derived from archaeological interest, where potential remains may contribute to the development of regional



Period	Landscape context for survival	Asset type/name	Potential to occur within the Site <sup>12</sup>	Evidence	Heritage significance <sup>13</sup>	Comments on heritage interests <sup>14</sup>
				LDr_114, LDr_118, LDr_121) and Chantry Bottom (LDr_129, LDr_131, LDr_135, LDr_137, LDr_138, LDr_139, LDr_145-147).		land-use and territory during the Roman period.
				Finds and ephemeral occupation features within proximity to known or potential farmstead sites.		
				Field systems of potentially Iron Age or Roman date recorded within the Study Area (see <b>Section 4.7</b> ).		
Early medieval	Chalk upland	Barrow / barrow field	High	Know scheduled barrow field at New Barn Down immediately north of the Site (NHLE 1017446; MWS3000; MWS3363).	Medium to high	Heritage significance derives from archaeological interest. Surviving barrows burials are evidence of burial practices and social identity of this period and



Period	Landscape context for survival	Asset type/name	Potential to occur within the Site <sup>12</sup>	Evidence	Heritage significance <sup>13</sup>	Comments on heritage interests <sup>14</sup>
				Potential within the Site for further buried remains comprising inhumations surrounded by ditches, with associated finds.  Known barrow examples and mortuary remains within Site and Study Area (Section 4.7, e.g., MWS2804) are truncated by previous archaeological investigation and agricultural activities. They survive only as buried archaeological remains, though condition and extent uncertain.  Multiple LiDAR features suggestive of barrow site located		may contribute to understanding of the role of mortuary practices in the expression of tribal identity (Thomas, 2013). These are a commonly investigated early medieval mortuary feature on the South Downs. Barrows may be of original early medieval construction or reuse of prehistoric examples.



Period	Landscape context for survival	Asset type/name	Potential to occur within the Site <sup>12</sup>	Evidence	Heritage significance <sup>13</sup>	Comments on heritage interests <sup>14</sup>
				within and outside the Site (LDr_130, LDr_132-133, LDr_136 and LDr_136). If barrows, these could contain early medieval mortuary remains.		
	All	Settlement features and deposits	Very low	Very limited evidence in Zone 2 in the Study Area. focussed at Burpham (NHLE 1005894; MWS3790) and two coin hoards recorded elsewhere (MWS2873 and MWS437).  In situ are rare not anticipated. Available evidence indicative of preference for occupation of river valley and upper coastal plain, rather than chalk upland.	Medium to high	In situ remains of early medieval occupation are rare and sites in good state of preservation are likely to be scheduled. Heritage significance would likely be derived from archaeological and historic interest, potentially contributing to an understanding of the local and regional early medieval settlement patterns and farming economy.



Period	Landscape context for survival	Asset type/name	Potential to occur within the Site <sup>12</sup>	Evidence	Heritage significance <sup>13</sup>	Comments on heritage interests <sup>14</sup>
Medieval	Chalk upland	DMV	High	Known DMVs within the Study Area. The site of a DMV at Cobden (MWS5642, SDNPA 041) is located within 50m of the Site. Further remains of settlement or associated activity such as field systems may extend into the Site.  Other examples known within the Study Area (at Warningcamp Hill MWS3375, ANA SDNPA 025 and at Myrtle Grove MWS5725) are not anticipated to extend within the Site.	Medium	Heritage significance of these types of archaeological sites is derived from archaeological and historic interest and may contribute to understanding of the local and regional medieval rural settlement patterns and farming economy. Condition of survival is likely to influence heritage significance, with the existing remains of the DMV at Cobden not scheduled.
	Chalk upland	Agricultural and land division features, and routeways.	High	Medieval settlement and land-use in Zone 2 evidenced through	Low	Heritage interest derived from archaeological and historic interests, where



Period	Landscape context for survival	Asset type/name	Potential to occur within the Site <sup>12</sup>	Evidence	Heritage significance <sup>13</sup>	Comments on heritage interests <sup>14</sup>
				the presence of DMVs (e.g., MWS5642, SDNPA 041; MWS3375, ANA SDNPA 025; and MWS5725), therefore archaeological potential of associated agricultural activity within wider landscape.  Undated relict field boundaries potentially surviving as earthworks (LDr_113, LDr_114, LDr_117, LDr_121, LDr_131, LDr_135, LDr_137, LDr_139, LDr_137, LDr_139, LDr_145-147). Possible association within known farmsteads / settleme nts such as the scheduled site of		surviving remains may contribute to an understanding of changing agricultural practices on the South Downs within the medieval period.  Routeways or "terrace ways" provide evidence for movement across the landscape and development of settlement and other activities.  Isolated finds of medieval material are of limited archaeological interest.



Landscape context for survival	Asset type/name	Potential to occur within the Site <sup>12</sup>	Evidence	Heritage significance <sup>13</sup>	Comments on heritage interests <sup>14</sup>
			medieval farmstead (NHLE 1005823) within 270m of the Site.		
			Recent geophysical surveys (RED, 2022) have led to the identification of sub surface remains of ridge and furrow ploughing within the Site which may be of medieval date.		
Chalk upland	Site of a former brickyard lies within the Site at Hammerpot (MWS5726)	Very high	Location identified on historic mapping and observed as a shallow depression coupled with the surface collection of burnt brick fragments (MWS5726).  A depression feature identified on LiDAR	Low	Remains of archaeological and historical interest could contribute to industrial development during the post medieval period.
	context for survival  Chalk	Chalk Site of a former brickyard lies within the Site at Hammerpot	context for survival to occur within the Site 12  Chalk Site of a former very high brickyard lies within the Site at Hammerpot	context for survival  to occur within the Site 12  medieval farmstead (NHLE 1005823) within 270m of the Site.  Recent geophysical surveys (RED, 2022) have led to the identification of sub surface remains of ridge and furrow ploughing within the Site which may be of medieval date.  Chalk upland  Site of a former brickyard lies within the Site at Hammerpot (MWS5726)  Very high  Location identified on historic mapping and observed as a shallow depression coupled with the surface collection of burnt brick fragments (MWS5726).	context for survival  to occur within the Site 12  medieval farmstead (NHLE 1005823) within 270m of the Site.  Recent geophysical surveys (RED, 2022) have led to the identification of sub surface remains of ridge and furrow ploughing within the Site which may be of medieval date.  Chalk upland  Site of a former brickyard lies within the Site at Hammerpot (MWS5726)  Wery high Location identified on historic mapping and observed as a shallow depression coupled with the surface collection of burnt brick fragments (MWS5726).  A depression feature



Period	Landscape context for survival	Asset type/name	Potential to occur within the Site <sup>12</sup>	Evidence	Heritage significance <sup>13</sup>	Comments on heritage interests <sup>14</sup>
				could be related to the brickworks.		
	Downs scarp and chalk upland	Extraction pit	High	Potential survival as archaeological features, some of which could relate to undated earthworks identified on LiDAR imagery within the Site (LDr_024-025, LDr_027, LDr_087, LDr_090, LDr_091, LDr_093, LDr_128, LDr_134). LiDAR Features sometimes evident on historic mapping (LDr_027 and LDr_087).	Very Low	Heritage significance derived from archaeological and historic interests where features may contribute to the understanding of lime production for the improvement of agricultural soils or the production of building materials.
	All	Historic farmsteads.	Low to medium	Known extant and former farmsteads located close to the Site are of 19th century origin, including Myrtle Grove (MWS12433),	Low	Where remain where present, their heritage significance is likely to derive from historic and archaeological interest, would contribute to the understanding of the



Period	Landscape context for survival	Asset type/name	Potential to occur within the Site <sup>12</sup>	Evidence	Heritage significance <sup>13</sup>	Comments on heritage interests <sup>14</sup>
				Angmering Park (MWS12893) and Lower Barpham (MWS6395). Site intersects access tracks of historic farmsteads including Hill Barn outfarm at Angmering (MWS11506) and Storrington (MWS11504), Swillage Barn (MWS13703) and Barns Farm (MWS9337), No structural remains relating to these farmsteads are anticipated within the Site. Associated features of former agriculture and land division may survive within the Site.		development of farmsteads and agricultural practices during the post medieval period.



Period	Landscape context for survival	Asset type/name	Potential to occur within the Site <sup>12</sup>	Evidence	Heritage significance <sup>13</sup>	Comments on heritage interests <sup>14</sup>
	All	Agricultural and land division features, and routeways.	Medium to high	Recent geophysical surveys (RED, 2022) identified subsurface remains of ridge and furrow ploughing within the Site, which may be of post medieval date.  Routeways or "terrace ways" with earlier origins which continued to be used through this period. Identified primarily through aerial photography (for example MWS9709 southwest of Washington)  Former site of a well identified as High Titton, 60m west of the Site near Chantry Cross (LDr_125).	Low	Heritage interest derived from archaeological and historic interests, where surviving remains may provide evidence for agricultural practices on the South Downs within the post medieval period.  Routeways or "terrace ways" provide evidence for movement across the landscape and development of settlement and other activities.  Isolated finds of medieval material are of limited archaeological interest.



Period	Landscape context for survival	Asset type/name	Potential to occur within the Site <sup>12</sup>	Evidence	Heritage significance <sup>13</sup>	Comments on heritage interests <sup>14</sup>
				Dewponds recorded within the Site at Tolmare Farm (MWS12269). Dew ponds are a common feature on the South Downs. Historically dug for watering livestock.		
	Wooded Estate and Downland and scarp footslopes	Designed Parkland	Medium to High	Site intersects with historic deer park at Michelgrove (MWS3065) and historic parkland at Angmering Park (HCH23913, MWS3066). Potential for surviving parkland features within the Site, likely in the form of tree clumps and plantation and possible archaeological remains of former parkland features.	Low	Heritage significance derived from archaeological, historical and artistic interest, with potential remains contributing to knowledge of development of designed landscapes in the post medieval period.



Period	Landscape context for survival	Asset type/name	Potential to occur within the Site <sup>12</sup>	Evidence	Heritage significance <sup>13</sup>	Comments on heritage interests <sup>14</sup>
				Rowdell Park (MWS34) on late 19 <sup>th</sup> century OS mapping originally set around Rowdell House. Extant pond feature identified within the Site on 19 <sup>th</sup> century OS (MPi_006).  The Site passes through the very northern extent of the parkland where historically there has been narrow band of planting adjacent to the road and a circular pond.		
Modern/ WWII	Chalk upland	SDTA	High	Historic evidence for use of South Downs as training ground during WWII and subsequent EOC activity. Potential for	Low	No above ground remain observed. Likely to be of limited archaeological interest. Primarily of historic interest forming part of a wider WWII



Period	Landscape context for survival	Asset type/name	Potential to occur within the Site <sup>12</sup>	Evidence	Heritage significance <sup>13</sup>	Comments on heritage interests <sup>14</sup>
				related finds and features to be present within Site, potentially evidence by geophysical survey (RED, 2022).		military activity across this landscape.
	Chalk upland	Defended locality on Sullington Hill	Low	Historically recorded location on HER (MWS7566).	Low	No above ground remains relating to this HER record. Likely to be of limited archaeological interest. Primarily of historic interest forming part of a wider WWII military activity across this landscape.
Uncertain	Upper coastal plain and Chalk upland	Field system	High	Identified as linear earthworks on LiDAR imagery ( <b>Table 4-5</b> ) and buried deposits on geophysical survey plots (RED, 2022) which may survive as buried archaeological remains.	Low	Remains would hold archaeological interest and a potential for contribution to understanding changing agricultural regimes across this landscape over time.



Period	Landscape context for survival	Asset type/name	Potential to occur within the Site <sup>12</sup>	Evidence	Heritage significance <sup>13</sup>	Comments on heritage interests <sup>14</sup>
				LDr_028 may be associated with DMV on Warningcamp Hill, Warningcamp (ANA SDNPA 025, MWS3375).		



## Zone 3: Low Weald

- Overall, there is potential for archaeological remains to occur relating to all periods within the Site in Zone 3 ranging from very low to high heritage significance (see **Table 5-3**), which are anticipated to form elements of the following assets groups or themes:
  - early prehistoric artefactual material;
  - later prehistoric settlement and agriculture practices;
  - later prehistoric industrial activity;
  - Roman industry and communications;
  - medieval settlement and agriculture;
  - post medieval settlement, agriculture, and emparkment;
  - post medieval industry and communications; and
  - military activity.
- There are no known archaeological heritage assets of **medium** or **high** heritage significance within the section of the Site in Zone 3. Further information is required to more accurately determine the nature, form and condition of remains that may be present within the Site, though unrecorded remains of **high** heritage significance are not anticipated, except where there is also a potential for deeply buried palaeoenvironment deposits within the Adur floodplain and at tributary crossings, which may be of medium to high heritage significance (sensitivity). These deposits have evidential value for the past environments and landscapes in which prehistoric communities lived.
- 5.1.16 Within the Site, there are no records of negative evidence where investigations observed no finds or features of archaeological interest, nor are there any within the immediate vicinity of the Site.
- 5.1.17 Within Zone 3 various activities which are predicted to have negatively impacted buried deposits of potential archaeological interest include:
  - Former construction works at Bolney, relating to the existing National Grid substation and Rampion 1 (see Plates 7 to 10);
  - Installation of modern utilities, the location of which are indicated by geophysical survey results (RED, 2022); and
  - Historic and modern agricultural activity, where activities such as ploughing are likely to have had a widespread impact on shallow deposits within arable land.



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Table 5-3 Zone 3: Low Weald – Summary of archaeological potential and significance

Period	Landscape context for survival	Asset type/name	Potential to occur within the Site <sup>15</sup>	Evidence	Heritage significance	Comments on heritage interests <sup>17</sup>
Prehistoric	Adur floodplain	Palaeoenvi ronmental deposits.	Low to very high	Very high within Holocene alluvium.  Medium potential for palaeoenvironmental remains preserved within or beneath the Head deposits, especially where they overlie the broad and gently sloping valley floors.  Low potential within Pleistocene River Terrace Deposits.  Low potential that remains	Medium to high	Palaeoenvironmental remains have evidential value for the past environments and landscapes in which prehistoric communities lived.  Deep alluvium deposits within the Adur floodplain have potential for environmental reconstruction of the Holocene.  Extensive River Terrace Deposits in the Adur valley
				might also be preserved in fissures on some of the sandstone and limestone		are yet to be investigated. Similar topographic settings in other areas of Southern

<sup>&</sup>lt;sup>15</sup> Assessed in line with methodology detailed in **Section 3.6**.

<sup>&</sup>lt;sup>16</sup> Assessed in line with methodology detailed in **Section 3.7**.

<sup>&</sup>lt;sup>17</sup> Heritage interests considered with reference to the overarching research agenda for the South-East of England (SERF), available as individual chapters compiled by different authors (2013 with additions in 2019) (Kent County Council, 2019)



Period	Landscape context for survival	Asset type/name	Potential to occur within the Site <sup>15</sup>	Evidence	Heritage significance	Comments on heritage interests <sup>17</sup>
				outcrops, though ideal conditions for the development of such fissures – steep valley side slopes - are rarely present.  See Section 5 and Section 6, Appendix 25.3: Onshore desk-based geoarchaeological and palaeoenvironmental assessment report, Volume 4 of the ES (Document Reference: 6.4.25.3) for discussion on palaeoenvironmental potential.		Britain have yielded geoarchaeological remains.  See Section 5 and Section 6, Appendix 25.3: Onshore desk-based geoarchaeological and palaeoenvironmental assessment report, Volume 4 of the ES (Document Reference: 6.4.25.3) for discussion on palaeoenvironmental deposits.
Palaeolithic	Low Weald and Adur valley	Flint artefacts.	Low to medium	Low potential within Alluvium and medium potential within River Terrace deposits.  Isolated finds likely to be reworked and redeposited. Recovered as surface finds	Low to medium	Degree of archaeological interest dependant on context of recovery.  Finds carrying archaeological interest which would contribute to



Period	Landscape context for survival	Asset type/name	Potential to occur within the Site <sup>15</sup>	Evidence	Heritage significance	Comments on heritage interests <sup>17</sup>
				or from river terrace deposits. No recorded evidence within the Site. Recovery of Acheulian handaxes recorded within the Study Area (MWS446, MSW454).  See Section 5 and Section 6, Appendix 25.3: Onshore desk-based geoarchaeological and palaeoenvironmental assessment report, Volume 4 of the ES (Document Reference: 6.4.25.3) for discussion on geoarchaeological potential.		knowledge of early prehistoric technology.  See Section 5 and Section 6, Appendix 25.3: Onshore desk-based geoarchaeological and palaeoenvironmental assessment report, Volume 4 of the ES (Document Reference: 6.4.25.3) for discussion on geoarchaeological deposits.
Mesolithic	All	Flint artefacts and scatters.	Low to medium	No recorded finds within the Site.  Numerous Mesolithic flints and flint scatters recorded within the Study Area (see	Low to medium	Significance of any Mesolithic remains would depend on their nature and extent of survival. Residual finds, being most likely, have limited value and would be of



Period	Landscape context for survival	Asset type/name	Potential to occur within the Site <sup>15</sup>	Evidence	Heritage significance	Comments on heritage interests <sup>17</sup>
				Section 4.7 Mesolithic Zone 3: Low Weald).  Evidence indicates a higher potential for Mesolithic activity in areas underlain by Lower Greensand, with some potential on the Weald Clay, including in Head deposits on footslopes and valley floors.  See discussion on geoarchaeological deposits in Appendix 25.6: Archaeological trial trenching at Brook Barn Farm, Volume 4 of the ES (Document Reference: 6.4.25.6).		low significance, derived from archaeological interest.  In situ sites are rare, regionally and nationally. Such sites would contribute to understanding of settlement patterning and resource exploitation, and how Mesolithic people may have responded to climatic and landscape changes (Pope et al., 2018).
Neolithic	All	Flint artefacts and scatters	Low	No recorded evidence within the Site.  A small assemblage of prehistoric debitage material, which included a	Low	Heritage significance of any Neolithic remains would depend on their nature and extent of survival. Residual finds, being most likely, have limited value and would be or



Period	Landscape context for survival	Asset type/name	Potential to occur within the Site <sup>15</sup>	Evidence	Heritage significance	Comments on heritage interests <sup>17</sup>
				broken axe-thinning flake of possible Neolithic date, was recovered during a watching brief at Morley Manor (EWS1866; MWS14632).		low significance, derived from archaeological interest.  Isolated or residual finds would make a limited contribution to existing knowledge and understanding of Neolithic activity across the foothills of the downs and across the Weald.
Bronze Age	Scarp footslope – Lower Greensand	Settlement or mortuary features and deposits  Agricultura I and land division features  Finds of objects of	Low	Only recorded Bronze Age evidence within Site relates to an abraded sherd of Early Bronze Age Beaker pottery dating to 2400-1800BC, recovered from medieval ditch (Wessex Archaeology 2014) (Trench 1410: TQ 24343 21016, not specifically located on HER but relates to MWS12642 and EWS1639) (Plate 11).  Limited finds recovered from the Study Area,	Low to high	Isolated finds and residual material reincorporated into later deposits / features generally have limited heritage significance. However, material of this period is not commonly found in the Low Weald and may offer some limited insight into Bronze Age activities.  In situ sites of this period on the Weald are rare, and if present would be of regional



Period	Landscape context for survival	Asset type/name	Potential to occur within the Site <sup>15</sup>	Evidence	Heritage significance	Comments on heritage interests <sup>17</sup>
		different types		including a collection of implements 850m north of the Site (MWS947; ANA Horsham 136) (Section 4.7).  High potential for residual finds (e.g., flint and pottery sherds). Low potential for in situ archaeological remains.		importance. No examples have been identified within Study Area and it is considered very unlikely that unknown sites exist within the Site. However, examples are known within Weald and Greensand / downland margin elsewhere in West Sussex. Archaeological survival of occupation features may contribute to ar understanding of distribution of human settlement activity and resource exploitation of this region.  Geoarchaeological evidence would be important for understanding environment context for any activity.
Early to middle Iron Age	All	Finds of different object types	Low	No evidence recorded within the Site.  A single Iron Age findspot is recorded within the Study	Low	Heritage significance derived from archaeological interest. Finds, such as pottery sherds, possible in secondary contexts which



Period	Landscape context for survival	Asset type/name	Potential to occur within the Site <sup>15</sup>	Evidence	Heritage significance	Comments on heritage interests <sup>17</sup>
				Area, a coin, (MWS5644), 240m northwest of the Site. In situ remains of this period are not anticipated.		would be limited value. If present, finds may provide evidence for Iron Age activity within the vicinity.
Late Iron Age to Roman	Low Weald	Field system and finds	Very High	The very high potential for remains are localised to the north of the Zone where remains of a late Iron Age to early Roman field system and associated features and finds are recorded within the Site (MWS12642; MWS15278; Sheehan and Krawiec, 2018 - site A).  Excavations prior to the construction of Bolney substation recorded a series of intercutting ditches which together delineate a rectangular field system oriented on a north-south/east-west axis.  Dating evidence suggested a late Iron Age or Romano-	Low to medium	Sites of this period are not common and would be of local to regional importance in terms of archaeological interest for understanding of distribution of human settlement activity and resource exploitation of across the Weald and wider region.



Period	Landscape context for survival	Asset type/name	Potential to occur within the Site <sup>15</sup>	Evidence	Heritage significance	Comments on heritage interests <sup>17</sup>
				British date for these features (MWS15278).  Potential for Roman remains associated with Roman road detailed below.		
Roman	Scarp footslopes	Hardham to Barcombe Mills Roman Road, the Greensand Way (ANA Horsham 078; Mid Sussex 044)	High	Route of the Hardham to Barcombe Mills Roman Road, the Greensand Way (ANA Horsham 078; Mid Sussex 044). Connecting with Stane Street and Brighton to London Road. Potential archaeological survival of the Roman road and roadside activity within undeveloped areas of the Site.  Undated earthwork remains (MWS7031) within extent of ANA relating to Roman road.	Low to medium	Survival of archaeological deposits relating to the Roman road and any potential related activity may contribute to an understanding of construction techniques, maintenance and dating of these features, plus final use.  Archaeological survival of settlement remains within Site may contribute to understanding the rural economy and spatial organisation of settlement and land-use.



Period	Landscape context for survival	Asset type/name	Potential to occur within the Site <sup>15</sup>	Evidence	Heritage significance	Comments on heritage interests <sup>17</sup>
				The southern limit of the Site in Zone 3 has seen little post-depositional impacts, except for historic ploughing.		Isolated finds of Roman material of limited archaeological interest.
Early medieval	Weald	Settlement features and deposits	Low	Settlement at Buncton is recorded in Domesday book (Open Domesday 2021) and the Site passes adjacent to existing site of Buncton Manor. There is the possibility for archaeological survival of early medieval occupation within the vicinity, though none is currently recorded except for undated earthworks (MWS7031).	Low to medium	Settlement evidence for the early medieval period in this area is not common and could be of local or regional significance for archaeological interest depending on the extent and condition of remains, which may contribute to an understanding of the local and regional early medieval settlement patterns and farming economy.
	All	Finds of different object type	Low	No recorded evidence within the Site.	Low	Residual or isolated finds have limited value and would be of low significance, derived from archaeological interest.



Period	Landscape context for survival	Asset type/name	Potential to occur within the Site <sup>15</sup>	Evidence	Heritage significance	Comments on heritage interests <sup>17</sup>
Medieval	Scarp footslopes	Settlement features and deposits	High	Earthworks (MWS7031) and other remains within the vicinity of medieval moated site of Buncton (ANA Horsham 054; MWS5639) and Butchers Farm (MWS9616) with medieval origins.	Low	If present, related features are likely to be of local importance derived from archaeological and historical interest and may contribute to an understanding of the historic development and activities at Buncton and beyond.
Medieval	All	Historic farmsteads	Low to medium	The Site lies 35m from Oakendene Manor Farmstead (ANA Horsham 139), and narrowly overlaps with Parkminster medieval farm (ANA Horsham 146) and Brightham's Farm (MWS9503).  No structural remains relating to these farmsteads are recorded within the Site.	Low	Heritage significance would be derived from archaeological and historic interests, contributing an understanding of the development the farmsteads and related activities.
Medieval	All	Field system	Medium to very high	Large areas of surviving cohesive assart field	Low	Heritage interest derived from archaeological and historic interests, where



Period	Landscape context for survival	Asset type/name	Potential to occur within the Site <sup>15</sup>	Evidence	Heritage significance	Comments on heritage interests <sup>17</sup>
				systems survive within the Study Area.  Known examples within the north of the Site where a low-level of medieval activity consisting of ditches / gullies along with pottery sherds have been recorded (MWS12642).  Recent geophysical surveys (RED, 2022) have led to the identification of subsurface remains of ridge and furrow ploughing within the Site, which may be of medieval date within.  LiDAR features include areas of ridge and furrow (LDr_164, LDr_166, LDr_169, LDr_189-190 and LDr_193). Possible boundaries (LDr_180-182)		surviving remains may contribute to an understanding of changing agricultural practices within the medieval period.



Period	Landscape context for survival	Asset type/name	Potential to occur within the Site <sup>15</sup>	Evidence	Heritage significance	Comments on heritage interests <sup>17</sup>
Post medieval	Low Weald	Designed parkland at Oakenden e Manor (HWS2285 , MWS96)	Medium	The former parkland is associated with the post medieval manor house which is grade II listed (NHLE 1027074).  Historic parkland extended into the Site, though the house and immediate gardens and related landscape features were located outside of the Site.  Archaeological potential for former parkland features s (as identified through map regression, LiDAR analysis and geophysical survey (RED, 2022)), limited to possible remnants of the following:  • former access track; • former field boundaries and trees;	Low	Heritage significance is derived from historic and archaeological interests, including an example of a 19th century historically designed landscape (though undergone significance change and no longer in parkland use) and associated with Oakendene Manor (NHLE 1027074).



Period	Landscape context for survival	Asset type/name	Potential to occur within the Site <sup>15</sup>	Evidence	Heritage significance	Comments on heritage interests <sup>17</sup>
				<ul> <li>localised landscape activities relating to drainage; and</li> <li>unknown circular features as identified on the geophysical survey.</li> </ul>		
				See Appendix 25.5: Oakendene parkland: historic landscape assessment, Volume 4 of the ES (Document Reference: 6.4.25.5) for historic landscape assessment of the historic parkland at Oakendene.		
Post medieval	All		Low to medium		Low	Likely to be remains of agricultural activity and land division which would be of local importance.
		Informal parkland	High	Surviving elements of informal parkland (MWS6267) associated with Twineham Court Farm	Low	Potential remains would carry archaeological, historical and artistic interest, and may contribute to



Period	Landscape context for survival	Asset type/name	Potential to occur within the Site <sup>15</sup>	Evidence	Heritage significance	Comments on heritage interests <sup>17</sup>
				(MWS12965). Small structure and possible pond have been recorded from historic mapping, both of which have been destroyed by the construction of a substation. Further potential surviving elements may extend into the Site.		knowledge of how designed landscapes developed during the post medieval period.
Post medieval	All	Agricultura I and land division features	High	Former field boundaries identified though an archaeological watching brief (MWS14632) at Morley Manor, adjacent to Site. Relict field boundaries (LDr_141; LDr_142; LDr_143; LDr_145; LDr_146; LDr_156-158; LDr_161 LDr_163; LDr_165; LDr_170; LDr_178; LDr_180-182; LDr_179), ridge and furrow (LDr_164, LDr_166, LDr_169, LDr_189-190, LDr_193)	Low	Heritage significance is derived from historic and archaeological interests, where surviving remains may provide evidence for agricultural practices within the post medieval period.



Period	Landscape context for survival	Asset type/name	Potential to occur within the Site <sup>15</sup>	Evidence	Heritage significance	Comments on heritage interests <sup>17</sup>
				and trackway (LDr_319) of potentially post medieval date.  Recent geophysical surveys (RED, 2022) identified of subsurface remains of ridge and furrow ploughing within the Site which may be of post medieval date within.		
	All	Historic farmsteads	Low to medium	Potential for remains associated with recorded historic farmsteads: Brightham's Farm (MWS9503), Greatwick Farm (MWS10972), Homelands (MWS11752), Withy Leg Historic Outfarm, West Grinstead (MWS14016), Blocques Farm (MWS9446), Crateman's Farm (MWS9939; ANA Horsham 144), Dragons Farm (MWS10096) and	Low	Heritage significance is derived from historic and archaeological interests, potentially contributing to the understanding of the development of farmsteads and agricultural practices during the post medieval period.



Period	Landscape context for survival	Asset type/name	Potential to occur within the Site <sup>15</sup>	Evidence	Heritage significance	Comments on heritage interests <sup>17</sup>
				Oakendene (ANA Horsham 139).		
				Former buildings in close proximity to the Site: MPi_007, MPi_016, MPi_012 and MPi_013.		
				The site of a former structure and pond (MPi_015 and MPi_014) and historic outfarm, Twineham (MWS13064) has since been redeveloped as a substation and has no archaeological interest. Similarly, the site of a former building near Oakendene (MPi_017) has been redeveloped as an industrial estate and therefore has no archaeological interest.		
Post medieval	Low Weald	Shoreham to	Low to medium	The route of the 19 <sup>th</sup> century dismantled railway	Low	Limited heritage significance derived primarily from



Period	Landscape context for survival	Asset type/name	Potential to occur within the Site <sup>15</sup>	Evidence	Heritage significance	Comments on heritage interests <sup>17</sup>
		Horsham Railway (MWS550 8).		crosses the Site on a northwest-southeast alignment; today it is maintained as a footpath.		historic interest. Contributing to the development of transport network in this area, which was important for the Southwater Brickworks industry and for people to travel to London and the coast.
Undated / Medieval to post medieval?	Low Weald	LiDAR features - relict field system (LDr_181- 184).	High	Located within land characterised as modern field amalgamation (HWS3503) and medieval to post medieval planned private enclosure (HWS1986). Possibly associated with Shermanbury Grange (MWS3325), a former house and parkland located immediately north (outside the Site). Only a small area extends within the Site.	Low	Heritage significance is derived from historic and archaeological interests. Low banks overlain in places by later enclosed fields. Traces of ridge and furrow have a complicated relationship with the earthworks, in some places overlying and in others respecting.
Undated/po st medieval	Weald	Extraction pits	High	LiDAR features (LDr_179, LDr_185-186) indicate possible instances of	Low	Significance derives from archaeological and historic interest. May relate to



Period	Landscape context for survival	Asset type/name	Potential to occur within the Site <sup>15</sup>	Evidence	Heritage significance	Comments on heritage interests <sup>17</sup>
				extraction activity, which may survive as archaeological features.		various industries operating across the Weald, including post medieval glass / brick making and lime production.



## 6. Summary

- This desk study has identified a single scheduled monument and three conservation areas overlapping with the Site. There are numerous listed buildings and additional conservation areas within the Study Area, some of which lie adjacent or within close proximity to the Site.
- The onshore elements of the Proposed Development have the potential to directly impact those designated heritage assets within the Site (though embedded environmental measures will ensure the avoidance of direct impacts to the scheduled monument in Zone 2: South Downs).
- The onshore elements of the Proposed Development are likely to alter the setting of numerous designated heritage assets, which may impact their heritage significance (see Appendix 25.7: Settings assessment scoping report, Volume 4 of the ES (Document Reference: 6.4.25.7)). Baseline information on these heritage assets and their settings are provided in Appendix 25.8: Onshore heritage asset baseline report, Volume 4 of the ES (Document Reference: 6.4.25.8). An assessment of indirect effects through changes to setting is provided in Chapter 25: Historic environment, Volume 2 of the ES (Document Reference: 6.2.25).
- The Site as a whole has a high archaeological potential for all periods (as detailed in **Table 5-1** to **Table 5-3**). The limited amount of previous archaeological investigations within the Site mean that the presence, extent and condition of archaeological remains are largely unknown. The onshore elements of the Proposed Development may impact archaeological remains with heritage significance potentially ranging from very low to high.





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# 8. Glossary of terms and abbreviations

Term (Acronym)	Definition
ANA	Archaeological Notification Areas
AONB	Area of Outstanding Natural Beauty
ВС	Before Christ
ВР	Before Present
DCO	Development Consent Order
DECC	Department of Energy and Climate Change
DMV	Deserted Medieval Village
DSM	Digital Surface Model
DTM	Digital Terrain Model
EIA	Environmental Impact Assessment
ES	Environmental Statement
ETG	Expert Topic Group
GPA	Good Planning Advice
HDD	Horizontal Directional Drilling
HER	Historic Environment Record
HLC	Historic Landscape Characterisation
kya	Thousand Years Ago
LRM	Local Relief Modelling
mya	Million Years Ago



Term (Acronym)	Definition
MIS	Marine Isotope Storage
NMP	National Mapping Programme
NHLE	National Heritage List for England
NPPF	National Planning Policy Framework
NPS	National Policy Statement
NSIP	Nationally Significant Infrastructure Project
os	Ordnance Datum
Preliminary Environmental Information Report (PEIR)	The written output of the Environmental Impact Assessment undertaken to date for the Proposed Development. It was developed to support Statutory Consultation and presented the preliminary findings of the assessment to allow an informed view to be developed of the Proposed Development, the assessment approach that was undertaken, and the preliminary conclusions on the likely significant effects of the Proposed Development and environmental measures proposed.
Preliminary Environmental Information Report Supplementary Information Report (PEIR SIR)	The PEIR Supplementary Information Report (SIR) identified and provided additional supporting preliminary environmental information associated with proposed alternatives and modifications to the onshore part of the original PEIR Assessment Boundary which have been identified since the publication of the original PEIR (RED, 2021) in July 2021.
Preliminary Environmental Information Report Further Supplementary Information Report (PEIR FSIR)	The PEIR Further Supplementary Information Report (FSIR) identified and provided further preliminary environmental information associated with the proposed alternative route option identified since the publication of the original PEIR and PEIR SIR in July 2021 and October 2022 respectively (RED, 2021; 2022).
Proposed Development	The development that is subject to the application for development consent, as described in <b>Chapter 4: The Proposed Development, Volume 2</b> of the ES (Document Reference: 6.2.4).
RED	Rampion Extension Development Limited (the Applicant)



Term (Acronym)	Definition
SDNP	South Downs National Park
SDNPA	South Downs National Park Authority
SERF	South East Historic Environment Research Framework
SoS	Secretary of State
TPO	Tree preservation order
UKHO	UK Hydrographic Office
wscc	West Sussex County Council
WTG	Wind turbine generator





# Annex A Figures



