

# Chapter I

## Archaeology

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# **East Claydon Greener Grid Park Environmental Statement**

## **Chapter I Archaeology**

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**Headland Archaeology**

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## **I1.0 Introduction**

- I1.1 This Chapter of the Environmental Statement ('ES') has been prepared by Headland Archaeology on behalf of Statkraft UK LTD ('the Applicant'). It assesses the Proposed Development described in Chapter C in relation to Archaeology.
- I1.2 The baseline situation is considered before the likely environmental effects of the Proposed Development are identified during its construction, operational and decommissioning phases. Mitigation measures to reduce any negative environmental effects are identified as appropriate, before the residual environmental effects are assessed.
- I1.3 This Chapter is supported by the following technical appendices provided at Volume 2 to this ES:-
- Appendix I1: East Claydon BESS: Archaeological Desk-Based Assessment
  - Appendix I2: East Claydon, Buckinghamshire: Geophysical Survey Report
  - Appendix I3: Consultation Record
- I1.4 This Chapter is supported by the following technical figures provided at Volume 2 to this ES:-
- Figure I1: Study Area used in archaeological assessment
  - Figure I2: Non-designated Heritage Assets over the Proposed Layout
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### **About the Author**

- I1.5 This ES chapter was produced by William Rigby BA MA ACIfA, who has a decade of professional archaeological experience with three years' experience of preparing ES chapters. The chapter was technically reviewed by Dr Andy Towle MCIfA, who has over 30 years of archaeological experience, preparing environmental impacts assessments since 2004.
- I1.6 Headland Archaeology (UK) is a Registered Organisation with the Chartered Institute for Archaeologists (CIfA), an audited status which confirms that all work is carried out in accordance with the highest standards of the profession.

## I2.0 Policy Context

### National Policy

#### National Planning Policy Framework

I2.1 The National Planning Policy Framework (NPPF, 2024<sup>1</sup>) confirms that the historic environment, including archaeological remains, constitutes a material consideration in planning decisions, requiring applicants to describe the significance of heritage assets potentially affected by the development, including any contribution made by their setting.

I2.2 Heritage and conservation forms one of the core planning principles of NPPF:

***(202)** “[Planning should conserve heritage assets] in a manner appropriate to their significance, so that they can be enjoyed for their contribution to the quality of life for this and future generations.”*

I2.3 This report contributes to meeting the following Policies on the historic environment contained in the document (paragraph numbers in bold text).

***(207)** “In determining applications, local planning authorities should require an applicant to describe the significance of any heritage assets affected, including any contribution made by their setting. The level of detail should be proportionate to the assets’ importance and no more than is sufficient to understand the potential impact of the proposal on their significance. As a minimum the relevant historic environment record should have been consulted and the heritage assets assessed using appropriate expertise where necessary. Where a site on which development is proposed includes, or has the potential to include, heritage assets with archaeological interest, local planning authorities should require developers to submit an appropriate desk-based assessment and, where necessary, a field evaluation.”*

***(213)** 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.*

*(footnote 75) [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.]*

***(215)** 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.*

**(216)** *The effect of an application on the significance of a non-designated heritage asset should be taken into account in determining the application. In weighing applications that directly or indirectly affect non-designated heritage assets, a balanced judgement will be required having regard to the scale of any harm or loss and the significance of the heritage asset.*

**(218)** *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.*

*(footnote 76) [Copies of evidence should be deposited with the relevant historic environment record, and any archives with a local museum or other public depository.]*

**(220)** *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 207 or less than substantial harm under paragraph 208, 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.*

- 12.4 The NPPF does not define “substantial harm” or “less than substantial harm”, however case law and planning appeal decisions have determined that substantial harm is a high threshold where the heritage significance of an asset is almost completely lost.

## Local Policy

### Vale of Aylesbury Local Plan

- 12.5 The following policy BE1 in the Vale of Aylesbury Local Plan 2013-2033 (adopted September 2021<sup>2</sup>) is applicable to this assessment:

#### *‘BE1 Heritage assets*

*The historic environment, unique in its character, quality and diversity across the Vale is important and will be preserved or enhanced. All development, including new buildings, alterations, extensions, changes of use and demolitions, should seek to conserve heritage assets in a manner appropriate to their significance, including their setting, and seek enhancement wherever possible.*

*Proposals for development shall contribute to heritage values and local distinctiveness. Where a development proposal is likely to affect a designated heritage asset and/or its setting negatively, the significance of the heritage asset must be fully assessed and supported in the submission of an application. The impact of the proposal must be assessed in proportion to the significance of the heritage asset and supported in the submission of an application. Heritage statements and/or archaeological evaluations will*



*be required for any proposals related to or impacting on a heritage asset and/or possible archaeological site.*

*Proposals which affect the significance of a non-designated heritage asset should be properly considered, weighing the direct and indirect impacts upon the asset and its setting. There will be a presumption in favour of retaining heritage assets wherever practical, including archaeological remains in situ, unless it can be demonstrated that the harm will be outweighed by the benefits of the development. Heritage statements and/or archaeological evaluations may be required to assess the significance of any heritage assets and the impact on these by the development proposal.*

*The council will:*

- a Support development proposals that do not cause harm to, or which better reveal the significance of heritage assets
- b Require development proposals that would cause substantial harm to, or loss of a designated heritage asset and its significance, including its setting, to provide a thorough heritage assessment setting out a clear and convincing justification as to why that harm is considered acceptable on the basis of public benefits that outweigh that harm or the four circumstances in paragraph 133 of the NPPF all apply. Where that justification cannot be demonstrated proposals will not be supported, and
- c Require development proposals that cause less than substantial harm to a designated heritage asset to weigh the level of harm against the public benefits that may be gained by the proposal, including securing its optimum viable use.

*Development affecting a heritage asset should achieve a high quality design in accordance with the Aylesbury Vale Design [Supplementary Planning Document] SPD and the council will encourage modern, innovative design which respects and complements the heritage context in terms of scale, massing, design, detailing and use.'*

## **Other Relevant Guidance**

- 12.6 *Statements of Heritage Significance: Analysing Significance in Heritage Assets* (Historic England Advice Note 12, 2019<sup>3</sup>) contains guidance on the assessment of heritage significance through consideration of the component heritage values of an asset, and further guidance on the assessment of significance as part of the planning application process is contained in *Managing Significance in Decision-Taking in the Historic Environment* (Historic England's Historic Environment Good Practice Advice in Planning GPA2, 2015<sup>4</sup>).
- 12.7 This ES has also been prepared with reference to IEMA, IHBC and CIfA's July 2021 publication *Principles of Cultural Heritage Impact Assessment in the UK*<sup>5</sup>. This document presents the principles of and suggests good practice for assessment of the impact of a development proposal on cultural heritage assets.

## I3.0 **Assessment Methodology & Significance Criteria**

### **Assessment Methodology**

- I3.1 The baseline data on archaeological remains is set out in three distinct reports (Appendices I1, I2 and I4). The key heritage receptors identified from these studies are described below.
- I3.2 An archaeological Desk-Based Assessment (DBA) was undertaken and is appended to this Chapter. The Historic Environment Records Team for Buckinghamshire County Council were consulted on the size of the 1 km Study Area for the preparation of the DBA. This was found to be acceptable.
- I3.3 An archaeological geophysical survey has been conducted and the results have extended the baseline data for the Site (Appendix I2).
- I3.4 A written scheme of investigation (WSI) specifying a trial trenching evaluation has been approved by the archaeological advisor for Buckinghamshire Council. Trial trenching commenced on the 10<sup>th</sup> of March 2025, and was completed on 03<sup>rd</sup> April, and the Trial Trenching Report will be available on the 5<sup>th</sup> May 2025. Updates to this ES are likely to be required in light of the evaluation report. The provisional results indicate that there is a discrete Romano-British ladder settlement in the northeast of the Site and no evidence for a Roman Road bisecting the Site. The impact assessment undertaken on the current baseline is robust since it draws upon information collected during desk based research, a field visit, geophysical results, and trial trenching. There is no evidence to suggest that there are archaeological remains present at the Site which are so important to warrant refusal of consent. Results of the evaluation trial trenching will facilitate the fine-tuning of what mitigation measures might be appropriate to minimise the significance of impacts.
- I3.5 The Proposed Development will likely result in a change to the existing baseline, this change might be considered as impacts according to the degree of change in relation to heritage significance. In accordance with EIA Regulations, the assessment identifies impacts and effects as direct or indirect, adverse or beneficial, and short-term, long-term or permanent.
- I3.6 Direct impacts are those which physically alter an asset and, therefore, its heritage significance. Impacts upon setting are those which affect the heritage significance of an asset by causing visual or sensory change within its setting.

### **Significance Criteria**

- I3.7 The importance of a heritage asset is the overall value assigned to it reflecting its statutory designation or, in the case of non-designated assets, the professional judgement of the assessor (**Table I3.1**). Historic England guidance also refers to the assets' "level of significance" (GPA2, paragraph 10),<sup>1</sup> which in this usage has the same meaning as importance.

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<sup>1</sup> <https://historicengland.org.uk/images-books/publications/gpa2-managing-significance-in-decision-taking/gpa2/>

- I3.8 Any feature which does not merit consideration in planning decisions may be said to have negligible importance. Therefore, any impact of negligible importance would not be considered significant in EIA terms. It is the role of the professional judgement made by the assessor to identify any heritage assets within the Site that are considered to be of negligible importance, for which no further assessment or mitigation works will be proposed.

Table I3.1 Criteria for assessing the importance of heritage assets

| Importance of the assets      | Criteria  |
|-------------------------------|---|
| Very High (International)     | World Heritage Sites and other assets of equal international importance, that contribute to international research objectives   |
| High (National)               | Grade I and II* Registered Parks and Gardens, Scheduled Monuments, Protected Wreck Sites, Registered Battlefields, Grade I and II* Listed Buildings, and undesignated heritage assets of equivalent importance that contribute to national research objectives. Also Conservation Areas, Grade II Registered Parks and Gardens and Grade II Listed Buildings which have particular characteristics that merit a high level of importance. |
| Medium (National or Regional) | Conservation Areas, Grade II Registered Parks and Gardens, Grade II Listed Buildings except where their particular characteristics merit a higher level of importance, heritage assets on local lists and undesignated assets that contribute to Regional research objectives.  |
| Low (Local)                   | Locally listed heritage assets, except where their particular characteristics merit a higher level of importance, undesignated heritage assets of Local importance, including assets that may already be partially damaged.   |
| Negligible                    | Identified historic remains of no importance in planning considerations, or heritage assets and findspots that have already been removed or destroyed (i.e. 'site of').   |
| Unknown/Uncertain             | Heritage assets for which a level of importance cannot be defined on current information.   |

- I3.9 Changes to the designated status of assets within the Study Area will be monitored and the baseline data from the Buckinghamshire HER will be refreshed during the EIA process to ensure that the ES is based on up-to-date information.
- I3.10 The importance of all heritage assets within the 1 km Study Area is identified in the Gazetteer (Appendix I1). The importance of those heritage assets affected by the Proposed Development is identified in the impact assessment.

### Magnitude of change (impact upon heritage significance)

Table I3.2 Criteria for classifying magnitude of change/ impact upon heritage significance

| Impact magnitude | Criteria  |
|------------------|---|
| Major            | Change to key historic building elements so that an asset is totally altered; OR change to most/all key archaeological materials such that the resource |

| Impact magnitude | Criteria   |
|------------------|--|
|                  | is totally altered; OR comprehensive change to the setting such that the significance of the asset is severely compromised.  |
| Moderate         | Change to many key historic building elements, such that the asset is significantly modified; changes to many key archaeological materials such that the resource is clearly modified; changes to setting of an asset, such that the significance of the asset is compromised. |
| Minor            | Change to key historic building elements, such that the asset is slightly different; changes to key archaeological materials such that the asset is slightly altered; changes to setting of an asset, such that its significance is slightly compromised.                      |
| Negligible       | Very minor changes to historic building elements, archaeological materials or setting that hardly affect them/it.  |
| No Change        | No change to fabric, archaeological materials or setting.  |

- I3.11 Impacts may be described as permanent/temporary, and beneficial/adverse. Temporary impacts may be described as either short, medium or long term. For the purposes of this assessment, permanent impacts are those which are irreversible (e.g. physical impacts to archaeological remains; changes to the setting of the heritage assets as a result of permanent elements of the Proposed Development such as the battery energy storage system, access road and tree planting), whilst temporary impacts are reversible (e.g. changes to the setting of heritage assets during the construction phase or as a result of elements of the Proposed Development that will be removed on decommissioning). Short term temporary impacts are those that would occur for a duration of under 48 months (i.e. during construction or decommissioning), long term temporary impacts are those that would be while the Proposed Development is operational.

### Significance of effect

- I3.12 The assessment of the significance of effect in this Chapter combines analysis of the heritage receptors identified in the baseline data with the likely impacts from the Proposed Development submitted in detail (Appendix I1).
- I3.13 Significance of effect has been determined using a combination of importance of the asset (receptor) and the magnitude of impact upon that asset (receptor). The significance of effect matrix is presented in **Table I3.2** below and provides a guide to decision-making but is not a substitute for professional judgement and interpretation, particularly where the importance or impact magnitude levels are not clear or are borderline between categories. The significance of effect may therefore be described on a continuous scale from 'no effect' to 'major'. The significance of effect can be either beneficial or adverse. Where the matrix presents two options for significance of effect, professional judgement is used to determine the likely significance with regard to the specific circumstances of the importance of the asset and magnitude of effect (which will be fully described where necessary). These criteria are based on professional judgment.
- I3.14 'Major', 'moderate' and 'minor' effects are regarded as 'significant' while 'negligible' effects, and 'neutral' effects and 'no effects' are regarded as 'not significant' in EIA terms. Where the significance of effect matrix (Table I3.3) indicates a range for the effect significance (e.g. 'negligible or minor'), professional judgement is applied to select the most applicable option

(which is justified by evidence, as appropriate) or an effect significance range can be applied. If a significance of effect is assigned as ‘major or moderate’, this would be considered significant unless further information could be provided to downgrade the significance effect to ‘negligible’.

Table I3.3 Criteria for assessing the significance of effect

| Magnitude of Impacts | Importance of Receptor |                       |                       |                   |                     |
|----------------------|------------------------|-----------------------|-----------------------|-------------------|---------------------|
|                      | Negligible             | Low                   | Medium                | High              | Very High           |
| Major                | Neutral                | Negligible            | Minor or Moderate     | Moderate or Major | Major               |
| Moderate             | Neutral                | Negligible            | Negligible or Minor   | Minor or Moderate | Moderate or Major   |
| Minor                | Neutral                | Neutral or Negligible | Negligible            | Minor             | Minor or Moderate   |
| Negligible           | Neutral                | Neutral or Negligible | Neutral or Negligible | Negligible        | Negligible or Minor |
| None                 | No Effect              | No Effect             | No Effect             | No Effect         | No Effect           |

## Consultation

- I3.15 A full record of consultations is provided in Appendix I3.
- I3.16 The Principal Planning Officer for Majors North & Central Team at Buckinghamshire Council provided a response to the pre-application enquiry on the 9<sup>th</sup> of August 2024. They suggested that the Proposed Development has the potential to result in significant impacts in relation to heritage; that a Roman Road Alignment crosses the Site which is both an archaeological notification area and a non-designated heritage asset; and an archaeological evaluation was required to assess the significance of the site and understand the impact of the Proposed Development.
- I3.17 The Senior Archaeology Officer for Buckinghamshire Council provided a Scoping Opinion to Buckinghamshire Council on the 22<sup>nd</sup> October 2024. This response stated that the DBA was not included with the documents available on-line with the Scoping Report and it would be helpful for this to be supplied; and it was welcomed that a geophysical survey had been instructed noting that in Buckinghamshire they can have variable results and the survey would need to be ‘ground truthed’ through an agreed level of archaeological trial trenching. The results of these investigation should be included within the ES chapter.
- I3.18 The Senior Archaeology Officer for Buckinghamshire Council was provided with a written scheme of investigation (WSI) for the geophysical survey on the 18<sup>th</sup> November 2025. They asked that WSI should include the provision a paper copy as well as a pdf report, GeoTIFF files of geophysical survey data and interpretation shapefiles should be supplied to Buckinghamshire Historic Environment Record (HER). The WSI was approved on the 19<sup>th</sup> November 2025 and the geophysical survey was conducted between 13<sup>th</sup>-16<sup>th</sup> January 2025.
- I3.19 The Senior Archaeology Officer was consulted on the level of archaeological trial trenching that would be required, who indicated that a minimum of a 4% sample for proposed hard infrastructure and 2% sample for proposed soft landscaping was expected. These

requirements and the results of the geophysical survey were used to inform the WSI for archaeological trial trenching provided to the Senior Archaeology Officer for Buckinghamshire and approved on 13<sup>th</sup> February 2025. The archaeological trial trenching was conducted between 10<sup>th</sup> March-3<sup>rd</sup> April.

- I3.20 The Senior archaeologist for Buckinghamshire attended the trial trenching site visit and was happy with the quality of work. Initial discussion confirmed that there was no evidence for the Roman Road, but that there may be a requirement for targeted investigation of the Romano-British ladder settlement in advance of construction.

## **Assumptions and Limitations**

- I3.21 The following assumptions and limitations have been encountered in undertaking the archaeological assessment.

### **Data sources**

- I3.22 Information held by public data sources is generally considered to be reliable; however, the following general points are noted:
- Documentary sources are rare before the medieval period;
  - Whilst it is accepted that historic documents may be biased depending on the author, with content seen through the lens of context, wherever such documentary sources are used in assessing archaeological potential professional judgment is used in their interpretation in that the functionality of the document is considered;
  - HER records can be limited because opportunities for research, fieldwork and discovery depend on the situation of commercial development and occasional research projects, rather than the result of a more structured data collection. A lack of data within the HER records does not necessarily equate to an absence of archaeological remains;
  - Where archaeological sites have been identified solely from aerial imagery without confirmation from archaeological excavation or supporting evidence in the form of find-spots for example, it is possible the interpretation may be revised in the light of further investigation.
  - The significance of sites can be difficult to identify from HER records, depending on the accuracy and reliability of the original source; and
  - There can often be a lack of dating evidence for archaeological sites.

### **Field Visit**

- I3.23 Any archaeological field visit has inherent limitations, primarily because archaeological remains below ground level may have no surface indicators.
- I3.24 The field visit was conducted in dry, overcast weather conditions. The Site comprised eight arable and pasture fields.

### **Archaeological Trial Trenching**

- I3.25 A WSI for a programme of archaeological trial trenching was approved on the 13<sup>th</sup> February 2025 by the Senior Archaeology Officer for Buckinghamshire Council and the fieldwork

element of the evaluation is was completed on the 03<sup>rd</sup> April. The archaeological trial trenching report was not available at the time of producing the ES, but the initial results have been incorporated.

- I3.26 To date there is no evidence for buried archaeological remains so significant that would warrant refusal of consent. The initial results of the evaluation indicate that further mitigation measures may be required to ameliorate development impacts on buried archaeological remains relating to a Romano-British ladder settlement . Therefore, there will likely be a requirement for mitigation measures such as archaeological monitoring or targeted excavation.

## **I4.0 Baseline Conditions**

### **Current Conditions**

- I4.1 The following section presents a summary of the baseline conditions for the archaeological receptors scoped into further assessment. All the receptors are described below and shown in Figures I1-7. Further details of the baseline conditions are presented in Appendices I1, I2 and I4.
- I4.2 The DBA (Appendix I1) identified no designated heritage assets recorded by the National Heritage List for England (NHLE) within the Site. A total of 11 non-designated heritage assets have been identified within the Proposed Development.
- I4.3 Five non-designated heritage assets are recorded by Buckinghamshire HER and relate to:
- the Roman Road between Akeman Street at Fleet Marston and Thornborough (203400000), which is also an archaeological notification area. No evidence for a Roman Road was recorded during the evaluation;
  - the former course of the Aylesbury to Buckingham Railway (578800000); and
  - the extent for East Claydon parish (265700000) covers the entire Site. Two non-designated heritage asset relates to isolated, unstratified findspots of Medieval and Post-Medieval coins discovered during metal-detecting that have been removed but were previously in the southwestern corner of the Proposed Development.
- I4.4 During the historical map regression, aerial photography and LiDAR analysis conducted as part of the DBA (Appendix I1) three possible further heritage assets have been identified. These relate to:
- possible ridge and furrow cultivation visible on an aerial photograph taken by the RAF in 1946 (HA001) which appear to have been levelled/disturbed on current LiDAR data;
  - a former 19th century field system (HA002); and
  - a footpath (HA003).
- I4.5 A geophysical (magnetometry) survey has been conducted across the whole Site that detected a range of magnetic anomalies predominantly of a modern, natural, or agricultural character. However, anomalies suggestive of a probable and possible archaeological origin were identified. These relate to:
- a series of perpendicular linear anomalies (HA004) that are suggestive of an enclosure system were indicated to be a Romano-British ladder settlement by the initial evaluation results;
  - a discrete strongly enhanced anomaly (HA005) indicative of burning or heat effected material; and
  - A series of possible linear anomalies (HA007) that are more coherent than surrounding agricultural trends that could be associated with the enclosure system (HA007).



Table I4.1 Archaeological receptors within the Proposed Development Site

| Receptor ID | Name  | Description  | Status   | Importance                                  |
|-------------|---|--|--|---|
| 203400000   | Margary Road 162                                    | Roman road between Akeman Street at Fleet Marston and Thornborough, with possible extension to the Alchester-Towcester Road. The initial results of the trial trenching evaluation did not identify any archaeological remains suggestive of a Roman Road. | Non-designated Heritage Asset & Archaeological Notification Area | Low (local) to medium (regional) importance |
| 578800000   | Aylesbury-Buckingham Railway                        | Historical records of nineteenth century railway   | Non-designated Heritage Asset                                    | Low (local) importance                      |
| 265700000   | East Claydon  | Background information on East Claydon parish.   | Non-designated Heritage Asset                                    | Low (local) importance                      |
| MBC46503    | Medieval coin, East Claydon                         | Medieval coin found whilst metal-detecting   | Non-designated Heritage Asset                                    | Low (local) importance                      |
| MCB46501    | Post-Medieval coin, East Claydon                    | Post-medieval coin found whilst metal-detecting  | Non-designated Heritage Asset                                    | Low (local) importance                      |
| HA001       | Ridge and furrow cultivation                        | Possible earthworks suggestive of ridge and furrow cultivation identified on LiDAR   | Non-designated Heritage Asset                                    | Negligible importance                       |
| HA002       | Former 19th century field system                    | Former 19th field system first depicted 1880 First edition OS map  | Non-designated Heritage Asset                                    | Negligible importance                       |
| HA003       | Former 19th century footpath                        | Former 19th century footpath first depicted 1880 First edition OS map and on no later historic mapping   | Non-designated Heritage Asset                                    | Negligible importance                       |
| HA004       | Enclosure System (Romano-British ladder settlement) | A series of linear anomalies (E1) have been detected by a geophysical survey that are perpendicular to each other suggestive of ditch-like features that form to create an enclosure system. The initial evaluation results indicated that these relate    | Non-designated Heritage Asset                                    | Low (local) to medium (regional) importance |

| Receptor ID | Name                     | Description   | Status                        | Importance             |
|-------------|--------------------------|---|-------------------------------|------------------------|
|             |                          | to a Romano-British ladder settlement   |                               |                        |
| HA005       | Burnt Feature            | A discrete, strongly enhanced anomaly (B?1) has been identified in the western section of E1 that exhibits a magnetic signature indicative of burning or heat effected material of an unknown date. | Non-designated Heritage Asset | Low (local) importance |
| HA007       | Possible linear features | A series of weakly enhanced linear anomalies (L1) have been identified that are of a possible archaeological origin as they appear more coherent than surrounding agricultural trends.              | Non-designated Heritage Asset | Low (local) importance |

## Assumed Baseline

- I4.6 The assumed baseline is not relevant to below ground effects on archaeological features within the Site as the Zone of Influence for archaeological assessment is the Site itself, and the assessment is only relevant to effects within the Site that will have been mitigated prior to construction.
- I4.7 The alignment of the Roman Road has a potential to extend to within the East Claydon Replacement Substation, approximately 100m south of the Site, across East Claydon Road, which is currently at surveys and technical assessment stage. As stated below no significant effects are anticipated from the Proposed Development on the Roman Road since no evidence of it running within the Site was found during the trial trenching evaluation. Should the Roman Road bisect the East Claydon Replacement Substation any effect will need to be mitigated to an acceptable level and will be located on different sections of the monument. No further consideration is given to the replacement substation.

## Future Baseline

- I4.8 In the absence of the Proposed Development the future baseline for archaeology could change in the following ways:
- New heritage assets may be designated and/or currently designated heritage assets may be removed from statutory lists/registers.
  - New heritage assets may be identified.
  - Upstanding remains pertaining to archaeological heritage assets may be degraded by the impacts of ploughing; erosion from stock human or plant movements; weather and the growth or proliferation of vegetation.

- Below-ground archaeological remains may be disturbed or truncated by agricultural activities such as ploughing or the establishment of new tree plantations or may be negatively impacted by changes in soil moisture levels, such as flooding or new drainage regimes within the site.

- I4.9 As noted above, changes to the designated status of assets within the Study Area will be monitored and the baseline data from the Buckinghamshire HER will be refreshed during the EIA process to ensure that the ES is based on up-to-date information.
- I4.10 Changes to the setting of heritage assets through growth of vegetation reducing visibility or conversely through disease / death or felling of vegetation increasing visibility may occur at any time. Increased vegetation growth is unlikely to materially alter the setting of assets between submission and construction due to the short timespan and would only serve to reduce impacts compared to the assessment. Reductions in vegetation may occur suddenly at any time. This has been reviewed through the EIA process and this ES is based on up-to-date information.
- I4.11 Changes to the integrity of heritage assets as a result of weather, vegetation growth, and agricultural practices would be relatively slow to become apparent and unlikely to alter the heritage significance of heritage assets between submission and construction. This has been reviewed through the EIA process and this ES is based on up-to-date information.

## **I5.0 Potential Effects**

- I5.1 The section describes the likely effects that have been identified in relation to archaeology during the construction, operation (including maintenance) and decommissioning, in the absence of mitigation measures.
- I5.2 This assessment has considered the evidence for known archaeological and heritage resource within and surrounding the Site in order to establish the potential constraints and implications for construction of the Proposed Development.
- I5.3 Direct adverse effects upon known or previously unknown buried archaeological remains have the potential to occur during construction phase as a result of intrusive groundworks causing truncation, fragmentation or complete removal. Activities which may have an impact upon buried archaeological remains include soil stripping to accommodate Proposed Development containers and infrastructure, excavation for any foundations for structures within the Proposed Development and excavation for buried cables as well as topsoil stripping for the access road.

### **Embedded Mitigation**

- I5.4 As noted above, depending on the results of the evaluation further mitigation measures may be required to ameliorate development impacts on buried archaeological remains. To date there is no evidence for buried archaeological remains so significant that would warrant refusal of consent. However, the archaeological remains of the Romano-British ladder settlement require mitigation measures such as archaeological monitoring or excavation.

### **Major Hazards and Accidents**

- I5.5 Major hazards and accident are not relevant to this chapter as all receptors are below ground features.

### **Phasing**

- I5.6 Phasing is relevant to this chapter as receptors will be affected during different phases of the project lifespan.

### **During Construction**

- I5.7 This assessment identifies that the Roman Road between Akeman Street at Fleet Marston and Thornborough of low to medium (local/regional) archaeological importance potentially runs through the Site (see Figure I4 & 203400000). Yet archaeological trial trenching did not identify any evidence for a Roman Road. No direct effect is likely to occur during any soil stripping and/or excavation associated with the construction of the Proposed Development.
- I5.8 Similarly, the former course of the Aylesbury to Buckingham runs through the PDA with soil stripping and excavation incurring Neutral to Negligible Adverse direct effect on this non-designated heritage asset of low (local) importance (0578800000), removing a small section of a larger resource for the access road (see Figure I4).

- I5.9 It was determined that there is a medium to high potential for below ground archaeological remains to be present within the Site associated with Medieval and Post-Medieval agricultural activity. Ridge and furrow cultivation has been identified by aerial photography across the whole of the area within the Site that are considered to be of low (local) archaeological importance, as LiDAR analysis suggests that these have been either levelled or disturbed by later ploughing (see Figure I5 & HAO01). Neutral to Negligible Adverse direct effect are likely to occur during any soil stripping or excavation for foundations, as only a small portion of the possible ridge and furrow cultivation that has already been levelled or disturbed will be directly affected.
- I5.10 During the historical map regression part of a former 19th century field system of negligible importance was identified within the Site (HA002). There is a potential for Neutral to Negligible Adverse direct effect to one former field boundary during the soil stripping for the Proposed Development compound, this would only require a small section of the former field boundary to be removed (see Figure I6).
- I5.11 The geophysical survey conducted across the Site has detected anomalies of a probable and possible archaeological origin (HA004 to HA007), which were identified as a Romano-British ladder settlement by the archaeological trial trenching. There is a potential for Negligible to Minor Adverse (not significant) direct effect to occur during the soil stripping for the Proposed Development compound and installation of proposed soft landscaping (see Figure I7).
- I5.12 From assessment of the available evidence, the potential for hitherto unknown significant archaeological remains to be present within the Site is considered to be medium, and **Minor to Moderate Adverse direct effects** are anticipated without mitigation. These effects would be considered **significant** without mitigation in a worst-case view based on current information.
- I5.13 Table I5.1 below identifies non-designated heritage assets recorded by Buckinghamshire HER, during the production of the baseline information and by a geophysical survey conducted across the entire Site.

Table I5.1 Archaeological receptors within the Proposed Development and likely impacts

| Receptor ID | Name                         | Importance                                  | Likely impact  | Significance of effect               |
|-------------|------------------------------|---|--|--------------------------------------|
| 203400000   | Margary Road 162             | Low (local) to medium (regional) importance | No evidence for a Roman Road were identified by the geophysical survey, which was supported by the initial trial trenching. Therefore, it is likely that the road lies outside of the Site | No effect                            |
| 578800000   | Aylesbury-Buckingham Railway | Low (local) importance                      | Remove of small section of a larger heritage asset to accommodate the  | Neutral to Negligible Adverse direct |

| Receptor ID | Name  | Importance                                  | Likely impact  | Significance of effect  |
|-------------|---|---|--|---|
|             |   |   | Proposed Development access road.  | effect (Not Significant)                                      |
| 265700000   | East Claydon  | Low (local) importance                      | Recorded extent for the Parish of East Claydon, no impact.   | Neutral to Negligible Adverse direct effect (Not Significant) |
| MBC46503    | Medieval coin, East Claydon                         | Low (local) importance                      | Findspot recorded within Proposed Development that has been removed. No impact.  | Neutral to Negligible Adverse direct effect (Not Significant) |
| MCB46501    | Post-Medieval coin, East Claydon                    | Low (local) importance                      | Findspot recorded within Proposed Development that has been removed. No impact.  | Neutral to Negligible Adverse direct effect (Not Significant) |
| HA001       | Ridge and furrow cultivation                        | Negligible importance                       | Remove of a section of a larger heritage asset to accommodate the Proposed Development compound, access road and underground cable.              | Neutral to Negligible Adverse direct effect (Not Significant) |
| HA002       | Former 19th century field system                    | Negligible importance                       | Remove of small section of a larger heritage asset to accommodate the Proposed Development compound, access road and underground cable.          | Neutral to Negligible Adverse direct effect (Not Significant) |
| HA003       | Former 19th century footpath                        | Negligible importance                       | Possible remove of small section of a larger heritage asset to accommodate the Proposed Development compound, access road and underground cable. | Neutral to Negligible Adverse direct effect (Not Significant) |
| HA004       | Enclosure System (Romano-British ladder settlement) | Low (local) to medium (regional) importance | Partial removal to accommodate the Proposed Development compound.  | Negligible to Minor Adverse direct effect (Not Significant)   |
| HA005       | Burnt Feature                                       | Low (local) importance                      | Complete removal of possible burnt feature to accommodate the Proposed Development compound.   | Negligible Adverse direct effect (Not Significant)            |
| HA007       | Possible linear features                            | Negligible importance                       | Complete removal of possible linear features   | Negligible Adverse direct                                     |

| Receptor ID | Name                           | Importance | Likely impact  | Significance of effect  |
|-------------|--------------------------------|------------|--|---|
|             |                                |            | to accommodate the Proposed Development compound.        | effect (Not Significant)  |
| N/A         | Unknown archaeological remains | Unknown    | Partial removal to accommodate the Proposed Development. | Unknown, however <b>Minor to Moderate Adverse, Significant (worst case potential)</b> |

## During Operation

- I5.14 It is anticipated that there will be no effects during operation, as direct adverse effects will have been mitigated before construction.

## During Decommissioning

- I5.15 It is anticipated that there will be no effects during decommissioning as direct adverse effects will have been mitigated before construction.

## **I6.0 Mitigation and Monitoring**

I6.1 Mitigation and monitoring measures are relevant for this chapter and will be required.

### **During Construction**

I6.2 The detail of any appropriate mitigation measures will be confirmed on completion of the archaeological evaluation trial trenching. The results will establish the nature, date and importance of remains at the Site. Mitigation measures would typically take the form of:

- Preservation in situ of archaeological remains (e.g. adjustment to landscaping design);
- Advance archaeological excavations to clear an area for construction where impacts cannot be avoided;
- Archaeological watching brief on ground works in areas of high potential for the presence of previously unknown remains.

I6.3 The need for and scope of such mitigation will be agreed with Buckinghamshire Council's archaeological advisor during the determination period of the planning application. The scope and methodology of the mitigation will be set out in an outline WSI, and would likely be secured by a planning condition. The residual effects can be assessed with certainty that this mitigation will come forward on the basis of consultation undertaken with the BC Archaeological Advisor.

I6.4 Monitoring of the archaeological mitigation measures would be carried out by the Buckinghamshire Council Historic Environment Team to ensure that the measures set out remain appropriate following further investigation, that the outline WSI is adhered to, and that any post-excavation analysis and reporting is conducted in accordance with the WSI (or subsequently agreed amendments to this).

### **During Operation**

I6.5 If areas of archaeological remains are preserved in situ at the Site as part of the above potential mitigation strategy, measures to avoid accidental damage might be required, such as demarcation of areas and limits on activities such as plant movements and land maintenance. This would be determined and secured through consultation with the Senior Archaeology Officer for Buckinghamshire Council as a condition of consent.

### **During Decommissioning**

I6.6 It is anticipated that most effects would have been mitigated prior to or during the construction phase. If there are areas of archaeological remains preserved in situ, then measures to limit accidental damage would be appropriate such as fencing and prohibition on ground works or plant movements. The need for any mitigation would be confirmed after the evaluation, and if required would be secured through a planning condition requiring a decommissioning method statement (or similar).

I6.7 Table I6.1 below shows the suggested measure that may be required to mitigate archaeological constraints of non-designated heritage receptors identified within the PDA.



Table 16.1 Archaeological receptors within the Proposed Development and suggested mitigation measures

| Receptor ID | Name  | Suggested mitigation measures  |
|-------------|---|--|
| 203400000   | Margary Road 162                                    | No evidence for a Roman Road was identified by the geophysical survey, which was supported by the initial trial trenching. Therefore, it is likely that the road lies outside of the Site  |
| 578800000   | Aylesbury-Buckingham Railway                        | No mitigation measure proposed.  |
| 265700000   | East Claydon  | Due to the limited significance of the asset, no further mitigation is proposed.   |
| MBC46503    | Medieval coin, East Claydon                         | Due to the limited significance of the asset, no further mitigation is proposed.   |
| MCB46501    | Post-Medieval coin, East Claydon                    | Due to the limited significance of the asset, no further mitigation is proposed.   |
| HA001       | Ridge and furrow cultivation                        | Due to the limited significance of the asset, no further mitigation is proposed.   |
| HA002       | Former 19th century field system                    | Due to the limited significance of the asset, no further mitigation is proposed.   |
| HA003       | Former 19th century footpath                        | Due to the limited significance of the asset, no further mitigation is proposed.   |
| HA004       | Enclosure System (Romano-British ladder settlement) | The initial results of the evaluation trial trenching suggest that these archaeological remains are of such a significance that further mitigation measures will be required to ameliorate development impacts on these buried archaeological remains.<br><br>Such as a limited strip, map, and sample or targeted excavation where there is a direct impact and could be made a condition of consent (see Figure I8). |
| HA005       | Burnt Feature                                       | The feature has been sufficiently mitigated by being investigated during trial trenching, which will be reported on during the determination period.   |
| HA007       | Possible linear features                            | Due to the limited significance of the asset, no further mitigation is proposed.   |

## **I7.0 Residual Effects**

### **During Construction**

- I7.1 It is anticipated that there will be no significant residual effects following mitigation as the archaeological potential of the Site will have been sufficiently mitigated before construction. The mitigation by excavation or recording possibly required will reduce the significance of the impact on the heritage assets from Moderate to Minor Adverse effects, to Minor Adverse, not significant in EIA terms (see Table I8.1)

### **During Operation**

- I7.2 It is anticipated that there will be no significant residual effects following mitigation as the archaeological potential of the Site will have been sufficiently mitigated during the construction phase.

### **During Decommissioning**

- I7.3 It is anticipated that there will be no significant residual effects following mitigation as the archaeological potential of the Site will have been sufficiently mitigated during the construction phase.

## 18.0 Summary & Conclusions

18.1 A summary of this assessment is presented in Table 18.1. The sensitivity of each receptor is identified alongside any relevant potential effects that could arise on those receptors. Any proposed additional mitigation measures are stated, and the impact and residual effects assessed.

Table 18.1 Summary of Effects

| Receptor   | Impact   | Potential Effects<br>(taking account of<br>embedded mitigation) | Additional Mitigation<br>and Monitoring   | Residual<br>Effects |
|--|--|---|---|---------------------|
| <b>During Construction</b>   |  |   |   |                     |
| Roman Road Alignment between Akeman Street at Fleet Marston and Thornborough (203400000) | Excavation and site clearance for compound, access road and underground cable during the construction phase would require intrusive groundworks potentially damaging and disturbing these buried remains | Negligible to Minor Adverse direct effect and not significant   | No evidence for a Roman Road was identified by the geophysical survey, which was supported by the initial trial trenching. Therefore, it is likely that the road lies outside of the Site | No effect           |
| Aylesbury-Buckingham Railway (578800000)   | Excavation and site clearance for compound, access road and underground cable during the construction phase would require intrusive groundworks potentially damaging and disturbing these buried remains | Neutral to Negligible Adverse direct effect and not significant | None proposed.  | No effect           |
| Ridge and furrow   | Excavation and site clearance for compound, access road and underground cable during the construction phase would require intrusive groundworks  | Neutral to Negligible Adverse direct effect and not significant | None proposed   | No effect           |

| Receptor   | Impact  | Potential Effects<br>(taking account of<br>embedded mitigation)       | Additional Mitigation<br>and Monitoring  | Residual<br>Effects |
|--|---|---|--|---------------------|
|  | potentially<br>damaging and<br>disturbing these<br>buried remains   |   |  |                     |
| Former field<br>boundary   | Excavation and site<br>clearance for<br>compound, access<br>road and<br>underground cable<br>during the<br>construction phase<br>would require<br>intrusive<br>groundworks<br>potentially<br>damaging and<br>disturbing these<br>buried remains | Neutral to Negligible<br>Adverse direct effect<br>and not significant | None proposed  | No effect           |
| Enclosure<br>system<br>(Romano-<br>British ladder<br>settlement,<br>HA004, & E1) | Excavation and site<br>clearance for<br>compound, access<br>road and<br>underground cable<br>during the<br>construction phase<br>would require<br>intrusive<br>groundworks<br>potentially<br>damaging and<br>disturbing these<br>buried remains | Neutral to Negligible<br>Adverse direct effect<br>and not significant | The initial evaluation<br>trial trenching suggest<br>that these<br>archaeological<br>remains are of such a<br>significance that<br>further mitigation<br>measures will be<br>required to<br>ameliorate<br>development impacts<br>on these buried<br>archaeological<br>remains.<br><br>Such as a limited<br>strip, map, and<br>sample or targeted<br>excavation where<br>there is a direct<br>impact and could be<br>made a condition of<br>consent (see Figure<br>I8). | No effect           |
| Burnt feature<br>(HA005 & B?1)   | Excavation and site<br>clearance for<br>compound, access<br>road and<br>underground cable<br>during the   | Neutral to Negligible<br>Adverse direct effect                        | None proposed  | No effect           |

| Receptor                                    | Impact  | Potential Effects<br>(taking account of<br>embedded mitigation) | Additional Mitigation<br>and Monitoring  | Residual<br>Effects |
|---|---|---|--|---------------------|
|   | construction phase<br>would require<br>intrusive<br>groundworks<br>potentially<br>damaging and<br>disturbing these<br>buried remains  |   |  |                     |
| Possible linear<br>features<br>(HA007 & L1) | Excavation and site<br>clearance for<br>compound, access<br>road and<br>underground cable<br>during the<br>construction phase<br>would require<br>intrusive<br>groundworks<br>potentially<br>damaging and<br>disturbing these<br>buried remains | Neutral to Negligible<br>Adverse direct effect                  | None proposed  | No effect           |
| <b>During Operation</b>                     |   |   |  |                     |
| All receptors<br>assessed                   | It is anticipated that<br>any effects would<br>occur at<br>construction phase<br>and therefore would<br>have been<br>sufficiently<br>mitigated prior to or<br>during construction.  | No effects  | No further mitigation<br>is required, unless<br>preservation in situ of<br>any remains is<br>recommended<br>through the<br>mitigation strategy to<br>be agreed following<br>completion of the<br>trial trenching. This<br>will be defined during<br>determination. | No effects          |
| <b>During Decommissioning</b>               |   |   |  |                     |
| All receptors<br>assessed                   | it is anticipated that<br>any effects would<br>have been<br>sufficiently<br>mitigated prior to or<br>during construction.   | No effect   | It is anticipated that<br>any effects would<br>have been sufficiently<br>mitigated prior to or<br>during construction  | No effect           |

## 19.0 Abbreviations & Definitions

### Abbreviations

| Abbreviation or Acronym | Original Form  |
|-------------------------|--|
| AOD                     | Above Ordnance Datum (above sea-level)                       |
| AP                      | Aerial Photograph  |
| ASA                     | Archaeologically Sensitive Area                              |
| BCE                     | Before Common Era  |
| BGS                     | British Geological Survey                                    |
| BH                      | Borehole   |
| C                       | Century  |
| c.                      | Circa  |
| CA                      | Conservation Area  |
| CBM                     | Ceramic building material                                    |
| CE                      | Common Era   |
| CEMP                    | Construction Environment Management Plan                     |
| CIfA                    | Chartered Institute for Archaeologists                       |
| DBA                     | Desk-based Assessment  |
| DCO                     | Development Consent Order                                    |
| DCLG                    | Department for Communities and Local Government              |
| DMV/SMV                 | Deserted/Shrunken Medieval Village                           |
| EMS                     | Environmental Management System certified to ISO 14001: 2004 |
| ES                      | Environmental Statement                                      |
| Eval.                   | Evaluation Trial Trenching                                   |
| Geophys.                | Geophysical Survey   |
| HA                      | Headland Archaeology   |
| HE                      | Historic England   |
| HER                     | Historic Environment Record                                  |
| HLC                     | Historic Landscape Character(isation)                        |
| HSE                     | Health and Safety Executive                                  |
| LB                      | Listed Building  |
| LPA                     | Local Planning Authority                                     |
| LiDAR                   | Light Detection and Ranging                                  |
| MLWS                    | Mean low water springs                                       |
| NGR                     | National Grid Reference                                      |
| NHLE                    | National Heritage List for England                           |
| NRHE                    | National Record of the Historic Environment                  |
| OS                      | Ordnance Survey  |
| PDA                     | Proposed Developed Area                                      |
| R&F                     | Ridge and Furrow (earthwork cultivation)                     |
| RO                      | Registered Organisation (with CIfA)                          |
| RPG                     | Registered Park & Garden                                     |

| Abbreviation or Acronym | Original Form  |
|-------------------------|--|
| SM                      | Scheduled Monument   |
| SMP                     | Soil Management Plan   |
| SMS                     | 'Strip, Map and Sample'  |
| WB                      | Watching Brief   |
| WSI                     | Written Scheme of Investigation (project design or method statement) |
| ZTV                     | Zone of Theoretical Visibility                                       |

## Terms

| Term  | Definition   |
|---|--|
| Artefact  | An item of archaeological interest   |
| Baseline  | 'Baseline conditions' are the environmental conditions in existence just before the occurrence of an impact – i.e. they are the conditions that would be affected.   |
| Bronze Age  | The period of human activity between 2,500 BCE and 700 BCE   |
| Construction Environmental Management Plan (CEMP) | A plan prepared by a contractor before the start of construction work, detailing 'environmental aspects' that may be affected by the construction work and management methods to prevent any such effects. The CEMP would include methods and site management practices to be applied to prevent generation of nuisance dust, accidental pollution events and a range of other potential sources of accidental damage to the environment, and response and reporting procedures to minimise the damage in the event of a pollution incident. |
| Construction activity                             | Vegetation removal, topsoil stripping, temporary storage of materials, ground excavation and remodelling, bare earth, movement of construction vehicles and tall features such as cranes and other construction plant.   |
| Desk study  | A collation and review of relevant existing information available from published, archival or online sources, including for instance geological and hydrogeological mapping, historical maps, environmental records etc., allowing an assessment of risks to the human and environmental receptors to be undertaken.   |
| Earthworks  | The moving of soil or rock to reconfigure the topography of a site.  |
| Enclosure   | A single or collection of boundaries surrounding a parcel of land. e.g.: hedgerows, walls, ditches, earth banks, fences etc.   |
| Environmental Impact Assessment (EIA)             | An assessment of certain types of major project of the significant effects that the project could have on the environment. The applicant is required to carry out the assessment by law, in this case under the Infrastructure Planning (Environmental Impact Assessment) Regulations, 2017.   |
| Environmental Statement (ES)                      | The report on the results of the EIA.  |
| Fieldwalking survey                               | Method of systematic non-intrusive survey involving walking across a plough field along transects to collect archaeological artefacts.   |

| Term                                      | Definition   |
|---|--|
| Geology                                   | Geology is the study of solid earth, the material of which it is composed (principally rocks) and the processes by which they evolve.  |
| Geophysical survey                        | Method of non-intrusive investigation involving the use of magnetometers to identify fluctuations in the earth's magnetic field which might indicate the presence of archaeological remains. Burnt remains and metals are best identified through this method of survey.   |
| Heritage asset                            | An item of heritage interest, for example an historic building or an archaeological find.  |
| Historic Environment Records (HER)        | A database maintained by individual counties or local authorities, containing records of archaeological sites, historic buildings and other aspects.   |
| Historic landscape character types (HLCT) | Historic landscape character types are distinctive and repeated combinations of components defining generic historic landscapes such as 'ancient woodland' or 'parliamentary enclosure'. The types used in this study were defined based on evidence from historic maps and other sources.   |
| Inclosure                                 | A process of consolidating and adding fixed boundaries to agricultural fields by act of parliament, local government or, in some cases, by formal civil contract. The spelling of "inclosure" changed by time and location and thus, acts of "Inclosure" or "Enclosure" are interchangeable in the historical record. In this report, Inclosure is used for consistency. |
| Iron Age                                  | The period of human activity between 700 BCE and 43 CE   |
| Made Ground                               | Ground created by infilling an area with material taken from elsewhere; typically, reworked soils, rubble, gravel, sand or former waste material e.g. ash.   |
| Medieval                                  | The period of human activity between 1066 CE and 1550 CE   |
| Mesolithic                                | Middle Stone Age. The period of human activity between 10,000 BCE and 4,500 BCE.   |
| Metal detector survey                     | Method of intrusive investigation involving the use of metal detectors to locate buried metal objects.   |
| Mitigation                                | Measures which have the purpose of avoiding, reducing or compensating for adverse environmental impacts. It may also include measures to create environmental benefits.  |
| Modern                                    | The period of human activity from 1900 to the present day  |
| National Mapping Programme (NMP)          | A project funded by Historic England and local councils involving assessment and interpretation of aerial photographs and other remote sensing data, such as LiDAR.  |
| Neolithic                                 | New Stone Age. The period of human activity between 4,500 BCE and 2,500 BCE  |
| Ordnance Datum                            | The standard measure of sea level in the UK, from which all heights are measured for mapping purposes.   |
| Palaeolithic                              | Old Stone Age. The period of human and pre-human activity before around 10,000 BCE   |



| Term                                 | Definition   |
|--------------------------------------|--|
| Photomontage                         | A photorealistic image of the scheme, based on a 3D computer model of the scheme, overlaid onto a base photograph to visually represent the scheme. Features that would be removed as part of the scheme are removed from the base photograph. |
| Post-medieval                        | The period of human activity between 1550 CE and 1900 CE   |
| Prehistoric                          | The period before the year 43 CE   |
| Proposed Developed Area              | The area within the Site proposed for development where direct impacts on possible archaeological remains could occur  |
| Receptor                             | The existing environmental feature that would be affected by an impact – for instance a specific archaeological site   |
| Requirement                          | A requirement listed as a condition of planning permission   |
| Roman                                | The period of human activity between 43 CE and 410 CE  |
| Saxon                                | The period of human activity between 410 CE and 1066 CE  |
| Statutory Consultation               | Community and stakeholder consultation carried out in line with the statutory requirements set out in s42, s47 and s48 of the Planning Act 2008  |
| Zone of Theoretical Influence (ZVI)  | The zone from which the scheme could theoretically impart an impact based partly on visibility and professional judgement  |
| Zone of Theoretical Visibility (ZTV) | The zone from which the scheme is theoretically visible over ‘bare earth’  |

## Definitions

| Term                             | Definition  |
|----------------------------------|---|
| Curator                          | Archaeological advisor working to a statutory organisation controlling consents, such as the local planning authority, national heritage body or other government body.   |
| Designated Heritage Asset        | Assets registered on the National Heritage List for England. These may be protected by primary legislation (e.g. listed buildings, conservation areas, scheduled monuments) or have a non-statutory designation (e.g. World Heritage Sites, registered battlefields, registered parks and gardens, designated wrecks)   |
| Heritage Asset<br>NPPF (Annex 2) | <p>“A building, monument, site, place, area or landscape identified as having a degree of significance meriting consideration in planning decisions, because of its heritage interest.”</p> <p>Some heritage assets are designated as Scheduled Monuments, Listed Buildings, World Heritage Sites, Conservation Areas, Registered Parks and Gardens, Registered Battlefields, or locally designated through policies in the Local Plan. Undesignated assets may be recorded in Historic Environment Records, while many other assets are currently unrecorded.</p> <p>Information contained in HERs and SMRs is not definitive, since they may include features which, for instance, have been entirely removed, or are of uncertain location, dubious identification, or negligible importance. The identification of undesignated heritage assets is therefore to some extent a matter of professional judgement.</p> |

| Term  | Definition  |
|---|---|
|   | Both discrete features, and extensive landscapes defined by a specific historic event, process or theme, can be defined as heritage assets; and assets may overlap or be nested within one another.   |
| Listed Building   | A building or structure which is considered to be of 'special architectural or historic interest'   |
| Non-Designated Heritage Asset   | Assets identified by the local planning authority or national registers for the historic environment which have no formal designation but are considered to have a degree of significance meriting consideration in planning decisions. These can include locally listed buildings, information on sites held by the relevant Historic Environment Record and National Record of the Historic Environment   |
| Archaeological Site (also 'Monuments')  | Heritage assets which may consist of surface and/or sub-surface remains, features, deposits and/or material relating to past human activity with a degree of significance meriting consideration in planning decisions.   |
| Significance: NPPF  | "the value of a heritage asset to this and future generations because of its heritage interest. That interest may be archaeological, architectural, artistic or historic. Significance derives not only from a heritage asset's physical presence, but also from its setting"   |
| Significance: GAPN 2  | "The significance of a heritage asset is the sum of its archaeological, architectural, historic, and artistic interest. A variety of terms are used in designation criteria (for example, outstanding universal value for World Heritage Sites, national importance for scheduled monuments and special interest for listed buildings and conservation areas), but all of these refer to a heritage asset's significance."  |
| Significance: NPPF (PPG para 6) and Historic England guidance Statement of Heritage Significance: Analysing Significance in Heritage Assets (2019, HEAN 12) | Cultural values in the historic environment that people want to enjoy and sustain for the benefit of present and future generations.<br>Archaeological - There will be archaeological interest in a heritage asset if it holds, or potentially holds, evidence of past human activity worthy of expert investigation at some point;<br>Architectural - These are interests in the design and general aesthetics of a place. They can arise from conscious design or fortuitously from the way the heritage asset has evolved. More specifically, architectural interest is an interest in the art or science of the design, construction, craftsmanship and decoration of buildings and structures of all types;<br>Artistic - Artistic interest is an interest in other human creative skills, like sculpture;<br>Historic - An interest in past lives and events (including pre-historic). Heritage assets can illustrate or be associated with them. Heritage assets with historic interest not only provide a material record of our nation's history, but can also provide meaning for communities derived from their collective experience of a place and can symbolise wider values such as faith and cultural identity. |
| Setting: NPPF   | "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  |

| Term | Definition   |
|------|--|
|      | contribution to the significance of an asset, may affect the ability to appreciate the significance or may be neutral” (an extended consideration of Setting is contained in GAPN 3) |

## I10.0 References

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1. The National Planning Policy Framework (2024)  
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