



# Cambridge South East Transport Phase 2

## Environmental Statement

Appendix 12.2 Desk Based Assessment

31st July 2023

## Appendix 12.2 Desk based assessment

### Aims and objectives

12.2.1 The principal aim of this DBA is to establish the nature, extent, and significance of the Historic Environment within the study area to provide a supporting baseline to enable informed decision making on the impacts and effects of the proposed development on the historic environment.

12.2.2 In order to achieve this, the specific objectives of this assessment are to:

- Interrogate the HER data provided by Cambridgeshire County Council;
- Identify and contextualise the historical and archaeological baseline of the proposed development site and the surrounding environs;
- Identify known designated and non-designated heritage assets with the potential to be impacted by the proposals;
- Assess the significance of these assets and contribution of setting to this;
- Assess the likely impact on the significance of identified heritage assets;
- Assess the potential for previously unrecorded archaeological remains; and
- Provide recommendations for an appropriate mitigation strategy, aimed at avoiding or reducing the impact of the proposed development upon the significance of heritage assets.

### Methodology

12.2.3 This DBA has been produced in accordance with the requirements of National Planning Policy Framework (NPPF) (Department of Communities and Local Government, 2021), Planning Practice Guidance (Department of Communities and Local Government, 2021), standards specified by the Chartered Institute for Archaeologists (CIfA, 2014; 2017), the Design Manuals for Roads and Bridges (DMRB, 2020), Conservation Principles (Historic England, 2008), and local planning policies (Essex County Council, 2010; Colchester Borough Council [insert date]).

12.2.4 The information presented within this document is correct at the time of writing to the best knowledge of the author, within the limits imposed in dealing with historic materials and mapping. The archaeological resource is by its nature an unknown resource prior to confirmation through archaeological investigations. The information within this document is derived from initial work carried out by Motts Macdonald.

### The study area

12.2.5 For the purposes of establishing baseline conditions for this assessment, two study areas were defined. The first, encompassing an area extending 1 km around the Site, captured all Grade II listed buildings, registered parks and gardens, conservation areas and non-designated heritage assets. The second, encompassing a 1.5 km area around the Site, captured Scheduled Monuments, and Grade I and Grade II\* listed buildings. Where appropriate, high value assets outside the 1.5 km study area have also been included, if they are judged to be sensitive to change as a result of the Proposed Development. After consultation with Historic England, this included the Grade II\* listed St John the Baptist, in Pampisford (1.6 km) from the Site.

12.2.6 Data on known heritage assets was gathered for this area to comprehensively characterise the historic environment, inform the understanding of potential impacts, and identify the potential for as-yet unknown archaeological remains to be present within the proposed development site.

12.2.7 Designated heritage assets comprise World Heritage Sites, scheduled monuments, listed buildings, registered parks and gardens, registered battlefields and conservation areas.

12.2.8 Non-designated assets comprise monuments, archaeological sites, buildings, places and landscapes which do not meet the criteria for a designated asset but require consideration under planning policy due to their heritage significance.

12.2.9 The extents of the study areas are based on professional judgement and in line with professional guidance which has been designed to account for the sensitivity of the historic environment and the potential impacts of the Proposed Development, in particular guidance recommended by the Design Manual for Roads and Bridges (DMRB), LA 106 Cultural Heritage. These therefore account for:

- The historical and archaeological context of the Site
- The settings of heritage assets within the Site and surrounding landscape
- The potential for heritage assets to survive within the Site

### Baseline data collection

12.2.10 The following sources of data were consulted during preparation of this assessment:

- National Heritage List for England (NHLE) maintained by Historic England, for information on listed buildings, scheduled monuments, Registered Parks and Gardens and Registered Historic Battlefields; Essex and Colchester Historic Environment Record
- Cambridge County Council Historic Environment Record (CHER) for information relating to non-designated heritage assets, including buildings and structures of historic interest (not listed), known archaeological sites and areas of archaeological potential, Historic Landscape Characterisation (HLC), findspots and past archaeological investigations (events)
- British Geological Survey (BGS): Online digital solid and superficial geological data and historic borehole records
- Ordnance Survey mapping
- Documentary sources: Published histories, Site reports, and monographs
- Online resources: Web-published material, including local planning authority planning policies, aerial photography
- Reports on previous work carried out as part of the Proposed Development

12.2.11 A site visit was undertaken on 12th January 2023 in order to make an assessment of potential changes within the settings of designated heritage assets.

### Limitations and assumptions

12.2.12 This assessment comprises a desk-based review of data from the CHER as well as a variety of secondary sources. Whilst this information is assumed to be accurate, it is not a complete record of the historic environment and does not preclude the potential for previously unidentified archaeological remains or deposits to be encountered. The value of any such unknown/unidentified assets cannot be determined at this time.

**Assessment of significance**

- 12.2.13 The definition of cultural significance is readily accepted by heritage professionals both in the UK and internationally and was first fully outlined in the Burra Charter, which states in article one that ‘cultural significance’ or ‘cultural heritage value’ means aesthetic, historic, scientific, social or spiritual value for past, present or future generations . This definition has since been adopted by heritage organisations around the world and is applicable to ‘Section 16: Conserving and enhancing the historic environment’ of the National Planning Policy Framework (NPPF, 2021).
- 12.2.14 In the NPPF Glossary, significance is defined as: ‘The value of a heritage asset to this and future generations because of its heritage interest. The interest may be archaeological, architectural, artistic or historic. Significance derives not only from a heritage asset’s physical presence, but also from its setting.’
- 12.2.15 Where known historic assets are identified, the heritage significance of such assets is determined using professional judgement, informed by existing designations where available. For previously unidentified sites where no designation has been assigned, an estimate has been made of the likely historic, artistic, or archaeological importance of that resource based on professional knowledge and judgement.
- 12.2.16 In the previous version of the DMRB (Volume 11, Section 2, LA104) a methodology was produced which assigned a value to each type of heritage asset, whether individual or collective. As per accepted best practice, the value criteria for this assessment is based on this methodology but has been altered for the purposes of this report. See below:

**Table A12.2.1 Assessing the significance of heritage assets**

| Significance | Description   | Example   |
|--------------|---|---|
| Very high    | Internationally important or significant heritage assets  | World Heritage Sites, or buildings recognised as being of international importance.   |
| High         | Nationally important heritage assets generally recognised through designation as being of exceptional interest and value. | Grade I and II* Listed Buildings, Grade I and II* Registered Parks and Gardens, Scheduled Monuments, Protected Wreck Sites, Registered Historic Battlefields, Conservation Areas with notable concentrations of heritage assets and non-designated assets of national or international importance.  |
| Medium       | Nationally or regionally important heritage assets recognised as being of special interest, generally designated.         | Grade II Listed Buildings, Grade II Registered Parks and Gardens, Conservation Areas and non-designated assets of regional or national importance, including archaeological remains, which relate to regional research objectives or can provide important information relating to particular historic events or trends that are of importance to the region. |

| Significance | Description   | Example  |
|--------------|---|--|
| Low          | Assets that are of interest at a local level primarily for the contribution to the local historic environment.  | Non-designated heritage assets such as locally listed buildings, non-designated archaeological sites, non-designated historic parks and gardens etc. Can also include degraded designated assets that no longer warrant designation. |
| Negligible   | Elements of the historic environment which are of insufficient significance to merit consideration in planning decisions and hence be classed as heritage assets. | Non-designated features with very limited or no historic interest. Can also include highly degraded designated assets that no longer warrant designation.  |
| Unknown      | The importance of an asset has not been ascertained.  |  |

**Assessing buried archaeological potential**

- 12.2.17 Buried archaeological evidence is often an unknown quantity which can be difficult to fully identify during a desk-based assessment. The assessed potential is based on available evidence, but the physical nature and extent of any archaeological resource surviving within the Site cannot be confirmed without detailed information on the below ground deposits or results of on-site fieldwork, typically through non-intrusive (e.g. geophysical, LiDAR), and intrusive (archaeological, geoarchaeological evaluation) survey.
- 12.2.18 A site’s archaeological potential is identified using professional judgement and knowledge and is informed by Historic England’s Conservation Principles, Policies and Guidance (2008). A site’s baseline potential is compared to the level of existing impact upon it, from modern and historic developments. The potential for surviving archaeological evidence of past activity within the Site is expressed in the report as being:
  - High: The available evidence suggests a high likelihood for past activity within the Site and a strong potential for archaeological evidence to survive intact or reasonably intact;
  - Medium: The available evidence suggests a reasonable likelihood for past activity within the Site and consequently there is a potential that archaeological evidence could survive;
  - Low: The available evidence suggests archaeological evidence of activity is unlikely to survive within the Site, although some minor land-use may have occurred; and
  - Uncertain: Insufficient information to assess.

### Setting

12.2.19 The setting of each designated asset has been assessed in accordance with Historic England's 'The Setting of Heritage Assets: Historic Environment Good Practice Advice in Planning: 3' (2nd, edition 2017). The guidance states that a thorough assessment of setting needs to be considered that is proportionate to the significance of the heritage asset under consideration. The setting of a heritage asset does not just include views to the asset, but also views from it, and can be affected by environmental issues such as noise, dust, and vibration from nearby land use.

### Impact

12.2.20 An assessment of impact has been made taking into consideration the harm anticipated to the assessed significance of the heritage assets. Particular consideration will be given to substantial and less than substantial harm.

### Consultation

12.2.21 From the early stages of the Proposed Development, discussion has taken place with the Cambridgeshire Historic Environment Team (CHET), Greater Cambridge Shared Planning (GCSP) and Historic England in order to agree the scope of evaluation (intrusive and non-intrusive) surveys. A summary of this consultation can be found in Table A12.2.2.

**Table A12.2.2 Summary of consultation**

| Date     | Consultee                     | Subject   | Comments   |
|----------|-------------------------------|---|--|
| 06/08/19 | CHET                          | Initial programme meeting (Shire Hall)  | Introduction of the Proposed Development, constraints and evaluation / assessment strategy   |
| 10/09/19 | CHET                          | Archaeological procurement and programme meeting (Shire Hall)   | Discussion around the means of GCP procurement of contractors along with Mott MacDonald's role in archaeological management  |
| 07/11/19 | CHET                          | Request of design brief for geophysical survey (email)  | -  |
| 10/12/19 | CHET                          | Archaeological aerial investigation and mapping report (email)  | Submission of report for review, comment and approval  |
| 08/02/20 | CHET                          | Draft Stage 1 geophysics report for comment (email)   | Submission of report for review and comment  |
| 20/03/20 | CHET                          | Final Stage 1 geophysics report approval (email)  | Submission of report for review and approval   |
| 14/04/20 | CHET                          | Final stage 2 geophysics report for approval (email)  | Submission of report for review, comment and approval  |
| 19/05/20 | CHET                          | Request of design brief for intrusive evaluation (email)  | -  |
| 30/06/20 | CHET                          | Draft trench layout for comment (email)   | Submission for review and comment  |
| 21/07/20 | CHET                          | Final trench layout for approval (email)  | Submission for approval  |
| 28/07/20 | Historic England and the GCSP | To introduce the Proposed Development and advise that the Scoping Report would be sent out by the Department for Transport (DfT) for comment. | Responses were received:<br>28/07/20 – Historic England acknowledge communication (email)<br>04/08/20 – GCSP acknowledging communication, advising they would like to see: a detailed mitigation strategy in relation to Babraham Conservation Area; mitigation in relation to Babraham Hall and Middlefield; coordination with the LVIA in terms of evidencing heritage impact assessment along the route (email) |

| Date       | Consultee        | Subject                         | Comments  |
|------------|------------------|---------------------------------|---|
| 6/11/20    | Historic England | Response to EIA Scope (written) | Historic England noted that they are pleased with the extent of the baseline included in the scoping report, and that discussion of assets for assessment during working groups has been captured. Further, that overall, they find the proposed methodology acceptable and proportionate. They note that they would like to see assets of higher significance up to 1.5 km from the Proposed Development included in summary within the baseline, even if only to discount these formally from further assessment. Specifically, they identified the Church of St John the Baptist at Pampisford (Grade II*) which they would like to see included. In addition, it is recommended that a photomontage be undertaken from the Church of St Andrew (Grade II*) in Stapleford. |
| 13/01/2021 | Historic England | Response to EIA Scope (verbal)  | Historic England reiterated that the overall approach is acceptable and that a brief summary inclusion of higher significance assets within 1.5 km, as part of groups, would be beneficial to include, even if only to discount from further assessment. This should be carried out proportionately and therefore only a brief summary for identified groups of assets is proposed. It was advised that LVIAs are being undertaken that will inform the impact assessment. Also, that photomontages were being looked into. Impact to the landscape north of Pampisford Hall grounds was discussed as the Proposed Development is within a landscape already truncated and crossed by linear features (A11 highway, former railway line, field boundaries).                   |

## Planning policy and legislation

12.2.22 Table A12.2.3 provides a summary of legislation and policies the Proposed Development will be subject to.

**Table A12.2.3 Legislation and policy**

| Scale    | Legislation/ regulation/ policy                                  | Summary of requirements  |
|----------|--|--|
| National | Ancient Monuments and Archaeological Areas Act 1979 <sup>1</sup> | <p>The Act provides protection to Scheduled Monuments or ancient monuments which can comprise 'any other monument which in the opinion of the Secretary of State is of public interest by reason of the historic, architectural, traditional, artistic or archaeological interest attaching to it'. Monuments are defined in Section 61 as:</p> <p>'(a) any building, structure or work, whether above or below the surface of the land, and any cave or excavation;</p> <p>(b) any site comprising the remains of any such building, structure or work or of any cave or excavation; and</p> <p>(c) any site comprising, or comprising the remains of, any vehicle, vessel, aircraft or other movable structure or part thereof which neither constitutes nor forms part of any work which is a monument within paragraph (a) above;</p> <p>and any machinery attached to a monument shall be regarded as part of the monument if it could not be detached without being dismantled.'</p> <p>The Act requires any works within a Scheduled Monument to receive Scheduled Monument Consent. The Act also gives powers to the Secretary of State to designate 'Areas of Archaeological Importance'.</p> <p>Provides protection to listed buildings and Conservation Areas of 'special architectural or historic interest'. Section 66 of the Act states that 'In considering whether to grant permission or permission in principle for development which affects a listed building or its setting, [decision makers] shall have special regard to the desirability of preserving the building or its setting or any features of special architectural or historic interest which it possesses'.</p> <p>Section 72 of the Act also addresses Conservation Areas, which decision makers must pay special attention to the desirability of preserving or enhancing their character or appearance.</p> |

<sup>1</sup> [Ancient Monuments and Archaeological Areas Act 1979 \(legislation.gov.uk\)](https://www.legislation.gov.uk)



| Scale    | Legislation/<br>regulation/<br>policy                         | Summary of requirements   |
|----------|---|---|
| National | National Planning Policy Framework (NPPF) (2021) <sup>2</sup> | <p>The NPPF (2021) specifies that heritage assets "...should be conserved in a manner appropriate to their significance, so that they can be enjoyed for their contribution to the quality of life of this and future generations" (Paragraph 189).</p> <p>The following paragraphs are of particular relevance to this chapter:</p> <ul style="list-style-type: none"> <li>• Paragraph 194: Applicants for planning permission should "...describe the significance of any heritage assets affected, including and contribution made by their setting. The level of detail should be proportionate to the assets' importance and no more than is sufficient to understand the potential impact of the proposal on their significance. As a minimum the relevant historic environment record should have been consulted and the heritage assets assessed using appropriate expertise where necessary. Where a site on which development is proposed includes, or has the potential to include, heritage assets with archaeological interest, local planning authorities should require developers to submit an appropriate desk-based assessment and, where necessary, a field evaluation."</li> <li>• Paragraph 197: "In determining planning applications, local planning authorities should take account of: <ul style="list-style-type: none"> <li>– the desirability of sustaining and enhancing the significance of heritage assets and putting them to viable uses consistent with their conservation;</li> <li>– the positive contribution that conservation of heritage assets can make to sustainable communities including their economic vitality; and</li> <li>– the desirability of new development making a positive contribution to local character and distinctiveness."</li> </ul> </li> <li>• Paragraph 199: "When considering the impact of a proposed development on the significance of a designated heritage asset, great weight should be given to the asset's conservation (and the more important the asset, the greater the weight should be). This is irrespective of whether any potential harm amounts to substantial harm, total loss or less than substantial harm to its significance."</li> <li>• Paragraph 200: "Any harm to, or loss of, the significance of a designated heritage asset (from its alteration or destruction, or from development within its setting), should require clear and convincing justification. Substantial harm to or loss of: <ul style="list-style-type: none"> <li>– grade II listed buildings or grade II registered parks or gardens should be exceptional;</li> <li>– assets of the highest significance, notably scheduled monuments, protected wreck sites, battlefields, grade I and II* listed buildings, grade I and II* registered parks and gardens, and World Heritage Sites, should be wholly exceptional."</li> <li>– Footnote 68: "Non-designated heritage assets of archaeological interest, which are demonstrably of equivalent significance to scheduled monuments, should be considered subject to the policies for designated heritage assets."</li> </ul> </li> <li>• Paragraph 201: "Where a proposed development will lead to substantial harm to (or total loss of significance of) a designated heritage asset, local planning authorities should refuse consent, unless it can be demonstrated that the substantial harm or loss is necessary to achieve substantial harm or total loss is necessary to achieve substantial public benefits that outweigh that harm or loss, or all of the following apply: <ul style="list-style-type: none"> <li>– the nature of the heritage asset prevents all reasonable uses of the site; and</li> <li>– no viable use of the heritage asset itself can be found in the medium term through appropriate marketing that will enable its conservation; and</li> <li>– conservation by grant-funding or some form of not for profit, charitable or public ownership is demonstrably not possible; and</li> <li>– the harm or loss is outweighed by the benefit of bringing the site back into use."</li> </ul> </li> <li>• Paragraph 202: "Where a development proposal will lead to less than substantial harm to the significance of a designated heritage asset, this harm should be weighed against the public benefits of the proposal including, where appropriate, securing its optimum viable use."</li> <li>• Paragraph 203: "The effect of an application on the significance of a non-designated heritage asset should be taken into account in determining the application. In weighing applications that effect directly or indirectly affect non-designated heritage assets, a balanced judgement will be required having regard to the scale of any harm or loss and the significance of the heritage asset."</li> <li>• Paragraph 204: "Local planning authorities should not permit the loss of the whole or part of a heritage asset without taking all reasonable steps to ensure the new development will proceed after the loss has occurred."</li> <li>• Paragraph 205: "Local planning authorities should require developers to record and advance understanding of the significance of any heritage assets to be lost (wholly or in part) in a manner proportionate to their importance and the impact, and to make this evidence (and any archive generated) publicly accessible."</li> </ul> |

<sup>2</sup> Ministry of Housing, Communities and Local Government, 2021, National Planning Policy Framework.

| Scale    | Legislation/regulation/policy  | Summary of requirements   |
|----------|--|---|
| National | Planning (Listed Buildings and Conservation Areas) Act 1990 <sup>3</sup> | <p>This Act relates to special controls in respect of buildings and areas of special architectural or historic interest, including:<br/>The compilation and publication of a list of buildings of special architectural or historic interest.</p> <p>Guidelines on Building Preservation Notices and authorisation procedures for works to be carried out on Listed buildings.</p> <p>Defining the legal rights of owners of listed buildings, rights of appeal and the prevention of deterioration and damage, urgent preservation and grants.</p>   |
| Local    | South Cambridgeshire Local Plan  | <p>South Cambridgeshire Local Plan</p> <p>Policy NH/14 Development proposals will be supported when:</p> <ul style="list-style-type: none"> <li>• They sustain and enhance the special character and distinctiveness of the district's historic environment including its villages and countryside and its building traditions and details</li> <li>• They create new high quality environments with a strong sense of place by responding to local heritage character including in innovative ways.</li> <li>• Development proposals will be supported when they sustain and enhance the significance of heritage assets, including their settings, as appropriate to their significance and in accordance with the NPPF, particularly:</li> <li>• Designated heritage assets, i.e., listed buildings, conservation areas, scheduled monuments, registered parks and gardens</li> <li>• Non-designated heritage assets including those identified in conservation area appraisals, through the development process and through further supplementary planning documents</li> <li>• The wider historic landscape of South Cambridgeshire including landscape and settlement patterns</li> <li>• Designed and other landscapes including historic parks and gardens, churchyards, village greens and public parks</li> <li>• Historic places</li> <li>• Archaeological remains of all periods from the earliest human habitation to modern times.</li> </ul> |
| Local    | City of Cambridge Local Plan   | <p>Relevant policies include:</p> <ul style="list-style-type: none"> <li>• Policy 61: Conservation and enhancement of Cambridge's historic environment</li> <li>• Policy 62: Local heritage assets</li> </ul>   |

## Guidance

12.2.23 This assessment has been undertaken in accordance with current best practice and in line with, but not limited to, the following Standards and Guidance:

- Standards and guidance for historic environment desk-based assessment (Chartered Institute for Archaeologists, 2020): The Chartered Institute for Archaeologists' (CIfA) guidance aims to define good practice principles to produce desk-based assessments and also aligns itself with CIfA's code of conduct. The document is regarded as a standard only, and therefore avoids a prescriptive level of detail. The standard of this guidance has not been met if an assessment should fail to determine the nature, extent and significance of the historic environment within a specified area.
- Standard and guidance for commissioning work or providing consultancy advice on archaeology and the historic environment (Chartered Institute for Archaeologists, 2020): The Chartered Institute for Archaeologists' (CIfA) guidance aims to define good practice principles for the commissioning or production of consultancy advice on archaeology and the historic environment.

- Conservation Principles, Policies and Guidance, Historic England (2008):
- Managing significance in decision-taking in the historic environment, Historic Environment Good Practice Advice in Planning Note 2 (Historic England, 2015): This advice note provides information on good practice to assist in implementing historic environment policy in the NPPF and PPG and contains guidance on assessing the significance of heritage assets by using appropriate expertise.
- Preserving Archaeological Remains Decision-taking for Sites under Development (Historic England, revised 2016): This advice is for developers, owners, archaeologists and planners working on projects where the intention is to retain and protect archaeological sites beneath or within the development. It can also be read in relation to other land-use or site management work. It has a particular focus on decision-taking on waterlogged archaeological sites.
- The Setting of Heritage Assets Historic Environment Good Practice Advice in Planning Note 3 (Historic England, revised 2017): This advice note sets out guidance against the backdrop of the National Planning Policy Framework and the related guidance provided in the Planning Practice Guide. Furthermore, the guidance provides advice

<sup>3</sup> [Planning \(Listed Buildings and Conservation Areas\) Act 1990 \(legislation.gov.uk\)](https://www.legislation.gov.uk/ukpga/1990/29)

on understanding setting and how it may contribute to the significance of heritage assets, as well as a suggested methodology for assessing impacts on setting.

- Statements of Heritage Significance: Analysing Significance in Heritage Assets (Historic England 2019):
- Planning Practice Guidance: Conserving and Enhancing the Historic Environment (NPPF, DCLG, 2014: updated 2019): The Ministry for Housing, Communities and Local Government (MHCLG) published 'Conserving and Enhancing the Historic Environment' in April 2014. This was last updated in July 2019. The Guidance notes that 'conservation is an active process of maintenance and managing change. It requires a flexible and thoughtful approach to get the best out of assets as diverse as listed buildings to as yet undiscovered, non-designated buried remains of archaeological interest'. The guidance identifies that it is the degree of harm to an asset's significance rather than the scale of the development that is to be assessed, and that harm may arise from works to the asset or from development within its setting. Public benefit is identified to be anything that delivers the economic, social or environmental objectives of the NPPF as a result of the proposal (NPPF paragraph 8).
- Great Shefford Conservation Area Appraisal (2007)
- Stapleford Draft Conservation Area Appraisal and Management Plan (2021)

## Baseline conditions

### Site overview

- 12.2.24 The location, topography, and geology of a development site can provide indication of its suitability for past human activity. Topography and geology can provide information on whether ground levels have been raised or terraced away and can contribute to our understanding of the archaeological survival potential of a site.
- 12.2.25 The Site runs from the Cambridge Biomedical Campus, in the South Cambridge District to the A11 at Babraham and Little Abington, South Cambridgeshire District.
- 12.2.26 The Site hugs the ground at the slopes of the Magog Downs, within the River Cam valley. It begins on very low lying ground not far from tributaries of the River Cam to the south of Cambridge, runs around the bottom of White Hill (c.54 m above sea level), Clarke's Hill (c. 52 m above sea level), South Hill (c. 61 m above sea level) and Little Trees Hill (c. 78. above sea level), climbing the gentle slopes of the edge of the chalk hills that form the Gog Magog Hills (c. 79 m above sea level) and the Magog Downs, before sloping down back to the River Granta (a tributary of the River Cam), to the south of Stapleford and then up the foothills of the chalk downs again, to the south west of Babraham. It crosses the River Granta a second time as it approaches the A11.
- 12.2.27 Solid geology across the whole Site consists of various Chalk members (West Melbury Marly Chalk Formation, Zig Zag Chalk Formation – Chalk and Holywell Nodular Chalk Formation – Chalk).
- 12.2.28 Over the River Granta, the Site crosses 1st, 2nd and 3rd Holocene era River Terrace Gravels (12,000 to present day) and Alluvium. River Terrace Gravels are frequently associated with rich archaeological landscapes, which is bone out in the pattern of prehistoric settlement activity described herein. Alluvium is associated with high potential for preserved ecofacts and organic material.
- 12.2.29 The Gog Magog Downs are capped with gravel deposited by ancient river systems during the Anglian glaciation (478,000 to 424,000 years ago) and are the oldest Pleistocene sediments in the county.

- 12.2.30 While a programme of HLC was carried out in Cambridgeshire, due to fundamental flaws with the dataset the Historic Environment Records do not use it, nor recommend it to others.

### Historic and archaeological chronological overview

- 12.2.31 There are five scheduled monuments within the 1.5 km Study Area for Proposed Development:
- 1011717 The Causewayed Enclosure and Bowl Barrow at Little Trees Hill;
  - 1006891 Site revealed by aerial photography W of White Hill Farm;
  - 1452825 Causewayed Enclosure at Great Shelford;
  - 1017884 Two Moated sites 150 m east of College Farm; and
  - 1006929 Brent Ditch.
- 12.2.32 There are four conservation areas within the 1 km Study Area for Proposed Development.
- Stapleford;
  - Great Shelford;
  - Babraham; and
  - Great and Little Abington
- 12.2.33 There is one Grade II\* Registered Park and Garden (RPG) within the study area:
- (1000321) Pampisford Hall, 800 m south of the Proposed Development
- 12.2.34 The Grade I and II\* listed buildings within the 1.5 km Study Area are as follows (The Grade II\* listed Church of St John the Baptist (MM395) in Pampisford is included as agreed with Historic England):
- Grade I
    - 1127895 Church of St Mary, Great Shelford;
    - 1128065 Parish Church of St Mary, Sawston;
    - 1330979 Sawston Hall, Sawston;
    - 1331111 Parish Church of St Peter south West of Babraham
  - Grade II\*;
    - 1127657 Abington Pottery, Little Abington;
    - 1127722 Abington Hall, Great Abington;
    - 1127747 The Almshouses, The School House, Babraham;
    - 1161650 Parish Church of St Mary, Great Abington;
    - 1163297 Church of St Andrew Stapleford;
    - 1245571 Trumpington War Memorial;
    - 1309328 Parish Church of St Mary the Virgin, Little Abington;
    - 1317362 Queen's Head Inn, Sawston;
    - 1317370 Middlefield and Garden Wall, Stapleford; and
    - 1163297 Parish Church of St Joh the Baptist, Pampisford.
- 12.2.35 Within the Site, there are 25 non-designated assets (finds spots removed):
- CHER 08339 Cropmark complex land west of Addenbrooke's;
  - CHER MCB 30149 Possible Roman Road;
  - CHER MCB 31464 Ditches and pits Field 1;
  - CHER MCB30478 Iron Age to Roman enclosures and trackways and possible Roman inhumation;
  - CHER MCB28980 GHQ Line Cambridge;



- CHER MCB31475 Roman and undated ditches Field 4;
- CHER MCB30479 Circular enclosure, Haverhill Road;
- CHER MCB28979 WII Anti-Tank Trap, Stapleford;
- CHER MCB29681 GHQ line Stapleford;
- CHER MCB31476 Roman boundary ditches Field 6;
- CHER MCB31477 Iron Age/Roman settlement, Haverhill Road to Sawston Road section;
- CHER MCB27669 Bronze Age to Roman ditches and enclosures, Sawston;
- CHER 06326 Sawston – Haverhill Railway;
- CHER MCB31479 Undated ditches Field 11;
- CHER MCB31480 Prehistoric ditches and an inhumation;
- CHER 09353 Cropmark enclosures;
- CHER 30891 Furlong Boundaries;
- CHER MCB30893 Former Ridge and Furrow;
- CHER MCB30906 Water Meadows;
- CHER MCB15995 Babraham Water Meadow Culvert;
- CHER MCB30895 Former ridge and furrow;
- CHER MCB30890 Furlong boundaries;
- CHER MCB17799 Saxon finds at Bourn Bridge;
- CHER MCB31482 Saxon structural remains, Field 15; and
- CHER MCB30578 Curvilinear and linear anomalies, Top Acre Planation, Great Abington

#### **Palaeolithic (800,000 – c.12,000BC)**

- 12.2.36 The Palaeolithic period (falling entirely within the Pleistocene epoch) was characterised by the development of stone tool technologies. It spans the end of the Pleistocene geological epoch and marks the emergence of modern humans from earlier hominid species by the Upper Palaeolithic period (c. 40,000 – c.10,000 BC.). By the end of the Palaeolithic, the ice retreated for the last time as the climate got warmer and drier, and woodlands expanded.
- 12.2.37 Archaeological evidence of settlement during this period is nationally significant, due to its relative scarcity, which is due to a number of factors. Firstly, humans only inhabited Britain periodically. The landscape in general would have been unfavourable for people to live permanently due to its cold climate and south Cambridgeshire was glaciated at various junctures. Temperatures fluctuated, and during warm periods (interstadials), hunter gatherer communities crossed the landmass which connected Britain to continental Europe. Human settlers in Britain would have survived by hunting reindeer and elk and gathering the few edible plants.
- 12.2.38 Secondly, there are few preserved land surfaces. Evidence for occupation of the land exists in the form of portable artefacts such as stone tools, preserved within silts, sands and gravels laid down during the Palaeolithic. These artefacts are generally redeposited, having been carried from whence they were discarded, through colluvial processes. . If they are lying in situ within preserved Palaeolithic land surfaces, then their significance is greatly increased. Human remains are very rarely preserved and would always be significant

12.2.39 The terrace gravels within the Study Area were laid down during the Holocene, unlike the older Anglian gravel deposits on the Gogmagog Hills. In 1st -2nd river terrace gravels at Hinxtion further south along the River Granta, outside of the Study Area, a Terminal Palaeolithic lithic scatter was excavated, that had been preserved within a natural hollow (OA 2019).

12.2.40 Within the Site area, south of Sawston Road, a small flake was found in 1945 that was originally believed to be a Levallois flake, but since considered to be later prehistoric rather than Palaeolithic (CHER 0323, on 1st to 2nd River Terrace Gravels). Close to the Site at the proposed junction with the A11, a Palaeolithic hand axe (CHER 11317B) was recovered during fieldwalking at Bourn Bridge, in 1993 (again, this site was on 1st to 2nd River Terrace Gravels). Within the wider study area, a Lower Palaeolithic element was observed within evaluation and excavation within the centre of Cambridge, at Perse Rugby Club in 2012 (CHER MCB20219). An evaluation at Abington Park, in 1997 (CHER ECB961) identified two Upper Palaeolithic flint pieces during field walking and test pitting. No material of this date was identified during works associated with Proposed Development.

#### **Mesolithic (10,000 – 4,000BC)**

12.2.41 The Mesolithic falls during the beginning of the Holocene epoch when the landscape of Britain changed and became more inhabitable; this corresponded with a period of rising sea levels and landward inundation as the post-glacial ice sheet melted. The arrival of microlithic technologies marks this period, many of which were fixed onto spears and harpoons required for hunting. Mesolithic people followed a seasonal pattern of occupation depending on food source management. Activity would likely have been focused close to rivers for predictable resources sourced through hunting, gathering and fishing. As with the Palaeolithic, evidence for this period is characterised by flint artefacts rather than by structural remains and less abundant than for later periods, but primary deposits and secure sites are present.

12.2.42 Previous archaeological work carried out within the Site, for other developments identified Mesolithic remains, as did works carried out for the Proposed Development.

12.2.43 Trial trenching associated with the Proposed Development recovered two flint flakes dating from the Mesolithic/early Neolithic within a pit fill to the south of Babraham (MCB31481, Field 14, Trench 108)<sup>4</sup>. Further flint scatters were also present within the study area; for example, adjacent to Nine Wells LNR, flints dating from the Mesolithic to early Neolithic period have been recorded (CHER MCB24762-3). At the eastern end of the study area, at Bourn Bridge, evidence of Mesolithic-Neolithic activity (CHER 11317) suggests the presence of a possible settlement; other flint flakes and a blade (of this date) have been found in the Bourn Bridge area, but these were unstratified (CHER CB14748). A single prismatic blade flake was found within a pit during excavations of features at Babraham Road, Sawston (CHER MCB27477).

<sup>4</sup> Oxford Archaeology East (2021) *Cambridge South-East Transport Project Phase 2, Archaeological Evaluation Report*. OAE Report 2506

- 12.2.44 Within the wider study area, much has been identified within Cambridge. There was a background residual scatter of Mesolithic flint within the Roman settlement excavated at the AstraZeneca plot at Addenbrookes (CHER MCB26684). A great deal of flint (some of Mesolithic date) was identified within later prehistoric features at a site excavated at the Bell Language School, in Cambridge (CHER MCB16078). Further residual material was found within excavations to the south of the Bell Language School (CHER MCB20923). On Cambridge Road (CHER MCB17152), a Bronze Age lithic working site contained trace amounts of Mesolithic flint. Pit clusters at a site within the Site, at CBC Boulevard (CHER MCB19991), west of Francis Crick Avenue, were found to contain Mesolithic flint scatters. Outside of the city, an evaluation at the Welding Institute at Great Abington in 1997 also identified some Mesolithic pieces (CHER MCB11988/CB15306). A Mesolithic tranchet axe and flint flakes were found during field walking at Clay Farm (CHER MCB16139), almost 600 m to the northwest of the Addenbrooke's Link end of the Site.
- 12.2.45 Evidence for activity during this period shows a general pattern of distribution within the study area, with possible settlement focused on the Bourn Bridge area within the eastern end of the study area.
- Neolithic (4,000 – c. 2,500 B.C)**
- 12.2.46 The arrival of more extensive horticulture from continental Europe marks the beginning of the Neolithic period alongside a radical change in the relationship between people and the natural environment. This period witnessed forest clearances to make way for crops and animal herds, and a marked almost absolute decline in inclusion of hunted meat or foraged wild food in the diet. The Early Neolithic is comparable to the Mesolithic in terms of stone tool technologies however, this period saw the development of monumental features including long barrows and causewayed enclosures. The Middle Neolithic is marked by the earliest evidence of stone circles, cursus monuments and individual burials. The Late Neolithic period, whilst demonstrating some cultural overlap, saw an introduction of a new style of pottery, along with henges, a replacement of rectangular style dwellings with smaller round ones, palisaded enclosures and an increasing focus on springs and the sources of rivers.
- 12.2.47 The spread of evidence for this period, within the study area, is typical of a river valley on terrace gravels with monumental evidence, settlement activity denoted by discrete features, flint scatters, and residual assemblages present as 'background noise' within later sites. The latter type is very common within the Study Area and isn't easily demonstrated using the gazetteer and mapping alone, as examination of the macro detail of the HER records is necessary, and the detailed listing of such herein is beyond the scope of this assessment.
- 12.2.48 Within the study area there are two causewayed enclosures, both of which are scheduled. The causewayed enclosure at Little Trees (1011717) has not been excavated but the monument type was in construction during the mid-Neolithic (roughly 39 to 38th centuries BC), with continued use of the site being demonstrated by the bowl barrow within the interior. Although located just outside the northern extent of the study area, it is an important indication of sustained activity within the wider landscape of the Proposed Development during the Prehistoric period. The second causewayed enclosure is at Great Shelford (1452825). Both are outside of the Site. There is a possible Neolithic Long Barrow and henge monument at Little Abington (CHER 09356a), on the east side of the A11 and Newmarket Road at the Cambridge International School, although evaluation suggests natural causes for the cropmarks that were interpreted as a Long Barrow, the henge was identified in the field.
- 12.2.49 Other monuments sites that include Neolithic activity include the ring ditches at Little Abington (CHER 09356).
- 12.2.50 A Neolithic shaft and a series of pits were excavated at Granham's Farm (CHER CB15541); the shaft was cut down to the level of an aquifer.
- 12.2.51 Across the Study Area, features such as pits and ditches have also been identified as containing lithics. Within excavations for the Proposed Development, flint was found within a ditch in Field 6 (CHER MCB31476, trench 68).
- 12.2.52 Pit clusters at a site within the Site, at CBC Boulevard (CHER MCB19991), west of Francis Crick Avenue, were found to contain Neolithic/early Bronze Age flint scatters. Excavations at Cambridge Biomedical Campus between 2015 and 2015 identified features that included a pit containing Mildenhall Ware pottery and Neolithic flint (CHER MCB31555).
- 12.2.53 Within the wider study area, a great deal of flint (some of Neolithic date) was identified within later prehistoric features at a site excavated at the Bell Language School, in Cambridge (CHER MCB16078 and Neolithic rubbish pits were identified within a site at Babraham Hall Monument (CHER 11937).
- 12.2.54 Largely, however, Neolithic sites within the Study Area have been identified through flint scatters. There are three of these within the Site (MCB24763, 04886, 04893, see below).
- 12.2.55 Flint scatters are abundant throughout the Site and study area, particularly within the gravel terraces that follow the River. The most significant of these include sites at:
- Great Shelford
    - Fieldwalking at Nine Wells Nature Reserve produced 320 worked flint and 143 fragments of unworked burnt flint. The dates of these pieces spanned the Mesolithic/early Neolithic and Late Neolithic to early Bronze Age CHER MCB24763
    - Polished flint axe CHER 04886
    - Worked flint, flint core, 2 blades, flint flakes, CHER 04893
    - The polished axe and many worked and waste flints including two round scrapers from CHER 00462
    - Blades, cores and wasters from CHER 04880)
    - Worked flint scatter comprising 30 blades, 16 flakes, 8 cores, 1 scraper, 3 heat crazed, and one pottery sherd, from CHER 04880A
    - 18 blades, 21 flakes, 4 cores, 12 heat crazed, 4 fragments of pottery CHER 04882
    - 3 worked flakes CHER 04881
    - Flakes and worked flint CHER 04891
    - Worked flint and one blade CHER 04892
    - Flint flakes, flint blades, worked flints, from the location of the ring ditch at Granham's Farm CHER 04894
  - Stapleford
    - Flint scrapers, CHER 0450
  - Bourne Bridge
    - Surface scatters that greatly underrepresented the buried remains, which included evidence of settlement or camp type activity during the early Neolithic CHER 11317/11317a/CB14748
    - Great Abington, scrapers, blades and waste flakes from the Welding Institute site (CHER 11988/CB15306)



12.2.56 Other sites have yielded either substantial quantities or significant diagnostic pieces. An exhaustive list cannot be made here, but they will be found within the gazetteer for this report.

### **Bronze Age (2,000 – 700 B.C)**

12.2.57 The Bronze Age is characterised by the introduction of metal technologies and by a marked change in land use. Throughout the early Bronze Age, the most commonly found evidence for human activity during this period takes the form of flint scatters, despite the famous monuments and large settlement sites that the region has to offer. There is a more marked change in land use by the middle Bronze Age with communities turning from the creation of large monuments, and towards working and shaping the land. Bronze Age lowland field systems such as those identified within Cambridgeshire have been discussed as conspicuous production<sup>5</sup>. It is during this period that the recognisable world in which we live began to be formed, particularly with regards to small villages, hamlets and fields, with different settlement types being observable in the archaeological record in varied landscape settings<sup>6</sup>.

12.2.58 This period saw an increase in economic and cultural communications with mainland Europe giving rise to new burial rites, objects and technology. Ore sources, such as tin and copper, were both used as components for bronze smelting and thus became increasingly important as bronze gradually replaced stone as the main material for tools.

12.2.59 Evidence of Bronze Age monumentality within the Site comes from a ring ditch at Stapleford, identified and recorded through geophysical survey and archaeological evaluation undertaken as part of the Proposed Development. This evaluation identified part of a circular enclosure (CHER MCB30479, Enclosure 4). The approximate diameter of this feature is 25 m, consisting of a ditch of slight proportions with steep slightly stepped sides and a flat base measuring 1.9 m wide x 0.37 m deep. It is identified as an early Bronze Age ring ditch and is thought to be associated with a group of possible monuments in close proximity (CHER 08344, MCB20542)<sup>7</sup>. Another possible Bronze Age ring ditch was also investigated as part of an evaluation at Granham's Farm, Great Shelford; little artefactual or ecofactual evidence was recorded from within the sections into the ditch (CHER 04894, see section above for Neolithic component). Neolithic/Early Bronze Age flints (CHER MCB19991), with ring ditches containing Late Bronze Age/Early Iron Age pottery, were identified approximately 15 m east of the Site in Cambridge.

12.2.60 Further finds associated with Bronze Age activity were discovered within the Bourn Bridge area to the east of the study area, including pottery, and a ring ditch monument dated to the mid-2nd millennium BC (Bourn Bridge, 11317A). Within the wider landscape surrounding the proposed location of the A11 Travel Hub site, a large prehistoric ring ditch or henge was identified through archaeological aerial investigation and mapping survey (Little Abington, CHER 09356a)<sup>8</sup>. Evidence for activity within the Bronze Age is also present to the east of the proposed A11 Travel Hub and consists of round barrows (within Little Abington, CHER 06172, and to the north of Little Abington, CHER 09275) which has its origins in this period. A prehistoric ditch was also identified at Little Abington (CHER 0936b) to the east of the proposed A11 Travel Hub, thought to be associated with the nearby round barrows (CHER 06281) located to the north-east of the proposed A11 Travel Hub. To the east of Haverhill Road at Bury Farm, Stapleford, the Proposed Development passes through an area of previous combined geophysical survey and aerial photography evaluation recorded within the CHER where a number of anomalies were recorded. These include a rectangular enclosure (CHRE 30480), a double rectilinear enclosure along with annex (CHER 08348), a semi-circular feature interpreted as a possible barrow or as the remains of a stone cairn (CHER MCB20542,) and the outline of a rectangular structure within internal pits (CHER MCB20541), all located within 100 m of the Site, south of Haverhill Road. It is not clear that the enclosures are contemporaneous with the barrow. When evaluated for Proposed Development, no evidence of similar structures was observed.

12.2.61 Settlement activity has also been identified in abundance, within the study area. Some of this takes the form of low-density occupation evidence masked by more intense later occupation phases, such as at Nine Wells (CHER MCB30478). Previous trial trenching located to the north of the study area at Granham's Farm, in Great Shelford also revealed a Middle/Late Bronze Age roundhouse with associated pits and additional postholes (CHER CB15569)<sup>9</sup>. Fragments of a probable Middle Bronze Age Urn were found in one of the postholes demarcating the entranceway.

12.2.62 Settlement evidence also takes the form of complex sites and landscapes. Activity within the study area to the south of Haverhill Road during the wider prehistoric period is also evidenced by possible prehistoric ditches at Dales Manor (CHER MCB26669), located south of the study area. Bronze Age implements (Sawston CHER 04537a) and Bronze Age enclosures (Sawston, CHER MCB17152) were also identified to the south-west of the study area. Additionally, to the south of the study area, an east-west trackway or possible 'hollow-way' with associated pottery dating between Late Bronze Age to Early Iron Age (Sawston, CHER MCB27477), was identified, indicating likely occupation in the vicinity<sup>10</sup>. Any eastern extension of the trackway would continue across the Site, although, whilst a possible continuation of a single ditch was recorded, no direct evidence for a trackway was identified by geophysical survey or evaluation trenching undertaken as part of the Proposed Development. A Late Bronze Age enclosure is also recorded at Lynton Way, Sawston (Sawston, MCB16829) located within the south-west of the study area. A possible rectilinear/D shaped enclosure was identified within Field 13 at Babraham, during the evaluations carried out for Proposed Development. These D shaped enclosures are a type that forms a distinctive component of the local settlement geography and contemporary land divisions were observed nearby within Field 14 (CHER 09353).

<sup>5</sup> Yates 2007

<sup>6</sup> [Late Bronze Age to Middle Iron Age Resource Assessment - East of England Research Framework \(researchframeworks.org\)](https://www.researchframeworks.org/)

<sup>7</sup> Oxford Archaeology East, *Cambridge South-East Transport Project Phase 2...* OAE Report 2506.

<sup>8</sup> Oxford Archaeology East (2016) *Cambridge International School Little Abington Archaeological Evaluation Report Number 1956*; Mott MacDonald (2019) *CSET Phase 2: Archaeological Aerial Investigation & Mapping*

<sup>9</sup> Whittaker, P., Evans, C. and Gibson, D. (2002) *Granham's Farm Great Shelford, Cambridgeshire: An Archaeological Evaluation*. Report Number 514

<sup>10</sup> Morgan-Shelbourne, L., and Woolhouse, T. (2019) *Land north of Babraham Road, Sawston: Archaeological evaluation*. PreConstruct Archaeology Report R13768

- 12.2.63 Finds within the west of the study area demonstrate a long period of occupation within the landscape. Further indication of activity during the prehistoric period within this area is evidenced by a flint working site at Babraham Hall (MCB17433) dated to between the Early Neolithic and Late Bronze Age. Bronze Age pottery was recovered from features in Fields 13-4 (CHER MCB31480 and CHER MCB31481).
- 12.2.64 Worked flint was identified surrounding former river channels where river terrace gravels were utilised as a source of material, with potential for burnt mounds.
- 12.2.65 A Middle Bronze Age palstave (CHER 05010) was also found in the early 20th century, in Stapleford.

#### **Early Iron Age – Late Iron Age / Roman Transition (800 BC – AD 43)**

- 12.2.66 By the Iron Age, all parts of the landscape were utilised, and Iron Age enclosures have been found in large numbers alongside large scale field systems along with the introduction of more complex settlement sites and managed arable and pasture land. Communication routes were constructed or improved, which led to broader movement of goods and people, and with it increased exchange of resources and practices. The continued construction of large earthworks such as hillforts across the landscape once again points to the importance of this location as a destination as well as a place of significant presence and purpose<sup>11</sup>.
- 12.2.67 Evidence of activity from these periods within the Site is recorded across the length of the Proposed Development.
- 12.2.68 To the north of the Site, at Addenbrooke's Road, an extensive complex, including a multi-ditched enclosure (CHRE 08339) could arguably have been Iron Age (it was associated with small quantities of Iron Age pottery) although its form suggested Roman.
- 12.2.69 There is also evidence of Iron Age settlement at Granham's Farm and Nine Wells, near Great Shelford (CHER MCB30478). Here, archaeological fieldwork identified an extensive middle Iron Age settlement that appears to be associated with the Iron Age settlement at White Hill; features included a converging double ditched trackway with offset enclosures and a boundary bank, roundhouses and a great deal of material culture. One of the enclosures had a large V shaped ditch measuring 3 m x 1.5 m and included a tip deposit into which pottery, animal bone, fired clay, wheat, barley and oat grains were deposited. Other fills from ditches, pits, wells, associated with this enclosure contained various waste deposits, such as pottery sherds, animal bones and other environmental samples – all of which point to sustained domestic settlement activity at this location. Iron Age occupation at this location is further evidenced through recovered sherds of probable Iron Age pottery within various ditch fill deposits across a number of trenches to the north of Granham's Road (Trenches 11-16, 19-21)<sup>12</sup>. The boundary bank corresponds with a still visible medieval headland, but it was made clear through fieldwork, that it had an Iron Age origin. It can be traced over 700 m and forms the southern limits of the settlement complex to the north, which spread between Trench 11 in the west to Trench 22 in the east. All of these supported the evidence for an overall dating of the features north of Granham's Road as being part of an Iron Age settlement complex.

- 12.2.70 Close to the River Granta just south of Stapleford, further middle Iron Age settlement features were identified on the terrace gravels (CHER MCB 31477 and MCB27669) on both sides of the river. Archaeological fieldwork identified evidence of activity dating to this period in the form of a pond or watering hole (7315, Trench 73) containing a large quantity of Middle Iron Age pottery, with five sherds of early Roman pottery also being identified. This evidence is indicative of sustained localised settlement presence at this location on the gravel terraces of the River Granta (MM391). To the south of the River Granta, trial trenching associated with the Proposed Development also identified pottery dating from the Late Bronze Age through to the Middle Iron Age within a pit fill (7505, Trench 75). Quantities of fragmentary animal bone were also recovered from the same location<sup>13</sup>. It is possible that this evidence is indicative of settlement on either side of the River Granta, however, it is not clear as to whether this settlement was permanent in nature or utilised seasonally<sup>14</sup>.
- 12.2.71 A double ditched enclosure system of some complexity was identified at Babraham (Field 14, CHER 09353) during geophysical survey, which were not dated during subsequent fieldwork. Iron Age artefacts were found during the excavation of the Roman quarrying site of Field 15 at Babraham and in Field 16, and large Late Iron Age/Roman field systems have been identified at Bourn Bridge (CHER 11317C).

#### **Romano-British (AD 43- AD 410)**

- 12.2.72 The British landscape changed rapidly after the arrival of the Romans in AD43 (Allen et al, 2017). A new road network was established, connecting the major settlements and forts located throughout the landscape (Margery, 1967). Many former Oppida (an Iron Age trading settlement/central place) became regional administrative centres, and the new roads saw expansion of rural agricultural settlements, centred on farms or villas with larger market type settlements often located where roads crossed rivers. The Site is in a river valley, very close to two Roman Roads, both of which cross the river, one to the north at Addenbrookes, which intersects the Site (CHER MCB30149), and one running parallel with the M11 (CHER MCB26667). Both of these intersect with Worstead Street (Via Devana) (NHLE: 1003263), approximately 1.7 km to the north of the proposed location of the A11 Travel Hub, which is the conjectured Roman military road running between Colchester and Chester<sup>15</sup>. There is a scheduled villa site at White Hill Farm (NHLE 1006891) that has been demonstrated, through aerial survey and archaeological fieldwork, to have wider associated settlement evidence (CHER MCB 27379, trackway; 04461, settlement cropmarks), which Roman Road MCB30149 crosses, to its north. The extent of settlement around the White Hill area extends to a large settlement site of possible Roman date to the northwest of White Hill, which is also intersected by the same Roman road (MCB27674 and 08356, abutted by Granham's Road and Babraham Road). To the north of the same Roman road and within the Site, there is a possible military encampment or shrine denoted by a D shaped enclosure (08339).

<sup>11</sup> Evans, Lucy and Patten, *Riversides: Neolithic Barrows...* (CAU Landscape Archives/New Archaeologies of the Cambridge Region 2.) Cambridge: Cambridge Archaeological Unit: 400.

<sup>12</sup> Ibid.

<sup>13</sup> Ibid.

<sup>14</sup> Oxford Archaeology East, *Cambridge South-East Transport Project Phase 2...* OAE Report 2506.

<sup>15</sup> National Heritage List for England [online] <https://historicengland.org.uk/listing/>



- 12.2.73 Within the Site boundary, archaeological evaluation identified post-hole features to the north of Granham's Road, of which one contained a fragment of a possible Roman/early Saxon whetstone, re-used for packing for the post-hole<sup>16</sup>. Further evidence of probable Roman date includes sherds of pottery within various ditch fill deposits across a number of trenches to the north of Granham's Road (Trenches 6, 21, 30)<sup>17</sup>. Also within Trench 6 an inhumation burial was identified (MCB30478), and although left unexcavated and therefore formally undated it is possibly of Roman date given its archaeological context<sup>18</sup>. A large Roman boundary ditch was identified during evaluation passing through the Site to the south of Hinton Way (CB31475). It measured 4.4 m wide and 1.64 m deep. Dating evidence came about from lower fill deposits that contained a 4th century Roman coin of Constantine I, along with sherds of early Roman pottery; however, it may have originated during the Iron Age and was left 'open' throughout the Roman period<sup>19</sup>. The nature and use of this large ditch feature is not known, however, the overall size and possible presence of a previous bank on its western side suggests use as a wider landscape boundary feature. To the west of Haverhill Road, a Roman brooch was recovered from topsoil prior to trial trenching as part of the Proposed Development.
- 12.2.74 Within the flood plain of the River Granta at Stapleford, there is evidence of activity from this period, through recovered sherds of pottery from both subsoil and ditch fill deposits to the north of the River Granta (Trenches 72 and 73), indicating a continuation in settlement activity from the Iron Age to Roman period (MCB31477). Sherds, along with fragment of Roman brick, were also identified to the south of the River Granta within Trenches 172, 75, 180, 182 and 184 within and near to an area of cropmarks previously recorded at this location (MCB27669)<sup>20</sup>. These are likely to be contemporary features. It is possible that this area south of the river was an area of settlement or landscape drainage activity during the period, as identified during evaluation within the Site (MCB27669). There are also extensive areas of Roman settlement evidence in the fields surrounding, and including North Farm and Dale Manor Business Park (MCB20412). Evaluations in 2014 identified Roman settlement evidence including inhumations, animal burials, boundary ditches, enclosures, and trackways. This is supported by further finds in the vicinity, including Roman slave shackles (CB15667). This evaluation overlapped with the Site, within Field 10. Field 10 could not be evaluated for the Site, due to access issues, and it has not been surveyed (MCB31478).
- 12.2.75 To the east of High Street the Proposed Development crosses an open field to the south of the watercourse through an area of cropmarks that were targeted by archaeological evaluation carried out as part of the Proposed Development (MCB31481)<sup>21</sup>. The trial trenching identified a series of ditches within Trenches 168 and 169, that correspond with the possible Roman D-shaped enclosure complex and associated ditches of CHER 09353. The dating of this complex has not been confirmed by evaluation; the regularity in layout of the enclosures may suggest a Roman date which fits with the broader landscape framing of the area as densely occupied during this period<sup>22</sup>. However, the enclosure may also have its origins in the Late Iron Age<sup>23</sup>.
- 12.2.76 Roman quarry activity was also discovered to the north of the River Granta at Babraham during archaeological evaluation trial trenching associated with the Proposed Development (MCB31482). These quarry pits were dated through recovered sherds of Roman pottery from within pit fill located in Trench 110. A large quantity of Roman pottery (68 sherds) was also recovered from a ditch fill within Trench 113. This large assemblage, indicative of occupation, is roughly contemporary with Roman activity identified elsewhere surrounding the River Granta and from previous excavations at the Babraham Institute. It may also represent peripheral activity to the ditched enclosure/rectilinear enclosures (MCB31482) to the north<sup>24</sup>.
- 12.2.77 Elsewhere within the study area Roman activity is also present; within the western end evidence is represented by early Roman settlement, including a ditch containing a sherd of 1st to 2nd century pottery (MCB20378), located to the west of the Addenbrooke's Road roundabout. Elements of a Roman field system and small kiln (MCB26679) were also identified approximately to the north-east of the Addenbrooke's Road roundabout. Four cremation burials dated to the early Roman period were discovered within the north-east of the study area (MCB26681). Excavation during 2014 identified a number of Roman ditches at CBC trunk road (MCB26682) recorded approximately 0.7 m to the east of the Proposed Development.
- 12.2.78 South of the Proposed Development within the study area sherds of Roman pottery were found in Stapleford (MCB28289, MCB28290 and MCB28292). The findings suggest that the area was in active use during the Roman period, though the main settlements were located elsewhere. Settlements were known to often be located on the gravel terraces beside rivers. Activity within the study area during this period around the River Granta at Stapleford is evidenced by a number of finds, including: a Roman quern (grinding stone) (04325), Roman fibulae brooch fragments (04326) and Roman material including fibulae fragments (04764) located within the north-east of the study area. A Roman cobbled surface (MCB19436) was also identified within this area and is thought to be associated with a Roman building further to the north, recorded on mapping from 1969-1972.
- 12.2.79 Extensive Roman settlement evidence within the study area has been recorded within the grounds of the Babraham Institute, north of the Proposed Development. There include a number of finds dating to this period, for example, gravel extraction pits filled with domestic refuse dating to the 1st to 2nd century AD (11899) and a Roman inhumation and cremation cemetery (MCB17624). The cemetery is likely associated with known Roman settlement within this area<sup>25</sup>. Originally identified in 1996 by the CCC Archaeological Field Unit, the burial area was fully excavated in 2006 identifying a cemetery comprising 36 graves containing 42 individuals, dating to between the 2nd and 4th centuries. It is also relevant to note that 14 skeletons of an unknown date had also been discovered in 1960<sup>26</sup>.

<sup>16</sup> Oxford Archaeology East, *Cambridge South-East Transport Project Phase 2...* OAE Report 2506.

<sup>17</sup> Ibid.

<sup>18</sup> Oxford Archaeology East, *Cambridge South-East Transport Project Phase 2...* OAE Report 2506.

<sup>19</sup> Ibid.

<sup>20</sup> Ibid.

<sup>21</sup> Mott MacDonald, *CSET Phase 2: Archaeological Aerial Investigation & Mapping*

<sup>22</sup> Magnitude Surveys, *Geophysical Survey Report of Cambridge South East Transport Phase 2, Stage 2*, Ref. MSTL645

<sup>23</sup> Oxford Archaeology East, *Cambridge South-East Transport Project Phase 2...* OAE Report 2506.

<sup>24</sup> Ibid; Mott MacDonald, *CSET Phase 2: Archaeological Aerial Investigation & Mapping*.

<sup>25</sup> Armour, N. (2007). *Archaeological Investigations at the Babraham Research Campus, Cambridgeshire 2005-7*. Cambridge: Cambridge Archaeological Unit. Available at: <https://doi.org/10.5284/1019957>, accessed May 2021.

<sup>26</sup> Ibid.

12.2.80 Further evidence of Roman settlement within the eastern end of the study area is also present, with a number of ditches and gullies forming a field boundary (MCB19813) on the edge of Babraham, discovered during excavations on Blacksmith's Close. In addition, Roman activity is evidenced at Bourn Bridge through settlement and a drove way as well as field systems (11317D). The presence of these main roadways within the landscape highlights activity during this period within the wider landscape.

12.2.81 Extensive evaluation trenching did not find any evidence to confirm activity during this period within the proposed location of the A11 Travel Hub itself.

#### **Medieval (AD 410 – AD 1520)**

12.2.82 The environmental possibilities of the landscape, with its water supply and rivers, may likely have determined much of the cultural activity and subsequent geographies<sup>27</sup>. This landscape, characterised partly by the rising chalk downlands to the north, and the rivers to the south, seems to have formed a northerly border for various cultures as a result, with Anglo-Saxon being one where dense continuation and occupation is observed in the archaeological record. Probable plough headland banks and/or boundary banks are visible across the chalk downland hills and lower chalk plains across the study area. These long low earth banks likely date from the early medieval period, or possibly later during the medieval period and show former land divisions.

12.2.83 Evidence of early medieval activity within the footprint of the Proposed Development comes from a Sunken Feature Building (SFB) and associated settlement activity (MCB31482), recorded during evaluation trenching in Field 15. The SFB extended outside the limits of the trench, however, it was established to have a sub-rectangular plan measuring 3.77 m wide x 0.3 m deep with gentle sides and a flat base which included a posthole. Finds identified within the fill of the building are characteristic of early Saxon settlement refuse and included handmade pottery, animal bone, slag, hammer scale (identified within the environmental sample), loom weight fragments, fired clay, burnt lava quern, a long brooch, an iron pin and nail and two Roman coins pierced and reused as pendants<sup>28</sup>.

12.2.84 Within the wider study area evidence for activity during this period is recorded from west to east across the Site. Early Anglo-Saxon remains were identified during evaluation within the north-west of the study area, consisting of pits and a well containing limited pottery evidence, iron knife blades and quern (grinding stone) fragments. Evidence for iron processing on a small scale was also identified within the vicinity (MCB17800). In addition to this, features and finds dating to the middle early medieval period were identified within the north-east of the western end of the study area (MCB17890), with further evidence in the form of a late early medieval SFB (Grubenhäuser) identified within an area of phased activity located within the north-west of this end of the study area (CHER 04730a).

12.2.85 Activity within the early medieval period is evidenced in the vicinity of Granham's Farm, where previous archaeological evaluation identified an early to middle Saxon ditch located beneath a post-medieval floor or wall and dumped deposit (MCB20044). This is apparently associated with Granham's Moat (01002a), a possible early medieval burh site, which forms an earthwork banked enclosure to the rear (north-east) of Granham's Farm.

12.2.86 Early medieval activity within the study area to the north of Stapleford is represented by a burial site/cemetery (08211), where a group of skeletons was found in the 18th century. A further Anglo-Saxon skeleton was found nearby in the early 20th century, during the construction of a house at the edge of the Fox Hill development (08193). Evidence for activity within this period was also identified during test pitting as part of a community dig within Stapleford village between 2013 and 2017 which suggests that this period saw the settlement of a village at Stapleford, though it was not consolidated until the Norman period<sup>29</sup>.

12.2.87 Metal detecting of the subsoil of Trench 175 to the south of the River Granta during trial trenching associated with the Proposed Development also recovered an Anglo-Saxon knife (SF 106)<sup>30</sup>.

12.2.88 There is limited evidence for early medieval activity within the study area to the south of Haverhill Road. To the north-west of Sawston is the site of an early medieval inhumation (04537), discovered in 1806 and shown on mapping from 1885. The body was buried with a number of items, including two bronze vessels, some terracotta, and an iron sword. This demonstrates the presence of early medieval activity in the vicinity of the Proposed Development, though little else is known about this burial.

12.2.89 Lidar imagery indicates plough headland / boundary bank earthworks crossing the width of the Site north-south to the south of Sawston Road. These possibly date from the early medieval to medieval periods and show a former field system across the landscape. They are not picked up by geophysical survey and only modern agricultural activity can be identified<sup>31</sup>.

12.2.90 Archaeological evaluation undertaken to the east of High Street, as part of the Proposed Development to the north of the proposed route, identified evidence for early medieval activity to the south of Babraham, in the form of a possible Anglo-Saxon cemetery. Located on higher ground overlooking the River Granta at Babraham, three graves were identified, two of which were excavated fully. Grave 10302 (containing a possible adult male) was aligned north to south and was sub-rectangular in plan with steep sides and a flat base and measured 1.97 m long x 0.94 m wide x 0.18 m deep. An Anglo-Saxon knife (SF110) was also present within the burial. The second excavated grave (10305) was of a sub-adult aligned north-west to south-east; the grave was also sub-rectangular and measured 1.58 m long x 0.62 m wide and 0.27 m deep. A small Anglo-Saxon knife (SF50) was found next to the skeleton. This possible cemetery is located approximately 750-900 m west from the settlement remains identified in Trench 111 (MCB31482) and Bourn Bridge and is considered typical in its location for this period<sup>32</sup>.

<sup>27</sup> Evans, Lucy and Patten, *Riversides: Neolithic Barrows...* (CAU Landscape Archives/New Archaeologies of the Cambridge Region 2.) Cambridge: Cambridge Archaeological Unit: 14

<sup>28</sup> Oxford Archaeology East, *Cambridge South-East Transport Project Phase 2...* OAE Report 2506.

<sup>29</sup> Collins, C (2019) *Archaeological Test Pit Excavations in Stapleford, Cambridgeshire, 2013 – 2017*. Access Cambridge Archaeology unpublished report series. Available via: <https://doi.org/10.5284/1078354>, accessed May 2021.

<sup>30</sup> Oxford Archaeology East, *Cambridge South-East Transport Project Phase 2...* OAE Report 2506.

<sup>31</sup> Magnitude Surveys, *Geophysical Survey Report of Cambridge South East Transport Phase 2*, Ref. MSTL609

<sup>32</sup> Oxford Archaeology East, *Cambridge South-East Transport Project Phase 2...* OAE Report 2506.



- 12.2.91 Evidence present within the surrounding study area suggests it has remained in arable cultivation for much of the past millennia. However, a small, short lived, early medieval settlement (CHER 13044) and finds (CB14745 and MCB17799) dated to this period are recorded within the Bourn Bridge area. The recovered evidence indicated a mixed economy of cereal cultivation and livestock, supplemented by some hunting. The main complex of the settlement of six Grubenhauser (MCB17799) was found to be located on a high gravel terrace with associated pits and hollows. There was also evidence of burials, in the form of brooches and bones, found in dark undisturbed soil. An additional structure was also identified to the north-west within the floodplain area. It could be that the settlement (MCB31482) identified during evaluation for the Site, extended this far.
- 12.2.92 Extensive evaluation trenching did not find any evidence to confirm activity during this period within the A11 Travel Hub area itself.
- 12.2.93 Whilst undated and left unexcavated, it is prudent to add within this section the record of asset MCB31480, as it is within relative proximity to a recorded Anglo-Saxon cemetery (see 4.5.5.3). This inhumation burial was discovered during archaeological evaluation associated with the Proposed Development within the Site west of High Street in Trench 161.
- 12.2.94 It should be noted that the writing of the Domesday Survey of 1086 demarcated the counties of England, including the set boundaries of Essex. This would have definitely influenced the land categorization including the Site.
- 12.2.95 Within the Site, archaeological evaluation west of Granham's Road noted denuded medieval headland that corresponded to the change in topography between the edge of the chalk plateau (west) and the initial rise of the chalk downs of White Hill (east), as recorded during previous evaluation<sup>33</sup>. This medieval headland ran parallel with the recorded Iron Age double-ditched trackway feature and atop the identified Iron Age boundary ditch at this location<sup>34</sup>. Possible strip lynchets were identified mid-way between Hinton Way and Haverhill Road which are likely medieval in origin (MCB31475). Trial trenching associated with the Proposed Development also recovered a single sherd of medieval pottery within a hollow fill to the south of Haverhill Road (Trench 69)<sup>35</sup>. Four pieces of late medieval/post-medieval floor tile were also recovered from Trench 110, located to the north of the River Granta at Babraham<sup>36</sup>. A medieval copper alloy buckle was recovered from the topsoil, to the east of Hinton Way within the Site, prior to archaeological trial trenching<sup>37</sup>. Evidence from archaeological evaluation associated with the Proposed Development supports that the area was primarily utilised for agricultural purposes at this time.
- 12.2.96 At the time of the Domesday Survey a large settlement was present at Trumpington<sup>38</sup>. Agricultural activity within the western end of the study area at this time is represented by evidence of medieval ridge and furrow cultivation recorded approximately within the north-west of the study area (MCB17913). A possible medieval pit (MCB18090) was discovered within the south-west of the study area during an evaluation of land to the rear of Cambridge Road, Great Shelford in 1997. It concluded that the land was used intensively as a small holding for a period of approximately 20 years, although it could have been utilised as an open space in the parish for a longer period. Possible ridge and furrow features have also been identified during geophysical survey for the Proposed Development to the north of Granham's Road, supporting the agricultural interpretation for land use at this time<sup>39</sup>.
- 12.2.97 Evidence of activity during the medieval period was also located in Great Shelford, within the south of the study area<sup>40</sup>. Evidence of settlement within the south of the study area was found during evaluation in 1999 comprising an abandoned building, dated to AD 1350-1550 and a number of raised mounds, furlong boundaries and remnants of medieval – post-medieval strip cultivation (CB15542). Further evidence of medieval activity in this area comprises a number of pottery sherds within Great Shelford (for example MCB18686, MCB19757 and MCB19758), as well as a possible medieval ditch (MCB28269) located within the south-west of the study area. A number of medieval buildings in Great Shelford survive to the present day, two of which are located within the study area: De Freville Farmhouse (1127898) and Four Mile House (1163891), both of which date to the 15th century. Geophysical survey undertaken for the Proposed Development prior to evaluation indicated the presence of possible ridge and furrow features to the north-east of Great Shelford<sup>41</sup>. The northern half of the study area within this location seems to have remained as agricultural land during this period.
- 12.2.98 According to the Domesday Survey (1086) a large settlement (27 households; 11 ploughlands) was recorded at Stapleford, to the south of Haverhill Road<sup>42</sup>. There is substantial evidence contained within the CHER for medieval activity within Stapleford village, predominantly comprising pottery sherds, such as MCB28284. Evidence of a moat surrounding a trapezoidal island within the grounds of the Stapleford Primary School (01004), provides additional evidence of settlement activity during this period. The Church of St Andrew (1165349), extant today, dates to the early 12th century and is further evidence of medieval activity within Stapleford. The White House (1127823), adjacent to the church, dates to the 15th century. Geophysical survey as part of the Proposed Development identified natural linear features crossing the Site, north-south within this area<sup>43</sup>. Lidar imagery adds more detail across a wider view where these features are likely to be plough headland / boundary bank earthworks. It is possible that these features date from the early medieval to medieval periods and show a former field system within the landscape.

<sup>33</sup> Hinman, *Granham's Farm Golf Course Neolithic to Medieval...* (CCC AFU) Report 167.

<sup>34</sup> Oxford Archaeology East, *Cambridge South-East Transport Project Phase 2...* OAE Report 2506.

<sup>35</sup> Ibid.

<sup>36</sup> Ibid.

<sup>37</sup> Ibid.

<sup>38</sup> Open Domesday [online] <https://opendomesday.org/>

<sup>39</sup> Magnitude Surveys (2020) *Geophysical Survey Report of Cambridge South East Transport Phase 2*, Ref. MSTL609.

<sup>40</sup> Open Domesday [online] <https://opendomesday.org/>

<sup>41</sup> Magnitude Surveys (2020) *Geophysical Survey Report of Cambridge South East Transport Phase 2*, Ref. MSTL609

<sup>42</sup> Open Domesday [online] <https://opendomesday.org/>

<sup>43</sup> Magnitude Surveys (2020) *Geophysical Survey Report of Cambridge South East Transport Phase 2*, Ref. MSTL609

12.2.99 Babraham, to the north of the Proposed Development, is recorded as a large settlement by the Domesday Survey (1086)<sup>44</sup>. Although there is limited CHER evidence for medieval activity within the eastern end of the study area, medieval horseshoes and horse bells (04330) and a medieval quern (grinding stone) (04761) were identified within the north-east of the study area within the environs of the River Granta. Additionally, there is also a moated site at Dales Wood dated to this period (00165) to the north of Sawston. There is evidence of the original Babraham village prior to its relocation by Horatio Palavicino in the 16th century (08151) within the south of the study area, principally the approximately 1200 Parish Church of St Peter (1331111). The HER does not record any specific further evidence. There is limited evidence relating to the use of the area to the south of the proposed location of the A11 Travel Hub during the medieval period, suggesting it has remained in arable cultivation. Features recorded within the north-west of the proposed A11 Travel Hub include pits, one of which contained pottery 1331111 and 11937) and ditches (MCB17627).

#### **Post Medieval (AD 1520 - AD 1900)**

12.2.100 Evidence from the archaeological record supports the view of the study area around the Proposed Development being primarily utilised for agricultural purposes during this period, in continuation from the earlier medieval period. The map regression provides detailed analysis of the changes to the local landscape due to enclosure and changes in land ownership. Due to the rural and agricultural character of this landscape there is limited evidence of activity from this period within the Site.

12.2.101 The study area has been predominantly rural during this period, but has undergone change, largely related to water management systems and transport connections such as the watermeadows, railways and toll roads. The Site crosses the Sawston-Haverhill Railway (6326) and a section of Hobson's Brook, leading from the Conduit to Nine Wells (see below), which isn't marked on the HER.

12.2.102 During the 17th century, a great deal of emphasis was put on creating and managing clean water supplies to the city. The landscape was altered with the creation of Hobson's Brook (CHER 04529a) in 1610, ending at Hobson's Conduit (a Scheduled monument within the city and outside of the study area, 1006912), originating at Nine Wells (1127825) spring (shown first on the 1808 Ordnance Survey map). This asset is a 17th century 'New River' that sought to supply fresh water to the city of Cambridge to flush sewage from the city's watercourses which was resulting in the spread of disease. The idea had been conceived during the late 16th century, as the condition of the water within King's Ditch was identified as a possible source of the plague.

12.2.103 The conduit can be traced leading over ground from Nine Wells spring to the centre of the city and flows through a combination of piped and open channels. It crosses the Site as Hobson's Brook near to where it is culverted beneath the railway line. The CHER records it as following Hobson's Brook from the Conduit, to the junction of what is presumed to be a natural stream, which it then follows further south to a point to the west of Granham's Farm and the railway. At this point, it is fed by a chalk stream called 'Shelford Brook', which originates from a spring at Granham's Farm. Hobson's Brook crosses the Site at Nine Wells.

12.2.104 Another example of water management during this period illustrates its applications within agricultural practices during the period. The Proposed Development crosses the location of the Former Babraham Water Meadows, constructed by the Bennet family of Babraham Hall during the mid-17th century (MCB30906 & MCB15995)<sup>45</sup>. Water meadows were irrigated areas of grassland alongside rivers or streams, for the purpose of growing appropriate grassland crops such as hay and flax. The meadow regularly irrigated an area of land in order to increase its productivity. The former leat which ran across the Proposed Development area at this location has been filled in and is visible now as cropmark and through lidar. Towards the eastern end of the Site archaeological evaluation undertaken as part of the Proposed Development identified ditches corresponding with water meadow ditches shown on Ordnance Survey mapping from the 19th to 20th century (Trenches 109, 111, 112, 118, 122)<sup>46</sup>. Two sherds of post-medieval pottery and one piece of brick dating to the same period were also recovered from the fill of the watermeadow ditches, located to the south of the River Granta at Babraham (Trench 109).

12.2.105 To the south of the Former Babraham Water Meadows, approximately 498 m to the south-east of the Proposed Development, an old gravel pit (MM248) dating to this period was also identified.

12.2.106 The predominantly rural and agricultural nature of the study area in the 19th century is illustrated on historic mapping. Mapping dating to 1812 records the area up to the River Granta and shows that this area was also dominated by land parcels attributed to different owners and planned for enclosure at this time.

12.2.107 The 1851 map of the Parish of Babraham records that the land use within the study area was a mixture of arable, grass and woodland at this time. Mapping from 1885 also indicates that the land use of the surrounding area was agricultural. Additionally, archaeological excavation in 1995 found silted-up river channels dating to the post-medieval period, demonstrating that the River Granta was relocated during that time, possibly the 1860s (MM126). Hard surfaces adjacent to the channel indicate that the river was utilised for transportation and the supply of water.

12.2.108 Cartographic evidence from 1807 showing the parishes of Great and Little Abington records that plots within the proposed A11 Travel Hub area were attributed to R. J. Adean Esq (Robert Jones, of Babraham estate); some fields, however, remain unattributed. Both Great and Little Abington were very sparsely populated at this time. Two water courses are recorded to the south of the proposed A11 Travel Hub, with the northern course meandering just to the south of the southern tip of the proposed location. Further evidence for activity dated to this period is mainly contained within the north-west of the study area.

12.2.109 The coming of the railways also brought change to the study area. The route of the Proposed Development continues to run parallel and adjacent to the former Sawston - Haverhill railway (CHER 06326, running north of Sawston continuing to the south-east) and to the Cambridge Line (MCB24402, running from Cambridge southwest to Great Chesterford). As seen elsewhere this has resulted in heavy magnetic disturbance likely indicative of significant disturbance during the construction of the railway along the converged route. To the north of Sawston Road geophysical survey identified two parallel features; this correlates with the route of the railway shown on mapping from 1885 and is thought to be the former location of track associated with the line<sup>47</sup>. Also shown on Ordnance Survey mapping from 1885 are gravel pits to the south of the River Granta and a chalk pit further to the south-west.

<sup>44</sup> Open Domesday [online] <https://opendomesday.org/>

<sup>45</sup> Taylor, C. (2002) 'Seventeenth Century Water-Meadows at Babraham, Cambridgeshire' Proceedings of the Cambridge Antiquarian Society XCI: 105.

<sup>46</sup> Oxford Archaeology East, *Cambridge South-East Transport Project Phase 2...* OAE Report 2506.

<sup>47</sup> Ibid.



- 12.2.110 Adjacent and to the east of the proposed location of the A11 Travel Hub is the line of the former 19th century Chesterford to Newmarket railway (CHER 06327) which opened in 1848. By 1885 Ordnance Survey mapping records the route of an 'old railway' running roughly north to south corresponding with the Chesterford to Newmarket line. The proposed location of the A11 Travel Hub itself is recorded as agricultural fields at this time with a road consistent with the route of the modern A11 also present.
- 12.2.111 Mapping from 1885 records expansion within Babraham and Babraham Hall Park by this time, as well as showing scattered woodland around two roughly parallel water courses running north-west to south-east to the south of the proposed A11 Travel Hub; to the south of this, two gravel pits are also recorded.
- Modern (1900AD - present)**
- 12.2.112 The character of the local landscape within which the Proposed Development is located has remained largely arable from the post-medieval into the modern periods, the only changes coming with extending village settlements and the alteration of fields to larger open fields for modern agricultural processes.
- 12.2.113 The only direct evidence within the Site from the modern period are the remains of a Second World War anti-tank ditch (MCB29681) and a tank trap (MCB28979), which are part of the General Headquarters Line (GHQ), constructed during the Second World War as part of a defensive line<sup>48</sup>. The south and east of Britain's coastline had a further line of defence running inland. This stretched from Somerset to London (which it encircled on three sides) and travelled through Essex, Cambridgeshire, West Norfolk and ending near Richmond in Yorkshire. Its purpose was to hinder the advance of invading enemy forces. It made the most of natural features within the landscape, as well as involving the creation of pill boxes, anti-tank ditches and tank traps. It was heavily guarded by pillboxes, blockades, mortar and gun emplacements, and explosives. Cambridge was one of the major settlements to sit on the GHQ line.
- 12.2.114 Elsewhere within the Site, archaeological monitoring of geological test pits to the north of Sawston (Test Pits 32-36) recovered only modern finds<sup>49</sup>.
- 12.2.115 Within the wider study area, during the 20th century, Great Shelford and Cambridge both underwent substantial expansion, with arterial development along the A1301 between Trumpington and Great Shelford complete by 1939. Ordnance Survey mapping from 1938-1952 shows the Proposed Development area remained largely unchanged, with the exception of the creation of a school within the northernmost section of the study area to the south of Long Road.
- 12.2.116 The development of Addenbrooke's Hospital from the 1960s onwards, and more recently of the CBC, has contributed to substantial growth at the northern end of the Site. Ordnance Survey mapping from 1969-1972 and 1972-1974 records the expansion of Addenbrooke's Hospital. Recent development within the Site has included the creation of new roads including Francis Crick Avenue and Addenbrooke's Road in 2010 and Dame Mary Archer Way in 2013<sup>50</sup>.
- 12.2.117 Further to the east, Ordnance Survey mapping from 1903 records development within the Clarke's Hill Plantation area, consisting of several buildings and the extension of woodland. Expansion within Great Shelford is also shown by 1927, with housing development extending up Hinton Way from Great Shelford present on Ordnance Survey mapping which shows the newly created Coppice Avenue on the northern side of Hinton Road (identified as 'Cherry Hinton Road' at this time). Development within the north of Great Shelford at this time also included an orchard to the south of Granham's Farm and the nearby earthworks.
- 12.2.118 Ordnance Survey mapping from 1960 records a further increase in housing within Great Shelford with mapping from 1969-1972 showing housing development along the western side of the north of Hinton Way as well as to the south of Coppice Avenue.
- 12.2.119 Substantial modern development also occurred within Stapleford, increasing the density of the village and altering its character from a sparsely developed, predominantly agricultural settlement to a commuter village, merged with the neighbouring Great Shelford. Ordnance Survey mapping from 1927 also records development to the north of the study area, including Middlefield (1317370) and Galewood Towers (1127822) on Fox Hill, and associated woodland expansion and landscaping.
- 12.2.120 Continued expansion of Stapleford is shown by an increase in housing present on Ordnance Survey mapping dated to 1969-1972. Geophysical survey undertaken prior to evaluation for the Proposed Development identified evidence of modern agricultural activity continuing east within the study area. This feature also aligns with a previously identified anti-tank trench and is present on mapping dated to 1938-1952<sup>51</sup>. By 1969-1972 cartographic evidence records the railway line as disused by this time. Development within Sawston is also evident on mapping from this period, primarily within the north of the village towards the railway line, comprising housing and industrial development. This development continued with industrial expansion also shown on Ordnance Survey mapping from 1982-1993 to the north of the village.
- 12.2.121 As the Proposed Development continues to the east, the landscape character within the study area appears to have remained predominantly rural agricultural. Historical maps show little alteration to the landscape from the 19th century onwards, with the exception of the growth of the Babraham Institute during the mid- to late 20th century. This period also saw the closure of the Sawston - Haverhill Railway (06326). Cartographic evidence from 1969-1972 shows a single water course present to the south of the proposed location of the A11 Travel Hub identified as the River Granta and consistent with its current route. Land use within the proposed A11 Travel Hub appears to have also remained agricultural in nature during this period. The Babraham Estate was purchased by the Agricultural Research Council (ARC) in 1948 and saw development of laboratory facilities within the site as well as purpose-built housing for staff. Ordnance Survey mapping dated to 1969-1972 shows development within both the village of Babraham and the large expansion of buildings surrounding Babraham Hall labelled as the 'Institute of Animal Physiology'. Development of surrounding roads is also evident on mapping during this period, particularly to the north of the proposed A11 Travel Hub area labelled as the A604, now the A1307 and the Four Went Ways roundabout with a filling station identified to the south.

<sup>48</sup> Oxford Archaeology East, *Cambridge South-East Transport Project Phase 2...* OAE Report 2506.

<sup>49</sup> Ibid.

<sup>50</sup> Cambridge Biomedical Campus [online] <https://cambridge-biomedical.com/timeline/>

<sup>51</sup> Magnitude Surveys, *Geophysical Survey Report of Cambridge South East Transport Phase 2*, Ref. MSTL6092

12.2.122 The facility at Babraham Hall became the 'National Institute for Animal Physiology' renamed 'The Babraham Institute' in 1993<sup>52</sup>. The dualling of the A11 highway now forms the eastern border of the proposed A11 Travel Hub at this location, with the Babraham Institute located to the west.

### Archaeological assessment

12.2.123 It is evident from the weight of evidence already amassed for the Proposed Development, that remains are likely within sites that have been identified during evaluation but whose character and extent are not fully established.

12.2.124 There are areas within the Site that have so far not been subject to evaluation, and herein, the potential for sites of low to medium value is high. These areas include the compound areas, which are currently green field areas not having previously been subject to development impacts. The compound areas at Granhams Farm and Dale Farm are known to be highly likely to contain archaeological remains of medium value, as they have previously been evaluated and found to contain prehistoric and Roman settlement evidence..

12.2.125 Potential for unknown remains outside of known sites within the evaluated area has been based upon the results of the evaluation.

### CBC to Granham's Road

12.2.126 There is a high potential for prehistoric remains of medium value, particularly for Neolithic and Bronze Age remains, as is borne out by the known presence of sites as listed in the table below. Equally, there is also a high potential for Roman remains. Any such remains will typically be of medium value. There is a low potential for remains of other periods.

### Granham's Road to Hinton Way

12.2.127 Prehistoric remains have been identified outside of the Site, in this area (CB15541; 0489304894) but not during fieldwork associated with the Proposed Development. Evaluation identified no sites within this section. There is, therefore, a low potential for Neolithic and Bronze Age remains within the Site, which would be of low-medium value. There is a low potential for remains belonging to other periods, and these would typically be of low-medium value.

### Hinton Way to Haverhill Road

12.2.128 This section of the Site includes two new areas that have not been evaluated. The section close to Hinton Way incorporates more of the GHQ Line (MCB28980), whilst that close to Sawston Road avoids impact on the World War II anti-tank trap (MCB28979). There is, therefore, more potential for further unknown remains associated with the GHQ Line.

12.2.129 Evaluation for the Proposed Development within Field 4 (this section) identified both Roman and postmedieval remains, whilst a hammerstone reflects the potential for low level prehistoric activity. Outside of the Site, a Saxon cemetery is recorded within the grounds of Galewood, Pinewood and the Towers (Grade II listed buildings 1127822). There is, therefore, a low to medium potential for unknown Roman and early medieval remains.

### Haverhill Road to Sawston Road

12.2.130 There are six new areas within this section which have not been evaluated as part of the Proposed Development. These areas are likely to contain unknown archaeological remains. The first of these, close to Haverhill Road, contains a World War II tank trap (MCB28979) and as such, may contain other unknown remains contemporary to the tank trap and forming part of the GHQ defences around Cambridge. These would be of a medium value. Geophysical surveys carried out over this area for other schemes (ECB3687) identified a number of features across this area of apparent prehistoric origin, and earthworks and embankments of unknown date. There is a high potential for remains of this date, and such features would be of low to medium value.

12.2.131 To the North of the River Granta, another new area is likely to encompass more of the Iron Age/Roman settlement (MCB31477) identified during evaluations for Proposed Development (see table below). The new areas to the south of the River Granta are likely to incorporate remains associated with known sites (MCB27669 and the Roman remains identified during an evaluation in 2014 ECB4278), both Roman. Clearly, there is a high potential for unknown Roman remains of a low to medium value.

12.2.132 Within this section, remains of a medieval or post-medieval date are not expected, and would be of low value.

12.2.133 The small new area close to Huckeridge Hill incorporates more of the Sawston to Haverhill Railway line, and there is a low potential for associated remains, which will be of low value.

### Sawston Road to High Street

12.2.134 To the south of Sawston road, there are two large new areas within the Site. The new area to the north of the Site (north of Field 12) has low potential for archaeological remains of any period, as suggested by evaluation results although a caution should be added that Pampisford (the surrounded land) contains several ringditch and enclosed sites (MCB30521; 09354; MCB29928), which would indicate a high potential for remains of a Bronze to Roman Age date. These would be of low to medium value. The new area to the south of the Site is likely to contain archaeological remains associated with the site identified during evaluation of Field 13 (see table below, MCB31480) and these would be of medium value.

12.2.135 Archaeological remains of a Bronze Age to Roman date are likely and would be of a low to medium value.

### High Street to A11 Travel Hub

12.2.136 The red line in this section has changed slightly, incorporating two small areas of new land but these have been evaluated as part of the Proposed Development. The potential for remains within this section is already well covered, with known sites having been listed within the table below. There would appear to be a high potential for unknown early medieval remains (Saxon) within Field 15 of the evaluation. This is borne out by the presence of remains of this period within several of the identified sites below. These would be of medium value. Unknown remains of other periods would be likely (low potential) and would be of low to medium potential.

<sup>52</sup> The Babraham Institute (2017) *History of Babraham Hall and the Estate* [online] <https://www.babraham.ac.uk/sites/default/files/media/files/babraham%20history.pdf>

**Table A12.2.4 Known archaeological remains within the Site**

| Cambridge HER No               | Record Name  | Summary   | Value  |
|--------------------------------|--|---|--------|
| CBC to Granham's Road          |  |   |        |
| MCB31474                       | Ditches and Pits Field 1, CSET Evaluation                                  | Six ditches, a pit and a tree throw were excavated during evaluation for Proposed Development. Only one feature was dateable, being post medieval. Much of the value of this asset comes from its potential archaeological evidence within the buried remains.  | Low    |
| 08339                          | Cropmark Complex Addenbrooke   | This has been tentatively identified as a Roman military encampment or a shrine. D shaped double enclosure. The land around the hospital is rich in potential, from the Neolithic onwards, with Roman remains close to the red line (CB15768; MCB26682; MCB19991). Likely to mask area of Neolithic and Bronze Age occupation. Much of the value of this asset comes from its potential archaeological evidence within the buried remains.  | Medium |
| MCB30478                       | Possible Roman inhumation burial / grave, CBC to Granham's Road section    | Grave likely to date from the Roman period, aligned east to west, rectangular in plan 1.7 m by 0.7 m. Full length was not exposed by the trench and continued through western baulk of the trench. Skull was present within the western end. No clear evidence of Roman period continuation but high potential. Much of the value of this asset comes from its potential archaeological evidence within the buried remains.   | Medium |
| MCB30478                       | Iron Age trackways, enclosures and boundary, CBC to Granham's Road section | Extensive Middle Iron Age settlement complex which appears to be associated with the Iron Age settlement at White Hill; two converging trackways, abutted by enclosures, with boundary bank. Likely to mask area of low-density Late Bronze Age occupation, and the presence of flint tools in the vicinity flag up potential for low level Neolithic activity. No clear evidence of Roman period continuation but high potential. Much of the value of this asset comes from its potential archaeological evidence within the buried remains.  | Medium |
| MCB30149                       | Possible Roman Road, Red Cross to Hauxton                                  | Currently visible as an earthwork, this runs south-west from Red Cross to Hauxton Mill, following a straight parish boundary. It possibly continues west of the river. Much of the value of this asset comes from its potential archaeological evidence within the buried remains – Roman roads are strongly associated with settlement evidence.   | Low    |
| Hinton Way to Haverhill Road   |  |   |        |
| MCB28980                       | GHQ Line Cambridge to Stapleford   | The GHQ defensive line from Highbridge, Somerset east to London, then north through Essex, Cambridgeshire, West Norfolk and finally Richmond, Yorkshire. The purpose of the line was to hinder the advance of an invasion force and primarily consisted of anti-tank ditches, tank traps and road blocks and was fortified with pillboxes and fortified villages, suburbs and farmsteads. This is an anti-tank ditch running to the south-south-east of central Cambridge and is visible on war time aerial photos. Much of the value of this asset comes from its potential archaeological evidence within the buried remains. | Medium |
| CB31475                        | Roman boundary ditch, Hinton to Haverhill Road section                     | Identified during evaluation for Proposed Development within Field 4. Substantial Roman ditch, possibly large scale boundary as part of wider Roman landscape. May have originated from late prehistoric period and left open and active into the Roman period. Also, a large pond and ditch terminus. Much of the value of this asset comes from its potential archaeological evidence within the buried remains.  | Low    |
| Haverhill Road to Sawston Road |  |   |        |
| MCB28979                       | World War II Tank Trap, GCHQ line  | During the geophysical survey for Proposed Development, a second ditch was recorded south of Haverhill Road. Running south-south-east to the centre of central Cambridge, it is visible on Luftwaffe air photos, and RAF photos from the 1940s. Much of the value of this asset comes from its potential archaeological evidence within the buried remains.   | Medium |
| MCB30479                       | Circular enclosure Haverhill Road  | A 20 m diameter circular enclosure, identified during geophysical survey, was evaluated for Proposed Development (Field 5) and Neolithic flints were recovered. Much of the value of this asset comes from its potential archaeological evidence within the buried remains.   | Low    |



| Cambridge HER No              | Record Name   | Summary  | Value  |
|-------------------------------|---|--|--------|
| MCB29681                      | GHQ Line Stapleford   | This is an infilled anti-tank ditch, constructed as part of the Second World War GHQ defensive line. Visible on aerial photos taken in the 1940s. Much of the value of this asset comes from its potential archaeological evidence within the buried remains.  | Medium |
| MCB31476                      | Field 6 Undated ditches   | Evaluations for Proposed Development, within Field 6, identified ditches, and pits. Material culture recovered consisted of Mesolithic to late Neolithic flint work. Much of the value of this asset comes from its potential archaeological evidence within the buried remains.   | Low    |
| MCB31477                      | Iron Age/Roman settlement, Haverhill Road to Sawston Road section                                     | Settlement with features dating from Middle Iron Age, but mostly Early- to Mid-Roman period atop flood plain gravel terraces to the north of the River Granta. Much of the value of this asset comes from its potential archaeological evidence within the buried remains.   | Low    |
| MCB27669                      | Roman settlement and landscape drainage activity, Haverhill Road to Sawston Road section              | Roman landscape drainage activity with evidence of possible settlement to the south of the River Granta. Much of the value of this asset comes from its potential archaeological evidence within the buried remains.   | Low    |
| MCB20412                      | Roman Settlement Remains at Dale Manor Business Park  | An evaluation in 2014 identified Roman settlement evidence, including inhumations, animal burials, boundary ditches, enclosures and trackways containing pottery dating from the 2nd to 4th centuries. This evaluation overlapped with the Site, within Field 10. Much of the value of this asset comes from its potential archaeological evidence within the buried remains.  |        |
| MCB31478                      | Undated pits, Field 10  | During the evaluation for Proposed Development, planned trenches in Field 10 could not be opened, due to access issues, and only monitoring of geotechnical pits was possible. Two possible pits were observed within these. Field 10 was not surveyed either. So potential is not fully understood. It is, however, enclosed by land which has Roman settlement evidence. Much of the value of this asset comes from its potential archaeological evidence within the buried remains.   | Medium |
| 6326                          | Sawston – Haverhill Railway   | This is a branch of the Great Eastern Railway, that ran from Great Shelford to Haverhill. It was opened in 1865, closed in 1967, and its remains were identified during geophysics and observed during evaluation for Proposed Development. Much of the value of this asset comes from its potential archaeological evidence within the buried remains.  | Low    |
| MCB31479                      | Undated ditches, Field 11, Cambridge South East Transport Scheme                                      | Two U shaped ditches of a similar width and depth (0.7 m wide x 0.12-4 m deep) were excavated within trench 89, field 11. No finds were identified. Much of the value of this asset comes from its potential archaeological evidence within the buried remains.  | Low    |
| Sawston Road to High Street   |   |  |        |
| MCB31480                      | Undated inhumation burial / grave, Sawston Road to High Street section. Bronze Age Ditches. Field 13. | Grave of unknown date, aligned north west to south east, sub-rectangular in plan 1.3 m wide. Full length was not exposed by the trench. Skull was present to the south-eastern end. The remains were covered and left in-situ. Much of the value of this asset comes from its potential archaeological evidence within the buried remains. The ditches comprised two large ditches that appeared to be at right angles with each other, thought to represent part of a rectilinear/D shaped enclosure of likely later Bronze Age date, and of a type that forms a distinctive component of the local settlement geography. Much of the value of this asset comes from its potential archaeological evidence within the buried remains. | Medium |
| High Street to A11 Travel Hub |   |  |        |



| Cambridge HER No      | Record Name  | Summary   | Value  |
|-----------------------|--|---|--------|
| MCB30891 and MCB30893 | Large area of medieval ridge and furrow and furlongs                     | Pampisford. Extensive areas of medieval ridge and furrow. Identified during 2019 aerial survey investigation for Proposed Development., these are still faintly visible in most cases although they have all been levelled to some extent. Much of the value of this asset comes from its potential archaeological evidence within the buried remains.  | Low    |
| 09353                 | Cropmark enclosures, Babraham (Field 14)                                 | Cropmarks identified in 1983 and geophysical survey carried out for Proposed Development show a group of rectilinear enclosures, characteristic of a double-ditched enclosure system with a series of additional enclosures (including a D shaped anomaly) and entranceways. Whilst no date can be determined at this stage, the regularity in layout of the enclosures may suggest a Late Iron Age date. Much of the value of this asset comes from its potential archaeological evidence within the buried remains. Evaluation for Proposed Development (Field 14, trench 168) identified ditches but didn't date them, although morphologically they are likely to represent later Bronze Age land divisions, contemporary with the D shaped enclosures. During the evaluation these were observed to be superficially underlying the complex enclosure so are likely to be Bronze Age. Much of the value of this asset comes from its potential archaeological evidence within the buried remains.  | Medium |
| MCB30906 and MCB15995 | Former Babraham water meadows and conduit                                | Constructed by the Bennet family of Babraham Hall during the mid-17th century the meadow regularly irrigated an area of land in order to increase its productivity. The former leat which ran across the Proposed Development area at this location has been filled in and is visible now as cropmark and through lidar. Much of the value of this assets comes from its potential archaeological evidence within the buried remains and historical interest as an example of an early water meadow system in Eastern England.  | Low    |
| MCB31481              | Potential Bronze Age occupation site Field 14                            | The evaluations carried out in field 14, for Proposed Development, identified middle Bronze Age settlement evidence, Roman ditches in Trenches 168 and 169, and Saxon burials. There is potential for this asset to extend into the footprint of the Proposed Development and be physically impacted through removal or damage due to changes to the surrounding soil conditions  | Medium |
| MCB30890 and MCB30895 | Large area of medieval ridge and furrow and furlongs                     | Identified in 2019 during aerial survey investigation for Proposed Development. These are still faintly visible in most cases although they have all been levelled to some extent. Much of the value of this asset comes from its potential archaeological evidence within the buried remains.  | Low    |
| MCB17799              | Saxon Finds  | A site with evidence of Saxon burials. Report (from 1994) of finds of several Anglo-Saxon small, long brooches in bronze, recovered from dark, undisturbed soil next to the river. Some bones and dark brown/black pottery sherds were also observed in the vicinity. Indications that the site identified in Field 15 extends south and that a Saxon settlement and burial site is likely. This is supported by excavations just outside of the red line, within Pampisford parish, and by phase 1 CSET evaluations; the CSET evaluation trenches close to this spot were not excavated due to them being on environmental stewardship land. Much of the value of this asset comes from its potential archaeological evidence within the buried remains.   | Medium |
| MCB30578              | Curvilinear and linear anomalies, Top Acre Planation                     | Identified during geophysical survey carried out for Proposed Development, these parallel, linear anomalies to the south and western end of Field 15 were identified to be investigated during the evaluation but the planned trenches were either blank, contained only natural (tr 117), or were not opened (tr 123). Much of the value of this asset comes from its potential archaeological evidence within the buried remains.   | Low    |
| MCB31482              | Field 15. Roman Quarrying activity and Early med Sunken feature building | The evidence from trench 110 consisted of a large quarry pit containing Roman pottery in the upper fills and three linear features that may represent ditches or linear quarries, one contained Roman pottery and another contained a possible Iron Age type loom weight and medieval to post medieval floor tile. Trench 111 contained a ditch producing Late Iron Age pottery, a single flint flake and a cereal grain fragment. A sunken feature building was identified towards the centre of the trench, the fill produced a brooch, an iron pin and nail, Saxon pottery, a loom weight, lava quern fragments, iron slag and a fragment of a human skull. Further ditches were encountered to the north of the building. Trench 112 contained three ditches and two pits with modern finds recorded in one ditch. Trench 113, 118, 122 contained ditches that appear to correspond to former water meadow drainage ditches. Trench 120 contained two ditches and a pit, trench 121 contained two ditches, trench 122 contained three pits. Much of the value of this asset comes from its potential archaeological evidence within the buried remains. | Medium |
| MCB31483              | Iron Age and undated ditches, Field 16.                                  | Archaeological evaluation consisting of 171 trenches across 16 fields as part of a programme of investigation for the Proposed Development. The evaluation was carried out between November 2020 and April 2021 and identified numerous archaeological features. Field 16 was located at the south eastern end of the Site close to Babraham village. 26 trenches were excavated, only five contained archaeological features consisting of undated natural hollows, ditches and pits with traces of post medieval finds from two ditches. Much of the value of this asset comes from its potential archaeological evidence within the buried remains.  | Low    |

### Assessment of value

12.2.137 The following section assesses in outline form the value of those heritage assets which may be impacted upon by the Proposed Development as currently known. Those assets mentioned within the baseline which are not likely to be impacted upon by the Proposed Development are not discussed further.

#### 1006891 Site Revealed by Aerial Survey, to the west of White Hill

12.2.138 This Scheduled Monument marks the site of a probable Roman villa complex and is located to the south of the possible Roman Road (MCB30149) and possible Roman encampment (08339); there is an undesignated trackway leading from it, extending south and ending close to a site containing Romano British field system remains (CB15539). Undesignated remains, likely to be associated with it, extend further (MCB5404) north and south and cross the cycleway to the south. Extensive known Bronze Age and Iron Age settlement remains and a possible Roman inhumation (MCB30478) are less than 300 m to the southeast.

12.2.139 It is situated on the western slopes of the lower chalk plains, to the west of White Hill and Clarke's Hill, and is close to the natural springs at Nine Wells. Google Satellite Imagery shows very clear cropmarks related to this monument.



Figure A12.2.1 Scheduled Monument (green) and associated undesignated site (pink). Site – Red (Google Satellite Hybrid)

12.2.140 The current setting of the monument includes postmodern and modern field systems, the Victorian Railway line to the west (MCB24402) and Hobson's Conduit (04529a) to the east. It also, however, includes those associated remains which inform the villa's significance, providing information about the relationship between the villa and surrounding infrastructure and estate features. The value of the monument is largely evidential, due to its archaeological potential. This is of High Value.

#### 1452825 Causewayed Enclosure, Great Shelford. C. 1.2 km west of the Site

12.2.141 This Causewayed Enclosure is scheduled as a good example of one of the earliest field monuments surviving in the modern landscape, as a well-preserved example in an arable environment, for its considerable archaeological potential to contain deposits relating to the early Neolithic and also as it has group value as a major component and focal point of a multi-period landscape.

12.2.142 It is on the southern slope of Stone Hill, above the River Cam (Granta) and represents between a third to a half of a site that would have measured up to 300 m by 250 m. It has three arcs of interrupted ditches extending towards a single line of segmented ditches, within and around which are linear marks and pits. It forms part of a group including several ring ditches, possible later prehistoric and Roman remains, a number of trackways and a medieval plough headland.

12.2.143 This is of High Value, its heritage value being largely evidential due to its archaeological potential.

#### 1011717 Causewayed Enclosure and Bowl Barrows at Little Trees Hill, c.900 m east of Site

12.2.144 The early Neolithic Causewayed Enclosure at Little Trees Hill is partially eroded by ploughing but will have retained, in good condition, the deeper features within the interior. The Historic England Listing Description for this monument states that its significance is enhanced by its accessibility to the public, association with an adjacent trackway that allows the relationship between the enclosure and its setting to be analysed, and by the presence of a bowl barrow (monuments with a Late Neolithic to Late Bronze Age data range) within the interior (representing possible persistence of place). The causewayed enclosure does not have surface expression but is clearly observable from the air.

12.2.145 The bowl barrow (a circular mound 25 m in diameter, surviving to a height of approximately 1.8 m) is also in a very well-preserved condition, in marked contrast to the majority of such monuments within Cambridgeshire, which are now only visible from the air as cropmarks or soil marks. It forms part of a wider group of barrows which extend across the chalk uplands of North Hertfordshire and south Cambridgeshire.

12.2.146 The wider setting of the monuments serve to show that both monuments would have served as conspicuous local landmarks. It also contains many nearby flint find spots that indicate contemporaneous land use or occupation.

12.2.147 The heritage value of the monuments is largely evidential and communal, the accessibility of the monuments and their setting being outlined in the listing description as contributing to their significance, whilst the appreciable relationship between the monuments and their setting is of aesthetic value. It is of High Value.





**Figure A12.2.2 Barrow at Little Trees Hill 1011717**

**1006929 Scheduled Monument Brent Ditch**

12.2.148 The very northern most tip of Brent Ditch (CHRE 06227) only just creeps into the Study Area. It is a 2.3 km long Anglo-Saxon earthwork otherwise referred to as the Cambridgeshire Dykes along with three others (Bran Ditch, Devil's Dyke and Fleam Dyke). The earliest phases of Fleam Bank was pinpointed at 5th century AD, and it is presumed that Brent ditch is contemporary. Recent research has given the bank a terminus post quem of 2nd century AD. Excavations have revealed that it is exceptionally steep sided and flat bottomed, having silted up naturally, and five Roman coins and a fragments of human pelvis was recovered from the basal fill (calibrated age BC110). This monument is of evidential value and is of High Value.

**1017884 Two Moated Sites 150 m east of College Farm**

12.2.149 These two moated sites are medieval and are interlinked by a system of features representing a series of paddock enclosures and beast ponds, which are included in the scheduling. The northern island is roughly rectangular, with a deep moat. The southern moated island is square in plan and contained a large, raised platform thought to represent a building platform. The Historic England listing description discusses documentary evidence that might place these two monuments as 12-13th century estates. These monuments have potential for significant preserved medieval remains and are of High Value because of their evidential value.

12.2.150 1000321 Grade II\* Registered Park and Garden for Pampisford Hall and Associated Grade II Listed Pampisford Hall, with Grade II listed Gates and Gatepiers 1226427

12.2.151 This designated asset is roughly 800 m south of the High Street to A11 section of the Site, on the southern side of the A11. It dates to the 1820s, when the notable landscape designer, Robert Marnock, was commissioned to design a garden for William Parker Hamond II. The land had been acquired by the Parker family in the early 18th century but was used as farmland until the construction of Pampisford Hall during the 1820s. The gardens comprise the remains of formal Italianate Gardens to the south-west, open lawn to the south-eastern elevation, bordered by a cedar avenue that frames a vista of open countryside. To the north-east beyond a gravelled forecourt is a small woodland of exotic trees, while to the north-west is a yew walk. William Parker Hamond II was an arboricultural enthusiast, and supplemented Marnock's designs with an arboretum composed of a rich range of tree species he had collected. The extent of the garden today is unchanged from the late 19th century, evident on the first edition Ordnance Survey mapping from 1885. Much of the original layout and much of the planting has survived, the latter continuing to develop and evolve.

12.2.152 The setting of the asset is largely similar to when originally constructed in the 19th century, with arable fields the predominant land use in the area. The northern boundary of the gardens is dominated by its proximity to the A505 and the A11, both a significant change in the character of the landscape since the land was initially laid out. The setting includes Pampisford Hall and Gatepiers, both of which are Grade II listed. Pampisford Hall, not within the Study Area, is a 19th century country house built in 1820-31, with a rebuild dating to 1830-41, alterations in 1861 (designed by Georgie Goldie), redecoration dating to 1875 and additions dating to 1912. The Baroque style iron gates and ashlar and brick gatepiers are also 1880, probably designed by G. Goldie.

12.2.153 The asset is of High Value due to its historic, communal and design value, as a high-quality survival of a 19th century designed garden and parkland, with a curated arboretum of tree planting. The gardens are largely inward-looking, with the predominant view into and out of the site from the south-east along a cedar avenue, away from the Proposed Development. The other boundaries are heavily wooded, limiting views to and from the asset.

**Stapleford Conservation Area**

12.2.154 Stapleford Conservation Area is a small Conservation Area situated on the northern edge of Stapleford village, following the line of Mingle Lane/Church Street and encapsulating three of the assets situated within the Northern Stapleford group, the Church of St Andrew (1165349), the White House (1127823) and Dove Cottage (1165205). This formed the centre of medieval Stapleford, although little of medieval Stapleford survives. The character of the Conservation Area is that of a 19th/20th century residential area. It is of Medium Value.

12.2.155 The draft Conservation Area Character Appraisal notes that key characteristics of the Conservation Area include the large detached houses with substantial gardens; the sense of enclosure created by curving streets, tall hedgerows and mature trees; the long views to the countryside from the churchyard; and the survival of public realm heritage assets, such as signposts and railings. The long views from the church are mapped as Important Views and it is in this sense that setting contributes towards the significance of the Conservation Area.

12.2.156 The Conservation Area is of evidential, design, aesthetic and communal value, its designation seeking to preserve its individual character from further development. It is of medium heritage value and its setting includes the River Granta and other historic buildings within Great Shelford Conservation Area, which lend it significance.



**Grade II\* Listed, Church of St Andrew 1165349**

- 12.2.157 This asset is a 12th and 13th century church located 750 m west of the Proposed Development within the context of Stapleford village. The village is located topographically on the lower chalk plains at the foot of the rising chalk downlands to the north. The church is situated on the northern boundary of the village on Mingle Lane.
- 12.2.158 The setting of the church is inward-looking within the context of the historic Stapleford settlement. This tranquil setting is a key element of the asset's significance, relatively unchanged since it was originally constructed. The church is situated within a small churchyard, surrounded by mature trees, the scale of which diminish the church's visual dominance in the village. The extent of modern development in the vicinity of the asset has altered the character of the historic settlement and increased the urban density in the area. Consequently, the asset has a limited relationship with the other historic buildings in the vicinity, due to their position set back from the road, and the intervening development and large trees shielding them from view. This diminishes the contribution of the asset's setting to its significance, as the historic character of the village is somewhat disguised in the vicinity of the church. Beyond the northern boundary of the churchyard, the land remains in arable use and there are open views towards the Proposed Development, evident in Photomontage 12 (Volume II, Appendix M.4). These open views across arable land are a key element of the asset's significance, as they facilitate understanding of it as a rural church. The photomontage also shows development to the north-west along Hinton Way and to the north-east of Stapleford encroaching on the rural character of the area.
- 12.2.159 The asset is of high heritage value on account of its historic and evidential interest, with evidence of the building dating back to the 12th century, although the exterior has been extensively restored. The setting of the asset with open rural views to the north is a key element of its significance. There are internal features, such as fragments of a Saxon cross and Norman grave cover, which provide historic interest.



**Figure A12.2.3 Church of St Andrews**



**Figure A12.2.4 View towards Site from St Andrews Churchyard**

**Northern Stapleford Group**

- 12.2.160 As well as the Church of St Andrew, there are three listed buildings situated in the north of Stapleford, all Grade II listed:
- The White House (1127823)
  - Dove Cottage (1165205)
  - Stapleford Hall (1331071)
- 12.2.161 The White House and Dove Cottage are situated approximately 720 m west of the Proposed Development. The White House is a two storeyed timber-framed 15th century building with three equal framed bays formerly open at both levels, situated on the churchyard boundary, which possibly operated as a church or guildhall prior to substantial alterations in the 17th century. Dove Cottage is an 18th century dovecote, converted to a house during the 20th century. The setting of these assets has been altered by the increased density of development in the vicinity, a move away from the historical low density of the village. This inhibits an understanding of the historical arrangement of the village and therefore detracts from the contribution of the setting to the heritage value of these assets.



12.2.162 Stapleford Hall is located to the east of Stapleford Conservation Area, 350 m south-west of the Proposed Development. It dates to approximately 1630, with alterations in the early 18th century. Its setting is the eastern periphery of Stapleford, with views from the east across fields to the Proposed Development. To the north, south and west, the asset is surrounded by mid-20th century residential development, limiting its visual relationship with other historic assets in the village. These are of medium value due to their historical, aesthetic and evidential values.

#### **South Stapleford Group**

12.2.163 There are four Grade II listed assets situated to the south of Stapleford. These comprise:

- 2 and 4 Church Street (1127819)
- The Slaughterhouse (1317428)
- Dormer Cottage (1127818)
- 7 Bar Lane (1317424)

12.2.164 2 and 4 Church Street and the Slaughterhouse are situated 960 m west of the Proposed Development. 2 and 4 Church Street were historically a single property, dating to the 18th century, with 19th century detailing. The Slaughterhouse is clad with knapped flint with white brick dressings to corners and openings. Both buildings are thatched.

12.2.165 Dormer Cottage and 7 Bar Lane are a pair of cottages that are located perpendicular to Bar Lane, with their gable ends facing the road. Dormer Cottage is a timber-framed, plaster and weatherboard cottage dating to 1750, while 7 Bar Lane is an early 19th century brick cottage.

12.2.166 The setting of 2 and 4 Church Street, the Slaughterhouse and 5 and 7 Bar Lane is the urbanised centre of Stapleford, with a disparate range of urban development surrounding the assets. Church Street and Bar Lane are both historic roads through Stapleford, now joined by modern development. The extent of modern development in the vicinity of the assets diminishes the contribution of their setting to their heritage value, as the historic context of the assets has been lost. There are no long views to or from the assets, due to their proximity to other buildings situated within Stapleford.

12.2.167 The grouped assets in Stapleford are of High Value, informed by their historical, evidential, architectural and artistic interest as examples of architectural craftsmanship, set within the historic settlement of Stapleford.

#### **Grade II\* Middlefield 1317370 and Grade II Galewood, Pinewood and The Towers, Fox Hill 1127822**

12.2.168 Four mansions were constructed on a natural rise known as Fox Hill during the Edwardian period. Today, two of them are listed: Middlefield, a Grade II\* listed property (1317370), 320 m north-east of the Proposed Development, and Galewood Towers, now subdivided into three dwellings and designated as 'Galewood, Pinewood, The Towers', a Grade II listed building (1127822), situated approximately 460 m north-east of the Proposed Development.

12.2.169 Middlefield was designed by Edwin Lutyens and constructed in 1908. During the First World War, the house was loaned to the military for use as a Red Cross Hospital, renamed as 'Mount Blow' for the duration of the conflict. The house is situated on the southern side of Fox Hill, one of the Magog Hills of the chalk downlands north of Great Shelford and Stapleford, within designed grounds that have a vista to the south-east over the surrounding arable land towards the River Granta, 1.5 km away. A section of shaped (zigzag) garden wall to the east of the property is also included in the listing description.

12.2.170 The setting of the house is within the context of its private grounds, and more widely, the residential homes within the private Fox Hill plantation. However, the surrounding agricultural landscape and hills beyond, framed by the property's designed vista to the south-east also contributes to the asset's setting. The asset is of high heritage value on account of its architectural interest, particularly due to its attribution to Lutyens, a prominent early 20th century architect.

12.2.171 Galewood, Pinewood and The Towers, now three separate properties, was built as a single Arts and Crafts style dwelling known as Galewood Towers, designed by William Flockhart in 1908.

12.2.172 The setting of the house is within the context of its densely vegetated private grounds and within the wider, secluded context of private residential homes within Fox Hill plantation. There are no long views to or from the asset due to the extensive vegetation cover in the grounds which obscures the property from view. The asset's heritage value is derived from its artistic and architectural quality, including the relationship between the landscaped grounds and the property, as well as the articulation of the property itself. The aesthetic, historical and evidential values of this asset lend it medium value, particularly of note is its due to its associated with William Flockhart.

#### **Great Shelford Conservation Area**

12.2.173 The majority of the Great Shelford Conservation Area is situated outside of the study area, further to the south along the High Street, Woollard Lane and Church Street, where the historic core of Great Shelford is located. These roads are believed to follow the line of the Icknield Way, and are old east to west routes that originally led to fords across the River Granta (which forms the southern boundary of the parish), which is a tributary of the River Cam (which forms the western boundary of the parish).

12.2.174 The Conservation Area Character Appraisal states that Great Shelford originally had two settlement foci.

12.2.175 The main focus of the conservation area is the area to the south-west, key characteristics including large plots with mature trees and extensive gardens, historic boundary walls and key buildings. It also takes in extensive areas of floodplain, open meadow and recreational grounds that form an important physical separation between Great Shelford and Little Shelford.

12.2.176 The northernmost tip, at High Green, which is included within the 1 km study area, was originally the northern part of a green that separated the main settlement from a second at Granham's Farm (medieval moated manor, CHER 01002). Despite modern development, vestiges of this green remain and are protected by the extended Conservation Area.

12.2.177 The boundaries of the Conservation Area are very important to the integrity of the Conservation Area and Great Shelford's historic character, the westernmost being the Cambridge to London Liverpool Street railway line, beyond which lies Granhams Farm and further modern development. The Proposed Development is on the eastern side of the railway and modern development on Hinton Way.

12.2.178 The Conservation Area is of evidential, design and communal value, its designation seeking to preserve its individual character from further development. It is of Medium Value.

### **Great Shelford Parish Church of St Mary's 1127895**

12.2.179 This church is of 12th and 14th century origin but was almost entirely rebuilt during the fifteenth century. In the late 18th century, the west tower collapsed and was rebuilt further to the east, within the nave. In the 19th century the chancel and fenestration were restored. It has a 15th century porch with parish room above, a 15th century nave roof, a 15th century wall painting of the Doom and a 14th century piscina. It has a 1630s pulpit with an original tester and staircase. This building is of evidential and aesthetic value, and is of High Value.

### **Eastern side of High Green Great Shelford Group**

12.2.180 On the eastern side of High Green, between Maris Green and the railway line, are four Grade II designated heritage assets dating to the 17th century, all situated approximately 950 m south of the Proposed Development:

- Maris Farmhouse (1127899);
- 16 High Green (1317876);
- Spanyards (1317838); and
- Wall to Rear of Number 18 and Side of Number 16 (1331030).

12.2.181 Maris Farmhouse, 16 High Green and Spanyards are all timber-framed and rough-cast rendered. 16 High Green and Spanyards are both 17th century cottages, situated down a short private lane and are relatively secluded. The 19th century wall between 16 and 18 High Green is a key element of the setting of the assets. Their setting within large substantial gardens is a surviving element of the buildings' original composition and therefore facilitates an understanding of their history, contributing to their heritage value.

12.2.182 Maris Farmhouse, an early-mid 17th century two-storey house, is also slightly set back from the road, but is surrounded in close proximity by substantial modern development, which does not contribute to the significance of the asset and diminishes the ability to understand it as a former farmhouse.

12.2.183 The heritage value of this group of assets is high, informed by their association with the historic settlement of Great Shelford and their architectural and artistic interest due to the craftsmanship evident on the buildings' exteriors.

### **Western side of High Green Great Shelford Group**

12.2.184 On the western side of High Green, five listed properties are situated within substantial gardens, all roughly 900 m south of the Proposed Development:

- Four Mile House (1163891);
- 21 High Green (1127897);
- De Freville Farmhouse (1127898);
- Barn at De Freville Farm (1164190); and
- Farm Building Range to Rear of Farmhouse at De Freville Farm (1096004).

12.2.185 All of the assets in this group are timber-framed and the residential properties are rough-cast rendered. Four Mile House and De Freville Farmhouse both have origins in 15th century buildings, with later alterations. 21 High Green is an 18th century rendered cottage with a thatched roof. The Barn at De Freville Farm and other Farm Buildings date to the 17th and 18th centuries.

12.2.186 All of the assets in this group are set back from the road on large plots, retaining a strong relationship with the countryside to the west, which is a key element of their setting within a rural village. Being set back from the road also diminishes the appearance of the increased congestion and development within Great Shelford, preserving the historic character of the assets. The setting of the assets therefore contributes to their significance, as it offers an insight into the appearance of Great Shelford in the past.

12.2.187 The grouped assets discussed in this section are High Value, informed by their association with the historic settlement of Great Shelford and their architectural and artistic interest due to the craftsmanship evident on the buildings' exteriors.

### **Granham's Farm Group**

12.2.188 There are two Grade II listed assets within the study area associated with Granham's Farm. They comprise a dovecote at Granham's Farm (1331068), located 350 m south of the Proposed Development, and 32-38 Granham's Road (1317912), located 540 m south of the Proposed Development. Both assets are located to the north of Great Shelford. The dovecote was enlarged and converted into a dwelling in the early 19th century, while the row of cottages dates to approximately 1840.

12.2.189 The setting of both assets is the northern urban edge of Great Shelford, situated on Granham's Road, a historic route connecting south-eastern Cambridge to Great Shelford. The dovecote is situated within the farmyard of Granham's Farm, set back from the road and with a number of agricultural sheds and stores interrupting long views towards or from it. The farm buildings are surrounded by agricultural land, both arable and pasture. Within this context is the Granham's Moat (01002a), a possible early medieval burh site, which forms an earthwork banked enclosure to the rear (north-east) of Granham's Farm. A site to the south of the farm contains an early to middle Saxon ditch (MCB20044), which appears to be related to the early medieval site. This feature is historically important to, and informs the setting of, this asset group. The setting of 32-38 Granham's Road is similarly agricultural land, though it is also surrounded by mature trees. From the rear of the terrace there are views to the north-east towards the Proposed Development, though these are limited by mature trees situated at field boundaries. The agricultural setting of both assets contributes to their heritage value as it facilitates understanding of the assets' agricultural history and original historic setting. However, the setting of both assets is also influenced by their proximity to the busy Granham's Road and the railway line running south of Cambridge, which detracts from our ability to understand the assets' heritage value, which is closely associated with the agricultural landscape.

12.2.190 The assets are of High Value on account of their historic and evidential interest, particularly their association with the area's rural history and the expansion of Great Shelford.

### **Babraham Conservation Area**

12.2.191 Babraham Conservation Area encapsulates Babraham High Street and stretches north-west to include St Peter's Church and Babraham Hall. There is no Conservation Area Character Appraisal at the time of writing. The key characteristics of the area are the historic flint and brick boundary walls, mature trees, historic buildings set within generous plots which create space between neighbouring buildings, and the relationship between the village and Babraham Hall.



12.2.192 To a lesser extent the rural setting to the east and south also contributes to the value of the conservation area highlighting its character as a rural village. Views out towards the Site and the surrounding countryside are overwhelmingly rural, with long views blocked by lines of trees, giving a secluded inward looking feel to the Conservation Area. The point at which the Site crosses the River Granta is largely obscured by distance and a small area of woodland and the point at which it crosses Sawston Road is largely obscured from view of the southern edge of the Conservation Area by topography and woodland.

12.2.193 It is of Medium Value due to the aesthetic and historic interest it provides through Babraham Hall and its strong association with the village.



**Figure A12.2.5 View towards Site at River Granta, from Baraham High Street**

**Listed Buildings - Babraham Group**

12.2.194 There are 13 listed buildings within, or associated with, the Conservation Area for Babraham. These include the Grade I listed St Peter's Church (1331111); Grade II\* listed Almshouses (1127746); Grade II listed Babraham Hall (1127745); Grade II listed Church Farmhouse (1331134) and the Grade II Listed Icehouse (133110) as well as eight Grade II listed buildings clustered on Babraham High Street, situated between 510 m and 560 m north of the Proposed Development. These have a medium group value, due to their historical, communal and evidential value. They comprise:

- 39 – 41 High Street 1127750;
- Brick Row 1127748;
- The Old Post Office 1127747;
- The George Public House 1331113;
- The statue of Jonas Webb 1331112;

- Home Farmhouse 1127709; and
- Chalk Farmhouse 1331114 and Barn and Granary 1127749

**1331111- Grade I Listed, Parish Church of St Peter South West of Babraham Hall**

12.2.195 This asset is a 12th century church located 950 m north-east of the Proposed Development within the Babraham Hall grounds.

12.2.196 Topographically it is situated within the lower chalk valley on the foot of the rising chalk downlands to the north. The church is notably set away from the main historic core of Babraham village, within the northwestern part of the Conservation Area, and is instead situated next to Babraham Hall, enclosed within its own churchyard, surrounded by the hall's parkland. The location reflects the original location of Babraham village prior to its relocation in the 16th century for the construction of Babraham Hall (CHER 08151).

12.2.197 The asset is surrounded by mature trees to the north, south and east, with Babraham Hall to the north-east. The trees screen the asset from the modern development of the Babraham Institute, which is situated to the north, south-east and west of the church. The church's relationship with the Hall and its survival in its original location are key to understanding its historical significance, though the intervisibility between the two assets is diminished by the mature vegetation surrounding the church. This relationship has further been compromised by the extent of modern development in the immediate vicinity of the two assets, changing the character of the former parkland into an almost urbanised settlement. Additionally, the scale of the modern buildings diminishes the prominence of the church in the local landscape.

12.2.198 The asset is of High Value on account of its evidential and historic interest; the chancel and tower have historic fabric dating back to the 13th century, the Chancel is 14th century, and two of the original 14th century church bells remain. There are also many surviving internal ecclesiastical features, a Jacobean Altar Rail and a re-used 12th century capital that suggests an earlier phase to the building. There are Hatchments on the wall, showing the coats of arms of members of the Adeane family who were Lords of the Manor and benefactors of the Church. The asset's historic value derives from its close relationship with Babraham Hall, spatially and in terms of the development of the area.

**1127745 Grade II Listed, Babraham Hall, The Institute of Animal Physiology (MM037)**

12.2.199 Babraham Hall is located 900 m north-east of the Proposed Development within the context of the Babraham Hall grounds, which is the home of the Babraham Research Campus. A hall was first constructed on the site in the 16th century, but the present building dates to 1832-33, designed by Philip Hardwick in a Jacobean style. The building has undergone various alterations since construction and presently accommodates the offices of the Babraham Institute.



12.2.200 The current appearance of the grounds of Babraham Hall was laid out in the 1864, with the first edition OS map (1887) detailing a canalised section of the River Granta running to the north-west from the south of the house, and an avenue framing the view to the south-west of the hall, which are still extant today. The avenue is more extensively laid out in the later 1901 map, beginning closer to the house, just south-west of the river. There is no focal point to the avenue at its south-western end, which completes at the top of a rise in the landscape on Sawston Road adjacent to Church Farm. To the north-east, it frames a view of the rear elevation of the house. It is possibly a reinstatement of an earlier garden feature, tying in with the 19th century reconstruction of the hall in a Jacobean revival style. It is likely that historically the avenue continued further south-west, however, it now finishes at Sawston Road. Although it was unlikely that it was conceived to frame a view or a specific focal point, historical views from the hall along the avenue were likely finished by hills in the long distance. This view has now been interrupted by planting and modern development.

12.2.201 The setting of the asset is confined within its own grounds, the northern half of which has been heavily developed with modern research campus associated buildings. The adjacent Parish Church of St Peter contributes to the building's significance through its reference to the original location of the village, and thus the construction of the first Babraham Hall. As the only surviving element of the original village, it is a key aspect of the hall's significance. The extensive development of Babraham Research Campus has negatively impacted the overall historic setting of the asset, although views to the north-east and to the south-west, from the hall's principal elevations, remain open with no intervening development.

12.2.202 The asset is of high heritage value on account of its historic and aesthetic interest as a country house designed by the prominent architect, Philip Hardwick, and of evidential value due to the fact that it is on a site with a long history relating to the earlier Hall, medieval village and prehistoric and Roman settlement evidence.

**1127746 Grade II\* Listed Almshouses, Babraham**

12.2.203 Former Almshouses and School House, dating to 1732; these are located off Babraham High Street down a short lane flanked to the northeast by thick woodland and to the northwest by the landscaping edging Babraham Park, and are 600 m east of the A11 section of the Proposed Development.

12.2.204 The building was designed as a central schoolhouse and is flanked by two wings of three almshouses. It was funded by the local Bennet and Bush families, with ongoing endowment provided by the late Judith Bennet of Babraham Hall for the support of local children and spinsters. The building was converted into three private residential dwellings during the 20th century.

12.2.205 The asset is of High Value on account of its historic, architectural and communal value as part of village life in 18th century Babraham.



**Figure A12.2.6 Almshouses and School from the High Street**

**Grade II listed Church Farmhouse (1331134)**

12.2.206 This 19th century farmhouse is thought to have been built, or at least occupied, by Jonas Webb, a renowned stock breeder noted for breeding Babraham Southdown sheep, which achieved an international reputation. A statue of Webb stands in Babraham village (MM029), contributing to the historic interest of the farmhouse. The farmhouse is situated at the southern extent of the Babraham estate on Sawston Road, and historically was likely an associated estate farm, with farm buildings in close proximity to the asset. It is surrounded by agricultural farmland, but the farm is situated within a small, enclosed holding and is surrounded by mature vegetation, reducing the ability to understand the historical rural associations. The former railway between Sawston and Haverhill once truncated the wider rural landscape but has since been removed and therefore the wider setting has been reinstated, though Sawston Road is present to the south-west. However, the ability to understand the asset as a farmhouse is compromised due to the development of the former farmyard for residential use, and the high boundaries that separate it from the surrounding countryside, diminishing the ability to understand the asset's historical agricultural function and character. The aesthetic value of the house and its setting has been enhanced, but its historic value diminished by this development. The asset is of High Value on account of the historic interest the property retains through its association with Webb and its architectural interest.

**Grade II Listed Icehouse 133110**

12.2.207 A mid- to late-18th century Icehouse is located 550 m north of the Proposed Development, to the north-east of Babraham, historically associated with Babraham Hall. It is constructed into the chalk hillside with a redbrick dome earthed over, making it largely shielded from view. This is exacerbated by mature vegetation in the vicinity, which almost obscures the Icehouse from view.



12.2.208 Its setting is informed by its secluded, vegetated location, which is key to understanding the operation of the asset. It is of High Value due to its architectural and historic interest.

**Babraham High Street**

12.2.209 39 – 41 High Street (1127750) are estate cottages dating to the early-mid 19th century, composed of flint rubble with brick dressings and thatched rooves. Brick Row (1127748), an 18th century row of seven cottages was likely re-fronted in the 19th century. The Old Post Office (1127747), now a single dwelling, also dates to the early-mid 19th century and is constructed in flint rubble with brick quoins and dressings. The George Public House (1331113) is a timber-framed, two-storey 17th century building with 19th century additions and alterations. The statue of Jonas Webb (1331112) was designed by Marochetti and executed in bronze on a granite pedestal. Webb was an English farmer who bred Southdown sheep to be larger, mature earlier and have better quality fleeces.

12.2.210 The agricultural origins of the village, built to serve Babraham Hall, are evident in the Grade II listed Home Farmhouse (1127709), Chalk Farmhouse (1331114), and Barn and Granary (1127749). Home Farmhouse is a brick building dating to the 18th century, while Chalk Farmhouse is a 17th century or earlier timber-framed and plastered house. The barn is a timber-framed and weatherboarded barn, dating to the 16th century, the adjoining Granary a 19th century addition.

12.2.211 The grouped assets in Babraham are High Value, informed by their historic, architectural and artistic interest as examples of architectural craftsmanship, set within the small, rural and historic settlement of Babraham and within Babraham Conservation Area (see above).



**Figure A12.2.7 39 and 41 High Street**



**Figure A12.2.8 Brick Row**

**Great and Little Abington Conservation Area**

12.2.212 The Great and Little Abington Conservation Area is situated to the east of the A11 and Newmarket Road, which are both heavily tree lined. The greater part of it is outside of the 1 km study area but will be considered here due to its strong association with listed buildings that are being considered.

12.2.213 The River Granta separates Little Abington (north of the river) from Great Abington (to the south of the river) and Little Abington is bound to the north by the Worsted Way (Roman road from Cambridge to Colchester, CHER 07970, scheduled monument 1003263, outside of the study area) and the Roman road from Braughing to Worsted (CHER MCB26667, Roman Road from London to Norwich) to the west.

12.2.214 The Conservation Area comprises the High Street, Church Lane, Abington Hall and Abington Woods and the two churches, with the grounds surrounding Little Abington Church (none of which has significantly changed layout since 1603 ).

12.2.215 It is characterised by the openness of the rural landscape and the glimpses of parts of the Repton designed landscape associated with Abington Hall, in Great Abington. Parts of the High Street are lined with timbered buildings, which is characterised by windows lanes and high hedges, large, generous plots with buildings set back from the road. It contains two Grade II\* listed churches (Little Abington Parish Church of St Mary the Virgin 1309328 and Great Abington Parish Church of St Mary 1161650), and a Grade II\* listed (Abington Pottery 1127657) late 15th/early 16th century half-timbered house, that should be considered as part of this report, alongside 34 Grade II listed buildings, which will not be considered as they fall outside the 1 km study area. Two Grade II listed buildings (Temple Café 1331149, and the 18th century sluice gates on the river, to the west of the Conservation Area) will be considered, as they do fall within the study area. It is of Medium Value due to its evidential, aesthetic, communal and historic interest.



### **Listed Buildings - Little Abington Group**

- 12.2.216 There are two Grade II\* and one Grade II listed assets situated within Little Abington within the study area. These comprise:
- The 11th century Parish Church of St Mary the Virgin (MM043), also known as Little Abington Parish Church
  - Abington Pottery (MM045)
  - The 18th century Walls and Plaques to Former Sluice on River Granta West of Parish Church of St Mary (MM038)
- 12.2.217 The Parish Church of St Mary the Virgin is situated to the south of Little Abington, 1120 m east of the Proposed Development, within a large churchyard. It features a short tower, whose base is 11th century, giving it limited visibility from the surrounding landscape. Abington Pottery is an early 18th century house situated 1,470 m east of the Proposed Development, in the historic centre of Little Abington, surrounded by a number of historic listed properties. The setting of both assets is strongly informed by the number of historic buildings in the vicinity, which help to understand the historical context of the buildings. Both are of High Value due to their age and architectural interest.
- 12.2.218 The Walls and Plaques to Former Sluice on River Granta West of Parish Church of St Mary are located 840 m east of the Proposed Development. They comprise local stock brick walls and two limestone plaques, historically located either side of the river. They are each inscribed 'The bottom or lowest part of this stone is the height of ye Floodgate of this sluice 1721'. Historically, the sluice operated as part of Former Babraham Water Meadows, allowing water to be siphoned off into a separate channel which transported it to the Water Meadows. The asset's setting is adjacent to the River Granta, within a dense woodland between Granta Park, a business park and Little Abington, on the edge of the Great and Little Abington Conservation Area. The majority of the conservation area is situated outside of the study area, and the asset is somewhat detached from the other historic assets within the area. The walls and plaques are High Value, informed by their historic interest and association with the Former Babraham Water Meadows. This is diminished somewhat by the loss of many of the other elements of the water meadows.
- 12.2.219 The former north lodge to Abington Hall is listed as the Temple Café and Restaurant (1331149), though it is now part of the Cambridge International School. It is located 180 m east of the Proposed Development and comprises a single storey lodge with a portico on its south-facing elevation, situated at the junction of Newmarket and Bourn Bridge Roads, dating to the early 19th century. The former lodge presently has no relationship with Abington Hall due to the loss of a direct route between the two assets, and the substantial intervening development of Granta Park. The loss of this relationship diminishes the significance of the asset. The setting of The Temple Café is formed by the Cambridge International School, formerly the Temple Conference Centre, buildings and grounds, which date to the late 20th century. Mature trees and planting shield the former café from Newmarket Road and the nearby A11. The modern setting of the asset provides no contribution to its heritage value as it has removed its original rural setting. The former café is High Value, informed by its historical, architectural and artistic interest as a gatehouse to Abington Hall.

### **Listed Buildings - Great Abington Group**

- 12.2.220 There are two Grade II\* listed assets situated within Great Abington within the study area. These comprise:
- 13th century Parish Church of St Mary (MM044)
  - Abington Hall (MM046)

- 12.2.221 Abington Hall, an early 18th century property with gardens designed by Humphry Repton approximately 1800, is situated approximately 1060 m from the Proposed Development. Its setting is largely informed by its proximity to the Granta Centre to the west, which comprises substantial modern research buildings. hall is of High Value, due to its artistic and architectural interest, though this value is diminished by the loss of its original setting.
- 12.2.222 The Parish Church of St Mary is situated 1350 m west of the Proposed Development. It dates to the 13th century and features a short, square tower giving it limited visibility from the surrounding landscape. The asset's setting is Abington Recreation Ground, to the north of the village High Street. It is surrounded by mature trees

### **Pampisford Parish Church of St John the Baptist 1163297, Grade II\***

- 12.2.223 St John's has 12th and 13th century elements (including font), and was widened in the 15th century, and restored in the 19th century.
- 12.2.224 The asset's setting is the inward-looking Pampisford village, with the church spire and tower visible within the village and immediate surrounding area. Long views towards the church tower are inhibited by mature trees and the low-lying topography of the area. The church is of High Value, due to its artistic and architectural quality and its historic setting within Pampisford village, which facilitates understanding of the history of the asset.

### **Sawston Hall, Grade I (1330979)**

- 12.2.225 Sawston Hall (1330979) is a Grade I listed late medieval building that was rebuilt in the 16th century building situated within a Grade II listed RPG (not considered here as it does not fall within the study area. Its late medieval hall still survives, with a courtyard plan and it contains three exceptionally designed priest holes built by Nicholas Owen. The northern boundary of the RPG is approximately 1065 m from the Proposed Development, with Sawston Hall itself located approximately 1350 m from the Proposed Development. The setting of Sawston Hall is within its secluded grounds in the south of Sawston, the historic centre of the village. The hall's relationship with its grounds is a key element of its significance, as it reflects the long history of the building, whilst also shielding it from the impact of the modern growth of Sawston that surrounds it from the southwest to the north and which extends up to the boundary of the Site. The hall is of High Value, for its evidential, historical value.

### **Parish Church of St Mary, Sawston, Grade I 1128065**

- 12.2.226 The Parish Church of St Mary (MM040, NHLE:) is a Grade I listed 12th century church situated in Sawston village, approximately 1280 m south of the Proposed Development. Its tower is rather short, giving it a limited presence in the wider area, and few long views towards it. Its setting is informed by a number of historic buildings in the vicinity, but also by significant modern development, particularly to the north, which does not contribute to the significance of the assets. The surviving historic buildings facilitate an understanding of the historic appearance of Sawston, contributing to the High Value of the asset, which is also has high evidential and aesthetic value.

### **Queen's Head Inn Grade II\* 1317362**

12.2.227 The Queen's Head Inn is situated in Sawston village, approximately 1280 m south of the Proposed Development. It dates to the 15th century and is a two storeyed, jettied building with a cellar and old plastered panels. It was a pub from 1810, but is no longer in operation as a public house. Its setting is informed by a number of historic buildings in the vicinity, but also by modern development to the east, which does not contribute to the significance of the asset. The surviving historic buildings facilitate an understanding of the historic appearance of Sawston, contributing to the High Value of the asset, which is also has high evidential and aesthetic value.

### **Non-designated assets**

12.2.228 The value of non-designated assets is set out in Table A12.2.4 in the previous section.

### **Mitigation Measures**

#### **Design measures**

12.2.229 Design intervention is mitigation embedded into the design of the Proposed Development and is achieved through an iterative process.

12.2.230 Design interventions around the Granta River Crossing at Stapleford and Babraham were considered, and the bridges have been designed to ensure that overall heights are kept as low as possible whilst still being fit for purpose. This is to ensure that the addition of new river crossing structures in these locations is mitigated in terms of impacts to the historic setting of nearby assets. These include long distance designed views from Grade II\* listed Middlefield House towards the Stapleford crossing, and the Babraham Conservation Area and Grade II\* Pampisford Hall RPG towards the Babraham crossing.

12.2.231 Design interventions were also considered to the south-west of Grade II listed Babraham Hall at the far end of the tree-lined avenue which is part of the setting which contributes to the value of the listed hall, non-designated parkland and conservation area. This was through ensuring Proposed Development design avoided the addition of any feature at the termination of the avenue that would impact the openness of views.

12.2.232 Additional design interventions include the use of landscaping and planting to reduce the impact of the Proposed Development visually within the rural landscape, thus seeking to mitigate the presence of the Proposed Development within the setting of nearby heritage assets. Landscaping interventions include the planting of hedgerows and trees alongside the busway to screen the hard infrastructure.

#### **Construction mitigation measures**

12.2.233 Construction will be carried out using industry best practice and in accordance with the Code of Construction Practice (CoCP) and Construction Environmental Management Plan (CEMP) to reduce any potential adverse effects.

12.2.234 The layout of the construction compounds within the Proposed Development area is yet to be determined. The compounds will be designed in such a way as to minimise the impact on buried archaeology where possible.

#### **Operational mitigation**

12.2.235 Operational lighting will consider luminaire position, height, tilt and orientation to reduce obtrusive light spill. Consideration will also be given to sensitive receptors during the lighting design process to reduce light pollution impacts.

### **Recording**

12.2.236 The NPPF states that the ability to record and archive heritage assets and archaeological evidence should not be considered when deciding whether the loss of heritage assets should be permitted. However, where heritage assets would be lost, damaged or altered as a consequence of development, they would be recorded, and the evidence made publicly available.

12.2.237 Targeted archaeological investigation (such as excavation of buried remains) is required due to the potential for archaeological remains from multiple periods identified through initial evaluation that has been undertaken to inform this assessment. Where trial trenching has not been possible, for example where designs have been updated during the fieldwork period, or where access has not been possible, pre-construction recording will be undertaken. The compound areas, specifically, will require archaeological investigation and it is likely that additional works, such as trial trenches, will be necessary.

### **Assessment of effects during construction of the Proposed Development**

12.2.238 Effects during construction can be both temporary and permanent. Temporary construction effects are effects which will last for all or part of the construction period, for example the presence of construction machinery in historic views. Permanent effects are works carried out during the construction period which would result in a permanent impact, for example the excavation required for the construction of the Proposed Development would result in the permanent removal of archaeological remains, or the construction of the A11 Travel Hub could result in permanent changes to the setting of a heritage asset. Both the temporary and permanent effects are assessed in .

12.2.239 The main construction activities expected to cause likely effects to heritage assets are:

- Excavation for the construction of the Proposed Development;
- The appearance of construction compounds;
- The presence, movement and noise of plant and construction vehicles;
- Construction lighting if night-time working required;
- Removal of existing trees and hedgerows;
- Soils and materials storage mounds;
- Change in landform;
- Vegetation and planting will mature and be maintained; and
- The appearance of the Proposed Development.

12.2.240 The following assumptions have been made in the assessment of construction effects:

- Construction will be undertaken in line with best practice;
- All archaeological remains within the red line boundary will be removed unless otherwise stated;
- As far as practicable, construction work will be scheduled for daylight times, but the works may be lit during winter when daylight availability is shorter or for traffic management reasons. Measures will be implemented to reduce obtrusive light, e.g., dimming or switching off lights where it is safe to do so, using specifically designed equipment and positioning lights sensibly;
- There will be no physical impacts to built heritage assets.

## Impact assessment

### Construction phase

12.2.241 Table A12.4.5 sets out the construction phase effects of the Proposed Development on identified heritage assets.

**Table A12.4.5 Construction phase impact assessment**

| Name  | Designation        | NHLE / HER No.   | Description of Impact   | Value | Magnitude of Impact | Significance of Effect |
|---|--------------------|------------------|---|-------|---------------------|------------------------|
| Site revealed by aerial photography west of White Hill Farm | Scheduled Monument | 1006891          | Temporary: The setting of the cropmark complex is within open arable fields to the east of Cambridge Road, between Great Shelford and Trumpington, and to the west of the Cambridge to London railway. This setting makes a limited contribution to its heritage value. Therefore, it is considered that there would be no change from construction activity within this setting which would impact the value of the asset.   | High  | No change           | Neutral                |
|   |                    |                  | Permanent: The setting of the cropmark complex is within open arable fields to the east of Cambridge Road, between Great Shelford and Trumpington, and to the west of the Cambridge to London railway. This setting makes a limited contribution to its heritage value. Therefore, it is considered that there would be no change from construction activity within this setting which would impact the value of the asset.   |       | No change           | Neutral                |
| Nine Wells Monument   | Grade II listed    | 1127825          | Temporary: There will be an increase in noise and light in the vicinity of the asset during construction due to its proximity to the Proposed Development. However, the cover provided by the dense woodland will minimise the impact on the asset by reducing the intervisibility between the asset and the Proposed Development. Additionally, there is existing light and noise from the nearby railway line, which is adjacent to the Proposed Development at this point. The additional light and noise caused by the construction of the Proposed Development will be minimal in the context of the railway.              | High  | Negligible adverse  | Slight                 |
|   |                    |                  | Permanent: The construction of the Proposed Development will have no impact on the asset, as the asset is obscured from view by the woodland and there will be no intervisibility between the asset and the Proposed Development.   |       | Negligible adverse  | Slight                 |
| Possible Roman Inhumation Burial / Grave                    | -                  | MCB30478         | Temporary: There will be no temporary impact to the asset as the asset will be removed during construction.   | Low   | No Change           | Neutral                |
|   |                    |                  | Permanent: As recorded through recent archaeological trial trenching, there is potential for this asset to be physically impacted and permanently removed.  |       | Major adverse       | Moderate adverse       |
| Iron Age Trackways, Enclosures and Boundary                 | -                  | MCB30478         | Temporary: There will be no temporary impact to the asset as the asset will be removed during construction.   | Low   | No change           | Neutral                |
|   |                    |                  | Permanent: As recorded through recent archaeological trial trenching and geophysical survey (Magnitude Surveys 2020), there is potential for these archaeological remains to be physically impacted and permanently removed.  |       | Major adverse       | Moderate adverse       |
| Granham's Farm Group  | Grade II listed    | 1331068, 1317912 | Temporary: There is potential for an increase in noise and light to the north of these assets due to their proximity to the Proposed Development. There is existing light and noise from Granham's Road and the nearby railway line to the west of the assets, but the construction of the Proposed Development will exacerbate this to the north-east, diminishing the rural character of this area, which is a key contributor to the significance of the assets. Despite this, the ability to understand the assets as part of a rural landscape will prevail, and therefore the impact to the assets is deemed to be minor. | High  | Negligible adverse  | Slight                 |



| Name                                       | Designation       | NHLE / HER No.                             | Description of Impact   | Value  | Magnitude of Impact | Significance of Effect |
|--|-------------------|--|---|--------|---------------------|------------------------|
|  |                   |  | Permanent: There are views to the north- east towards the Proposed Development from the group, though this is limited due to mature trees situated at field boundaries and intervening buildings associated with Granham's Farm, which will preserve the agricultural setting of the assets. The Proposed Development is some distance from the assets and the immediate agricultural surroundings of the assets will dominate, maintaining their agricultural setting. The permanent impact on the heritage assets is therefore negligible.  |        | Negligible adverse  | Slight                 |
| Eastern Side of High Green, Great Shelford | Grade II listed   | 1127899, 1317876, 1317838, 1331030         | Temporary: There will be no temporary impact on the assets in this group due to their location in the urban historic core of Great Shelford. The character of the assets' relatively tranquil setting set back from the road will not be altered due to the construction of the Proposed Development. The distance between the Proposed Development and this group of assets, and the intervening development to the north means that the additional noise and light caused by the construction of the Proposed Development will not impact upon the assets, or the ability to understand the historic character of the area. | High   | No Impact           | Neutral                |
|  |                   |  | Permanent: There will be no permanent impact from the construction of the Proposed Development due to the distance and modern development situated between the group of assets and the Proposed Development. The setting of the assets will not be altered by the construction of the Proposed Development, maintaining the ability to appreciate them in their current location.   |        | No Impact           | Neutral                |
| Western Side of High Green, Great Shelford | Grade II listed   | 1163891, 1127897, 1127898, 1164190, 109600 | Temporary: There will be no temporary impact on the assets in this group due to the distance between the Proposed Development and this group of assets and the intervening development. As such there will not be any impact to their setting which affects the ability to understand them as historic buildings in a historic village.   | High   | No Impact           | Neutral                |
|  |                   |  | Permanent: Due to the distance and intervening modern development between the historic core of Great Shelford, where the assets are located, and the Proposed Development, it is considered that there would be no change to the character or setting of the heritage assets. There will be no intervisibility between the assets and the Proposed Development, and the historic character of the area will not be altered.   |        | No Impact           | Neutral                |
| Great Shelford Conservation Area           | Conservation Area | -  | Temporary: Due to the distance and intervening modern development between the historic core of Great Shelford, where the conservation area is situated, and the Proposed Development, it is considered that there would be no temporary impacts to the character or setting of the area. The characteristics that give the conservation area its value, namely the large plots with mature trees and extensive gardens, historic boundary walls and historic timber-framed buildings, will not be altered by the Proposed Development.  | Medium | No Impact           | Neutral                |
|  |                   |  | Permanent: Due to the distance and intervening modern development between the historic core of Great Shelford, where the conservation area is situated, and the Proposed Development, it is considered that there would be no permanent impacts to the character or setting of the conservation area. In particular, the elements of the area which give it value will not be altered or in any way compromised by the construction of the Proposed Development.  |        | No Impact           | Neutral                |
| Church of St Andrew                        | Grade II* listed  | 1165349                                    | Temporary: There is potential for an increase in noise and light to the north of the asset during the construction of the Proposed Development, altering the existing rural character of this northern view. The character of the church is informed by its rural setting and its location within Stapleford village. Despite the insertion of the Proposed Development into the landscape, overwhelmingly the setting will remain recognisably rural. Therefore, the impact is considered to be negligible adverse.  | High   | Negligible adverse  | Slight                 |
|  |                   |  | Permanent: There is considered to be a negligible adverse permanent impact on the asset, due to the insertion of a hard structure into a historically agricultural landscape. However, due to the distance between the asset and the Proposed Development, this will not alter the ability to understand the church in its historic village context, as illustrated in Photomontage 12, and as such there is considered to be no permanent impact.  |        | No change           | Neutral                |

| Name                              | Designation       | NHLE / HER No.                     | Description of Impact   | Value  | Magnitude of Impact | Significance of Effect |
|-----------------------------------|-------------------|------------------------------------|---|--------|---------------------|------------------------|
| Northern Stapleford Group         | Grade II listed   | 1127823, 1165205, 1331071,         | Temporary: There is potential for the assets in this group to be temporarily impacted by the additional light and noise caused by the construction of this asset, which will alter their existing tranquil setting. However, due to the location of the assets in an urban village context, there is limited intervisibility between the assets and the Proposed Development, with only small glimpses between buildings and between vegetation that will be impacted by increased light and activity in the rural landscape. Therefore, the temporary construction impact is considered to be negligible adverse.  | High   | Negligible adverse  | Slight                 |
|                                   |                   |                                    | Permanent: Due to the distance between the assets and the Proposed Development, it is unlikely there would be a permanent impact on the setting of the historic buildings from the construction of the Proposed Development. The aspects of their setting that contribute to their character, specifically, the relatively low density of development in the area and extensive vegetation, will not be altered, and glimpses through to the countryside between buildings will still provide an overwhelmingly rural context, even with the addition of the Proposed Development. Therefore, the permanent construction impact is considered to be negligible adverse. |        | Negligible adverse  | Slight                 |
| Southern Stapleford Group         | Grade II listed   | 1127819, 1127818, 1317428, 1317424 | Temporary: There will be no temporary impact on the assets in this group due to their location in an urban village, with the associated noise of traffic and light pollution. The Proposed Development will not be visible from the assets, and it will not alter the ability to understand them as historic buildings in a historic village.   | High   | No change           | Neutral                |
|                                   |                   |                                    | Permanent: There will be no permanent impact on the assets in this group as the Proposed Development will not be visible from the assets and it will not alter the ability to understand the assets as historic buildings in a historic village.  |        | No change           | Neutral                |
| Middlefield and Garden Wall       | Grade II* listed  | 1317370                            | Temporary: There will be an increase in noise and light in the vicinity of the asset during construction, affecting views to and from the Proposed Development. This is exacerbated by the asset's position on a natural rise in the landscape, which gives it greater visibility across the Proposed Development area. However, the gardens of the asset screen it on almost all sides, with the exception of its tree-lined avenue, and will reduce the audible impact of the Proposed Development.   | High   | Minor adverse       | Slight                 |
|                                   |                   |                                    | Permanent: The construction of the Proposed Development will be visible across the existing agricultural landscape from the asset. However, the character of the rural arable landscape will be overwhelmingly retained, and the ability to understand the composition of the asset will not be altered.  |        | Minor adverse       | Slight                 |
| Galewood, Pinewood and The Towers | Grade II listed   | 1127822                            | Temporary: There will be an increase in noise and light in the vicinity of the asset during construction, however, the asset does not have views towards the Proposed Development, and as such these impacts will be minimal.   | Medium | No Impact           | Neutral                |
|                                   |                   |                                    | Permanent: The asset is situated within extensive mature grounds, with limited views out of the site. It is therefore considered that there would be no change to its character or setting as a result of the Proposed Development, and therefore no impact.  |        | No Impact           | Neutral                |
| Stapleford Conservation Area      | Conservation Area | -                                  | Temporary: There is potential for a temporary increase in light and noise during the construction of the Proposed Development at the north-eastern end of the conservation area due to its proximity to the Proposed Development. However, there is limited intervisibility between the conservation area and the Proposed Development, with only small glimpses between buildings and between vegetation which will be impacted by increased light and activity in the rural landscape. Therefore, the temporary construction impact is considered to be minor.  | Medium | Minor adverse       | Slight                 |



| Name  | Designation        | NHLE / HER No. | Description of Impact   | Value | Magnitude of Impact | Significance of Effect |
|---|--------------------|----------------|---|-------|---------------------|------------------------|
|   |                    |                | Permanent: Although some views from the conservation area to the countryside may feature the Proposed Development, the overwhelming character of the surroundings to the conservation area will remain rural, as illustrated in Photomontage 12. The other defining characteristics of the conservation area, namely the typology of the houses and extent of greenspace, will not be affected by the Proposed Development. Therefore, the permanent impact of the Proposed Development is considered to be negligible adverse. |       | Negligible adverse  | Slight                 |
| Roman boundary ditch                                      | -                  | MCB31475       | Temporary: There will be no temporary impact to this asset as the asset will be heavily truncated during construction.  | Low   | No Impact           | Neutral                |
|   |                    |                | Permanent: There is potential for these archaeological remains to be heavily truncated, with part of the remains being permanently removed by construction of the Proposed Development to the east of Hinton Way.   |       | Major adverse       | Moderate adverse       |
| Possible Medieval lynchet features                        | -                  | MCB31475       | Temporary: There will be no temporary impact to this asset as the asset will be heavily truncated during construction.  | Low   | No Impact           | Neutral                |
|   |                    |                | Permanent: There is potential for these archaeological remains to be heavily truncated, with part of the remains being permanently removed by construction of the Proposed Development to the north-west of Granham's Road.   |       | Major adverse       | Slight adverse         |
| Sawston-Haverhill railway                                 | -                  | 6326           | Temporary: There will be no temporary impact to the asset as the asset will be removed during construction.   | Low   | No change           | Neutral                |
|   |                    |                | Permanent: There is potential for this asset to be physically impacted and permanently removed.   |       | No change           | Neutral                |
| Causewayed enclosure and bowl barrow at Little Trees Hill | Scheduled Monument | 1011717        | Temporary: There will be no temporary impact to this asset as temporary construction works will not change the setting of the asset to the extent where it will affect the ability to understand the value of the asset.  | High  | No change           | Neutral                |
|   |                    |                | Permanent: The current setting of the asset is on the top of Little Trees Hill, one of the Gog Magog chalk downlands hills at this location. It is situated within a rural landscape, largely as part of Magog Down parkland and conservation area, but also within a wider agricultural landscape. Due to the asset's distance from the Proposed Development, it is considered that there would be no change to the setting of the heritage asset.   |       | Negligible Adverse  | Neutral to Slight      |
| Bronze Age ring ditch                                     | -                  | MCB30479       | Temporary: There will be no temporary impact to this asset as the asset will be removed during construction.  | Low   | No change           | Neutral                |
|   |                    |                | Permanent: There is potential for these archaeological remains to be permanently removed by construction of the Proposed Development to the east of Haverhill Road.   |       | Major adverse       | Slight adverse         |
| Iron Age/Roman settlement                                 | -                  | MCB31477       | Temporary: There will be no temporary impact to this asset as the asset will be removed during construction.  | Low   | No change           | Neutral                |
|   |                    |                | Permanent: Recorded through recent archaeological trial trenching. There is potential for this asset to be physically impacted and permanently removed.   |       | Major adverse       | Moderate adverse       |
| Roman settlement and landscape drainage activity          | -                  | MCB27669       | Temporary: There will be no temporary impact to this asset as the asset will be heavily truncated during construction.  | Low   | No change           | Neutral                |
|   |                    |                | Permanent: There is potential for these archaeological remains to be heavily truncated, with part of the remains being permanently removed by construction of the Proposed Development within the area of the River Granta to the south of Haverhill Road.  |       | Major adverse       | Moderate adverse       |
| Parish Church of St Peter South West of                   | Grade I listed     | 1331111        | Temporary: The construction of the Proposed Development will have no impact on the Parish Church of St Peter due to its location surrounded by mature trees which will screen it from any temporary visual impact caused by the additional noise and light created during construction. Additionally, the setting of the asset is informed by its proximity to Babraham Hall and the Babraham Research Campus, which will not be altered by the Proposed Development.   | High  | No change           | Neutral                |

| Name   | Designation      | NHLE / HER No.  | Description of Impact  | Value | Magnitude of Impact | Significance of Effect |
|--|------------------|---|--|-------|---------------------|------------------------|
| Babraham Hall                                  |                  |   | Permanent: The asset is surrounded by mature trees and the modern development of the Babraham estate. Due to the distance between the asset and the Proposed Development, and the lack of intervisibility between the two, it is considered that there would be no change to the character or setting of the heritage asset from construction of the Proposed Development.   |       | No change           | Neutral                |
| The Almshouses, The School House               | Grade II* listed | 1127746   | Temporary: Due to the asset's location in Babraham village with no long views out of it, and its distance from the Proposed Development, it is considered that there would be no impact to the asset during the construction of the Proposed Development.  | High  | No Impact           | Neutral                |
|  |                  |   | Permanent: There will be no permanent impact to the asset caused by the construction of the Proposed Development due to the retention of the asset's setting, which contributes to its value.  |       | No Impact           | Neutral                |
| Church Farmhouse                               | Grade II listed  | 1331134   | Temporary: There will be additional movement, noise and light in the rural landscape during the construction of the Proposed Development. However, the asset's location on Sawston Road means that there is existing light and noise caused by traffic in the asset's setting. There are also two intervening hedgerows between the asset and the Proposed Development, and the character of the rural arable landscape will be overwhelmingly retained. The ability to understand the history and composition of the asset will not be altered, reducing the extent of change caused by the construction of the Proposed Development. | High  | Negligible adverse  | Slight                 |
|  |                  |   | Permanent: There will be a change to the topography of the landscape and its character in the vicinity of the asset. However, the asset has a substantial boundary facing towards the Proposed Development, and there are two hedgerows which will minimise the visual impact of the Proposed Development on the landscape from the asset.   |       | Negligible adverse  | Slight                 |
| Babraham Hall, The Institute of Animal Biology | Grade II listed  | 1127745   | Temporary: There is a possibility that the temporarily increased movement, light and noise caused by the construction of the Proposed Development will be visible to the south-west of the hall via its avenue. However, due to the length of the avenue, the undulating landscape and the natural rise which currently terminates the avenue and blocks views of Sawston Road, it is considered unlikely that the Proposed Development, which will be further south, will be visible from the asset.  | High  | Negligible adverse  | Slight                 |
|  |                  |   | Permanent: The permanent impact of the construction of the Proposed Development on the hall will be negligible, due to the distance between the two and the undulating landscape, which limits the long views in this direction. The Proposed Development will not substantially alter the character of the asset's setting or the ability to understand it as part of the estate of a large country house.  |       | Negligible adverse  | Slight                 |
| Babraham Group                                 | Grade II listed  | 1331113, 1127748, 1331112, 1127750, 1127747, 1127749, 1331114, 1127709, | Temporary: Due to the composition of the village and the distance from the Proposed Development, it is considered that there will be no temporary impacts as a result of the construction of the Proposed Development. There will be no impact to the ability to understand the village as a historic settlement or appreciate its relationship with Babraham Hall and the surrounding countryside.  | High  | No Impact           | Neutral                |
|  |                  |   | Permanent: There will be no permanent impact caused by the construction of the Proposed Development, and it will not alter the ability to understand the assets as historic buildings in a historic village.   |       | No Impact           | Neutral                |
| The Icehouse                                   | Grade II listed  | 1331110   | Temporary: Due to the nature of the asset being semi-submerged in earth and its setting in woodland, with Babraham situated between it and the Proposed Development, it is considered that there would be no temporary impact to it during the construction of the Proposed Development.   | High  | No Impact           | Neutral                |



| Name                              | Designation       | NHLE / HER No. | Description of Impact   | Value  | Magnitude of Impact | Significance of Effect |
|-----------------------------------|-------------------|----------------|---|--------|---------------------|------------------------|
|                                   |                   |                | Permanent: As stated above, due to the location of the asset within a densely vegetated landscape and its semi-submerged construction, there will be no permanent impact on the character of the asset or its setting as a result of the construction of the Proposed Development.  |        | No Impact           | Neutral                |
| Parish Church of St Mary          | Grade I listed    | 1128065        | Temporary: Due to the distance between the asset and the Proposed Development, and the urban location of the Parish Church of St Mary, it is considered that there will be no temporary impact to the asset due to the construction of the Proposed Development.  | High   | No Impact           | Neutral                |
|                                   |                   |                | Permanent: The asset is situated within Sawston village, with intervening development between it and the Proposed Development, meaning there would be no change to the character or setting of the heritage asset as a result of the Proposed Development.  |        | No Impact           | Neutral                |
| Sawston Hall                      | Grade I listed    | 1330979        | Temporary: There are possible long views towards the Proposed Development to the north-east, but the distance between the asset and the Proposed Development, and the hall's setting in its private gardens means that it is considered that there would be no changes to the character or setting of the heritage asset as a result of the Proposed Development.   | High   | No Impact           | Neutral                |
|                                   |                   |                | Permanent: There will be no permanent impacts to Sawston Hall or its setting due to the asset's large, enclosed grounds, which will not be altered by the Proposed Development, and which inhibit long views towards it. As such, the ability to understand it and appreciate its history will not be altered, and therefore there is considered to be no impact.   |        | No Impact           | Neutral                |
| The Queen's Head Inn              | Grade II* listed  | 1317362        | Temporary: Due to the distance between the asset and the Proposed Development, and the urban location of The Queen's Head Inn, it is considered that there will be no temporary impact to the asset due to the construction of the Proposed Development.  | High   | No Impact           | Neutral                |
|                                   |                   |                | Permanent: The Queen's Head Inn is situated within Sawston village, with intervening development between it and the Proposed Development, meaning there would be no change to the character or setting of the heritage asset as a result of the Proposed Development.   |        | No Impact           | Neutral                |
| Babraham Conservation Area        | Conservation Area |                | Temporary: Due to the composition of the conservation area and its distance from the Proposed Development, it is considered that there will be a negligible temporary impact as a result of the construction of the Proposed Development. The additional noise and light caused by the construction of the Proposed Development to the south and east of the conservation area will slightly impact the ability to understand the village as a historic settlement and appreciate its relationship with Babraham Hall and the surrounding countryside, which are key aspects of its significance. However, in general the rural character of the conservation area's setting will be preserved, meaning this would be a negligible impact only. | Medium | Negligible adverse  | Slight                 |
|                                   |                   |                | Permanent: There will also be no permanent impact caused by the construction of the Proposed Development. It will not alter the ability to understand the assets as historic buildings in a historic village or its relationship with the Babraham Estate. Although there will be some change to the south and east of the village this setting will still be overwhelmingly perceived as rural, and the ability to understand the contribution this rural setting makes to the value of the conservation area will only be negligibly altered.   |        | Negligible adverse  | Slight                 |
| Undated Inhumation burial / Grave | -                 | MCB31480       | Temporary: There will be no temporary impact to the asset as the asset will be removed during construction  | Low    | No Change           | Neutral                |
|                                   |                   |                | Permanent: As recorded through recent archaeological trial trenching, there is potential for this asset to be physically impacted and permanently removed   |        | Major adverse       | Moderate adverse       |

| Name  | Designation     | NHLE / HER No. | Description of Impact  | Value | Magnitude of Impact | Significance of Effect |
|---|-----------------|----------------|--|-------|---------------------|------------------------|
| Pampisford Hall   | Grade II* RPG   | 1000321        | Temporary: Due to the distance between the assets and the Proposed Development, and due to the nature of Pampisford Hall RPG being inward-looking and self-contained, it is considered that the temporary impacts caused by the construction of the Proposed Development would have no effect on this asset, as it will not alter the character of the asset or the ability to understand it as a historic garden.   | High  | No Impact           | Neutral                |
|   |                 |                | Permanent: There will be no permanent impact caused by the construction of the Proposed Development, due to the distance between the asset and the Proposed Development, which means there will be no visible or audible impact on the asset. As such, it is considered that there would be no permanent impact to the character or setting of the garden.   |       | No Impact           | Neutral                |
| Cropmark enclosures, Babraham                               | -               | 09353          | Temporary: There will be no temporary impact to this asset as the asset will be heavily truncated during construction.   | Low   | No impact           | Neutral                |
|   |                 |                | Permanent: There is potential for these archaeological remains to be heavily truncated, with part of the remains being permanently removed by construction of the Proposed Development as it approaches the A11 Travel Hub.  |       | Major adverse       | Moderate adverse       |
| Potential Bronze Age occupation site                        | -               | MCB31481       | Temporary: There will be no temporary impact to this asset   | Low   | No impact           | Neutral                |
|   |                 |                | Permanent: There is potential for this asset to extend into the footprint of the Proposed Development and be physically impacted through removal or damage due to changes to the surrounding soil conditions   |       | Major adverse       | Slight adverse         |
| Roman quarrying activity                                    | -               | MCB31482       | Temporary: There will be no temporary impact to this asset as this asset will be heavily truncated during construction   | Low   | No impact           | Neutral                |
|   |                 |                | Permanent: There is potential for these archaeological remains to be physically impacted, with part of the remains being permanently removed by construction of the Proposed Development as it approaches the A11 Travel Hub.  |       | Major adverse       | Moderate adverse       |
| Anglo-Saxon occupation                                      |                 | MCB31482       | Temporary: There will be no temporary impact to this asset as this asset will be heavily truncated during construction   | Low   | No impact           | Neutral                |
|   |                 |                | Permanent: There is potential for these archaeological remains to be physically impacted, with part of the remains being permanently removed by construction of the Proposed Development as it approaches the A11 Travel Hub.  |       | Major adverse       | Slight adverse         |
| Former Babraham Water Meadows                               | -               | MCB15995       | Temporary: There will be no temporary impact to this asset as this asset will be heavily truncated during construction.  | Low   | No impact           | Neutral                |
|   |                 |                | Permanent: There is potential for a section of these archaeological remains to be permanently removed by construction of the Proposed Development as it approaches the A11 Travel Hub.   |       | Major adverse       | Moderate adverse       |
| Ditched enclosure / rectilinear enclosure, Iron Age / Roman | -               | MCB31482       | Temporary: There will be no temporary impact to this asset as the asset will be heavily truncated during construction.   | Low   | No Impact           | Neutral                |
|   |                 |                | Permanent: There is potential for these archaeological remains to be physically impacted, with part of the remains being permanently removed by construction of the Proposed Development as it approaches the A11 Travel Hub.  |       | Major adverse       | Slight adverse         |
| The Walls and Plaques to Former Sluice on River Granta      | Grade II listed | 1127654        | Temporary: Due to the setting of the asset within a woodland adjacent to Little Abington, almost 1 km from the Proposed Development with the A11 separating the two areas, it is considered that the temporary addition of noise and light created by the Proposed Development will have no impact upon the asset. The existing setting of the asset will not be altered due to the construction, nor will the ability to understand or experience the asset be altered. As such, there is considered to be no temporary impact to this asset. | High  | No impact           | Neutral                |



| Name  | Designation      | NHLE / HER No. | Description of Impact  | Value | Magnitude of Impact | Significance of Effect |
|---|------------------|----------------|--|-------|---------------------|------------------------|
| West of Parish Church of St Mary                    |                  |                | Permanent: Due to the distance between this asset and the Proposed Development, and the intervening A11 which subdivides the landscape, it is considered that there would be no permanent change to the character or setting of this asset from the construction of the Proposed Development.  |       | No impact           | Neutral                |
| Temple Café   | Grade II listed  | 1331149        | Temporary: The setting of the asset, in the grounds of the Cambridge International School, formerly the Temple Conference Centre, adjacent to the A11, will not be altered or impacted by the construction of the Proposed Development, due to the dense vegetation that surrounds it. Any temporary increase in light and noise in the vicinity of the asset will be diluted by the existing light and noise caused by the A11.   | High  | No Impact           | Neutral                |
|   |                  |                | Permanent: There will be no intervisibility between the Proposed Development and the asset due to its situation on its site and the mature trees and planting which shield the former café from Newmarket Road and the nearby A11. Therefore, it is considered that the construction of the Proposed Development will cause no impact to the asset.  |       | No Impact           | Neutral                |
| Parish Church of St Mary the Virgin                 | Grade II* listed | 1309328        | Temporary: Due to the setting of the asset within the settlement of Little Abington, over 1 km from the Proposed Development with the A11 separating the two areas, it is considered that the temporary addition of noise and light created by the Proposed Development will have no impact upon the asset. The existing setting of the asset will not be altered due to the construction of the Proposed Development, nor will the ability to understand or experience the assets be altered. As such, there is considered to be no temporary impact to the church. | High  | No Impact           | Neutral                |
|   |                  |                | Permanent: Due to the distance between the church and the Proposed Development, and the intervening A11 road which subdivides the landscape, it is considered that there would be no permanent change to the character or setting of the heritage assets in this group due to the construction of the Proposed Development.  |       | No Impact           | Neutral                |
| Parish Church of St Mary                            | Grade II* listed | 1161650,       | Temporary: Due to the setting of the asset within the settlement of Great Abington, over 1 km from the Proposed Development with the A11 separating the two areas, it is considered that the temporary addition of noise and light created by the Proposed Development will have no impact upon the church.  | High  | No Impact           | Neutral                |
|   |                  |                | Permanent: Due to the distance between the church and the Proposed Development, and the intervening A11 road which subdivides the landscape, it is considered that there would be no permanent change to the character or setting of this heritage asset due to the construction of the Proposed Development.  |       | No Impact           | Neutral                |
| Abington Pottery                                    | Grade II* listed | 1127722        | Temporary: Due to the setting of the asset within the settlement of Great Abington, over 1 km from the Proposed Development with the A11 separating the two areas, it is considered that the temporary addition of noise and light created by the Proposed Development will have no impact upon the asset.   | High  | No Impact           | Neutral                |
|   |                  |                | Permanent: Due to the distance between the asset and the Proposed Development, and the intervening A11 road which subdivides the landscape, it is considered that there would be no permanent change to the character or setting of this asset due to the construction of the Proposed Development.  |       | No Impact           | Neutral                |
| Abington Hall, British Welding Research Association | Grade II* listed | 1127722        | Temporary: Due to the setting of the asset within the modern development of Granta Park and adjacent to the busy A11/A505 junction, the temporary increase in noise and light caused by the construction of the Proposed Development will not be noticeable. Therefore, it is considered that there will be no impact to the character of the asset or its setting.  | High  | No Impact           | Neutral                |
|   |                  |                | Permanent: Due to the distance between the asset and the Proposed Development and the intervening A11/A505 which subdivide the landscape, it is considered that there would be no permanent change to the character or setting of this heritage asset due to the construction of the Proposed Development.   |       | No Impact           | Neutral                |

| Name  | Designation       | NHLE / HER No. | Description of Impact   | Value  | Magnitude of Impact | Significance of Effect |
|---|-------------------|----------------|---|--------|---------------------|------------------------|
| Great and Little Abington Conservation Area | Conservation Area |                | Temporary: The elements of the conservation area which give it its significance, namely the large plots of the historic buildings set back from the road and mature trees, particularly along the High Street, will not be impacted by the increased noise and light temporarily created during the construction of the Proposed Development. Additionally, the location of the A11 between the Area and the Proposed Development means any increase in noise will be diluted in the context of the major road. | Medium | No Impact           | Neutral                |
|   |                   |                | Permanent: There will be no permanent impacts to the conservation area, due to the distance between it and the Proposed Development, which will inhibit any possibility of the Proposed Development being visible or altering any key views towards the Area.   |        | No Impact           | Neutral                |

### Operational phase

12.2.242 Table A12.4.6 sets out the operational phase effects of the Proposed Development on identified heritage assets. Only above ground heritage assets have been assessed as it has been assumed that the construction phase will result in the removal of below ground assets within the Site.

**Table A12.2.6 Operational phase impact assessment**

| Name  | Designation        | NHLE/ HER No.                               | Description of impact  | Value | Magnitude of impact | Significance of effect |
|---|--------------------|---|--|-------|---------------------|------------------------|
| Site revealed by aerial photography west of White Hill Farm | Scheduled Monument | 1006891                                     | The setting of the cropmark complex is within open arable fields to the east of Cambridge Road, between Great Shelford and Trumpington, and to the west of the Cambridge to London railway. It is considered that there would be no change to the setting of the heritage asset as it is below ground and has been fully truncated by the railway.   | High  | No change           | Neutral                |
| Nine Wells Monument   | Grade II listed    | 1127825                                     | Due to the mature vegetation that surrounds the asset which will shield it from some of the increased noise and light caused by the operation of the Proposed Development, it is considered that it will only experience a negligible adverse impact.  | High  | Negligible adverse  | Slight                 |
| Granham's Farm Group  | Grade II listed    | 1331068, 1317912                            | There is potential for an increase in movement, noise and light to the north and north-east due to the proximity of the heritage assets to the Proposed Development, which will alter the character of the rural setting of the assets. However, the rural setting will be overwhelmingly retained to the east, and will be visible beyond the Proposed Development, allowing the agricultural history of the assets to continue to be understood. | High  | Negligible adverse  | Slight                 |
| Eastern Side of High Green, Great Shelford                  | Grade II listed    | 1127899, 1317876, 1317838, 1331030          | Due to the distance and intervening modern development between the asset and the Proposed Development, no impact is expected during its operation, as the character of the asset and its setting will be entirely preserved.   | High  | No change           | Neutral                |
| Western Side of High Green, Great Shelford                  | Grade II listed    | 1163891, 1127897, 1127898, 1164190, 1096004 | Due to the distance and intervening modern development between the asset and the Proposed Development, no impact is expected during its operation, as the character of the asset and its setting will be entirely preserved.   | High  | No change           | Neutral                |



| Name  | Designation        | NHLE/ HER No.                      | Description of impact  | Value  | Magnitude of impact | Significance of effect |
|---|--------------------|------------------------------------|--|--------|---------------------|------------------------|
| Great Shelford Conservation Area                          | Conservation Area  |                                    | Due to the distance and intervening modern development between the asset and the Proposed Development, no impact is expected during its operation, as the character of the asset and its setting will be entirely preserved.   | Medium | No change           | Neutral                |
| Church of St Andrew                                       | Grade II* listed   | 1165349                            | Due to the asset's location on the northern urban edge of Stapleford, there are possible long views from the heritage asset towards the Proposed Development. The operation of the Proposed Development will cause some additional noise, light and movement in the existing rural landscape. However, the key elements of the asset's setting will continue to be visible, namely its relationship with Stapleford village, and its relationship to with arable countryside, which will continue despite the Proposed Development's construction. Therefore, it is considered that there would only be a negligible adverse impact to the asset during the operation of the Proposed Development. | High   | Negligible adverse  | Slight                 |
| Northern Stapleford Group                                 | Grade II listed    | 1127823, 1165205, 1331071          | There is potential for an increase in noise and light during the construction of the Proposed Development affecting these assets, due to their proximity as they are close to the Proposed Development. However, due to the distance between the assets and the Proposed Development, it is unlikely that this would be a significant impact, as the ability to understand the rural and village contexts of the assets will not be altered.   | High   | Negligible adverse  | Slight                 |
| Southern Stapleford Group                                 | Grade II listed    | 1127819, 1127818, 1317428, 1317424 | Due to the distance between the assets and the Proposed Development, it is unlikely there would be a permanent impact to the historic buildings from the construction of the Proposed Development, as their setting in urban Stapleford will not be altered.   | High   | No Impact           | Neutral                |
| Middlefield and Garden Wall                               | Grade II* listed   | 1317370                            | The Proposed Development will be visible and the increased movement on the landscape will alter the current tranquil setting of this asset. However, due to the distance between the asset and the Proposed Development, this impact is considered to be minimal.  | High   | Negligible adverse  | Slight                 |
| Galewood, Pinewood and The Towers                         | Grade II listed    | 1127822                            | The asset is situated within extensive mature grounds, with limited views out of the site. It is therefore considered that there would be no change to its character or setting as a result of the Proposed Development, and therefore no impact.  | High   | No Impact           | Neutral                |
| Stapleford Conservation Area                              | Conservation Area  | -                                  | The operation of the Proposed Development will cause some additional noise, light and movement in the existing rural landscape, glimpses of which may be visible through the conservation area. These glimpses of countryside are a key element of the character of the conservation area and will be largely retained, even with the addition of the Proposed Development, which will cause a negligible adverse impact.  | Medium | Negligible adverse  | Slight                 |
| Causewayed enclosure and bowl barrow at Little Trees Hill | Scheduled Monument | 1011717                            | The current setting of the asset is on the top of Little Trees Hill, one of the Gog Magog chalk downlands hills at this location. It is situated within a rural landscape, largely as part of Magog Down parkland and conservation area, but also within a wider agricultural landscape. Due to the asset's distance from the Proposed Development, it is considered that there would be no change to the setting of the heritage asset.   | High   | No change           | Neutral                |
| Parish Church of St Peter South West of Babraham Hall     | Grade I listed     | 1331111                            | Due to the distance between the asset and the Proposed Development, and the lack of intervisibility between the two, created by mature vegetation, no impact is expected during the operation of the Proposed Development.   | High   | No change           | Neutral                |

| Name   | Designation       | NHLE/ HER No.   | Description of impact  | Value  | Magnitude of impact | Significance of effect |
|--|-------------------|---|--|--------|---------------------|------------------------|
| The Almshouses, The School House               | Grade II* listed  | 1127746   | Due to the distance and intervening development between the asset and the Proposed Development, no impact is expected during its operation, as the setting of the asset and the ability to understand it will not be altered.  | High   | No change           | Neutral                |
| Church Farmhouse                               | Grade II listed   | 1331134   | There will be an increase in noise, movement and light in the immediate vicinity of the heritage asset due to the operation of the Proposed Development. This will slightly alter the rural character of the asset's setting. However, due to the asset's own vegetated and fenced boundary, and the hedges in between it and the Proposed Development, the additional light, noise and movement will be less noticeable. Additionally, it will still be possible to understand the agricultural history of the building and its connection to the rural landscape will be retained. Therefore, it is considered that the impact to the Farmhouse will be minor. | High   | Minor adverse       | Moderate               |
| Babraham Hall, The Institute of Animal Biology | Grade II listed   | 1127745   | There will be an increase in noise, movement and light to the south-west of the asset due from to the operation of the Proposed Development, visible due to the open landscape. Despite this, the hall's visual and historical connection to its large parkland will be preserved, and therefore the impact is negligible.   | High   | Negligible adverse  | Slight                 |
| Babraham Group                                 | Grade II listed,  | 1331113, 1127748, 1331112, 1127750, 1127747, 1127749, 1331114, 1127709, | Due to the nature of the inward-looking village and the distance between the group and the Proposed Development, no impact is expected during its operation.   | High   | No change           | Neutral                |
| The Icehouse                                   | Grade II listed   | 1331110   | Due to the distance and intervening development between the asset and the Proposed Development, no impact is expected during its operation.  | High   | No change           | Neutral                |
| Sawston Hall                                   | Grade I listed    | 1330979   | There are possible long views from Sawston Hall towards the Proposed Development. The additional noise and movement the operation of the Proposed Development will create would alter the character of its setting. No impact on the other heritage assets is expected during operation.   | High   | Negligible adverse  | Slight                 |
| Sawston group                                  | Grade II* listed  | 1128065, 1317362  | Due to the distance, undulating topography and intervening development between the asset and the Proposed Development, no impact is expected during its operation.   | High   | No change           | Neutral                |
| Babraham Conservation Area                     | Conservation Area | -   | Due to the nature of the inward-looking village and the distance between the group and the Proposed Development, no impact is expected during its operation.   | Medium | No change           | Neutral                |
| Pampisford Hall                                | Grade II* RPG     | 1000321   | Due to the distance between the asset and the Proposed Development, including areas of substantial woodland, no impact is expected during the Proposed Development's operation.  | High   | No Impact           | Neutral                |
| Church of St John the Baptist                  | Grade II* listed  | 1163297   | Due to the distance between the asset and the Proposed Development, and the asset's location on the urban edge of Pampisford with limited long views due to mature vegetation and the undulating landscape, it is considered that there would be no impact to the asset during the Proposed Development's operation.   | High   | No Impact           | Neutral                |

| Name  | Designation       | NHLE/ HER No. | Description of impact  | Value  | Magnitude of impact | Significance of effect |
|---|-------------------|---------------|--|--------|---------------------|------------------------|
| The Walls and Plaques to Former Sluice on River Granta West of Parish Church of St Mary | Grade II listed   | 1127654       | Due to the location of the asset in a dense woodland with no visibility to the nearby settlement of Little Abington, and its distance from the Proposed Development with the A11 situated between, it is considered that there will be no impact to the asset from the additional noise, light and movement created by the Proposed Development.   | High   | No Impact           | Neutral                |
| Temple Café   | Grade II listed   | 1331149       | Due to the location of the asset adjacent to the substantial A11, which is situated between the asset and the Proposed Development, it is considered that the additional noise, light and movement created by the Proposed Development would not be noticeable in the context of the substantial noise and light caused by the A11. The existing setting of the asset will be entirely preserved and therefore no impact is expected during its operation. | High   | No change           | Neutral                |
| Parish Church of St Mary The Virgin   | Grade II* listed  | 1309328       | Due to the urban village setting of the church in Little Abington, the intervening modern development and the major A11 situated between the assets and the Proposed Development, no impact is expected during its operation as the character of the asset and its setting will be entirely preserved.   | High   | No change           | Neutral                |
| Parish Church of St Mary  | Grade II* listed  | 1161650,      | Due to the urban village setting of the church in Great Abington, the distance, intervening modern development and the major A11 situated between the assets and the Proposed Development, no impact is expected during its operation as the character of the asset and its setting will be entirely preserved.  | High   | No change           | Neutral                |
| Abington Pottery  | Grade II* listed  | 1127722       | Due to the location of the asset in an urban area over 1 km from the Proposed Development and with the major A11 situated between, no impact is expected during the operation of the Proposed Development, as the character of the asset and its setting will be entirely preserved.   | High   | No change           | Neutral                |
| Abington Hall, British Welding Research Association                                     | Grade II* listed  | 1127722       | Due to the asset's location surrounded by substantial modern development in Granta Park, and its proximity to the A11 and A505, the asset has already lost its historic setting. As such, and due to the distance between it and the Proposed Development, no impact is expected during its operation as the existing setting will be entirely maintained.   | High   | No change           | Neutral                |
| Great and Little Abington Conservation Area   | Conservation Area | -             | Due to the distance, intervening modern development and the major A11 situated between the assets and the Proposed Development, no impact is expected during its operation as the elements of the villages that contribute to the character of the conservation area will be entirely preserved.   | Medium | No change           | Neutral                |

## Conclusion

- 12.2.243 This technical appendix has been produced in accordance with national and local planning policy and guidance, and the DMRB to assess the impact of the Proposed Development on the historic environment.
- 12.2.244 Both designated and non-designated heritage assets have been identified within an agreed study area of 1.5 km for scheduled monuments, Grade I and Grade II\* listed buildings, and a 1 km study area for all other designated and non-designated heritage assets. In discussion with Historic England an additional Grade II\* listed asset, Parish Church of St John the Baptist, Pampisford, has also been included in the assessment.

- 12.2.245 Stakeholders have been engaged following the scoping process to inform the scope of the assessment. They have also been engaged in the design and monitoring of archaeological evaluation work which has been undertaken to inform this assessment.
- 12.2.246 Mitigation has been incorporated into the design including the design and height of bridges at the River Granta crossings at Babraham and Stapleford to reduce their visual impact on heritage assets. Landscaping and planting have also been designed to screen and integrate the Proposed Development into the landscape, reducing its effects on the setting of heritage assets and key views across the landscape.



- 12.2.247 Built heritage assets within the study area comprise listed buildings, conservation areas and non-designated heritage assets. They have been assessed to understand the likely impacts from the Proposed Development. There will be no physical impacts to any built heritage assets. Where impacts are experienced, these will be in the setting of the heritage assets. Therefore, the assessment considers whether these changes within the setting of the assets impact the ability to understand the heritage value of the assets. It has been concluded that, due to the distance of the Proposed Development from the majority of heritage assets, intervening vegetation and the proposed mitigation, no significant effects temporary or permanent during construction or operation of the Proposed Development will be experienced by any built heritage assets.
- 12.2.248 The archaeological potential of the study area has been determined through an evaluation of the available HER data. It has been concluded that there is a high potential for archaeology from multiple periods across the Proposed Development. Archaeological evaluation has been undertaken across the Proposed Development to allow for a fuller understanding of archaeological remains likely to be impacted by the Proposed Development. Results from this trial trenching show extensive Middle to Late Iron Age settlement with trackway, enclosures and boundary below White Hill, near Nine Wells spring, as well as Iron Age to Roman activity concentrated along the lower gravel terraces within the flood plain on either side of the River Granta at both Stapleford and Babraham. There were also areas of Bronze Age activity throughout the Proposed Development corridor, as well as evidence of Anglo-Saxon occupational activity concentrated near Babraham. The nature of the impacts to archaeology means that there will be no significant temporary construction or operational effects.
- 12.2.249 Therefore, likely significant permanent construction effects have been reported for the following heritage assets:
- Former Babraham Water Meadows (MM363-MM367), moderate adverse effect;
  - Possible Roman Inhumation Burial / Grave, CBC to Granham's Road section (MM386), moderate adverse effect;
  - Iron Age Trackways, Enclosures and Boundary, CBC to Granham's Road section (MM387), moderate adverse effect;
  - Roman Boundary Ditch, Hinton Way to Haverhill Road section (MM388), moderate adverse impact;
  - Iron Age / Roman Settlement, Haverhill Road to Sawston Road section (MM391), moderate adverse effect;
  - Roman Settlement and Landscape Drainage Activity, Haverhill Road to Sawston Road section (MM392), moderate adverse effect;
  - Cropmark Enclosures, Babraham (MM380), moderate adverse effect;
  - Roman Quarrying Activity, High Street to Travel Hub section (MM393), moderate adverse effect; and
  - Undated Inhumation Burial / Grave, Sawston Road to High Street section (MM396), moderate adverse effect.

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