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ES Chapter 9 - Heritage and Archaeology

Authored by Cotswold Archaeology

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THE CROWN
 ESTATE

East Hemel

9. Heritage and Archaeology

9.1 Introduction

9.1.1 This Chapter sets out the likely significant effects of the Development upon cultural heritage, which encompasses buried archaeological remains, built heritage and the historic landscape. This includes both designated and non-designated heritage assets. It has been prepared by Cotswold Archaeology, a Registered Organisation with the Chartered Institute for Archaeologists. This Chapter was prepared by Dr Mark Hewson and reviewed, and quality assured by Robert Sutton, a full Member of the Chartered Institute of Archaeologists and a practitioner with over 20 years of heritage and EIA assessment experience. This Chapter is supported by further detailed information contained within the following Appendices (all contained within **ES Volume 3**):

- **Appendix 9.1** Cotswold Archaeology (2025) East Hemel, Hemel Hempstead: Archaeological Desk-Based Assessment;
- **Appendix 9.2** Cotswold Archaeology (2025) East Hemel, Hemel Hempstead: Built Heritage Assessment;
- **Appendix 9.3** Consultation Table;
- **Appendix 9.4** Wardell Armstrong (2016) Geophysical Survey Report;
- **Appendix 9.5** Wardell Armstrong (2017) Heritage Statement;
- **Appendix 9.6** Oxford Archaeology (2017) Archaeological Pre-Determination Evaluation Report;
- **Appendix 9.7** Oxford Archaeology (2020) East Hemel Phase II: Archaeological Evaluation Report; and
- **Appendix 9.8** Wardell Armstrong (2020) Archaeological Desk-Based Assessment.

9.2 Assessment Methodology and Significance Criteria

Assessment Methodology

9.2.1 This section sets out the approach for the assessment of potential effects arising from the Works phase and the Completed and Operational Development phase of the Development upon the cultural heritage resource. The full assessment methodology adopted within both the Archaeological Desk-Based Assessment and the Built Heritage Assessment can be found in **ES Volume 3, Appendices 9.1** and **9.2**. In summary, the methodology principally followed the guidance provided by the Chartered Institute for Archaeology¹ and Historic England^{2,3}. It also adhered to the requirements of National and Local legislation and policy, set out in **ES Volume 3, Appendices 9.1** and **9.2**.

¹ Chartered Institute for Archaeologists. Standard and guidance for historic environment desk-based assessment. 2020.

² Historic England. Good Practice Advice 3: The Setting of Heritage Assets: Historic Environment Good Practice Advice in Planning Note 3. Second Edition. 2017.

³ Historic England. Conservation Principles: Policies and Guidance for the Sustainable Management of the Historic Environment. 2008.

9.2.2 Informed by the previous suite of documents prepared on behalf of the Applicant in support of the preparation of a previous draft planning application for the Site (**ES Volume 3, Appendices 9.4–9.8**) and utilising industry-standard GIS software, an initial analysis entailing a review of recorded heritage assets (built heritage, historic landscape, buried archaeological remains and earthworks) was undertaken in order to identify an informative, relevant and proportionate study area. On this basis a minimum 1km study area, measured from the boundaries of the Site, was initially considered appropriate to identify and address the potential impacts of the Development on receptors within the historic environment. However, through consultation with the Heritage Advisors at Historic England, St Albans City & District Council (SADC) and Dacorum Borough Council (DBC) this was refined to accommodate the assessment of specific heritage assets that lie at greater distance from the Site. This consultation process was also informed by the project ZTV, which takes account of up to a 5km study area from the boundary of the Site. Key consultation with Heritage Advisors is set out in the Consultation table in **ES Volume 3, Appendix 9.3**.

9.2.3 The sources collected to provide a suite of relevant and robust baseline data is set out in detail in **ES Volume 3, Appendices 9.1** and **9.2**. principally, however, these include:

- National Heritage List for England, for designated heritage assets, such as Listed Buildings, Scheduled Monuments and Registered Parks and Gardens;
- Hertfordshire Historic Environment Record, for records of archaeological discoveries and heritage assets;
- Historic England Archive, for the database of any further records of archaeological discoveries and heritage assets;
- Aerial photographs, available online and at the Historic England Archive, Swindon;
- The Environment Agency LiDAR data;
- Documentary sources and historic mapping relevant to the historic development of the Site and study area, available online and the local Record Office;
- Previous reports produced for the Site and the study area, including archaeological and heritage assessments, and geotechnical information;
- Online sources, including British Geological Survey information, reports and assessments; and
- Site visits and study area walkovers.

Limitations and Key Assumptions

9.2.4 It should be understood that desk-based assessment, geophysical survey and trial trench evaluation cannot absolutely preclude the discovery of unrecorded buried archaeological remains within the Site during the Works phase of the Development. The potential for any such discovery is, however, substantially reduced through the iterative process of assessment and pre-commencement archaeological investigation.

9.2.5 Following consultation with the St Albans Archaeological Advisor, a further phase of pre-determination trial trench evaluation within the Site was requested, and this is being undertaken in Autumn 2025. It is anticipated that the

results of this evaluation will not be completed and fully reported on prior to the submission of the ES. Therefore, any such results have not informed the conclusions of the Archaeological Desk-Based Assessment (**Appendix 9.1**) or this Chapter.

- 9.2.6 It is assumed that the Development would result in no direct impacts on designated and non-designated heritage assets within the Site.

Significance Criteria

Technical Assessment Approach to EIA

- 9.2.7 The value of a heritage asset (its heritage importance) is guided by its designated status but is also derived from its heritage interest, which may be archaeological, architectural, artistic or historic (NPPF Annex 2, Glossary)⁴ and the values of heritage assets, as defined within the English Heritage (now Historic England) Conservation Principles guidance³, which defines the value (heritage importance) of heritage assets with reference to the following four key aspects. It should be noted that the term *significance*, as adopted by the NPPF to describe the interests or values of a heritage asset or assets, has been avoided here to save confusion with the EIA terminology of significance criteria and 'significant effects' (instead the term 'value' is used).
- 9.2.8 The heritage values derived from Historic England's Conservation Principles³, that have informed the establishment of the heritage importance of known and potential heritage assets, are set out in **Table 9.1**.

Table 9.1: Heritage Values

Heritage Values	Description
Evidential	Derives from 'the potential of a place to yield evidence about past human activity' and is primarily associated with physical remains or historic fabric.
Historical	Derives from 'the ways in which past people, events and aspects of life can be connected through a place to the present'. This can derive from particular aspects of past ways of life, or association with notable families, persons, events or movements.
Aesthetic	Derives from sensory and intellectual stimulation and includes design value, i.e., 'aesthetic qualities generated by the conscious design of a building, structure or landscape as a whole'. It may include its physical form, and how it lies within its setting. It may be the result of design, or it may be an unplanned outcome of a process of events.
Communal	Derives from 'the meanings of a place for the people who relate to it'. Communal value derives from the meanings that an historic asset has for the people who relate to it, or for whom the asset features within their collective experience / memory. It may be commemorative or symbolic.

- 9.2.9 The way in which heritage importance is expressed within this Chapter has been specifically developed, based on good practice, to ensure that it is fully aligned with the Planning (Listed Buildings and Conservation Area) Act 1990⁵, the National Planning Policy Framework (NPPF)⁴ and Historic Environment Good Practice Advice in Planning Note

⁴ Ministry for Housing, Communities & Local Government. 2024. National Planning Policy Framework (NPPF).

⁵ Planning (Listed Buildings and Conservation Areas) Act. 1990.

²⁶ (**Table 9.2**). The statements of significance development for each of the assets reflects the language of the Planning Act 1990, utilising terms such as and “*architectural and historic interest*” (of Listed Buildings). Further frames of reference, specifically those found within Conservation Principles³ (**Table 9.1**), allow for the terms “*evidential*”, “*historical*”, “*aesthetic*” and “*communal*” to be used to convey the many heritage values that combine to make up the heritage significance of an asset.

9.2.10 Each identified heritage asset will be assigned a value in accordance with the criteria set out in **Table 9.1**. Using professional judgement and the results of consultations, the assessment of the values has been informed by guidance noted in paragraph 9.2.7 and takes account of paragraph 213 of the NPPF⁴, which defines heritage assets of the ‘highest significance’, namely: World Heritage Sites, Scheduled Monuments, Protected Wreck Sites, Registered Battlefields, Grade I and II* Listed Buildings, and Grade I and II* Registered Parks and Gardens. Heritage assets have been assessed on an individual basis and regional variations and individual qualities considered where applicable.

Table 9.2: Heritage Asset Importance (Value)

Importance (Value)	Description / Criteria
Negligible	Heritage assets with very little or no surviving archaeological (evidential) value.
	Heritage assets or groups of assets that cannot appreciably contribute to acknowledged regional research objectives.
	Historic landscapes exhibiting little or no coherence, time depth or other critical factors and displaying evidential, historic, aesthetic, and communal value.
	Buildings of no architectural or historical note.
Low	Heritage assets displaying limited evidential, historic, aesthetic, or communal value.
	Heritage assets, or groups of assets, that contribute to a limited degree to regional research objectives.
	Historic landscapes exhibiting limited coherence, time depth or other critical factors. Historic landscapes whose sensitivity is limited by poor preservation and/or poor survival of contextual associations.
Medium	Locally listed buildings and unlisted buildings of modest quality due to their fabric or historical association(s).
	Heritage assets, or groups of assets or landscapes, that contribute to regional research objectives.
	Historic landscapes exhibiting reasonable coherence, time depth or other critical factors (including degree of preservation) and displaying evidential, historic, aesthetic, and communal value.
	Grade II Registered Parks/Gardens.
	Grade II Listed Buildings or historic buildings which can be shown to be of comparable importance (value).

⁶ Historic England. Historic Environment Good Practice Advice in Planning Note 2 – Managing Significance in Decision-Taking in the Historic Environment. 2015.

Importance (Value)	Description / Criteria
	<p>Conservation Areas containing important buildings which contribute significantly to their historic character, or historic townscapes with important historic integrity.</p>
<p>High</p>	<p>World Heritage Sites and heritage assets of acknowledged international importance, or that can contribute significantly to acknowledged international research objectives.</p> <p>Historic landscapes of international sensitivity (designated or not) and extremely well-preserved historic landscapes with exceptional coherence, time depth, or other critical factor(s).</p> <p>Scheduled Monuments and non-designated assets of schedulable quality and importance, according to the non-statutory criteria for scheduling ancient monuments, as adopted by the Secretary of State.</p> <p>Heritage assets or groups of assets that can contribute substantially to acknowledged national research objectives.</p> <p>Historic landscapes exhibiting considerable coherence, time depth or other critical factors and displaying considerable evidential, historic, aesthetic and communal value as identified by HE's Conservation Principles.</p> <p>Grade I and II* Registered Parks/Gardens.</p> <p>Grade I and II* Listed Buildings or other Listed Buildings that can be shown to have exceptional qualities in their fabric or associations not adequately reflected in their Listing grade, or undesignated structures of clear national importance.</p>

9.2.11 The statements of *significance* for each asset describe “*what matters and why*”, i.e. which aspects of an asset and its setting contribute to the heritage importance of the asset and how they contribute. Although the statements also rightly acknowledge the fabric of heritage assets as representing the principal embodiment and physical manifestation of their heritage importance, the surroundings of the assets, and the ways in which they can be experienced, often contribute to their overall heritage importance (value). This has therefore been assessed in line with Historic England’s settings assessment guidance².

9.2.12 The criteria which have been adopted for this Chapter utilise terminology derived directly from the NPPF⁴. The language used in the ES Chapter is therefore entirely consistent with the NPPF and the Planning Act 1990⁵, in other relevant guidance listed above and in **ES Volume 3, Appendices 9.1 and 9.2**, and thus will provide the decision-maker with sufficient information to understand how change could bring benefit or harm to the heritage importance (value) of an asset(s), enabling an informed judgement to be reached.

Determining Magnitude of Impact

9.2.13 The magnitude of impact upon heritage assets is defined as the change resulting from the Development that affects the asset. The classification of the magnitude of change on heritage assets is rigorous and based on consistent criteria. This takes account of such factors as the physical scale and type of disturbance anticipated and whether features or evidence would be lost that are fundamental to their historic character and integrity.

9.2.14 Impacts upon heritage assets can arise during the Works phase and the Completed and Operational phase of the Development. They can be positive or negative; direct or indirect; long term, reversible or temporary, or permanent

and irreversible. Impacts can affect the physical fabric of the heritage asset or their setting. Direct physical impacts are considered permanent and result in the total, or partial loss of a heritage asset; these impacts are not reversible. Impacts arising from changes to setting are split between those resulting from Works activities, which can be temporary, or long-term, lasting for the duration of the Works phase of the Development and those resulting from the Completed and Operational phase of the Development.

- 9.2.15 It should be noted, however, that change may not necessarily be harmful to heritage assets. For example, judgements (such as paragraph 45 of the judgement by Lindblom J in R (Forge Field Society) v. Sevenoaks DC [2014] EWHC 1895 (Admin))⁷ have clarified that in the context of the Planning (Listed Buildings and Conservation Areas) Act 1990⁸ 'preserving' means doing 'no harm'; and does not necessarily mean 'no change'. Similarly, Historic England's (English Heritage) Conservation Principles defines 'preserve' as 'to keep safe from harm'. The assessment of change will include the consideration of such issues as: which, and how many, elements of an asset are affected; whether the change physically modifies the asset or whether it comprises changes in visual aspects, noise or access that would alter its setting; and whether the change in the value of an asset will be adverse or beneficial.
- 9.2.16 In terms of the assessment of effects arising from change to an asset's setting, the guidance provided by Historic England in Good Practice Advice in Planning: Note 3 (GPA3): The Setting of Heritage Assets (2017)² makes clear that 'analysis of setting is different from landscape assessment. While landscapes include everything within them, the entirety of very extensive settings may not contribute equally to the importance (value) of a heritage asset, if at all.'
- 9.2.17 The level and degree of impact (impact rating) will be assigned with reference to the criteria set out in **Table 9.3**. The assessment of the level and degree of impact will be made in consideration of any Development design mitigation (embedded mitigation).
- 9.2.18 If no impact is likely, it is reported for the purposes of this assessment as 'no change' with a resulting 'neutral effect'.

Table 9.3: Factors influencing the assessment of magnitude of impacts

Magnitude of impact	Description / Criteria
High	<p>Changes such that the importance of the asset is totally altered or destroyed.</p> <p>Comprehensive change to, or total loss of, elements of setting that would result in harm to the asset and our ability to understand and appreciate its importance.</p> <p>Change to most or all key valued historic landscape elements, parcels or components; changes to valued sound quality; fundamental changes to valued use or access.</p>
Medium	<p>Change such that the importance of the asset is significantly altered or modified.</p> <p>Changes such that the setting of the asset is noticeably different, affecting importance and resulting in changes in our ability to understand and appreciate the importance of the asset.</p>

⁷ Lindblom J in R (Forge Field Society) v. Sevenoaks DC [2014] EWHC 1895 (Admin). <https://www.middevon.gov.uk/media/357100/cd60-r-forge-field-society-v-sevenoaks-dc-2014-ewhc-1895-admin-penshurst-place-affordable-housing-case.pdf>

⁸ Planning (Listed Buildings and Conservation Areas) Act (1990). <https://www.legislation.gov.uk/ukpga/1990/9/contents>

Magnitude of impact	Description / Criteria
	Changes to many key historic landscape elements, parcels or components; noticeable differences in valued sound quality; considerable changes to valued use or access.
Low	<p>Changes such that the importance of the asset is slightly affected.</p> <p>Changes to the setting that have a slight impact on importance resulting in changes in our ability to understand and appreciate the importance of the asset.</p> <p>Change to a few key historic landscape elements, parcels or components; some limited changes to valued sound quality; slight changes to valued use or access.</p>
Very Low	Changes to the asset that hardly affect importance. Changes to the setting of an asset that have little effect on importance and no real change in our ability to understand and appreciate the importance of the asset.
No Change	<p>No impact.</p> <p>Inconsequential changes to archaeological or historic building elements or their settings; to key historic landscape elements, parcels or components.</p>

Determining Significance of Effect

- 9.2.19 The assessment of the effect of the Development upon the heritage resource has considered numerous factors, including the scale of development, the type and extent of physical disturbance and the visual effects. In this approach to the EIA, the extent of the effects identified is defined through appropriate description of the anticipated degree of harm upon any sensitive heritage receptors. Such descriptions define whether the effects will affect the assets or their settings, considering the heritage importance (value) of the assets as well as the identified effects, and their extent.
- 9.2.20 The significance of effect upon any historic asset is a product of the importance of the asset, and the magnitude of change upon its values. The method employed to ascertain the significance of the effect is presented in **Table 9.4**, where a range of significance levels is presented, the final assessment for each effect is based upon expert judgement.
- 9.2.21 Regarding the scale of the effect upon the sensitive receptors (the assets), the key principle that has been considered is whether the effect is significant in terms of the EIA regulations. For the purposes of this Chapter significant effects are of **moderate significance of effect or higher**. The significance of effect can be adverse or beneficial. Such effects may also be temporary or permanent, reversible or irreversible, and cumulative. When a significant effect is identified, it may be appropriate to propose suitable mitigation measures to avoid, reduce or offset the effect. Any effects with a significance level of **minor** or less are not considered to be significant in terms of the EIA Regulations. Where the magnitude of impact is 'no change', no effect would arise.

Table 9.4: Assessment of effect matrix

Value of Receptor (asset)	Magnitude of Impact				
	No Change	Vey Low	Low	Medium	High
Negligible	No effect	No effect	Negligible or Minor	Negligible or Minor	Minor
Low	No effect	No effect	Negligible or Minor	Minor	Minor or Moderate
Medium	No effect	Negligible	Minor	Moderate	Moderate or Major
High	No effect	Negligible or Minor	Minor or Moderate	Moderate or Major	Major

9.2.22 The measured significance of effect may be equated to key concepts in planning policy and heritage guidance regarding the assessment of development effects upon historic assets. When a significant effect is identified, it may be appropriate to propose suitable mitigation measures to avoid, reduce or offset the effect. The definitions for significance of effect levels are described in **Table 9.5** below.

Table 9.5: Definitions of significance of effect

Significance of effect	Definition
Major	<p>Adverse: Extensive harm to the values of a designated historic asset (or asset worthy of designation) such that development should not be consented unless substantial public benefit is delivered by the development. Total loss of a historic asset of medium importance without compensatory mitigation measures. Extensive harm to a landscape designated by virtue of its historic landscape value.</p> <p>Beneficial: Development will deliver a positive contribution and / or better reveal the values of a designated historic asset of recognised greater importance such that an application should be treated very favourably.</p>
Moderate	<p>Adverse: Less than extensive harm to the values of a designated historic asset (or asset worthy of designation) such that the harm should be weighed against the public benefit delivered by the development to determine consent. Total loss of a non-designated historic asset of medium importance (i.e. which may contribute to regional research objectives) with compensatory mitigation measures agreed with statutory consultees. Harm to a non-designated historic asset, of a greater degree than that perceived of as Minor Adverse, which should be considered in determining an application.</p> <p>Beneficial: Development will deliver a positive contribution and / or better reveal the values of a designated historic asset (or asset worthy of designation) such that an application should be treated favourably</p>
Minor	<p>Adverse: Less than extensive harm to the value of a designated historic asset, of a lesser degree than that perceived as Moderate Adverse, but which should still be weighed against the public benefit delivered by the development to determine consent. Harm to a non-designated historic asset that can be adequately compensated through the implementation of a programme of industry standard mitigation measures.</p> <p>Beneficial: Development will deliver a positive contribution and / or better reveal the values of a non-designated historic asset.</p>

Significance of effect	Definition
Negligible	Effect that is imperceptible.
No Effect	Effect that is nil.

Assessing Cumulative Effects

- 9.2.23 Cumulative effects have the potential to arise where the construction and / or operation of two or more developments would result in effects to the same cultural heritage asset.
- 9.2.24 For a cumulative impact to arise because of direct, physical impacts during construction, another development would have to impact the same heritage asset as the Development.
- 9.2.25 Cumulative impacts arising from changes to the setting of a heritage asset can arise where, for example, built components of another development, when viewed alongside the above-ground components of the Development, contribute to a change in setting that could affect an asset's heritage value. Cumulative impacts may also arise where there is potential for change to a heritage asset's setting arising from an increase in noise levels. This is relevant for assets where a particular noise environment contributes to the appreciation and understanding of the asset's function.

9.3 Relevant Baseline Conditions

- 9.3.1 Archaeological remains (assets) and the prevailing Historic Landscape Character recorded within the Site and wider study area are described in detail within **ES Volume 3, Appendix 9.1**. The former are identified therein using a unique Asset Reference (e.g. Asset **1**, Asset **A**). Designated heritage assets are referenced alphabetically, and non-designated heritage assets are referenced numerically. Built Heritage assets recorded within the Site and wider study area are described in detail within **ES Volume 3, Appendix 9.2**. All designated heritage assets are referenced numerically therein using a unique Asset Reference (e.g. CA Asset **1**, CA Asset **2**).

Archaeology

- 9.3.2 Key archaeological remains which have the potential to be impacted by the Development, and which could be subject to significant effects (sensitive heritage receptors) are identified below and their value detailed such that the potential impacts can be assessed. As such it should be noted that not all recorded archaeological remains within the Site are reported on and assessed within this ES Chapter; details of all known and potential archaeological remains not discussed here are set out and discussed in **ES Volume 3, Appendix 9.1**.
- 9.3.3 This section summarises the key baseline environmental characteristics for the Development and surrounding areas with specific reference to heritage assets of archaeological interest (buried and earthwork archaeological

remains). This represents a summary of the known and potential archaeological resource, focusing on remains that are likely to be impacted upon by the Development with potential for significant adverse effects.

Early Prehistoric Remains (Palaeolithic to Neolithic)

- 9.3.4 The baseline evidence set out in **ES Volume 3, Appendix 9.1** has shown that activity dating to the Mesolithic period comprised residual finds within later archaeological features, and evidence of the Neolithic period is confined to a single pit within the northern part of the Site.

Bronze Age to Late Iron Age Remains

- 9.3.5 The baseline evidence set out in **ES Volume 3, Appendix 9.1** and informed by the preceding geophysical survey (**ES Volume 3, Appendix 9.4**) and two trial trench evaluations (**ES Volume 3, Appendices 9.6** and **9.7**) have identified both settlement areas and isolated features dating from the Bronze Age to the Late Iron Age within the Site. Notable concentrations of settlement activity comprising postholes, pits and ditches lie within Fields 10, 12, 13, 14 and 23, with many isolated findspots of pits and ditches across the whole of the Site. It should be noted that areas of recorded Bronze Age to Iron Age activity are focused upon the elevated land, around the 130-135m AOD contour, within the Site, appearing to have avoided lower-lying areas of the landscape that may have been seasonally waterlogged or otherwise less suitable for settlement. On the basis of this evidence, there is a high potential for the presence of remains associated with settlement activity within the Site dating to these periods.

Late Iron Age and Roman Period Remains

- 9.3.6 The baseline evidence set out in **ES Volume 3, Appendix 9.1** and informed by the preceding geophysical survey (**ES Volume 3, Appendix 9.4**) and two trial trench evaluations (**ES Volume 3, Appendices 9.6** and **9.7**) have identified the presence of Late Iron Age to Roman period remains within the Site. Areas of settlement activity have been recorded within the Site in Field 9 and just outside the Site in Field 37. Isolated findspots of ditches and trackways area also recorded across the rest of the Site, likely representing the wider agricultural landscape around these settlements. A particular concentration of ditches date to the Roman period was recorded during the M1 Widening Works just outside the Site, which could be associated with a wider agricultural hinterland that once surrounded a potential Roman villa located c.60m to the south-west of the Site. In addition, remains of a potential Late Iron Age settlement were recorded within Field 23 close to this potential villa site.

Early medieval and medieval remains

- 9.3.7 The baseline evidence set out in **ES Volume 3, Appendix 9.1** and informed by the preceding geophysical survey (**ES Volume 3, Appendix 9.4**) and two trial trench evaluations (**ES Volume 3, Appendices 9.6** and **9.7**) have identified that there is a limited potential for the presence of early medieval remains within the Site. The only evidence of the period comprises two findspots of metalwork outside of the Site boundary. It did, however, identify a potential for the presence of medieval remains within the Site, which would comprise buried and earthwork evidence primarily associated with agricultural activity (former field boundaries and ridge and furrow). There may also be discrete features such as pits perhaps associated with short-lived, small-scale settlement activity. The

presence of multiple farmsteads within the Site, whilst dating to the post-medieval period, may have their origins in the medieval period, most notable of these is the former site of Bottom House (Field 19), in the vicinity of which there is earthwork evidence of former ridge and furrow, a possible circular boundary feature and below ground structural remains. Others, notably Westwick Row Farm and Breakspears could also have their origins in the period, though there is no evidence to demonstrate this.

Post-medieval and modern remains

- 9.3.8 The baseline evidence set out in **ES Volume 3, Appendix 9.1** and informed by the preceding geophysical survey (**ES Volume 3, Appendix 9.4**) and two trial trench evaluations (**ES Volume 3, Appendices 9.6** and **9.7**) have identified that the Site was likely agricultural in character throughout the post-medieval and modern period. Former field boundaries and remains of post-medieval ridge and furrow likely survive as below ground archaeological features or shallow earthworks, as well as evidence of former quarry or clay extraction pits, which could be of medieval to post-medieval origin.
- 9.3.9 The above ground remains of the 19th century Nickey Line (former railway line) in the north of the Site are present, as are post-medieval remains of former farmsteads within the Site, notably the site of Bottom House in Field 19 (which may have medieval origins, as noted above), a former farmstead within Field 30 near to Corner Farm, and the remains of a brick-built structure in Field 23 close to Westwick Row (**ES Volume 3, Appendix 9.1**).

Historic Landscape Character

- 9.3.10 The majority of the Site is recorded as post-1950 fields in the Historic Landscape Characterisation (HLC) data provided by Hertfordshire HER, reflecting the reorganisation of the landscape around the M1 motorway that was established in the late 1950s and / or a result of the enlargement of fields to allow for the use of modern farming techniques and machinery, as demonstrated on the 20th century Ordnance Survey maps (**ES Volume 3, Appendix 9.1**). In addition to this, the motorway passes through part of the centre-east of the Site.
- 9.3.11 A large section of the southern part of the Site is located within an area classed as 'pre-18th century irregular enclosure', with a small central and a northern section of the Site being within an area classed as pre-18th century co-axial enclosure. Co-axial enclosure is a rare landscape type within the SADC. Fields 16 and 17 comprise an isolated parcel of co-axial enclosure within the centre of the Site, whereas Field 3 is recorded as comprising part of a wider parcel of co-axial enclosure extending to the north of the Site. However, the area recorded as pre-18th century co-axial enclosure where Field 3 is located, has experienced field boundary loss since the 18th century and fragmentation from the construction of the Nickey Line and thus, is either incorrectly classified or is a poor representation of this type of historic landscape character.
- 9.3.12 The historic external and internal boundaries of the Site, currently formed by hedgerows / dense vegetation were probably established during the post-medieval period, and are depicted on the 1634 and 1768 map of the Gorhambury Estate, and the 1843 St Michaels and 1845 Redbourn Parish Tithe Maps (**ES Volume 3, Appendix 9.1**; Figure 19). Hedgerows along these extant historic boundaries meet Sections 1 and 5 of the criteria of 'important'

historic hedgerows as set out in the Hedgerows Regulations (1997)⁹. Boundaries of note comprise those historic boundaries forming the western Site boundary, which defines the parish boundary between Hemel Hempstead, St Michaels and Redbourn, and those boundaries that line Hogg End Lane forming the boundary between the St Michaels and Redbourn parishes.

Summary of Sensitive Archaeology and Historic Landscape Receptors

9.3.13 **Table 9.6** below sets out a summary of the heritage importance (value) of known and potential archaeological remains which may be affected by the Development (sensitive heritage receptors). Recorded below ground remains and historic landscape elements within the Site which hold negligible heritage values are reported in **Table 9.6** too below but are not further considered within this Chapter as they would not comprise heritage assets (as per **Table 9.2**) meriting consideration in the decision-making process.

Table 9.6: Heritage Asset Importance (Value)

Known / Potential Archaeological Remains (Receptor)	Description	Summary of Heritage Values	Value
Early Prehistoric Remains (Palaeolithic – Mesolithic)	Potential residual finds within later archaeological features and dispersed / isolated features with associated artefacts.	Such remains would retain evidential and historical value since even residual and dispersed or isolated remains of these periods would still contribute to regional research objectives.	Medium
Bronze Age to Late Iron Age Remains	Known and potential remains of Bronze Age to Late Iron Age settlement, associated agricultural activity, which could be associated with contemporary activity nearby such as that recorded during the M1 Widening Works.	Such remains would retain evidential and historical value on the basis of their potential to contribute to regional research objectives.	Medium
Late Iron Age and Roman Period Remains	Known and potential remains of the Late Iron Age and Roman period settlement remains and associated agricultural activity within the wider hinterland of the Late Iron Age settlement of <i>Verlamion</i> at Prae Wood and Roman <i>Verulamium</i> close to St Albans.	Such remains would retain evidential and historical value based on their potential to contribute to regional research objectives.	Medium
Early Medieval and Medieval Remains	Potential remains of the early medieval period would likely comprise residual and isolated artefacts.	Such remains would retain very limited evidential and historical value and would make no appreciable contribution to regional research objectives.	Negligible

⁹ Hedgerows Regulations 1997. Statutory Instrument 1997 No. 1160.

Known / Potential Archaeological Remains (Receptor)	Description	Summary of Heritage Values	Value
	<p>Known and potential remains of the medieval period would predominantly comprise evidence of buried and earthwork agricultural activity.</p> <p>Potential medieval buried and earthwork remains of former structures in Field 19, associated with the former farmstead of Bottom House.</p>	<p>Such remains would retain very limited evidential and historical value and would make no appreciable contribution to regional research objectives.</p> <p>Should such remains be of medieval origin these would retain evidential and historical value and would contribute to regional research objectives.</p>	<p>Negligible</p> <p>Medium</p>
<p>Post-medieval and Modern Remains</p>	<p>Known and potential remains agricultural origin, comprising former field boundaries, buried and earthwork evidence of post-medieval ridge and furrow and evidence of former quarry or clay extraction pits.</p> <p>Above ground remains of the 19th century Nickey Line, post-medieval remains of former farmsteads comprising Bottom House in Field 19, a former farmstead in Field 30 and the remains of a brick-built structure in Field 23 close to Westwick Row.</p>	<p>Such known and potential remains would retain very little evidential value and would not appreciably contribute to regional research objectives.</p> <p>Such known and potential remains would retain very little evidential value and would not appreciably contribute to regional research objectives.</p>	<p>Negligible</p> <p>Negligible</p>
<p>Historic Landscape Character</p>	<p>Much of the Site is characterised by post-1950 fields, especially in its northern half, with a large section of the southern part of the Site located within an area of pre-18th century irregular enclosure. Within Fields 16 and 17 in the central part of the Site and possibly in Field 3 in the north there are areas classed as pre-18th century co-axial enclosure.</p>	<p>Those parts of the Site characterised as post 1950s fields are common features in the wider landscape and are not of sufficient heritage value to warrant their identification as non-designated heritage assets.</p> <p>The remaining parts of the Site characterised as pre-18th century irregular enclosure and as pre-18th century co-axial enclosure retain some heritage value on the basis that these parcels retain a</p>	<p>Negligible</p> <p>Low</p>

Known / Potential Archaeological Remains (Receptor)	Description	Summary of Heritage Values	Value
	Extant historic hedgerow boundaries within the Site that meet the criteria of 'important' historic hedgerows.	<p>limited measure of coherence, albeit limited by poor survival of contextual associations. It is unlikely these remaining parcels warrant identification as non-designated heritage assets.</p> <p>These hedgerows retain limited evidential and historical value on the basis that they help illustrate the enclosed landscape pattern and demarcation of historic parishes. However, this evidence only makes a limited contribution to regional research objectives.</p>	Low

Built Heritage

- 9.3.14 A study area of 1km was used to identify those designated heritage assets that have potential to be affected by the Development as a result of changes to their setting. The area beyond 1km was also examined and, as a result, a number of designated heritage assets outside the 1km study area were also considered for assessment. On this basis a total of 57 designated heritage assets, including those located within the Site, were identified as potentially susceptible to harm as part of Step 1 of Historic England's setting guidance¹⁰, all of which are set out in **ES Volume 3, Appendix 9.2**. The stepped assessment process is also set out in detail in **ES Volume 3, Appendix 9.2** and is not repeated here.
- 9.3.15 The Site visit, and study area walkover, identified that there would be no non-physical impact (i.e. impact to setting) upon the importance of any other heritage assets as a result of changes to the use and/or appearance of the Site. As such, the Development does not result in any non-physical harm to the importance of these assets, and they were not assessed in any further detail.
- 9.3.16 Following an initial analysis of heritage assets using GIS tools and on-site survey, 28 of the remaining 57 assets were deemed not to be at sufficient risk of adverse effects from the Development within the Site. Due to several factors, set out in detail in **ES Volume 3, Appendix 9.2**, the importance of these assets would be preserved

¹⁰ Historic England. Good Practice Advice 3: The Setting of Heritage Assets: Historic Environment Good Practice Advice in Planning Note 3. Second Edition. 2017.

following the progression of the Development and no impacts are likely. These assets were therefore also not taken forward for assessment at Step 2 or Step 3.

9.3.17 The remaining 29 heritage assets were assessed in accordance with Steps 2 to 3 of Historic England's guidance. Step 2 considered the contribution that setting makes to the importance of potentially susceptible heritage assets. Step 3 considered how, if at all, and to what extent any anticipated changes to the setting of those assets, as a result of the Development, might affect their importance. **Table 9.7** sets out these heritage assets.

Table 9.7: Built Heritage Assets requiring detailed settings assessment

CA Asset ref	List Entry	Description	Designation	Value
1	1102907	Wood End Farm Cottages	Grade II Listed Building	Medium
2	1102945	Large Barn At Wood End Farm, 30 Metres South South West Of Farmhouse	Grade II Listed Building	Medium
3	1347230	Wood End Farmhouse	Grade II Listed Building	Medium
4	1175227	Breakspears	Grade II Listed Building	Medium
5	1102897	Westwick Row Farmhouse	Grade II Listed Building	Medium
6	1175429	L-Shaped Range Of Barns On South Side Of Farmyard At Westwick Row Farm	Grade II Listed Building	Medium
13	1295539	Restaurant At Aubrey Park Hotel	Grade II Listed Building	Medium
19	1175042	Large Timber Framed Barn At Kettlewells Farm	Grade II Listed Building	Medium
20	1175341	Cowshed At Kettlewells Farm	Grade II Listed Building	Medium
21	1295404	Rectangular Garden Wall 100 Metres North Of Old Gorhambury	Grade II Listed Building	Medium
22	1347215	Small Stable Block, 30 Metres North Of Old Gorhambury	Grade II Listed Building	Medium
23	1175197	Remains Of Old Gorhambury	Grade I Listed Building	High
24	1102918	Temple Cottage (300 Metres South Of Old Gorhambury)	Grade II* Listed Building	High
27	1102914	Westwick Hall	Grade II Listed Building	Medium
29	1360814	Dell Cottage	Grade II Listed Building	Medium
30	1347245	King Charles II Cottage	Grade II Listed Building	Medium
32	1102898	Westwick Cottage	Grade II* Listed Building	High
34	1295419	Hill End Cottages	Grade II Listed Building	Medium
36	1102913	Hill End Farmhouse	Grade II Listed Building	Medium
37	1251211	The Cottage	Grade II Listed Building	Medium
39	1175334	North And East Ranges Of Outbuildings Bounding The Main Yard At Corner Farm	Grade II Listed Building	Medium
40	1102888	West Range Of Outbuildings Bounding The Main Yard At Corner Farm, Including Pigsty	Grade II Listed Building	Medium
41	1295340	Corner Farmhouse	Grade II Listed Building	Medium

CA Asset ref	List Entry	Description	Designation	Value
42	1347243	L-Plan Range Of Outbuildings On South And East Sides Of East Yard At Corner Farm	Grade II Listed Building	Medium
43	1347242	Beechtree Cottages	Grade II Listed Building	Medium
49	1000417	Gorhambury	Grade II Listed Building	Medium
51	1003520	Aubreys Camp	Scheduled Monument	High
52	1003525	Bacon's House, Gorhambury	Scheduled Monument	High
53	1015490	Romano-Celtic temple complex at Wood Lane End, 280m SW of Woodwells Farm	Scheduled Monument	High

9.4 Likely Effects of the Development and their Significance

Embedded Mitigation

Approach

- 9.4.1 With respect to the Historic Environment, visual characteristics that comprise measures of embedded mitigation are those that have been 'designed into' the proposals and are integral to the Development.
- 9.4.2 All aspects of the historic environment (archaeology, designated heritage assets and historic buildings, and historic landscape elements) have been considered. This iterative process, which has been informed by assessment and survey work (including desk-based assessments (**ES Volume 3, Appendices 9.1, 9.2, 9.5 and 9.8**), geophysical survey (**ES Volume 3, Appendix 9.4**) and trial trench evaluation (**ES Volume 3, Appendices 9.6 and 9.7**)), has influenced the design of the Development in order to avoid or minimise potential significant adverse effects on the identified sensitive heritage receptors as far as practicable during the Works phase and the Completed and Operational Development phase. The Development has taken into consideration the designated and non-designated heritage assets within the Site and within its surroundings in order to minimise impacts on the historic environment.
- 9.4.3 In addition, the implementation of sensitive Works methodologies including consideration of associated noise, dust, timing of Works activities, associated lighting, locations of compounds and temporary accesses, along with secondary mitigation measures, have been considered where relevant to heritage assets (i.e. in terms of resultant change within the settings of heritage assets). The specific methodologies are set out in the Construction Environmental Management Plan (CEMP) (**ES Volume 3, Appendix 6.1**).

Archaeology

- 9.4.4 The completed programme of trial trench evaluations (**ES Volume 3, Appendices 9.6 and 9.7**) and ongoing trial trench evaluation (report forthcoming) will enable a better understanding of the archaeological resource within

the Site, and implementation of appropriate mitigation measures ahead of construction. A critical assumption here relates to the nature and scope of mitigation measures available to completely avoid or minimise adverse impacts. This is discussed in further detail in Section 9.5 of this Chapter, however, in summary, the detailed design process of the proposed development will allow for important buried archaeological remains to be protected from any form of disturbance or appropriately recorded.

Built Heritage

9.4.5 With respect to designated built heritage assets within the Site the Development would incorporate a buffer between the Grade II Listed Wood End Farm Cottages (CA Asset **1**) and the Development (including new built form, the Sustainable Transport Corridor (STC), link road and upgrades to Redbourn Road). The buffer, anticipated to comprise open land and vegetation screening, would temper the impact of modern intervention and therefore limit adverse effects on the significance of the cottages. The sense of association of CA Asset **1** with the Grade II Listed Buildings of the Wood End Farmstead (CA Assets **2** and **3**) would also be appreciable through retention of the public right of way. The Proposed Development would also capitalise on the unique opportunity to repurpose the Wood End farmstead as a visitor 'hub' at the west extent of a large, new Country Park, which would extend eastwards across the Site. This aspect of the Development would incorporate a community use of the asset, allowing for a greater appreciation of the Listed Buildings' significance by a wider cohort of the public. In the south-west of the Site the conscious curation of the Grade II Listed farmstead buildings of Westwick Row Farmhouse and its associated range of barns (CA Assets **5** and **6**) though targeted demolition and repurposing of retained buildings would enhance an understanding of the farmstead's 19th-century character and configuration. The historic courtyard would be preserved and the complex of buildings legible in their historic form, without the modern structures that are of no heritage importance.

9.4.6 Outside the boundary of the Site, a considered approach of embedded mitigation by design has been taken on account of the high level of importance of the Grade II* Listed Westwick Cottage (CA Asset **32**), adjacent to the south-west of the Site. Open space, including allotment use, will be retained around the asset, with only low density residential housing that would rise to a maximum of 10m-14m in height, comparable to the height of the Listed Building and modern housing within Leverstock Green to the north-west, set back from the asset to the south-east and south-west. This would ensure that the sense of separation from other residential properties that the Listed Building currently has is retained.

The Works

Archaeology

9.4.7 The Works are described in **ES Volume 1, Chapter 6: The Works** and are not reiterated here.

9.4.8 An extensive phase of trial trench evaluation is currently underway, the results of which will be presented as an Addendum to this Chapter in due course. This will supplement the baseline data presented in **Appendix 9.1**, which is summarised above in Section 9.3. At this point, however, there remains a degree of uncertainty regarding the extent and importance (value) of buried archaeological remains within the Site. With the suite of industry standard

mitigation measures available, however, comprising preservation *in situ* for the most important (valued) remains and archaeological recording for most discoveries, significant effects on buried archaeological remains are not expected.

- 9.4.9 Groundworks and excavations associated with the Works could result in the disturbance to, or loss of, any buried archaeological remains that may be present within their footprint, resulting in the total or partial loss of the value of these assets. The extent of the impact would be dependent on the type and depth of the proposed excavations, and on the level of survival of archaeological deposits. Any adverse effects on buried archaeological remains would be permanent and irreversible in nature, whether or not any element of the Works is temporary in nature (e.g., ground excavation for temporary services, compounds, lighting and hoardings).
- 9.4.10 During the Works, construction effects would affect the physical remains and thus the archaeological interest component of the value of a heritage asset. In relation to archaeological remains that have no surface expression (i.e. no associated aboveground remains), archaeological interest is the key interest (and is being assessed here). Other interests (such as historical) depend upon 'direct experience of fabric or landscape', for instance earthwork remains of ridge and furrow¹¹. Thus, change (if any) to the historic interest of a heritage asset is discussed under the Completed and Operational Development (see below).
- 9.4.11 The greatest degree of truncation or removal of below ground archaeological remains will be in the areas of Residential-Led Built Development, the Commercial area, the Secondary School Site, the STC, Multi-Value SuDS ponds and other Multi-Value ponds and to a lesser extent, the area allocated for Playing Pitches. Any archaeological remains within these areas are likely to be truncated or entirely removed due to the excavation of foundations, landscaping, the installation of utilities, compounds and roads/access routes. The works for the playing pitch and open green space areas, would likely result in limited truncation to the uppermost elements of buried archaeological remains within their footprint.

Early Prehistoric Remains (Palaeolithic to Neolithic)

- 9.4.12 Known and potential buried archaeological remains of early prehistoric origin would be isolated and residual where present. Such remains would retain evidential and historical value which would be of **Medium** value on the basis of such remains to contribute to regional research objectives, albeit only residual and dispersed / isolated remains are likely to be present. There would be a **medium** magnitude **direct** impact on such remains within the footprint of the Works. This prior to any further mitigation would result in a **direct permanent effect of moderate adverse significance**. This is a **significant effect** in EIA terms.

Bronze Age to Late Iron Age Remains

- 9.4.13 Known and potential remains of Bronze Age to Late Iron Age origin would retain evidential and historical value, which would be of **Medium** value as evidence of settlement and associated agricultural activity, which could be associated with contemporary activity nearby such as that recorded during the M1 Widening Works (**ES Volume 3**,

¹¹ English Heritage (EH). Conservation Principles: Policies and Guidance for the Sustainable Management of the Historic Environment. 2008.

Appendix 9.1). This importance is ascribed on the basis of such remains to contribute to regional research objectives. On this basis, there would be a **medium** magnitude **direct** impact on such remains within the footprint of the Works. This prior to any further mitigation would result in a **direct permanent effect** of **moderate adverse significance**. This is a **significant effect** in EIA terms.

Late Iron Age and Roman period Remains

9.4.14 Remains of the Late Iron Age and Roman period would be of **Medium** value as evidence of settlement and associated agricultural activity. The importance of any Late Iron Age and Roman period remains within the Site would be associated with their potential evidential value and historical value and their potential to contribute to our understanding of Iron Age and Roman period activity, in particular within the wider hinterland of the Late Iron Age settlement of Verlamion at Prae Wood and Roman Verulamium close to St Albans. On this basis, there would be a **medium** magnitude **direct** impact on such remains within the footprint of the Works. This would, prior to any further mitigation, result in a **direct permanent effect** of **moderate adverse significance**. This is a **significant effect** in EIA terms.

Early medieval and medieval remains

9.4.15 Remains of early medieval origin within the Site would be of **Negligible** value, on the basis of their lack of potential to contribute to our understanding of early medieval activity within the landscape and on the basis that such remains would not therefore appreciably contribute to regional research objectives. Although there would be a **medium** magnitude **direct** impact on any such remains within the footprint of the Works, this would result in a **direct permanent effect**, which would be **insignificant**.

9.4.16 Known and potential remains of the medieval period of buried and earthwork agricultural activity would be of **Negligible** value on the basis that they would not appreciably contribute to regional research objectives. Although there would be a **medium** magnitude **direct** impact on any such remains within the footprint of the Works, this would result in a **direct permanent effect**, which would be **insignificant**.

9.4.17 Potential medieval buried and earthwork remains of former structures in Field 19, associated with the former farmstead of Bottom House would be of **Medium** value as evidence of rural settlement and associated agricultural activity and their resultant potential to contribute to regional research objectives. On this basis, there would be a **medium** magnitude **direct** impact on such remains within the footprint of the Works. This prior to any further mitigation would result in a **direct permanent effect** of **moderate adverse significance**. This is a **significant effect** in EIA terms.

Post-medieval and modern remains

9.4.18 Known and potential remains of agricultural origin, comprising former field boundaries, buried and earthwork evidence of post-medieval ridge and furrow, evidence of former quarry or clay extraction pits, the above ground remains of the 19th century Nickey Line, where this is severed, and post-medieval remains of former farmsteads within the Site would be of **Negligible** value on the basis that such remains would not appreciably contribute to

regional research objectives. On this basis, whilst there would be a **low** magnitude **direct** impact on any such remains within the footprint of the Works, this would result in a **direct permanent effect**, which would be **negligible** and therefore **insignificant**.

Historic Landscape

- 9.4.19 Where the Works phase will result in the removal of parts of the prevailing landscape character comprising post-1950 fields this will result in a **low** and localised overall impact on a landscape type of **negligible** heritage value, given the widespread occurrence of these landscape types within the wider landscape. This would result in a **direct permanent effect**, which would be **negligible** and therefore **insignificant**.
- 9.4.20 Where the Works phase will result in the removal of parts of the prevailing landscape character comprising pre-18th century irregular enclosure or pre-18th century co-axial enclosure, notably in the central part of the Site and in the south / south-west of the Site, this would result in a **medium** and localised overall impact on a landscape type of **low** heritage value, given the comparative rarity, of surviving evidence of co-axial enclosure in the St Albans District. This would result in a **direct permanent effect**, which would be of **minor adverse significance** and therefore **insignificant**.
- 9.4.21 Extant historic hedgerow boundaries within the Site that meet the criteria of 'important' historic hedgerows comprise most notably those historic boundaries forming the western Site boundary, which defines the parish boundary between Hemel Hempstead, St Michaels and Redbourn, and those boundaries that line Hog Lane forming the boundary between the St Michaels and Redbourn parishes. Other 'important' hedgerows within the Site are described and depicted in **ES Volume 3, Appendix 9.1**. These are of **Low** value in heritage terms and where the Works require partial removal to facilitate the Development then there will be a **low** magnitude **direct** impact, resulting in a **direct permanent effect**, which would be **negligible** and therefore **insignificant**.
- 9.4.22 Other than removal of sections of hedgerows, as discussed above, changes to the Historic Landscape Character types would be most perceptible following the Works, and are discussed in the Completed and Operational Development section below.

Built Heritage

- 9.4.23 During the Works, impacts upon the designated and non-designated built heritage assets within the Site and elsewhere would derive from the presence of plant and other machinery such as cranes, construction noise and traffic, demolition works and the presence of temporary structures such as compounds and fencing. Construction is by its nature temporary, and the impacts associated with the Works would likewise be indirect, temporary and short term. The CEMP (**ES Volume 3, Appendix 6.1**) sets out a suite of general environmental controls, which will ensure that impacts associated with the Works are appropriately mitigated. Works operations of this nature would therefore result in a **very low** magnitude **indirect** impact, which would be **negligible** and therefore **insignificant**.

The Completed and Operational Development

Archaeology

9.4.24 Impacts upon known and potential archaeological remains would be confined to the Works phase of the Development, during which the impacts upon the buried archaeological remains or earthworks would occur within the footprint of all ground breaking works. Following the completion of the Development, no activities are anticipated that would cause direct physical impact on remaining known or potential buried archaeological remains or earthworks. Thus, the Completed and Operational Development would result in no effect.

Historic Landscape

9.4.25 There would be no new impacts upon the prevailing historic landscape character during the Completed and Operational Development phase, since these would be confined to the Works phase of the Development. No activities are anticipated that would cause direct physical impact or indirect impact on the remaining Historic Landscape. Thus, the Completed and Operational Development would result in no effect.

9.4.26 No additional impacts (no change) are anticipated to important hedgerows during the Completed and Operational Development phase.

Built Heritage

9.4.27 The majority of the 57 heritage assets identified as potentially susceptible to harm within the Site and wider study area will not be affected by the Completed and Operational Development and these have not been discussed any further in this Chapter. The assessment of these assets is presented in detail in **ES Volume 3, Appendix 9.2**. Of these 57 heritage assets, 29 were assessed in greater detail in accordance with Historic England's settings guidance on the basis that, following the Site visit and study area walkover, each still had the potential to experience harm as result of the Development (**Table 9.7**). The process of assessment concluded that a further 16 of these heritage assets would not experience harm as a result of the Development. The reasons for these conclusions are discussed in detail in **ES Volume 3, Appendix 9.2** and are not reiterated here. The remaining 13 heritage assets would experience a measure of harm because of the Completed and Operational Development (see Table 5.1 and Figure 4 of **ES Volume 3, Appendix 9.2**). This is briefly summarised for each example below, with the detailed rationale set out in **ES Volume 3, Appendix 9.2** and thus not repeated here.

- CA Asset 1 Wood End Farm Cottages (Grade II Listed) (Figure 4 of **ES Volume 3, Appendix 9.2**). Wood End Farm Cottages comprise a pair of dwellings that, according to the List Entry originated in the late 16th or early 17th century, with alterations during the 19th and 20th centuries. The building is located in the north-west of the Site, adjacent to Field 2, accessed via the B487 Hemel Hempstead Road (Redbourn Road). The Completed and Operational Development would result in changes to the valued setting of the asset, with residential development to the east and west of the building within the adjacent fields, and the introduction of a dedicated bus route linking the B487 Hemel Hempstead Road (Redbourn Road) with the STC, to the west and south of the building. The most significant change to the setting of the building would be the erosion of the surrounding

agricultural land that has formed the building's setting, in one form or other, since its construction. Following the introduction of new residential development to the east and west of the building, introduction of new roads to the west and south, and to a lesser extent the STC to the east, the asset's remaining agricultural setting would be considerably altered through the introduction of built form. There would also be an increase in noise levels within the setting of the asset, though the net effect of this would be modest overall. The detailed layout and features of the dedicated bus route are yet to be finalised but screening may be employed to partially mitigate its effects.

Whilst the development would incorporate an appreciable amount of buffer (anticipated to comprise open land and vegetation screenings) between the Listed Building and new built form that includes works to build the STC, the dedicated bus route and the construction of the B487 Hemel Hempstead Road (Redbourn Road) junction, the loss of agricultural land would result in an in-direct, permanent effect amounting to less than substantial harm (middle to upper range). This equates to an effect of **moderate adverse significance**, which is **significant** in EIA terms. A degree of mitigation of harm is proposed through the judicious design of appropriate vegetation belts and areas of open space to soften the overall effect of new development plus the potential employment of screening to minimise the effects of the STC.

- CA Asset **2** Large Barn at Wood End Farm, 30 Metres South South West Of Farmhouse (Grade II Listed) and CA Asset **3** Wood End Farmhouse (Grade II Listed) (Figure 4 of **ES Volume 3, Appendix 9.2**). The two Listed Buildings at Wood End Farm comprise Wood End Farmhouse, a 16th or 17th-century timber frame farmhouse, later encased in red brick and extended (Photo 7), and The Large Barn, which comprises a late 18th or early 19th-century timber frame barn which is situated approximately 30m to the south-west of the farmhouse. Together with a number of both historic and modern ancillary buildings, the assemblage forms a regular courtyard plan, with most buildings located to the south side of the yard. The farmstead lies in the north-west of the Site, immediately to the east of Field 4 and north of Field 7. Some change to key elements of the setting of these assets would arise through loss of their surrounding agricultural fields that, whilst no longer farmed under the tenancy of Wood End Farm, currently contribute to an understanding of the farmstead's function and agricultural context. Although the farmstead would be converted into a community focussed use as part of the Development, allowing access to the historic buildings to wider, public audience, this would not wholly mitigate the considerable loss of their agricultural surroundings. The identified **less than substantial harm as a result of change to setting is balanced against the enhancements (i.e. demolition of modern buildings, improved access) and design (including open space) would mitigate much of the identified harm**. As such, the Development would result in an in-direct, permanent effect amounting to less than substantial harm (at the lower end), equating to an effect of **minor adverse significance** and accordingly, **not significant**.
- CA Asset **4** Breakspears (Grade II Listed) Figure 4 of **ES Volume 3, Appendix 9.2**. Breakspears comprises a mid-17th-century former farmhouse, situated in the east of the Site, immediately to the east of Field 17 and adjacent on the west side to the northbound entry slip road of Junction 8 of the M1 motorway. The building is currently a dwelling. Breakspears lies adjacent to part of the Site in which the Completed and Operational Development is designated for commercial development of units, which would rise to a maximum height of 23.5m to the west and north of the property. The retention of intervening vegetation boundaries will

substantially screen the building from the Development. The retention of a buffer will ensure that the Listed Building would be experienced in the same way as currently, with the retention of key views from within the garden enabling its heritage values to be appreciated. The principal effect of the Completed and Operational Development will be the erosion of parts of the wider agricultural landscape. The building has not functioned as a farmhouse for nearly 200 years, but its agrarian surroundings continue to form an important part of its setting. Nevertheless, the loss of this aspect of setting, and potential effect on importance, is considerably tempered by the pre-existing changes in the physical surrounds such as the construction of the M1 motorway to the east, and depot to the south. The encroachment of Hemel Hempstead has also compromised the building's former rural position. Consequently, the effect of the Completed and Operational Development on importance is proportionately less as a result. On this basis the loss of farmland within the Site will result in an in-direct, permanent effect amounting to less than substantial harm (at the lowest end), equating with an effect of **minor adverse significance** and accordingly, **not significant**.

- CA Asset **5** Westwick Row Farmhouse (Grade II Listed) and CA Asset **6** L-Shaped Range Of Barns On South Side of Farmyard At Westwick Row Farm (Grade II Listed) Figure 4 of **ES Volume 3, Appendix 9.2**. Westwick Row Farmhouse and its associated L-Shaped range of barns are situated within the southern extent of the Site, adjacent to the road alignment of Westwick Row. The buildings are positioned such that the farmhouse is to the north of the barns, at an approximately 45-degree angle to them, resulting in a loose courtyard plan farmstead. The farmhouse comprises a phased structure that incorporates origins dating to the 15th century where the east portion of the building consists of a 2-bay cruck frame house with a late 17th-century addition to the west side of the building. The L-Shaped barns were constructed during the late 18th or early 19th century and comprise a timber frame construction. The southern portions of the barns are clad in weatherboarding whilst the northern extent incorporates brick and flint elevations. The importance of the barns is intrinsically linked to that of the farmhouse, within which it shares a strong association. The Completed and Operational Development will comprise the repurposing of surrounding agricultural land as open space (to the north-east and north-west) and residential led development to the east, south-east and north. It will incorporate a local neighbourhood centre adjacent to the east of the farmstead, featuring a local school and residential development up to a maximum of 4-5 storey apartments and 3-storey houses. Overall, the benefits identified through the re-purposing of farmstead as part of the Development (including restoration of their historical courtyard setting through demolition of modern structures) would be supplemented by the retention of the immediate garden and yard areas of the existing farmstead (see **ES Volume 3, Appendix 9.2**). The benefits of the Completed and Operational Development will not entirely offset the harm identified through the erosion of the surrounding agricultural land and emergence of the proposed new buildings within relatively close proximity, and thus it will result in an in-direct, permanent effect amounting to less than substantial harm (at the lower end), equating to an effect of **minor adverse significance** and accordingly, **not significant**.
- CA Asset **29** Dell Cottage (Grade II Listed) Figure 4 of **ES Volume 3, Appendix 9.2**. Dell Cottage comprises a 17th-century timber-frame cottage which was extended during the late 20th century. 18th-century brick elements are present to the ground floor, and a pargetted panel survives. The Completed and Operational Development to the north-east of the Listed Building, on the west side of Westwick Row would rise to a maximum of 10m tall, the equivalent of 2-storey houses. Beyond this, residential buildings would rise to no

more than 17m in height, equivalent to 2-3 storeys. This would result in the erosion of the existing agrarian landscape to the north-east of the Listed Building, and a noticeable change to its physical surrounds. The heritage values of the Listed Building would continue to be appreciable from within its immediate setting, however, the experience of the building's remaining rural context would disappear, resulting in an in-direct, permanent effect amounting to less than substantial harm (at the very lowest end), equating with an effect of **minor adverse significance** and accordingly, **not significant**.

- CA Asset **30** King Charles II Cottage (Grade II Listed) Figure 4 of **ES Volume 3, Appendix 9.2**. The building comprises a late 17th or early 18th-century timber framed cottage with a 20th-century extension. The cottage lies on the north side of Westwick Row. The Completed and Operational Development within the immediate surroundings of the asset would vary in composition, with a variety of building heights. The maximum height would rise to 18m, the equivalent of 4-5 storey apartment buildings, whilst other buildings amounting to 2-3 storey houses would also be integrated in the areas close to the Listed Building. This would mean the erosion of large parts of the existing agrarian landscape within the surroundings of the Listed Building, resulting in a noticeable change to its physical surrounds. Although the heritage values of the asset would continue to be appreciable from within its immediate setting, the experience of the building's remaining rural context would disappear, resulting in an in-direct, permanent effect amounting to less than substantial harm (at the very lowest end), equating with an effect of **minor adverse significance** and accordingly, **not significant**.
- CA Asset **32** Westwick Cottage (Grade II* Listed) Figure 4 of **ES Volume 3, Appendix 9.2**. Westwick Cottage comprises a Grade II* Listed vernacular dwelling that incorporates parts of a medieval open hall house. The earliest portion of the building is recorded as dating from between 1184 and 1219 with later alterations dating to the 16th, 17th, 19th and 20th centuries, including the sub-division of the building into cottages during the late 19th century and its restoration to a single dwelling after 1946. A portion of land to the west of Westwick Row would be developed at a lower density of residential buildings than the prevailing Site area to the east of the road. To the south-east of the asset, the Completed and Operational Development will be for allotment use, promoting a horticultural, and community focussed character, with low density residential housing to a maximum of 2 storeys in height, to the north-west. This belt of low-density housing would continue to the west of the asset, retaining an area of open buffer. Beyond this initial area of housing, residential development would then rise to a maximum of 2-3 storeys within nearby paddocks and fields to the south-east and south-west. The Completed and Operational Development would be harmful due to the erosion of the existing agrarian surroundings, but this harm is minimised as far as practicable due to design decisions. This would result in an in-direct, permanent effect amounting to less than substantial harm (at the lower end), equating with an effect of **minor adverse significance** and accordingly, **not significant**.
- The group of Grade II Listed Buildings at Corner Farm, comprising: CA Asset **39** North and East Ranges of Outbuildings Bounding the Main Yard at Corner Farm; CA Asset **40** West Range of Outbuildings Bounding the Main Yard at Corner Farm Including Pigsty; CA Asset **41** Corner Farm; and, CA Asset **42** L-Plan Range of Outbuildings on South and East Sides of East Yard at Corner Farm Figure 4 of **ES Volume 3, Appendix 9.2**. Corner Farm is located at the eastern end of Westwick Row, on the junction with the A4147 Hemel Hempstead Road. The group of four Listed Buildings form part of a full courtyard plan of agricultural buildings with a further L-shaped range to the east, resulting in two separate yards. The farmhouse at the southern edge of

the courtyard represents the earliest building within the farmstead and originated during the late 16th or 17th centuries. The remaining Listed outbuildings date variously from the 18th to 20th centuries and comprise ancillary structures within the group of former working buildings. All the buildings within the farmstead appear to have been converted to residential use, likely during the late 20th century. The Completed and Operational Development will encompass the construction of residential buildings up to a maximum of 2-storeys in height within areas immediately adjacent to the former farmstead. Beyond these 2-storey buildings, housing densities would increase to a maximum of 3-storeys (or 4-storey apartments). The Completed and Operational Development will result in a measure of erosion of surrounding agricultural land historically associated with the former farmstead altering an understanding of its former setting and to a lesser extent compromising the assets' relative detachment from the urban extent of Leverstock Green. This would result in an in-direct, permanent effect amounting to less than substantial harm (at the lower end), equating with an effect of **minor adverse significance** and accordingly, **not significant**.

9.5 Additional Mitigation / Enhancement and Likely Residual Effects of the Development and their Significance

The Works

Archaeology

- 9.5.1 Where significant effects have been identified mitigation will be necessary to adequately address adverse effects, to reduce or offset the harm (effect on) to the importance (heritage value) of sensitive heritage assets. In addition, in consultation with the St Albans Archaeological Advisor even where significant effects are not considered likely, mitigation may also be necessary.
- 9.5.2 The impacts upon the archaeological remains, which may lead to a significant effect, would occur during the Works phase and therefore any mitigation considered necessary by SADC specifically would be implemented prior to or during this phase of the Development. The previous and ongoing phases of trial trench evaluation (**ES Volume 3, Appendices 9.6, 9.7** and forthcoming evaluation report) will ensure that any sensitive remains can be identified, appropriately assessed and safeguarded, through detailed design measures and a suite of available and industry standard mitigation.
- 9.5.3 Mitigation would comprise targeted archaeological excavations and recording in advance of the Works phase, along with targeted archaeological monitoring and recording (watching briefs) during the Works phase. The specifics of these mitigation measures would be designed alongside the detailed construction methodologies and programmes. The scope, extent and methodology of these mitigation measures would be informed by the results of the preceding trial trench evaluations (**ES Volume 3, Appendices 9.6, 9.7** and forthcoming evaluation report), in consultation with the St Albans Archaeological Advisor. They would also adhere to recognised good practice, industry standards and guidance.

9.5.4 The results of these targeted archaeological excavations and any targeted archaeological monitoring and recording (watching briefs) will be published and disseminated to the public in a manner proportionate to the nature of the importance of the discovered remains. The unavoidable loss of evidential value would be offset by the advancement of our understanding (enhanced historical value) and the public benefits the dissemination of the results would deliver.

9.5.5 In outline, this mitigation would comprise:

- Targeted open area archaeological excavation and detailed recording of exposed archaeological remains prior to the Works phase.
- Targeted archaeological monitoring and recording (watching briefs) in other areas where potential buried archaeological remains could be exposed / disturbed by the Works.
- The publication and dissemination of the results of the archaeological work to interested local and regional stakeholders.

9.5.6 The mitigation would be secured by means of appropriately worded planning conditions. These conditions will comprise the following:

- The requirement to prepare (and agree with St Albans Archaeological Advisor) a Written Scheme of Investigation (WSI – or Detailed Method Statement) for the proposed archaeological investigations (targeted excavation and targeted archaeological watching brief) in advance of the Works phase.
- The publication and dissemination of the results of the archaeological work within a fixed time schedule.

9.5.7 Accounting for the above mitigation, the residual impacts of the Development would not result in any significant adverse impacts, as detailed in Table 9.8.

Table 9.8: Likely Residual Effects - Archaeology

Known / Potential Archaeological Remains (Receptor)	Description of Residual Effect	Additional Mitigation	Scale and Significance of Residual Effect
Early Prehistoric Remains (Palaeolithic – Mesolithic)	Loss of buried archaeological remains and earthworks during the Works phase of the Development.	Implementation of an Archaeological Mitigation Strategy comprising the following: Targeted archaeological excavation of buried archaeological remains as defined in bespoke WSIs.	Neutral
Bronze Age to Late Iron Age Remains			Neutral
Late Iron Age and Roman Period Remains			Neutral
Early Medieval and Medieval Remains			Neutral
Post-medieval and Modern Remains			Neutral

Known / Potential Archaeological Remains (Receptor)	Description of Residual Effect	Additional Mitigation	Scale and Significance of Residual Effect
		<p>Archaeological monitoring (watching brief) in other areas where potential buried archaeological remains could be exposed / disturbed during the Works phase.</p> <p>Publication and dissemination of the results of the archaeological work to interested local and regional stakeholders.</p> <p>All archaeological investigations to be secured by means of appropriately worded planning conditions.</p>	

Historic Landscape and Built Heritage

9.5.8 As no significant effects upon the Historic Landscape and Built Heritage assets have been identified during the Works phase, no additional mitigation measures are proposed in response to effects which are not significant.

9.5.9 However, the potential demolition of selected outbuildings within the Site, including at Wood End Farm and Westwick Row Farm, as part of the Works, has the potential to better reveal the most important assets resulting from the removal of some structures that are presently detrimental to significance (heritage value). In advance of any such demolition works, a programme of historic building recording and further assessment would be undertaken to confirm the heritage value of structures proposed for demolition, identify where there may possibly be a measure of heritage value in any such buildings, and inform the detailed design proposals including in relation to conversion plans for community use.

The Completed and Operational Development

Archaeology

- 9.5.10 The Completed and Operational Development will not result in adverse impacts on buried archaeological remains; thus no additional mitigation or enhancement measures are required.

Built Heritage and Historic Landscape

- 9.5.11 The Completed and Operational Development will not result in an adverse significant effect on the historic landscape; thus no further mitigation or enhancement measures are proposed. As the planned landscape measures mature, the overall effects will be reduced from an effect of minor adverse significance during the Works phase to no effect for the Completed and Operational Development.
- 9.5.12 The Completed and Operational Development will result in an effect of **moderate adverse significance**, which is **significant**, on the heritage value of Wood End Cottages, through measurable changes to its setting, and not significant effects in relation to other Listed Buildings have also been identified. To limit the potential impacts on the Listed Buildings through changes to their setting, mitigation measures will be introduced through detailed design (i.e. including planting and appropriate treatment of open space). Such measures are anticipated to allow for the overall effects of the Development to be softened, although it is expected that the residual effects will not be reduced.

9.6 Likely Residual Cumulative Effects and their Significance

- 9.6.1 A total of 23 schemes have been agreed with SADC and DBC for consideration of the potential for cumulative effects to result from the Development in combination with these other identified schemes. Of these, the majority have been discounted from the standpoint of Archaeology, Historic Landscape and Built Heritage on the basis of their lack of confirmed mutual associations (with respect to Archaeology and Historic Landscape) and on the basis of there are no mutually assessed assets (for Built Heritage), and also on the basis of their distance from the Site and from designated and non-designated heritage assets which have been assessed for the Development. In addition, those schemes without appropriate and accessible quantitative assessments reporting impacts on Archaeology, Historic Landscape and Built Heritage have also been discounted on the basis that a confident cumulative assessment can be made.
- 9.6.2 This cumulative assessment focuses on the reported potential for the remaining other developments to themselves result in adverse impacts on Archaeology, Historic Landscape and / or Built Heritage as reported on above (and in the accompanying Appendices). Thus, identifying where a cumulative impact on these heritage assets would result in a greater significant effect. The remaining schemes have been included:
- Cumulative Scheme No. 1 – Land at Green Lane, Hemel Hempstead;

- Cumulative Schemes No. 2a and 2b – Land between Three Cherry Trees Lane And Cherry Tree Lane, Hemel Hempstead;
- Cumulative Scheme No. 12 – Land at Gaddesden Lane, Redbourn;
- Cumulative Scheme No. 19 – North Hemel Hempstead Development Site, Hemel Hempstead Road, Redbourn;
- Cumulative Scheme No. 22 - Land to the south of Green Lane.

The Works

Cumulative Scheme No. 1

9.6.3 An archaeological desk-based assessment, geophysical survey and heritage statement were submitted with this application (DBC 21/03793/MOA)¹².

9.6.4 The archaeological assessment and geophysical survey concluded that there was a low potential for the presence of significant archaeological remains dating to all periods within the site of Cumulative Scheme No. 1. On this basis the **neutral** residual effect, reported for the Works phase of the Development would not constitute a cumulative effect of significance. No conclusion on the effect of Cumulative Scheme No. 1 on the prevailing historic landscape character was reported.

9.6.5 The built heritage statement concluded that Cumulative Scheme No. 1 has the potential to result in negligible visual changes within the settings of the Grade II Listed Breakspears and the Grade II Listed Gorhambury Registered Park and Garden and that the proposed development will result in no harm to their importance. On this basis the effect of **negligible** significance reported for all Built Heritage assets during the Works phase of the Development would not constitute a cumulative effect of significance in combination with Cumulative Scheme No. 1.

Cumulative Schemes No. 2a and 2b

9.6.6 An archaeology and cultural heritage ES chapter and associated appendices were submitted with this application (DBC 4/02539/16/MOA; SADC 5/2016/2845)¹³.

9.6.7 The chapter concluded that following mitigation there would remain a negligible adverse residual effect on archaeological remains with the Cumulative Scheme No. 2a site. Cumulative Scheme No. 2b (SADC 5/2024/0927) addressed reserved matters of outline planning permission 5/2016/2845 and records only a suite of conditions to mitigate the impact on archaeological remains within the site. On this basis the residual **neutral** effect, reported for the Works phase of the Development would not constitute a cumulative effect of significance. The chapter also reported an effect of neutral significance on historic landscape character, specifically important hedgerows, which

¹² RPS. 2021. Archaeological Desk-Based Assessment: Green Lane, Hemel Hempstead. RPS. 2021. Magnitude Surveys. 2021. Geophysical Survey: Green Lane, Hemel Hempstead; Built Heritage Statement: Green Lane, Hemel Hempstead, Hertfordshire.

¹³ Wardell Armstrong. 2016. Spencers Park Phase 2 Environmental Statement Volume 1: Main Text. Chapter 7 Archaeology and Cultural Heritage.

would be retained. The Works phase for the Development would result in an effect of **negligible** significance and therefore would not constitute a cumulative effect of significance.

9.6.8 The chapter concluded that Cumulative Scheme No. 2a would result in a neutral effect on the importance of the Grade II Listed Wood End Farmhouse, and the Large barn at Wood End Farm; Wood End Farm Cottages and Corner Farmhouse, through changes to their setting. Cumulative Scheme No. 2b (SADC 5/2024/0927) addressed reserved matters of outline planning permission 5/2016/2845 and records that the proposal would not have any significant impact on designated heritage assets within St Albans District. On this basis the effect of **negligible** significance reported for all Built Heritage assets during the Works phase of the Development would not constitute a cumulative effect of significance in combination with Cumulative Schemes No. 2a and 2b.

Cumulative Scheme No. 12

9.6.9 A heritage desk-based assessment was submitted with this application (SACDC 5/2021/3631)¹⁴.

9.6.10 The assessment concluded that the Site has some potential for the presence of archaeological remains dating to the prehistoric and Roman periods, and possibly the early medieval and medieval periods given its proximity to Church End. It does not provide a conclusion on impact or of anticipated adverse effect. On this basis a formal conclusion of the potential for there to be a cumulative effect in combination with the Development cannot be made. However, given that there would be a **neutral** residual effect for the Works phase of the Development it is anticipated that there would not be a cumulative effect of significance.

9.6.11 With respect to the historic landscape the assessment concludes that one hedgerow, defining the Flamstead / Redbourn Parish boundary can be considered 'Important' under the Hedgerows Regulations 1997, and that it is largely to be retained. The Works phase for the Development would result in an effect of **negligible** significance and therefore in combination this would not constitute a cumulative effect of significance.

9.6.12 A heritage desk-based assessment was submitted with Cumulative Scheme No. 12, which addressed potential impacts on built heritage assets, principally within the Redbourn Conservation Area. Redbourn Conservation Area and heritage assets within it was scoped out of this assessment. Therefore, there is no potential for a cumulative effect to result.

Cumulative Scheme No. 19

9.6.13 An EIA Scoping Report was submitted in March 2025 with this application (SACDC 5/2025/0645), and included a section on Cultural Heritage, with accompanying Appendices comprising an Archaeological Desk-Based Assessment, Geophysical Survey and Built Heritage Assessment¹⁵.

¹⁴ CSA Environmental. 2023. Land at Gaddesden Lane, Redbourn, Heritage Desk-Based Assessment. CSA/5129/09

¹⁵ Quod. 2025. EIA Scoping Report; RPS. 2025. Archaeological Desk-Based Assessment: Land at Hemel Hempstead Road (B487), Hemel Hempstead; Magnitude Surveys. 2019. Geophysical Survey report of land Adjacent to Holtsmere End Lane, Hemel Hempstead, Hertfordshire; MOLA. 2025. Archaeological Geophysical Survey at Hemel Hempstead Road (B487) Hemel Hempstead, Hertfordshire; RPS. 2025. Built Heritage Assessment: Land at Hemel Hempstead Road (B487), Hemel Hempstead

- 9.6.14 The Cultural Heritage section of the EIA Scoping Report identified an enhanced potential for the presence within the Cumulative Scheme No. 19 site of buried archaeological remains of 'local to regional importance' which could date between the Bronze Age and Roman period. There is also evidence of medieval earthworks to the north of Great Revel End Farm, associated with a deserted medieval village, as well as cropmarks of field boundaries, which are likely to be post-Medieval or more recent in date. The geophysical survey undertaken within this site also indicated the presence of possible medieval to post-medieval enclosures / house platforms close to the deserted medieval village, though appeared to identify little else of measurable importance. There is expected to be a high impact on potential archaeological remains within those areas of the site where ground disturbing construction activities will be required and a lower, or no impact in other areas.
- 9.6.15 On the basis of the conclusions presented in the Cultural Heritage section of the EIA Scoping Report for Cumulative Scheme No. 19 and the accompanying archaeological desk-based assessment, in combination with the **neutral** residual effect on archaeological remains resulting from the Works phase of the Development, it is concluded that there would not be a cumulative effect of significance.
- 9.6.16 The Cultural Heritage section of the EIA Scoping Report identified that there would be no potential for an effect of significance on any element of the prevailing historic landscape character of the site to result from the scheme. The Works phase for the Development would result in an effect of negligible significance and therefore in combination with Cumulative Scheme No. 19 would not constitute a cumulative effect of significance.
- 9.6.17 The Cultural Heritage section of the EIA Scoping Report identified a potential for the scheme to result in temporary changes to the setting of the Aubreys Camp Scheduled Monument during the construction phase. The accompanying built heritage assessment and the archaeological desk-based assessment concluded, however, that the scheme will have no impact on the importance of the Scheduled Monument. An assessment of the contribution of the Site to the setting of Aubreys Camp was presented in **Appendix 9.2**, where it was also concluded that the Site makes no meaningful contribution to importance of the Scheduled Monument and that the Works phase of the Development would result in no effect on its importance.
- 9.6.18 The Cultural Heritage section of the EIA Scoping Report also identified a potential for the scheme to result in temporary changes to the setting of several Grade II Listed Buildings, comprising Holtsmere Manor, Revel End Farmhouse, Wood End Farm Cottages during the construction phase. On this basis the effect of **negligible** significance reported for all Built Heritage assets during the Works phase of the Development would not constitute a cumulative effect of significance in combination with Cumulative Scheme No. 19.

Cumulative Scheme No. 22

- 9.6.19 This site at Westwick Row (Land to the south of Green Lane) is allocated for up to 80 dwellings within the draft Dacorum Local Plan to 2041. It is adjacent to the Site's south-western boundary. The project is at a pre-application stage and there are no assessment or survey results available for Cumulative Scheme No. 22.

- 9.6.20 However, it is here assumed that with regard to the archaeological resource, any proposal would follow an appropriate and industry standard process of assessment, survey and mitigation. As such, the **neutral** residual effect, reported for the Works phase of the Development would not constitute a cumulative effect of significance.
- 9.6.21 With regard to the built heritage Cumulative Scheme No. 22 is located at sufficient distance from any Listed Buildings or other designated heritage assets and screened from them by existing intervening-built form. As such, the effect of **negligible** significance reported for built heritage assets during the Works phase of the Development would not constitute a cumulative effect of significance in combination with Cumulative Scheme No. 22.

The Completed and Operational Development

- 9.6.22 All impacts on archaeology and the historic landscape would be restricted to the Works phase of the Development (as discussed above) on which basis no cumulative effects would result in combination with these Cumulative schemes (and these are not discussed further).

Cumulative Scheme No. 1

- 9.6.23 The built heritage statement concluded that Cumulative Scheme No. 1 has the potential to result in negligible visual changes within the settings of the Grade II Listed Breakspears and the Grade II Listed Gorhambury Registered Park and Garden and that the proposed development will result in no harm to their heritage importance (value). On this basis the in-direct, permanent effect amounting to less than substantial harm (at the lowest end), and equating with an effect of **minor adverse significance** reported for the Grade II Listed Breakspears during the Completed and Operational phase of the Development would not constitute a cumulative effect of significance in combination with Cumulative Scheme No. 1. The Grade II Listed Gorhambury Registered Park and Garden will not be affected by the Completed and Operational Development and on this basis there would be no cumulative effect in combination with Cumulative Scheme No. 1.

Cumulative Schemes No. 2a and 2b

- 9.6.24 The chapter concluded that Cumulative Scheme No. 2a would result in a **neutral** effect on the heritage importance (value) of the Grade II Listed Wood End Farm Cottages, Wood End Farmhouse, and the large barn at Wood End Farm and Corner Farmhouse, through changes to their setting. Cumulative Scheme No. 2b (SADC 5/2024/0927) addressed reserved matters of outline planning permission 5/2016/2845 and records that the proposal would not have any significant impact on designated heritage assets within SADC. On this basis the reported in-direct, permanent effect amounting to less than substantial harm (middle to upper range), equating with an effect of **moderate adverse significance** for Wood End Farm Cottages, which is significant. Therefore, it would not constitute an increased cumulative effect of significance in combination with Cumulative Schemes No. 2a and No. 2b. For Wood End Farmhouse, and the large barn at Wood End Farm and Corner Farmhouse an in-direct, permanent effect amounting to less than substantial harm (at the lower end), equating with an effect of **minor adverse significance** was reported, which is not significant. Therefore, it would not constitute a cumulative effect of significance in combination with Cumulative Schemes No. 2a and No. 2b.

Cumulative Scheme No. 12

9.6.25 No above ground heritage constraints were identified for this scheme. On this basis the effects of **moderate adverse significance** reported for Wood End Farm Cottages, would not constitute an increased cumulative effect of significance in combination with Cumulative Scheme No. 9. In addition, the effects of **minor adverse significance** reported for the remaining assets during the Completed and Operational phase of the Development would not constitute a cumulative effect of significance in combination with Cumulative Scheme No. 9.

Cumulative Scheme No. 19

9.6.26 The Cultural Heritage section of the EIA Scoping Report identifies that there is unlikely to be any potential for the scheme to result in changes to the setting of the Aubreys Camp Scheduled Monument during the completed development phase. This is also the conclusion set out in the accompanying built heritage assessment and the archaeological desk-based assessment. An assessment of the contribution of the Site to the setting of Aubreys Camp was presented in **Appendix 9.2**, where it was also concluded that the Site makes no meaningful contribution to the importance of the Scheduled Monument and that the Completed and Operational phase of the Development would result in no effect on its importance. On this basis there would be no significant cumulative effect.

9.6.27 The Cultural Heritage section of the EIA Scoping Report and its accompanying built heritage assessment identified less than substantial harm at the lower end to the importance of the Grade II Listed Holtsmere Manor, Great Revel End Farmhouse and Wood End Farm Cottages. This would equate with an effect of minor adverse significance, which is not significant. The Built Heritage Assessment (**Appendix 9.2**) did not assess Holtsmere Manor, since this was outside the approved study area. The Built Heritage Assessment (**Appendix 9.2**) identified no harm to the importance of Great Revel End Farmhouse. On this basis no greater cumulative effect would be experienced for the Completed and Operational Development in respect of these assets, which is accordingly, not significant.

9.6.28 The Built Heritage Assessment (**Appendix 9.2**) identified that the Completed and Operational Development would result in less than substantial harm (medium to upper range) to the importance of Wood End Farm Cottages. This equates with an effect of **moderate adverse significance**, which is significant in EIA terms. In combination with a reported effect of **minor adverse significance** as a result of the completed development of Cumulative Scheme No. 19, this would still result in cumulative effect of **moderate adverse significance**, and would remain significant.

Cumulative Scheme No. 22

9.6.29 Although no relevant reports are available regarding built heritage, Cumulative Scheme No. 22 is located at sufficient distance from any Listed Buildings or other designated heritage assets and screened from them by existing intervening-built form. As such, it is unlikely that this scheme would result in any adverse effects, and the Development would not constitute a cumulative effect of significance in combination with Cumulative Schemes No. 2a and No. 2b.

- 9.6.30 The effect of **negligible** significance reported for built heritage assets during the Works phase of the Development would not constitute a cumulative effect of significance in combination with Cumulative Scheme No. 22.

9.7 Conclusions

- 9.7.1 The embedded and additional mitigation measures which will be effective during the Completed and Operational phase of the Development will minimise the changes to built heritage assets within the Site and beyond. No additional mitigation is proposed, and the effects have been assessed, in the worst-case scenario, to be of **minor adverse significance** (not significant) for the majority of built heritage assets. Thus, the residual effect remains as such (not significant). Due to the proposed changes within the asset's setting, the Completed and Operational phase of the Development Wood End Farm Cottages would result in **moderate adverse significance** (which is **significant**).
- 9.7.2 Following the implementation of the embedded and additional mitigation measures, it is considered that in the worst-case scenario, the residual effect on buried archaeological remains in the Works phase of the Development would be an effect of **neutral significance** (not significant), as set out in **Table 9.8**. The suite of mitigation options available during the detailed design phase will allow for this already non-significant adverse effect to be further reduced or potentially avoided completely.