



Highsted Park Land South East of Sittingbourne, Kent

Archaeological and Historic Landscape Desk-Based Assessment



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Summary

Wessex Archaeology was commissioned by Quinn Estates to prepare an Archaeological and Historic Landscape Desk-Based Assessment of land at Highsted Park, Sittingbourne, centred on National Grid Reference 591420, 161400. This study is intended to inform a planning application for a proposed mixed-use development with areas for residential, commercial, education use and greenspace.

The aims of this study were to assess the known and potential archaeological resource within the site and the surrounding area, and to assess the likely impacts of the development proposals on this resource, as far as possible from available desk-based information. This has since been updated with the results of the geophysical survey. The effect of the development proposals on the archaeological resource will be a material consideration in the determination of the planning application.

This assessment has established that there is an archaeological interest within the Site and that the Site lies within an archaeologically rich area. Potential for archaeological remains appears to be highest in the northern and western parts of the Site, based upon the available information from archaeological investigation close to the Site. However, this may be due in part to a lack of archaeological investigation within the southern and eastern areas of the Site and Study Area as these parts of the Study Area are less developed.

The Head-Brickearth and, where present, underlying Coombe deposits have been shown to have high potential to preserve highly significant Middle and Upper Palaeolithic archaeology. The potential of such deposits to preserve such material will vary across the Site, dependent on the age and specific depositional processes associated with these deposits.

There is also potential for later prehistoric remains, in particular dating to the Bronze Age and Iron Age and remains of these dates have been recorded within and adjacent to the Site. Less evidence has been discovered within the Site relating to the Mesolithic and Neolithic periods however this may be due to its relative rarity within the archaeological record.

There is potential for Romano-British remains, as the Site and surrounding area have both shown evidence for both cremation and inhumation burials. In addition to this the Roman Road of Watling Street lies adjacent to the Site and Romano-British settlement evidence has been found at Radfield adjacent to the Site. It is thought that the focus of Romano-British activity may have been on the northern side of the modern A2, as the inhabitants could make use of the creek system associated with the Swale for fishing, transport links and communication, however as stated above evidence for the Romano-British period has also been found to the south of the A2.

The villages which surround the Site largely had their origins in the Anglo-Saxon or early medieval period and it is thought that these settlements may have originally been Anglo-Saxon farmsteads which later developed into small villages. The area remained largely agricultural throughout the medieval and post-medieval period, and it is likely that the Site made up the agricultural land surrounding these settlements.

Some possible features of unknown date have also been identified through LiDAR images and aerial photographs within the Site. It is possible that these features could be of archaeological origin however their presence and origin is unconfirmed and could equally be of natural origin. Geophysical Survey across the Site has identified features of archaeological origin and possible archaeological origin. These features mainly comprise ditch-like and pit-like features as well as some possible enclosures. In the south eastern part of the Site, possible settlement and/or



industrial activity has been suggested based on the results of the survey possibly dating to the Iron Age or Roman period.

The historic landscape character of the Site has remained largely agricultural since at least the post-medieval period. The surrounding villages are thought to have originated as small farmsteads in the Anglo-Saxon period, with much of the surrounding area comprised of woodland or agricultural areas. During the medieval period these villages grew in size but still remained isolated from one another. Some evidence of possible medieval or post-medieval strip fields could be identified through the LiDAR data surrounding Rodmersham.

During the latter part of the 19th century there appears to have been an increase in the use of land for orchards, which seems to have peaked around the middle of the 20th century. Many of the fields within the Site appear to have been on rotation, used for orchard for a number of years then returned to agriculture and orchard again some years later. This agricultural industry was an important source of income for this part of Kent and forms part of its historic character. This is reflected in the present-day landscape as areas of the Site are still used for this purpose.

Brickearth extraction and chalk quarrying is another industry which is prevalent within the Site and surrounding area. This industry began at small local quarries or limekilns owned and run by the local farmers on their land and a number of small chalk pits can be seen within the Site on the historic maps. Larger scale chalk quarries were established at Highsted during the 20th century and Brickearth quarrying is known to have taken place at Bapchild within the northern part of the Site. Aside from the large quarries at Highsted, most of the smaller quarries or limekilns have largely been backfilled and as such are not immediately obvious within the present landscape.

Woodstock Park was parkland associated with the manor of Woodstock. Parts of the former character of the parkland can be read within the current landscape such as the remaining parkland trees some isolated and some more closely clustered close to the Kent Science Park and the sections of parkland fencing which are present along Ruins Barn Road and Broadoak Road.

Much of the Site has been used for agricultural practices since the post-medieval period and the surrounding villages relied on this industry for employment and prosperity. Much of the character types identified within the Site are considered to be of local value.

The Site lies within a rich archaeological landscape and due to the size of the Site the potential for archaeology is varied across the Site. Due to a lack of previous intrusive archaeological investigation across much of the Site, the presence, location and significance of any buried heritage assets within the site cannot currently be confirmed on the basis of the available information. As such it is likely that additional archaeological investigations may be required by the archaeological advisor for Swale District Council. The need for, scale, scope and nature of any further assessment and/or archaeological works should be agreed through consultation with the statutory authorities.

Any adverse impact to buried archaeological features as a result of the implementation of the development proposals would be permanent and irreversible in nature. This potential adverse effect could be reduced through the implementation of an appropriate scheme of archaeological evaluation and mitigation, in accordance with national and local planning policy.

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Highsted Park Land South and East of Sittingbourne Kent

Archaeological and Historic Landscape Desk-Based Assessment

1 INTRODUCTION

1.1 Project background

1.1.1 Wessex Archaeology was commissioned by Quinn Estates (the Client), to prepare an Archaeological and Historic Landscape Desk-Based Assessment of land at Highsted Park, land south east of Sittingbourne, Kent (hereafter 'the Site', **Figure 1**), centred on National Grid Reference (NGR) 591420, 161400.

1.1.2 This study will inform a planning application for a proposed mixed-use of residential and commercial development within the Site as well as education and sports facilities, together with a new M2 motorway junction and a link road, to be submitted to Swale District Council. This document forms the baseline for the Environmental Statement Chapter.

1.2 Development proposals

1.2.1 The draft masterplan indicates that the Proposed Development will comprise the construction of a new link road connecting the M2 in the south to the A2 to the north of the Site. Up to 7,150 new houses, commercial areas, public open space, education and sports facilities, a new M2 motorway junction and link road will be constructed as part of the development.. The specifics of the development proposals are assessed within the Environmental Statement Chapter 15.

1.3 Scope of document

1.3.1 This assessment was requested by the Client in order to determine, as far as is possible from existing information, the nature, extent and significance of the archaeological resource within the Site and its environs, and to provide an initial assessment of the potential impact of development on the heritage assets that embody that significance.

1.3.2 This assessment will not consider the effects upon significance as a result of change in setting to designated heritage assets.

1.3.3 The definition of 'Archaeological Interest' within the National Planning Policy Framework (NPPF 2021): Annex 2, comprises:

'There will be archaeological interest in a heritage asset if it holds, or potentially holds, evidence of past human activity worthy of expert investigation at some point.'

1.3.4 NPPF Annex 2 defines a Heritage Asset as:

'a building monument, site, place, area or landscape identified as having a degree of significance meriting consideration in planning decisions, because of its heritage interest. Heritage assets include designated heritage assets and assets identified by the local planning authority (including local listing).'



1.4 Aims

1.4.1 The specific aims of this assessment are to:

- outline the known and potential archaeological and historic landscape assets within the Site based on a review of existing information within a defined study area;
- assess the significance of known and potential archaeological and historic landscape assets through weighted consideration of their valued components; and
- make recommendations for strategies to mitigate potential adverse impacts arising from the proposed development.

2 PLANNING BACKGROUND

2.1 Introduction

2.1.1 There is national legislation and guidance relating to the protection of, and proposed development on or near, important archaeological sites or historical buildings within planning regulations as defined under the provisions of the *Town and Country Planning Act 1990*. In addition, local authorities are responsible for the protection of the historic environment within the planning system.

2.1.2 The following section summarises the main components of the national and local planning and legislative framework governing the treatment of the historic environment within the planning process. Further detail is presented in **Appendix 2**.

2.2 Designated heritage assets

2.2.1 A designated heritage asset is defined in NPPF Annex 2 as:

'A World Heritage Site, Scheduled Monument, Listed Building, Protected Wreck Site, Registered Park and Garden, Registered Battlefield or Conservation Area designated under the relevant legislation.'

2.2.2 Designation can be defined as:

'The recognition of particular heritage value(s) of a significant place by giving it formal status under law or policy intended to sustain those values' (English Heritage 2008, p.71).

2.2.3 Statutory protection is provided to certain classes of designated heritage asset under the following legislation:

- *Planning (Listed Buildings and Conservation Areas) Act 1990;*
- *Ancient Monuments and Archaeological Areas Act 1979; and*
- *Protection of Wrecks Act 1973*

2.2.4 Further information regarding heritage designations is provided in **Appendix 2**.



2.3 Hedgerows Regulations 1997 (as Amended 2002)

2.3.1 Hedgerows that fulfil certain criteria are afforded protection under the *Hedgerows Regulations 1997 (as Amended 2002)*. The administration of the regulations is the responsibility of the Local Planning Authority (LPA).

2.4 The Protection of Military Remains Act 1986

2.4.1 All military aircraft crash sites in the United Kingdom, its territorial waters, or British aircraft in international waters, are controlled sites under the *Protection of Military Remains Act 1986*. It is an offence under this act to tamper with, damage, move or unearth any items at such sites, unless the Ministry of Defence (MOD) has issued a licence authorising such activity.

2.5 National Planning Policy Framework

2.5.1 The National Planning Policy Framework (NPPF) was published on 27 March 2012, revised in February 2019 and updated in July 2021, and sets out the government's planning policies for England and how these are expected to be applied.

2.5.2 Section 16 of the NPPF, entitled 'Conserving and enhancing the historic environment', sets out the principal national guidance on the importance, management and safeguarding of heritage assets within the planning process.

2.5.3 The aim of NPPF Section 16 is to ensure that Local Planning Authorities, developers and owners of heritage assets adopt a consistent and holistic approach to their conservation and to reduce complexity in planning policy relating to proposals that affect them.

2.5.4 To summarise, government guidance provides a framework which:

- recognises that heritage assets are an irreplaceable resource;
- requires applicants to provide proportionate information on the significance of heritage assets affected by the proposals and an impact assessment of the proposed development on that significance;
- takes into account the desirability of sustaining and enhancing the significance of heritage assets and their setting;
- places weight on the conservation of designated heritage assets, in line with their significance; and
- requires 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 impact, and to make this evidence (and any archive generated) publicly accessible.

2.5.5 A selection of excerpts from NPPF Section 16: Conserving and enhancing the historic environment is presented in **Appendix 2**.

2.5.6 On 6 March 2014 the Department for Communities and Local Government (DCLG) launched the Planning Practice Guidance (PPG) web-based resource. The Planning Practice Guidance was updated on 23 July 2019 to reflect the changes to NPPF since the guidance was first published in 2014. The resource provides additional guidance intended to accompany the NPPF. It includes a section entitled 'Conserving and enhancing the



historic environment' (ID: 18a), which expands upon the corresponding sections of the NPPF.

2.6 Local planning policy

- 2.6.1 The Site is situated within the administrative boundaries of Swale District Council, which adopted the Swale Borough Local Plan (Bearing Fruits 2031) in July 2017.
- 2.6.2 The Local Plan forms the basis of the development plan for the district and sets targets for the provision of new housing and employment for a period up to 2031, as well as setting out general policies in relation to provision of facilities, transport, and protection of natural and historic features.
- 2.6.3 In March 2020, Swale Borough Council adopted its Heritage Strategy to help manage and protect the historic environment of the borough in a sustainable and informed way. Archaeology and Historic Landscapes are both identified as Key Themes for the Borough of Swale (3.12 & 3.13; Swale Borough Council 2020).
- 2.6.4 Local planning policies that relate to the historic environment and may be relevant to the proposed development are presented in **Appendix 2**.

3 GENERAL METHODOLOGY

3.1 Introduction

- 3.1.1 The methodology employed during this assessment was based upon relevant professional guidance, including the Chartered Institute for Archaeologists' *Standard and guidance for historic environment desk-based assessment* (CIfA 2020).

3.2 Site visit

- 3.2.1 The Site was visited on 17th, 26th and 29th April 2019. Weather conditions were dry and clear. A fieldwork record comprising digital photography is held in the project archive.
- 3.2.2 The aim of the Site visit was to assess the general aspect, character, condition and setting of the Site and to identify any prior impacts not evident from secondary sources. The Site visit also sought to ascertain if the Site contained any previously unidentified features of archaeological, architectural or historic interest. The Site visit also sought to ground truth the features identified on the LiDAR survey and to see if there was any evidence above ground of the cropmarks identified through aerial photographs recorded within the Site. The Site visit is discussed in more detail in **Section 5.2** below.

3.3 Assessment criteria – Significance

- 3.3.1 NPPF defines significance 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. For World Heritage Sites, the cultural value described within each site's Statement of Outstanding Universal Value forms part of its significance.
- 3.3.2 Guidance for the assessment of the significance of heritage assets is provided by Historic England in *Conservation Principles, Policies and Guidance for the Sustainable Management of the Historic Environment* (English Heritage 2008). Within the guidance, significance is weighed by consideration of the potential for the asset to demonstrate differing 'values'.



3.3.3 These values are broadly analogous to the 'interests' defined by NPPF, which are used within this report, as per Statements of Heritage Significance: Analysing Significance in Heritage Assets (Historic England 2019). These are:

- Archaeological Interest: there will be archaeological interest in a heritage asset if it holds, or potentially holds, evidence of past human activity worthy of expert investigation at some point.
- Architectural and Artistic Interest: these are interests in the design and general aesthetics of a place. They can arise from conscious design or fortuitously from the way the heritage asset has evolved. More specifically, architectural interest is an interest in the art or science of the design, construction, craftsmanship and decoration of buildings and structures of all types. Artistic interest is an interest in other human creative skill, like sculpture.
- Historic Interest: An interest in past lives and events (including pre-historic). Heritage assets can illustrate or be associated with them. Heritage assets with historic interest not only provide a material record of our nation's history but can also provide meaning for communities derived from their collective experience of a place and can symbolise wider values such as faith and cultural identity.

3.3.4 This assessment was also informed by the advice published by Historic England in the document entitled Managing Significance in Decision-Taking in the Historic Environment: Good Practice Advice in Planning Note 2 (2015b).

3.4 Assumptions and limitations

3.4.1 Data used to compile this report consists of secondary information derived from a variety of sources, only some of which have been directly examined for the purposes of this Study. The assumption is made that this data, as well as that derived from other secondary sources, is reasonably accurate.

3.4.2 The records held by the KHER are not a record of all surviving heritage assets, but a record of the discovery of a wide range of archaeological and historical components of the historic environment. The information held within it is not complete and does not preclude the subsequent discovery of further elements of the historic environment that are, at present, unknown.

3.5 Copyright

3.5.1 This report may contain material that is non-Wessex Archaeology copyright (eg, Ordnance Survey, British Geological Survey, Crown Copyright), or the intellectual property of third parties, which Wessex Archaeology are able to provide for limited reproduction under the terms of our own copyright licences, but for which copyright itself is non-transferable by Wessex Archaeology. Users remain bound by the conditions of the *Copyright, Designs and Patents Act 1988* with regard to multiple copying and electronic dissemination of the report.



4 ARCHAEOLOGICAL REMAINS- METHODOLOGY

4.1 Introduction

4.1.1 The methodology employed during this assessment was based upon relevant professional guidance, including the Chartered Institute for Archaeologists' *Standard and guidance for historic environment desk-based assessment* (CIfA 2020).

4.2 Study Area

4.2.1 A Study Area was established within a 1km radius of the Site boundary. The recorded historic environment resource within the Study Area was considered in order to provide a context for the discussion and interpretation of the known and potential resource within the Site.

4.3 Sources

4.3.1 Several publicly accessible sources of primary and synthesised information were consulted. These comprised:

- The National Heritage List for England (NHLE), which is the only official and up to date database of all nationally designated heritage assets;
- The Kent Historic Environment Record (KHER), comprising a database of recorded archaeological sites, find spots, and archaeological events within the county;
- Relevant national, regional and thematic Research Frameworks (South East Research Framework);
- National heritage datasets including the Archaeological Data Service (ADS), Heritage Gateway, OASIS, PastScape and the National Record of the Historic Environment (NRHE) Excavation Index;
- LiDAR Data and Aerial Photographs;
- Historic manuscripts, surveyed maps, and Ordnance Survey maps held at the Kent History and Library Centre; and
- Relevant primary and secondary sources held at the Kent History and Library Centre and in Wessex Archaeology's own library. Both published and unpublished archaeological reports relating to excavations and observations in the vicinity of the Site were studied.

4.3.2 Sources consulted during the preparation of this assessment are listed in the references section of the report.

5 ARCHAEOLOGICAL AND HISTORICAL BASELINE RESOURCE

5.1 Introduction

5.1.1 The following section provides a summary of the recorded historic environment within the Study Area, compiled from the sources summarised above and detailed in the references section of this report. The aim is to identify the known and potential components of the historic environment (heritage assets) that could be affected by the proposed development.



5.1.2 All heritage assets identified within the Study Area are listed in **Appendix 3**. The HER entries are assigned a unique number within the text and given a **WA** prefix for ease of reference.

5.2 The Site

5.2.1 The Site comprises an irregular parcel of land of approximately 568ha located to the south east of Sittingbourne, close to the villages of Rodmersham, Bapchild, Highsted, Bredgar, Rodmersham Green, Tunstall and Bexon.

5.2.2 The majority of the Site is under arable cultivation however parts of the Site are also used as orchard and woodland. The former Highsted Quarry also lies within the Site, now covered with woodland. The Site is bisected by Broadoak Road, Ruins Barn Road, the M2 Motorway, Bexon Road, Cromer Road, Dully Road and Highsted Road.

5.2.3 The northern part of the Site is bordered by the A2 and the village of Bapchild, with Radfield located at the north eastern corner of the Site. The north western extent of the Site lies on the south eastern outskirts of Sittingbourne and Tunstall. On its southern side the Site is bound by Bexon and the M2. The eastern extent of the Site is bound by Cromer's Wood, Rodmersham Green, Rodmersham and Radfield.

5.3 Walkover Survey and Site Conditions

5.3.1 For the purposes of this description the Site has been divided using the land parcels (or grouped land parcels) used as part of the Geophysical Survey (Phases 1-3; **Figure 25**).

5.3.2 Due to the size of the Site, the Site was accessed over a number of days in April 2019. The Site falls over a number of topographic zones due to its size and transition from the lower lying marshland to the north and the dry valleys that extend to the south (discussed in more detail below). The northern extent of the Site (area north of Phase 3) showed evidence of former brickearth quarrying at its northern extent with undulating ground, dips and depressions where excavation had taken place, areas which had been backfilled and extant mounds. The fields to the south consisted of agricultural fields with young crop. Two public footpaths traverse this northern part of the Site. Further east on the opposite side of Dully Road was in use as commercial orchard.

5.3.3 To the south of Dully Road and east of Rodmersham, the land was used as a mix of pasture for grazing sheep and arable land for crop growing. A circular feature had been identified from aerial photographs and was picked up by the geophysical survey and interpreted as a chalk extraction pit but there was no surface expression of this visible during the Site visit.

5.3.4 To the north west of Rodmersham is a large agricultural field formed from the amalgamation of smaller parcels. To the south were a series of smaller square and rectangular parcels used for orchard. The LiDAR survey showed two large curvilinear features curving from outside the Site boundary to the east into the Site towards Rodmersham. This could not be identified as an earthwork on the Site visit and may relate topographical feature rather than an archaeological one due to its size. Other features which had been identified on the LiDAR survey to the west of Rodmersham were under orchard at the time of the walkover so could not be ground truthed. To the north west of the areas of orchards in the southern part of Phase 3 are large agricultural fields, with additional areas of orchard adjacent to the south eastern part of Sittingbourne. The areas to the south of this are occupied by the former Highsted Quarry, due to health and safety

reasons the former quarries were not accessed as part of the Site visit but could be viewed from their perimeter.

- 5.3.5 The phase 2 area covers the majority of the south of the Site. To the south and west of Highsted is a dry valley that runs along Bottom Pond Road. The section of the Site that runs alongside this, slopes down towards the valley. The southern extent of the Site in this area comprises a grassed area of scrub/meadow, whilst the field to the north is agricultural. Further north still, are areas of orchard, which runs between Highsted valley to the east and a farm track to the west. To the west and north of this are areas of agricultural land (LP2.4 and LP2.5).
- 5.3.6 Highsted Wood is a small area of woodland within the centre of the Site (Figure 19). Archaeological investigations had previously been undertaken within the woodland and revealed finds dating from the Mesolithic to Roman period and a series of banks and ditches suggested to be part of an Iron Age settlement site. An undated ditch and some Neolithic postholes were recorded. The ditch and bank that had been recorded during these investigations was evident on the Site visit (**Plate 10**). Other patches of woodland such as Cromers Wood and Bex Wood lie at a similar elevation with valleys to both the east and the west and suggest that this higher ground between the valleys would have been wooded in the past (**Figure 19**).
- 5.3.7 To the south and south east of Highsted Wood are irregularly shaped parcels of agricultural land which lie to the north and east of the Kent Science Park. A thick wooded boundary divided two of the parcels, perhaps a remnant of a former woodland. Isolated parkland trees were also noted which were a feature of the former Woodstock Estate which was centered at the location of the modern Kent Science Park but included a large area of parkland surrounding it (**Figure 19**). Whilst a few of the parkland trees remain within the agricultural fields a better preserved area is located to the south east which represents a better survival of the character and form of the parkland estate (to the south of LP2.22).
- 5.3.8 To the south of Bex Wood are large agricultural fields amalgamated from smaller fields. At the southern extent of the Site these are divided by the M2 motorway. In the eastern extent of the Site, east of Ruins Barn Lane are four large almost semi-circular parcels of land. Historic mapping and place name (Oakwood) suggest that this area was formerly wooded and this is corroborated further by the mature tree/wooded boundaries between and around LP2.21 and LP2.22 (**Figure 19**). A cropmark of a curvilinear feature was recorded on the HER in LP1.2 and could be identified as an irregular circular feature on the geophysical survey results. A depression was noted at this location on the Site visit. The interpretation of the geophysical response suggests that it may have been a man made feature (perhaps a quarry pit) that had been backfilled with modern material.

5.4 Topography, Hydrology and Geology

- 5.4.1 Located 3.5km to the north of the A2 is the Swale, and a series of creeks are present on the northern side of the A2 around Tonge. The topography of the Site is varied, focussed on a series of steep sided broad dry valley's that extend through the southern and central parts of the Site in a north west to south east orientation through Rodmersham. The lowest part of the Site is situated in the north east adjoining the A2 at approximately 12m aOD, the land then rises to the south towards an area of elevated ground around Rodmersham Green at about 60-70m aOD before the land falls into the valley within which Highsted is situated before rising to a broad area of elevated ground surrounding the Kent Science Park at around 70-75m aOD. The highest part of the Site is within the south of the Site at Bexon at an elevation of 90m aOD.



- 5.4.2 The Site can be grouped into topographical zones (**Figure 2**). Topographic Zone 1 (TZ1) comprises LP2.20 and 2.19 and lies at an elevation of approximately 67m aOD, but is separated from Topographic Zone 2 by a shallow valley that runs north of Oakwood Farm. The valley located approximately 17m lower at, 50m aOD. On the southern side of this valley, Topographic Zone 2 (TZ2) comprises LP2.20, LP2.21, LP2.23 and the western part of LP2.1. This area lies on a promontory of land (approximately 70m aOD) that is bound by the dry valley to the north which sweeps southwards on the areas eastern boundary. Another dry valley runs immediately east of the Kent Science Park. TZ3 lies to the south of the Science Park and north of Bexon and is bound to the west by the dry valley that separates it from TZ2 and to the east by the pronounced valley that Bottom Pond Road is aligned (approximately 50m aOD at the base of the valley). The southern extent of TZ3 to the south of the M2 is the highest point within the Site at approximately 90m aOD. This slopes upwards from the north from approximately 76m aOD in the northern part of TZ3.
- 5.4.3 TZ4 lies to the north east of the Kent Science Park and the central area occupies the elevated land around Highsted Wood which is on a gradual incline to the south reaching 67m aOD from 49m aOD further north. A dry valley surrounds the eastern and western sides of this promontory which lie at 40m aOD and 45m aOD respectively.
- 5.4.4 TZ5 is comprised of Highsted Quarry and as such is a man-made feature within the landscape rather than its natural topography. Due to the quarrying activities and ground removal in this area, this lies at an elevation of approximately 25m aOD.
- 5.4.5 TZ6 occupies the central northern part of the Site and is bisected north-south by a ridge of land with a valley on either side. The height of the ridge increases to the south from 44m aOD in the north to 56m aOD in the south. The valley which lies to the west of this lies at a lower elevation of approximately 25m aOD but this gradually increases moving west to approximately 37m aOD. On the eastern side of the ridge another valley lies at between 30-35m aOD gradually increases in elevation moving south. Outside of the Site boundary to the north an offshoot of the valley curves around to the south and west and sweeps into the northern part of the Site. This lies at approximately 28m aOD, with the land on either side of the valley in the northern part of TZ6 at approximately 40m aOD.
- 5.4.6 TZ7 lies in the northern part of the Site south of the A2. A meandering dry valley bisects the central part of this zone, gradually getting more pronounced as it moves south. In the northern part of the Site the valley is wider and shallower with the valley bottom at 13m aOD with the land on either side at around 16m aOD. However, it should be noted that some brickearth quarrying has been undertaken in this northern area and as such this may have affected the heights in this area. In the central part of TZ7 the valley bottom is at 20m with the land either side at 27m aOD, and in the southern part of TZ7, the valley bottom at 25m aOD and the land either side at 34m aOD. Aside from the valley there is a general incline to the south as the land rises up from the lower lying land to the north close to the Swale. The highest point within TZ7 is in the south eastern corner at a height of 50m aOD.
- 5.4.7 The underlying bedrock geology across the Site is mapped as Cretaceous chalk of Seaford Chalk Formation (89.8-86.3 mya) overlain in places by Palaeocene sands, silts and clays of the Thanet formation (59.2-56 mya). Quaternary deposits are recorded intermittently across the Site and consist of Pleistocene Head, which is infilling dry valleys (**Figure 1**; British Geological Survey, Geology of Britain Viewer).



5.5 Previous studies

Site

5.5.1 A small number of archaeological investigations have been undertaken within the Site boundary. These include;

- *Geophysical Survey undertaken for the purposes of this Application (Figure 23 & Wessex Archaeology 2021a);*
- *Geophysical Survey at Highsted Wood (EKE8362; Figure 6);*
- *Excavation at Highsted Wood (EKE8372; Figure 6);*
- *Archaeological Excavation of land at Panteny Lane (EKE1563; Figure 6), archaeological evaluation, watching brief and strip, map sample excavation; and*
- *Interim Report Swale Archaeological Survey (EKE1671; Figure 6)*
- *Archaeological Evaluation at Kent Science Park, Sittingbourne (Wessex Archaeology 2021).*

5.5.2 In addition, a geoarchaeological deposit model has been prepared to further refine and characterise the geoarchaeological potential and significance of the deposits (Wessex Archaeology 2021b). Where relevant, the results of these investigations are discussed in further detail in **Section 4.5**.

Study Area

5.5.3 The KHER contains entries pertaining to a number of investigations which have been carried out within the Study Area. Where relevant, the results of these investigations are discussed in further detail in **Section 4.5**. Previous archaeological investigations carried out within the Study Area are illustrated in **Figure 7**.

5.6 Archaeological and historical context

5.6.1 The following section is a summary of the archaeological and historical development of the Site and the Study Area, compiled from the sources listed above. The likelihood of as yet unrecorded archaeological remains within the Site is informed by the consideration of the known heritage assets within the Study Area, in conjunction with the geology and topography of the area.

5.6.2 Records obtained from the NHLE, KHER and other sources are listed in **Appendix 3** and illustrated in **Figures 3-7**.

Pleistocene and Holocene geoarchaeological record

5.6.3 Quaternary deposits mapped by the BGS within the Site consist of Pleistocene Head comprising silts, sands and gravels and Clay-with-flints.

5.6.4 Deposits mapped as Head have been deposited through different processes and can include aeolian, colluvial, alluvial and soliflucted material. Such sequences can include material deposited during more than one period of the Pleistocene and can include Holocene colluvium. Where fine grained units dominate, such deposits are often collectively referred to as 'Brickearth'. These deposits can contain eroded and redeposited artefacts and seal underlying stratigraphy in the form of buried former Pleistocene land



surfaces; these can be associated with minimally disturbed archaeology and palaeoenvironmental remains.

- 5.6.5 Investigations within the Site have demonstrated that where Head-Brickearth deposits infill dry valleys they can overlie 'Coombe deposits' consisting of clays, sands and gravels (Dines 1929) that have been soliflucted downslope under cold conditions. In addition, the Head-Brickearth itself has been shown to include windblown loessic sediments. These aeolian deposits include *Limons a Doublet* (paired silts) – these reflect periods of primary loess deposition sandwiched between periods of stabilisation without loess being deposited. During the latter, clay translocation forms alternating clay silt horizons. *Limons a Doublet* are geoarchaeologically important as they demonstrate episodic fine grained aeolian deposition, whilst stabilisation horizons (which can be associated with soil formation) within such sequences have the potential to preserve horizons containing minimally disturbed archaeology.
- 5.6.6 Previous investigations within the Site and Study Area have demonstrated that these Head-brickearth deposits preserve Middle Palaeolithic and Upper Palaeolithic archaeology and associated palaeoenvironmental datasets. The latter include mammalian (Newton 1904, Dines 1929) and molluscan faunas (Beccy Scott pers. comm.).
- 5.6.7 In addition to Pleistocene deposits, such sequences can include Holocene colluvium, which can similarly contain reworked material or bury earlier stratigraphy. Establishing the mode of deposition and age of individual deposits is key to establishing their geoarchaeological potential.
- 5.6.8 Clay-with-flints is mapped in the southern part of the Site. This is a complex, frequently polygenetic deposit consisting of clay, sand and gravel. *Sensu stricto* it is a deposit derived from the dissolution, decalcification and cryoturbation of chalk, with the sand and gravel component derived from Palaeogene deposits. Deposits mapped as Clay-With-Flints by the BGS includes not only this parent material immediately overlying the chalk, but thick, clay-rich soils incorporating exogenous Pleistocene loessic and/or colluvial material. Lower and Middle Palaeolithic artefacts are frequently found in association with the Clay-with-flints, particularly near the edges of mapped outcrops.
- 5.6.9 The presence of such artefacts around the margins of the Clay-with-flints has been interpreted as indicative of places where features (dolines and other solution features) within the chalk have been preserved that contain Pleistocene deposits and Lower and Middle Palaeolithic archaeology, but where Holocene erosion processes have exposed these capture points (cf. Blundell 2016).
- 5.6.10 As such, although the Clay-with-flints itself is not of direct geoarchaeological significance, its presence signifies areas of the chalk downland that have been protected from extensive erosion and where features within the chalk that can preserve Palaeolithic archaeology may be present.
- 5.6.11 Additional information on the geoarchaeological potential and significance of deposits within the Site is provided within the geoarchaeological deposit model (Wessex Archaeology 2021b).

Palaeolithic (970,000–10,700 kya) (Figure 3)

- 5.6.12 Previous quarrying of Pleistocene Head-brickearth deposits has produced large numbers of Palaeolithic artefacts from two separate areas in the northern part of the site; these are located on opposite sides of a dry valley to the east and west of Haywood and south-east

of Bapchild (**WA03** and **WA04**). Palaeolithic assemblages of different dates were recovered from three points within Pleistocene sequences at these locales.

- 5.6.13 The earliest consisted of approximately 400 Palaeolithic artefacts. This was collected from a deep excavation for chalk undertaken on the western side of the valley (**WA03**) in the base of the area from which Head-brickearth had already been removed (Dines 1929). The assemblage includes significant amounts of material produced using the Levallois technique, indicating a Middle Palaeolithic date. This material was restricted to soliflucted Coombe deposits infilling channels and fissures in the chalk, between 1.2m to 3.0m thick and of variable character, sealed by up to 3.0m of Head-brickearth (Dines 1929). Faunal remains described as mammoth remains were recovered from the solifluction deposits.
- 5.6.14 Although much of the material collected from the site has been lost, artefacts recovered by Williams, Mount, Jessup and Cook survive in several museums. Study of these artefacts (Beccy Scott pers. comm.) demonstrates that, in contradiction to the description given by Dines of the stratigraphic position of this material, several artefacts collected by Williams (CUMAA collection) are marked as coming from “Coombe deposit resting on Thanet Sand”. These may represent artefacts recovered from other areas of the quarry away from the main concentration in the deep excavation, where the brickearth and gravel could overlie thin veneers of Thanet sand rather than resting directly over the chalk.
- 5.6.15 This assemblage from the solifluction deposits comprises Levallois flakes, cores, waste flakes, some flake tools and a handaxe roughout (Beccy Scott pers. comm.). Although fresh material is referred to by Dines (1928), the entire extant assemblage is both heavily abraded and edge damaged, many artefacts bearing “chatter marks” (incipient cones of percussion) on flaked surfaces, attesting to heavy battering during movement (Beccy Scott pers. comm.). This suggests that the assemblage as a whole is in secondary context, having been reworked from elsewhere within the matrix of the gravels.
- 5.6.16 This material represents one of the largest undated Middle Palaeolithic Levallois assemblages from Britain. Levallois material is generally equated to the early Middle Palaeolithic (~337-190 kya), however, this conclusion is based largely on evidence from fluvial sequences, primarily in the Thames Valley. Establishing the age and more detailed contextual associations for the historic material from Bapchild may have important implications for understanding the Middle Palaeolithic settlement history of southeast England. Additionally, although the extant material is seemingly reworked, minimally disturbed Middle Palaeolithic material may be present elsewhere within the Site.
- 5.6.17 The second significant assemblage of Palaeolithic material was recovered from the quarry on the eastern side of the same valley (**WA04**), from approximately 0.30m above the base of another, unrelated series of Head-brickearth deposits. The material is technologically Upper Palaeolithic in character, in fresh condition and patinated pale blue in colour, and includes blades, blade cores, endscrapers and burins (Beccy Scott pers. comm.). The industrial attribution of this material is unclear. Two convex-backed blades held in Maidstone Museum (Dines 1929, fig 7a and e) may indicate Federmesser affinities (Jacobi 1982); where dated, such industries generally occur around 10 700 BP.
- 5.6.18 An additional third assemblage was collected from a “gravely wash” at the bottom of this sequence (Dines 1929) on the eastern side of the valley, and described by Dines as “Late Levallois” (ibid, 16). This would suggest a Middle Palaeolithic date. However, the material is in fact similar to that from the overlying Head-brickearth and is Upper Palaeolithic in technological character (Beccy Scott pers. comm). Although technologically similar, the

artefacts from the gravel are in a different condition to those from the overlying Head-brickearth, being slightly abraded (Beccy Scott pers. comm.).

- 5.6.19 This Upper Palaeolithic material was collected from a restricted area on the westernmost edge of the quarry only 25 – 30 yards across, which together with the fresh condition of the material from the Head-brickearth might suggest that a particular activity area was encountered during quarrying, rather than material of this date being spread throughout the Head-brickearth at this level. However, given the presence of similar Head-brickearth spreads throughout the Study Area, similar scatters might potentially be present both within the vicinity of **WA03** and within similar contexts elsewhere in the Study Area. Moreover, such deposits are likely to be varied both in terms of mode of deposition and date of emplacement, consequently the Head-brickearth deposits may contain Palaeolithic archaeology of more than one date.
- 5.6.20 Two isolated finds of Palaeolithic handaxes have been recovered from Rodmersham (**WA01** and **WA02**) in areas where Head-brickearth is mapped. Although the specific context of these artefacts is unknown, they indicate the wider potential of areas associated where Head-brickearth is present across the Site.
- 5.6.21 Flint long blade debitage was found at West Ridge dating to the final Upper Palaeolithic (**WA06**).

Mesolithic (8500–4000 BC) (Figure 3)

- 5.6.22 During the Mesolithic period sea levels would have been much lower allowing for greater exploitation of the swale estuary. Human activity during the Mesolithic is thought to have been small hunter gatherer communities moving through the forested landscape and exploiting coastal, inland and upland areas in a seasonal cycle based on the movement of animals and ripening patterns of plants (SWAT 2000). It is also thought that some forest clearance took place in the Mesolithic period by burning.
- 5.6.23 Evidence for Mesolithic activity within the Study Area is generally confined to the recovery of stone tools. Mesolithic artefacts are known from two localities within the Site. An Early Mesolithic tranchet axe is recorded from Haywood in the northern part of the Site, whilst a Mesolithic pick has been recovered to the south at Rodmersham (**WA10**; Wessex Archaeology and Jacobi 2014). The specific context of these pieces is not known. Residual Mesolithic artefacts were recovered during an archaeological evaluation at the Kent Science Park in May 2021. All of the flints were considered to be residual and not in their original discard location.

Neolithic (4000–2400 BC) (Figure 3)

- 5.6.24 The Neolithic period is the beginning of the domestication of plant and animal species, although the communities still relied on hunting and gathering techniques to supplement this. The access to freshwater and light soils of the Teynham and Tonge area would have been well suited to early farming and Neolithic scatters within the study area confirm the presence of communities within the area (SWAT 2000).
- 5.6.25 An archaeological investigation in 1996 in Highsted Wood led to the discovery of three postholes, two of which contained worked flint and the other a sherd of Neolithic pottery. The features were cut into the chalk surface at the foot of the bank (**WA11**).
- 5.6.26 The remainder of the evidence recovered from within the Study Area dating to the Neolithic period comprises find spots. A part of a polished handaxe was found near Bapchild 560m to the north of the Site (**WA12**). The handaxe was thought to have been

later used as a scraper and a couple of other flint flakes were also found at the same location. All of these finds were recovered from the topsoil.

- 5.6.27 Two hammer struck flints were discovered during an archaeological evaluation at Fulston Manor from the natural deposit within trench 2. These could not be accurately dated but may date to the Neolithic or Bronze Age (AOC 1999; **WA13**).
- 5.6.28 Five struck flints were recovered from within a pit during a test pit evaluation in 2011. The finds were not thought to be *in situ* and are thought to have been redeposited artefacts (**WA14**).
- 5.6.29 A small, polished axe was found in Sittingbourne likely to be of Neolithic or early Bronze Age date (**WA15**). An archaeological investigation was undertaken 750m to the west of the Site at Bredgar which recovered worked flints of probable Late Neolithic or Bronze Age date. All of these finds were thought to have been residual finds within later features (**WA16**).
- 5.6.30 Archaeological investigation was undertaken 460m to the north of the Site at Sittingbourne Community College. A pit was found of Late Neolithic/early Bronze Age date containing fragments of decorated beaker pottery (**WA17**).
- 5.6.31 The site of a possible prehistoric boat is recorded as having been found in 1924 with a Neolithic greenstone celt found nearby. The boat was thought to have been hewn from an oak trunk with the hull preserved to 11ft long, 3ft wide and 2ft 6 inches deep. It was found nearly 200 yards from the river wall 8ft down and 15ft below high water mean level at Murston Marshes at Milton Creek. As such the exact findspot for the boat given by the HER is likely to be inaccurate (**WA18**).
- 5.6.32 Investigations at the Kent Science Park in 2021 found a number of pits and ditches most of which were undated aside from a single pit which could be dated generally to the prehistoric period. The other features represent some evidence of land management activities and sparse domestic evidence which remain undated (Wessex Archaeology 2021).

Summary

- 5.6.33 A number of finds and features have been recorded within the Site and the surrounding area suggesting some continued activity within the area in the Mesolithic and Neolithic periods. It is likely that much of the landscape may have been wooded at this time which would have been attractive for early settlers for hunting and close to a fresh water source within the creeks south of the Swale. As such it may have been that the northern parts of the Site may have been more favourable for prehistoric activity.

Bronze Age (2400–700 BC) (Figure 3)

- 5.6.34 Some Bronze Age activity has been recorded within the Site. Bronze Age pottery was discovered during the archaeological investigations within the Site at Highsted Wood. Pieces of flint tempered ware, beaker and Belgic ware were discovered from within a possible ditch (**WA20**).
- 5.6.35 A Bronze Age cist burial was found 890m to the north of the Site in a field opposite Trotts Hall Garden in 1883. The cist contained a male inhumation a bronze dagger and a slate bracer. In the same field a Neolithic celt was also found as well as a bronze spearhead 100 yards to the south. A burial of unknown date was also discovered in 1879 and a number of burials were recorded in 1835 (**WA21**).



- 5.6.36 A tumulus was investigated in 1881 in Cromer's Wood, 140m to the east of the Site (**WA22**). The mound was circular in form and occupied a prominent position SE of Woodstock House. The tumulus was comprised of flint and only a few pieces of pottery of uncertain date and a hammerstone were found. The exact location of the tumulus is now unknown. A Bronze Age looped and socketed axe was found 77m to the west of the Site boundary in 1928 within a sewer trench at Ruins Barn Road (**WA23**).
- 5.6.37 Phase 3 investigations at Fulston Manor revealed three sections of ditches within the evaluation trenches located close to the west of the Site at Sittingbourne. Two of the ditches contained a fragment each of prehistoric pottery thought to date to the Late Bronze Age or Early Iron Age. The alignment of the ditches suggested that two of them formed the corner of a field boundary or stock enclosure. Ditches 1 and 2 were aligned NE-SW and ditch 3 was aligned NW-SE (Wessex Archaeology 2009; **WA24**).
- 5.6.38 Phase 4 investigations undertaken at Fulston Manor found ditches containing Bronze Age pottery and worked flint and a number of other ditches that were thought to be of a similar date. The ditches were interpreted as being a Bronze Age field system. The phase 4 area was interpreted as laying on the outer edges of a prehistoric settlement of some sort and the ditches within trench 18 were interpreted as forming some sort of enclosure. The linear features within the trenches were aligned N-S (Wessex Archaeology 2005; **WA25**).
- 5.6.39 A gold penannular ring is recorded on the Portable Antiquities Scheme as being found 900m to the south east of the Site. The ring has flat terminals with uneven surfaces and was discovered through metal detecting (**WA26**). A middle or Late Bronze Age knife was found 730m to the east of the Site during metal detecting (**WA27**).
- 5.6.40 Features of probable Bronze Age date were found 300m to the north of the Site, during the extension of Swanstree Avenue, as part of the Fulston Manor development (**WA28**). The features were thought to represent the edge of a Bronze Age Settlement. Two ditches and one pit were found within the western extent of the excavation area, a single ditch within the centre and a pit containing a late Bronze Age vessel was found within the eastern extent. It was suggested that the buried vessel may have been a marker for the edge of the settlement (Wessex Archaeology 2005). Later features were also discovered during this investigation discussed in the relevant sections below. A later targeted excavation in 2008 to the east of the previous area did not reveal any features of Bronze Age date (beyond the possible marker). Features of natural origin were also recorded (Wessex Archaeology 2008).
- 5.6.41 A series of prehistoric ditches were found at Meadowfield School 765m to the north of the Site. The ditches were interpreted as representing part of a prehistoric field system and suggested nearby occupation (CAT 2010; **WA29**).
- 5.6.42 An archaeological investigation was undertaken within the northern part of the Site close to Bapchild in 2011, which discovered a Middle Bronze Age farmstead (**WA31**). Features included parallel ditches or droveways set out at right angles, coupled with enclosure ditches and features associated with animal husbandry, comprising pens, droveways and sorting of livestock. A three-way drafting gate system was also recognised. The presence of enclosure ditches would suggest that domestic occupation may have occurred within areas to the immediate west of the Site and the presence of barrows on the high ground suggest that the burials would have been to the south on the higher more visible areas of the landscape. The absence of an occupation site indicates that the living areas have either been destroyed by ploughing or lay beyond the area excavated.

5.6.43 This site represents evidence for early management of the landscape and the primary focus of this site would have been associated with land divisions and demarcation comprising the management and control of domesticated livestock within a co-axial system of land division. The social and economic pressures of a growing population of humans and animals in the Bronze Age, resulted in a growing pressure on the land and the middle Bronze Age has some of the first complex field systems seen in Britain (SWAT 2011).

Summary

5.6.44 Archaeological investigation at the western boundaries of the Site and within the northern and western part of the Site have shown a series of largely linear features associated with land management during the Bronze Age. Many of the conclusions of these investigations suggest that these linear features lie within the agricultural hinterland close to a settlement that is yet to be found. Linear features and the possible boundary marker found during the Swanstree and Fulston Manor excavations suggested that the boundary marker was at the edge of a settlement. The eastern extent of the Swanstree excavation lies 1.8km from the Middle Bronze Age farmstead found at Bapchild. Investigations into the farmstead suggested that the settlement area may have been located to the west perhaps between the Bapchild site and the boundary marker, perhaps demarcating the western edge of the settlement. Due to the presence of archaeological remains dating to the Bronze Age recovered from both within and at the edges of the Site, there is potential for further remains to be encountered within the Site.

Iron Age (700 BC–AD 43) (Figure 3)

5.6.45 A sequence of intercutting Iron Age pits was discovered at the Sittingbourne Community College 460m to the north of the Site. Three pits of Iron Age date were found, two during the archaeological evaluation and another during the watching brief phase. The two pits found together were intercutting and were cut by a later Roman quarry pit (AOC 2007; **WA32**). The pit found during the watching brief contained a few pieces of pottery dated to the Iron Age and was interpreted as a possible waste disposal pit (**WA32**).

5.6.46 An Iron Age cemetery was found within the Site boundary during the excavation of chalk at Highsted Quarry in 1955 (**WA33**). An Iron Age urn was first recovered at this location in 1922. Between 19 and 26 inhumation burials were recorded enclosed by a ditch with associated grave goods of later Iron Age date. The results of the investigations were not published at the time; however, reports were made within the East Kent Gazette in 1955 and within *Archaeologia Cantiana* in 1978. The first report in 1955 refers to the burial as being of Roman date but later reports assign an Iron Age date. An adjacent Roman burial site is reported to have been found in 1937.

5.6.47 A possible Iron Age site was suggested after a series of fieldwalking, earthwork recording, geophysics and trenching at Highsted Wood (**WA235**). The fieldwalking revealed finds dating from the Mesolithic to Roman period and a series of banks and ditches were recorded suggested to be part of an Iron Age settlement site, however none of the features identified during the archaeological investigation were positively identified as being of Iron Age date. An undated ditch and some Neolithic postholes were recorded (Feakes 2001).

5.6.48 An excavation undertaken at Lynsted 820m to the east of the Site revealed a series of Late Iron Age ditches which were interpreted to have been part of the field system associated with a small farmstead located somewhere to the north of the excavation area. No structures or other cut features were identified (Wessex Archaeology 2005; **WA34**).

- 5.6.49 A number of finds dating to the Iron Age have been recorded through metal detecting surveys of the area. These finds have included an early Iron Age enamelled terret (**WA35**), copper alloy coin die (**WA36**), three gold coins (**WA37**), nine copper alloy coins (**WA37-40**), and a copper alloy brooch (**WA39**). Other isolated finds recovered within the Study Area include worked flints of later prehistoric date (**WA41**) and two Iron Age ceramic vessels (**WA42** and **WA43**).
- 5.6.50 Late Iron Age to early Roman remains have also been recorded within the Study Area. Investigations undertaken at Hempstead Farm, 240m to the north of the Site recorded a potential late Iron Age to Roman field boundary ditch roughly aligned parallel to the Roman Road of Watling Street. The concentration of finds recovered from the section of ditch excavated indicated that there could be settlement nearby (CAT 2014; **WA44**).
- 5.6.51 An archaeological investigation undertaken 780m to the west of the Site at Bredgar CE School found remains dating to the Late Iron Age and Romano-British periods. A ditch containing pottery of mid and late 1st century BC date formed part of an enclosure which was later replaced by another Late Iron Age enclosure which was backfilled in the early Roman period when a Roman ditch was excavated across the area. A building is thought to have been constructed at this time and a number of postholes relating to a structure were identified. A number of gullies and pits were also found. A ploughsoil layer sealed these features indicating that the area was used for agriculture at the end of the first century. It was occupied again in the early 2nd century when a rectangular building was constructed which was abandoned in the mid-2nd century. Later Roman pottery was found in some of the features suggesting some continued activity in the area (**WA45**).
- 5.6.52 Four late Iron Age/early Roman pottery sherds were discovered during an archaeological evaluation at Panteny Lane. A late Iron Age/early Roman coin hoard was discovered 870m to the west of the Site, which constituted the earliest gold coin hoard recorded in Roman Britain. Coins for Julius Caesar, Augustus, Tiberius, Nero and Claudius were found (**WA47**).

Summary

- 5.6.53 The Iron Age saw the continuation of settled agricultural communities within the landscape along with associated burial sites and enclosures. Inhumations dating to the Iron Age have been recovered within the Site and Iron Age field boundaries were discovered immediately to the north of the Site. To date no settlement dating to the Iron Age has been recovered from within the Study Area however a late Iron Age/early Roman site did suggest some structural evidence 780m to the east of the Site and there has been the suggestion of an Iron Age site at Highsted Wood within the Site boundary. In addition, a relatively large number of coins and brooches have been recovered in the surrounding area suggesting that there was some settlement within the surrounding area. The information found to date appears to be largely burial and agricultural evidence and as such it is likely some settlement may have existed within the surrounding area associated with this activity. It is possible that some further field systems or settlement activity could be found within the Site as well as any additional burials associated with the known cemetery.

Romano-British (AD 43–410) (Figure 4)

- 5.6.54 Roman graves were found at Bapchild during the excavation for a brickearth quarry adjacent to the Site. The finds are described as a few Roman graves mostly of the 1st century AD, a jug and other Roman pottery is also recorded (**WA48**).

- 5.6.55 Roman burials were also found within Highsted quarry in 1934. Workmen first discovered fragmentary bones, pottery and a small beaker of late 3rd-early 4th century date. Six weeks later an undecorated lead coffin was discovered. Three additional Romano-British vessels are recorded to have been found at Highsted quarry (**WA49**). A record of another inhumation recorded within the Site found in 1924. The location of the burial may not be exact, but it is known to have been within a pasture field excavated for brickearth. No further information is available on this find (**WA50**). Also recovered within the same area and during brickearth quarrying were a number of vessels containing cremated bone of early Roman date. Sheep and deer bones were also among the cremated bones and a samian bowl and cup were also recorded (**WA51**).
- 5.6.56 The site of another Romano-British cemetery is recorded close to the northern boundary of the Site, which was discovered in 1828, located approximately 800m from the burials found at Highsted Quarry (**WA52**). The finds are described as ‘urn burials accompanied by four bronze harp shaped fibulae’. It is unclear whether the urns are associated grave goods with inhumation burials or whether these are cremation urns. However, one is described as an incomplete skeleton with a small urn on one side and patera on the other. It is likely that these were inhumations with associated grave goods (**WA52**). Within a similar area another Romano-British cemetery site was found comprising two unurned cremations with associated pottery vessels found in 1865 during brickearth quarrying. Many other vessels were also recorded to have been found but were destroyed during the quarrying (**WA53**).
- 5.6.57 A Roman cremation was found in 1947 in a churchyard during the excavation for a grave, 770m to the south of the Site. The find included a 2nd century Roman cinerary urn and a glass phial. A lead or silver medallion with a Chi-Rho on one side and a Madonna and child on the other was also found at the same time but could not be dated with any certainty (**WA54**).
- 5.6.58 The Roman Road of Watling Street is aligned through the Study Area E-W and passes adjacent to the northern boundary of the Site at Bapchild (**WA55**). Watling Street connected Canterbury to Rochester and then on to London. The modern A2 is believed to follow the approximate route of the Roman Road. A possible part of a metalled surface was found during an archaeological evaluation at Panteny Lane which revealed flint cobbling thought to represent the metalled surface of the road of Watling Street. Other Roman features included a large pit and ditch as well as a large quantity of Roman pottery and burnt grain. These features were interpreted as being peripheral features associated with a roadside settlement (SWAT 2011;). During the excavation phase a roman field boundary was discovered planned at right angles to the Roman Road. The modern field boundaries also follow this alignment as well as the Middle Bronze Age boundaries. It was suggested that Watling Street may have followed the route of an even earlier prehistoric trackway (SWAT 2011; **WA56**).
- 5.6.59 Two cropmarks have been identified within the Study Area possibly relating to the route of a Roman Road. Two faint linear shadows are recorded from an aerial photo taken in 2003 on the same alignment (**WA57**) of another possible cropmark of a roman road located further west in Tunstall (**WA58**). If the projected route of this roman road is correct this could continue within the Site as one of the cropmark points is located close to the western boundary of the Site (**WA57**).
- 5.6.60 Archaeological investigations at Sittingbourne Community College, a substantial roman quarry pit and two parallel Roman ditches were discovered, 570m to the north of the Site

boundary. The large quarry pit was shown to have been cut by later pits and stakeholes. The two Roman ditches were aligned NE-SW (AOC 2007; **WA59**).

- 5.6.61 A Roman pit was discovered on the north side of the A2 at Tonge and Radfield in 1952, and prior to this Romano-British finds had been recorded at this location and within the surrounding fields comprising coins and fragments of pottery. Less than half of the pit remained however the remaining half was excavated, and pottery fragments of 1st and early 2nd century date were recovered as well as animal bone and oyster shell. The bottom of the pit was not reached and indicates a domestic site nearby (Grove and Meates 1954; Arch Cant 66; 157). To the south of the A2 indications of archaeological remains had been reported 1920s and the area was finally investigated in 1968, 1969 and 1972. The investigations revealed a Roman ditch and pit of 1st or early 2nd century date. The ditch was interpreted as being associated with livestock management and indications of some iron smelting and working within the surrounding area was also suggested (Baxter and Mills, 1978. Arch Cant 94; 239). Rescue excavations undertaken by the Sittingbourne and Swale Archaeological Group uncovered two wells and a number of pits and two cremation burials with pottery and jewellery. In the adjacent field there was a mound known as 'the castle' and here an extensive layer of flint metalling was revealed with a marked camber. Beneath the road were two shallow gullies containing early roman and possibly pre-conquest pottery (**WA60**).
- 5.6.62 A possible Roman ditch was found during investigations at Frogmal Lane, located approximately 1km east of the Site boundary. Two intercutting features were found one of which was thought to be an early Roman ditch (**WA61**).
- 5.6.63 A few isolated finds of Romano-British date have been recovered from within the Study Area, this has included an embossed Samian bowl (**WA62**), a roman silver coin (**WA63**), a coin and pottery sherds (**WA64**), and a copper alloy mount (**WA65**).
- 5.6.64 The archaeological landscape within the wider area during the Romano-British period based on existing information suggests that there was a series of villas or Romano-British settlement sites to the north of the A2 close to the creek system beyond the extent of the Study Area. A bathhouse and possible villa site are thought to have been found at Tonge. The main Roman Road (A2) was an important transport route with the high-status properties to the north of the road taking advantage of the river and road connections. This allowed both an exploitation of the marshland to the north for fresh water, transport links and fishing as well as the downland area with access to the road and wooded areas for hunting. To the south of the road, it has been suggested that a number of trackways may have been aligned through the river valleys to reach other areas where Roman remains have been found such as Bredgar and Newnham; with villa sites found at Hartlip, Borden, and Sheldwich. Recent work undertaken in the wider area at Junction 5 of the M25 has revealed possible metal working during the Iron Age and Romano-British periods. This is thought to represent a broad industry on the north downs. Indeed, geophysical survey within the Site has suggested that possible industrial activity perhaps of Iron Age or Roman date has taken place within the south eastern corner of the Site. Should this be the case this would corroborate this theory.
- 5.6.65 Much of the existing evidence dating to the Romano-British period within the Study Area relates to burial practices and cemeteries. Burial practices in Roman Britain stipulated that burials were to be positioned outside of town walls, commonly alongside main routes into and out of a settlement. It is typical of the Roman period that so many burials have been found close to the main road of Watling Street. Roman burials have been recorded within the Site and there is potential for further remains of this type to exist within the Site.

5.6.66 Other remains such as settlement evidence, field boundaries and evidence for animal husbandry have also been found adjacent to the Site and to the Roman Road at Radfield. The evidence consisted of wells, pits and a road surface. The full extent of the settlement was not identified, and it is likely that the settlement was more extensive than the features recovered. As such there is potential for further remains to be found within the Radfield area which could extend within the Site. The Romano-British influence on the landscape included the introduction of an extensive road network, villa sites and urban centres. There is potential for additional roadside settlement to be found within the northern part of the Site however this area has been subject to brickearth quarrying which is likely to have affected the survival in these areas.

Anglo-Saxon (AD 410–1066) (Figure 4)

5.6.67 Anglo-Saxon evidence from within the Study Area has been found to the north of the Site at the Sittingbourne Community College. A small pit with sherds of Anglo-Saxon pottery within it was discovered which also showed evidence of burning in the form of charcoal and daub fragments. An undated posthole cut the pit (**WA66**). An Anglo-Saxon urn is recorded 1km to the north west of the Site. There is little information on the find and its location may not be exact as it is recorded to have been found generally at Sittingbourne (**WA67**).

5.6.68 An early Anglo-Saxon silver penny is recorded to have been found 930m to the south west of the Site near Bredgar, presumably discovered during a metal detecting survey (**WA68**). Similarly, an Anglo-Saxon gold shilling (*thrymsa*) was discovered at the same location as the urn mentioned above and as such may not be the exact provenance of the find (**WA67**).

5.6.69 The Site lies within an area where many of the surrounding villages are likely to have had their origins in the Anglo-Saxon period. Places such as Bapchild, Rodmersham and Tunstall are likely to have originated as Anglo-Saxon farms or estate centres. Bapchild is recorded as early as 696AD as *Baccancelde* meaning *Bacca's Spring*. Teynham is recorded as *Tenaham* in 798AD and named after '*Taena's settlement*'. Rodmersham is thought to mean '*Hroomaer's settlement*' and is recorded as *Hroomaeresham* in Old English. Highsted is recorded as *Hecsted* in 1197 meaning *High Place*. Bredgar was recorded as *Bradegare* in 1100 meaning '*Broad Gore*' or '*wedge shaped piece of land*'. Tonge was named due to the shape of the land forming a tongue recorded as *Tongas* in 1086. Tunstall was recorded as *Tunestalle* in 1086 meaning '*farmstead*' (Glover 1979). It is likely that the Site was either covered by woodland during the Anglo-Saxon period or was part of the agricultural land surrounding these farms/estates.

Medieval (AD 1066–1500) (Figure 4)

5.6.70 An early medieval bakery was discovered 400m to the north east of the Site during the excavations at Fulston Manor. Two phases of medieval activity were discovered, one of 11th-13th century date and the other of early 13th to mid-14th century date. The first phase saw the construction of a large rectangular settlement enclosure containing a building interpreted as a bakery in the north east corner. This area was subsequently reorganised with adjustments to its layout. A large hollow in the north east corner of enclosure 1 contained the remains of a hearth and oven. A number of indentations within the sides of the hollow may indicate the positions of posts however the pattern of these indentations was unclear and as such the form of any superstructure above the hollow is also unclear. The bakery was found to have had a clay floor and excavations revealed an occupation layer from which 11th-13th century pottery was recovered. An L shaped extension on the bakery is thought to have been a porch. The oven was interpreted as being used for baking bread, but perhaps also used for smoking or drying. The milling of the flour for the



bread is thought to have been undertaken in the immediate vicinity. The hearth is thought to have had a distinct yet complementary function to that of the oven and it is thought that the hearth may have been used for the brewing of ale. The position of the bakery within the north eastern corner of the enclosure may have been to reduce the fire risk to any other buildings/structures within the enclosure (**WA69**).

- 5.6.71 Another hollow was located within the opposite side of the excavation area, the purpose of which was unclear. It was interpreted as being a sunken featured building with a metalled ramp leading from its south side, which may indicate that it could have been a shelter for livestock dating to the mid-13th-14th centuries. Little evidence for settlement activity was discovered during the excavations however it was suggested that it is unlikely that the bakery and brewery would be located far from the centre of the settlement. Investment in a bakery and brewery suggests a settlement of some size within the surrounding area (**WA69**).
- 5.6.72 Evaluation trenching undertaken further south as part of the same development revealed a small ditch terminus close to a small pit, both of which contained pottery dating to the 11th or early 12th century (**WA70**). During the phase 4 evaluation a medieval trackway was found within the eastern part of the evaluation area, aligned north east-south west (**WA71**).
- 5.6.73 Medieval features were also discovered during the investigations at Panteny Lane, Bapchild, 90m to the west of the Site. A pit and ditch dating to the 13th-14th century were recorded during investigations within trench 6 located within the western extent of the Site. The ditch was aligned north south (ASE 1999; **WA72**).
- 5.6.74 A mound which was previously located within Petts Wood is thought to have been the site of a medieval post-mill, however it has also been suggested that a gamekeeper's cottage may have topped the mound. A moat is shown on the tithe map which is now a dry moat and the mound is circular in plan with views commanding a wide expanse of the Thames estuary. It has also been suggested that it may have been the location of an older building associated with Pett Court (**WA73**). The former location of the Chapel and Cemetery of St James is recorded 220m to the north of the Site. This was a leper hospital founded before 1252 and dissolved in 1546. The hospital stood on the north side of Bapchild Street with its chapel and cemetery (**WA74**). To the north of this is the site of another medieval building attributed to the St Thomas Hospital at Bapchild.
- 5.6.75 The remains of Tonge Castle are located 640m to the north of the Site. The castle survives as earthworks of a motte and bailey castle consisting of a deep wide ditch, now dry, and a mill pond on its south and west sides. The pond and ditch enclose a roughly rectangular area which has been disturbed and as such it is difficult to trace the original plan of the castle earthworks. Excavation within the area revealed part of a rectangular building with associated pottery dating to the 12th-14th centuries. It is thought that the castle consisted of two enlarged hills partly encircled by a deep moat. Only one mound was used for habitation. Evidence of Norman wooden buildings were found which were replaced by a substantial hall and associated buildings. The remains were interpreted as a manor house rather than a castle. Occupation ceased in the 13th century and the moat appears to belong to the later 13th or early 14th century. There was no indication of any occupation before 1100AD (**WA79**).
- 5.6.76 A number of medieval finds have been recovered through metal detecting within the Study Area, these have included five medieval silver coins, a copper alloy stud (**WA80**), lead alloy seal matrix (**WA80** and **WA86**), copper alloy harness fitting (**WA81**), a finger ring

(**WA85**), lead alloy token (**WA87**) and a strap fitting (**WA85**). A hoard of gold coins dating to the 14th century was uncovered within a garden in Bredgar. The pot contained 120 gold coins of Edward III and Richard II and it is thought to have been deposited after 1388 (**WA82**).

- 5.6.77 Jeffries house is a medieval house located in Lynstead which is Grade II listed. The house is a timber framed yeoman's house dating to the 15th/16th centuries (**WA88**). At the south western edge of the Study Area is the location of the deserted medieval village of Bedmangore and its associated manor house and park. It is thought that the manor and village were abandoned in 1599 due to a scarcity of water and that the manor was moved 0.25miles away initially known as Lodge. Nothing of the early manor house or village has been found (**WA89**).
- 5.6.78 Ufton Court is thought to have had 15th century origins, however there is thought to have been a manor house on the site since the 12th century. An additional block was added in the 16th century and the house was considerably altered in the 19th century and demolished in the 1950s (**WA90**).
- 5.6.79 An archaeological investigation at Bell Road uncovered a circular well, 1.5m in diameter thought to date to between 1380 and 1500. Finds recovered from the fill of the well dated to the late 15th or early 16th century (**WA91**). A spring named St Thomas a Becket's spring was thought to have been used by the first Pilgrims on their journey to Canterbury (**WA92**).
- 5.6.80 A small number of finds recovered from within the Study Area have been assigned a medieval to post-medieval date these comprise a copper alloy keyhole fitting (**WA93**), copper alloy vessel (**WA94**), copper alloy dress fastener (**WA94**) and a lead token (**WA95**).

Summary

- 5.6.81 The Site and surrounding area would have remained relatively rural throughout the medieval period, perhaps with some expansion of the small farmstead/villages to larger villages. Much of the Site would have continued to be woodland or used for agriculture. Sittingbourne is known to have become a market town during the medieval period and as a resting place for Pilgrims using Watling Street to travel from London to Canterbury.

Post-medieval (AD 1500–1800) (Figure 5)

- 5.6.82 During the post-medieval period the Study Area remained largely rural with a large number of farmsteads located within the Study Area and a smaller number of rural manors. The development of two manors of particular relevance to the area is outlined below.

Cromer's Manor (Post-medieval to Modern)

- 5.6.83 The Cromer family became lords of the manor of Tunstall in the 15th century and their presence is reflected locally in the road name Cromer's Road which bisects the Site. The first manor of Tunstall associated with the Cromer's is thought to have been Tunstall House. The first William Cromer bought Tunstall Manor as a second home and a country retreat from his more permanent residence in London. In his later life he is known to have purchased land in Rainham and Sittingbourne and is known to have left money in his will for the repairing of roads in Tunstall, for the upkeep of the church and money for the poor of Tunstall. His son, the second William of Cromer was executed by Jack Cade in 1450 for extortion and malpractice (Allinson and Turner 2015; **WA96**).

- 5.6.84 The manor passed to his son (James) and then subsequently to his grandson (William) who is known to have lived at Grove End. William's son (also named William) is known to have entertained Queen Elizabeth I at Grove End in September 1573 as part of one of her progresses through the country. As a result, she granted the town its charter with permission to hold a weekly market and an annual fair (Allinson and Turner 2015).
- 5.6.85 William's son James felt that Grove End was old fashioned and planned to build a larger manor in Tunstall to befit his position as High Sherriff of the County. Hasted records that Sir James neglected the house at Grove End as he was focussed on building his new mansion. The new mansion was to be on what is now known as Ruins Barn Road, but James died in 1613 before the building was complete. There was no mention of the new mansion within his will and all building work ceased when he died (Allinson and Turner 2015).
- 5.6.86 Descriptions of the partially built manor in the 18th century, indicate that the manor would have been very large and extravagant as the partially built walls and foundations could be seen at this time. It also had vaulted cellars which later became known as 'the ruins' after much of the other building materials were sold off. Hasted records that the cellars were later home to beggars and thieves and there is evidence that homeless people sheltered in the cellars from the poor accounts of 1755. Hasted records that the cellars were blown up with gunpowder and 'otherwise destroyed'. The ruins of the manor are commemorated through place names in the surrounding area through Ruins Barn Road, Ruins Rough and Ruins Hops. In the 1930s it is recorded that two sections of the wall were left and in World War I the ruins were used for target practice. In 1980 the cropmarks of the former manor could be seen and were investigated as the southern corner of the field was planned for development. A thick mortared brick wall was found for more than 20m and was thought to be one of the main walls of the mansion and a possible cellar was found on the north side of the wall. Some of the stone recovered was finely worked and of types from outside of Kent, including slate and marble as well as glazed and patterned tiles. This indicates that the materials were costly, and that the mansion would have been impressive had it been completed (**WA96**; Allinson and Turner 2015).

Woodstock Manor (Post-medieval to Modern)

- 5.6.87 Woodstock Manor was located within the Site boundary and was known as Pistock for much of its existence (**WA97**). It is thought that the name was pronounced Pie-stock meaning a place where peas are grown. Hasted records the presence of the manor in 1797 and records that William Robesart owned the manor in the second half of the 15th century, after which time it passed to the hands of the Benedictine monastery on Sheppey and then to the crown on the dissolution of the monasteries in 1539. Henry VIII gave the estate to Sir Thomas Cheney and in the reign of Charles II it passed to a local man James Tong, however it is thought that the Tong family had been the tenants at Pistock since at least the start of Queen Elizabeth's reign.
- 5.6.88 The Tong family sold Pistock House and its lands to William Hayter in the 18th century. Pistock House is what is now called Woodstock Farm, a timber framed 15th century house with brick casing added in the 18th century. The estate was sold after his death and the new owner had a new mansion built a north west of the old one and renamed the estate Woodstock. The old farmhouse remained in use despite the new manor house. The new house stood imposingly on the north side of the road through the park on a rise. The estate passed to Sir Samuel Chambers, and Hasted described the manor as '*a neat modern-built house situated in romantic county almost surrounded by the woods*'. In 1783 an advertisement for a school appeared in the Kentish Gazette for Woodstock Hall, Tunstall. The school was described as '*a most elegant and lofty building delightfully*



situated on the verdant brow of a pleasing eminence in a large open park, commanding an extensive prospect, and as remarkable for the salubrity of the air, is opened for a boarding school for young ladies. At this time the mansion was leased to Miss Bourne for the school from Henry Smith who was the tenant of the whole of the Woodstock Estate who lived in the old farmhouse. In 1794 Samuel Chambers returned to live at Woodstock and it is likely that the school had to vacate and relocated to Tunstall House.

- 5.6.89 William Twopenny purchased the Woodstock Estate in the early 19th century from the Chambers family. The estate passed through the Twopenny family, and in 1840 the estate is recorded as being leased to Francis Law from Edward Twopenny. Francis rented the house and gardens and Thomas Reason farmed the lands of Woodstock and lived in the farmhouse. Edward Twopenny is recorded having returned to living at Woodstock, keeping 70 acres of land as park and woodland and the remainder to be farmed by Thomas Reason. The four farm cottages associated with Woodstock housed agricultural labourers and their families. The estate was inherited by Edward's grandson, Edward Maxwell, in 1887 who had the shooting box cottage built within the park which has the Twopenny family crest over the fireplace. The Twopenny family sold off the contents of the house in 1902 and no other Twopenny's lived at Woodstock however it was in the ownership of Charles Woodstock until it was purchased by Captain Gilliat in 1919.
- 5.6.90 The Gilliat's left the house unoccupied from around 1930. During the 1930s two tenants are recorded however it was listed as unoccupied again by 1938, in 1939 it was recorded as having 22 unoccupied rooms suitable for evacuees. However, during WWII, the house was used as a hospital and by the end of the war the condition of the house had greatly deteriorated. The estate was put up for sale in 1945 and advertisements listed a Georgian house, walled garden with fruit trees, mulberry tree, a maze, parkland, 100 acres of wood, farmhouse, five cottages, farm buildings including a dairy, hop gardens oast house, orchards, arable land and pasture. Frank Benstead purchased the estate, kept back the cottage he was already living in, some cherry orchards surrounding it and the cottage opposite and sold off the remainder of the estate to Shell Research and Kent County Council for the Kent Farm Institute. By 1970 the mansion had fallen into such a state of disrepair that it had to be demolished. Shell planned to use the estate to test agrochemicals that might control pests and diseases of plants and livestock. Laboratories were built, and hops, vegetables and fruit trees were planted for use in the trials. Shell had six new cottages built for the farm workers. The farmhouse was retained as a residential building however the dairy and stables were both converted into laboratories. In 1949 purpose built chemical laboratories were also built. In the 1980s the name was changed to the Sittingbourne research centre. It became the Kent Science Park in 1996.
- 5.6.91 The Kent Farmsteads and Landscapes project mapped the historic character of farmsteads across Kent and the degree of loss/alteration between the 2nd edition OS map of 1890-1900 and modern maps. A number of the farmsteads within the Site have been recorded as part of this process.
- 5.6.92 A barn associated with Scuttington Manor (**WA99**) can be seen on the historic maps of 1896-98 to the north of Scuttington Manor (within the Site) but is not present on the 1840 map or the 1909 OS map. It is likely to have a temporary barn and was subsequently demolished. Another similar field barn is shown on the 1879-95 OS map as a singular small square building. Another rectangular building can be seen within the middle of the field to the north of Rodmersham Court Farm, within the Site boundary (**WA102**). The outbuildings are generally located within the centre of fields used as orchards and could be associated with storage of equipment for maintaining the trees or picking the fruit.



- 5.6.93 From within the Study Area a large number of post-medieval farmsteads are recorded, those closest to the Site whose lands were likely to have extended within the Site boundary are considered below.
- 5.6.94 The outbuildings associated with Rodmersham House have been considered above as they are positioned within the Site. Rodmersham was a farmstead with a farmhouse and farm building set around a regular courtyard (**WA103**). The farmhouse is referred to as Rodmersham Lodge on the 1840 tithe map. The name had been changed to New House by 1898 and then Rodmersham House by 1909. Hasted records the rebuilding of the manor house at Rodmersham which could explain the change of name to New House. The house is Grade II listed and is thought to date to the early 17th century and early 19th century (1069288). Rodmersham Court is labelled on a map as early as 1789 and buildings are shown at this location throughout the 19th century. The farmstead also has a Grade II listed barn (1120908) built in the 17th century and clad in the 20th century.
- 5.6.95 As mentioned above an outfarm associated with Scuttington Manor lies within the Site. The farmstead associated with this lies just beyond the Site boundary (**WA104**). *Scudington* is shown on the map dating to 1769 so the farmstead/manor is known to have existed from at least this time. It is shown on the map of 1801 but not labelled and is labelled as Scuttington on the 1823 map. James Blaxland is shown as the owner and occupier of Scuttington Manor on the tithe map apportionment. Plot 29 is recorded as Scuddington House and Upper Orchard, with another orchard to the north, the Forstall Road Way to the south and Scuddington Wood to the west. By 1898 it appeared that these buildings were demolished and replaced, and an additional area of farm buildings were constructed away from the manor to the north west, to provide some distinction between the working and living areas. From this point the manor and farmstead remained largely unaltered.
- 5.6.96 Haywood Farm (**WA98**) is recorded adjacent to the Site boundary between Radfield and Bapchild. A small building is shown by the side of the road at this location on the 1840 tithe map, the road then known as Seed Mill Lane. Earlier maps are slightly unclear as to the presence of a farm at this location. The 1769, 1801 and 1823 maps show a farm called Westons within the area, but it is unclear as to whether this is in the exact former position of Haywood Farm.
- 5.6.97 A farmstead known as Dully is recorded as *Dullee* on the 1769 map as an arrangement of three rectangular buildings within a square courtyard with an area of orchard or woodland to the south (**WA106**). On the maps of the 19th century, it is shown as Dully. The tithe map shows the Dully premises consisting of a farmhouse with two other larger buildings and four smaller buildings. The surrounding parcels of land are recorded as being used as an orchard and one is specifically recorded for hop growing. Little Dully located to the north is shown on the tithe maps as two small buildings and the surrounding area recorded as a cherry orchard. Both Dully and Little Dully are recorded as being owned by James Blaxland.
- 5.6.98 The farmstead known as Radfield House is located to the north east of the Site (**WA107**). It has a farmhouse with a courtyard and agricultural buildings on three sides and detached outbuildings to the south and south west, adjacent to the Site. The tithe map indicates that Radfield Farmhouse and garden were located closest to the road with the barn and yard located to the immediate south. A large field located to the south is recorded under the same ownership and was used for hop growing at this time.

- 5.6.99 Broadoak Farm is situated close to the south eastern boundary of the Site (**WA112**). It is a farmstead set around a loose courtyard with working agricultural buildings on three sides and with additional detached elements to the main courtyard plan. It is shown on the 1871 edition OS map as comprising seven buildings with an oast house attached to one of the rectangular buildings. The number of buildings surrounding the courtyard grew during the 20th century.
- 5.6.100 Woodstock Cottage Farm lies to the north of Broadoak Farm and only the farmhouse remains of this farmstead. This is shown as a small farmstead surrounded by an orchard on the 1st edition OS map. Two buildings make up the farmstead on the 1st and 2nd edition OS maps with the 2nd edition also showing a well. By the 3rd edition the larger of the two buildings had been removed and the smaller looks to have been extended slightly to the south. A small additional building is shown to the north and the farmstead is still surrounded by orchard (**WA111**).
- 5.6.101 A large number of other farmsteads and outfarms are recorded within the Study Area which highlights the post-medieval character of the area as an agrarian community with much of the labour force in the area dependent upon fruit and hop growing.
- 19th century (AD 1800–1900) (Figure 5)*
- 5.6.102 Oakwood Farm is located adjacent to the Site boundary to the west of Ruins Barn Road. Oakwood Farm is shown on the OS map of 1898 but does not exist on the Tunstall Tithe map of 1840 as this area was part of Oak Wood at this time (**WA208**).
- 5.6.103 During the 19th century brick earth quarrying at Bapchild and Chalk quarrying at Highsted changed the landscape and industrial use of the area. During the post-medieval period lime burning became more commonplace as an increase in the number of houses led to an increased need for lime mortar as well as its uses for fertilizer and tanning. Kilns were built in limestone quarries and chalk pits and the trade of Limeburner appears more frequently during this period. Until the mid-18th century limekilns were temporary structures built solely to meet the immediate need and were then left to collapse. The agrarian revolution of the 18th century led to large areas of farmland becoming enclosed and created a demand for lime. Farmers were known to have their own limekilns. By the 20th century the industry was focussed at the larger quarries and chalk pits and railway connections were established to provide distribution regionally and nationally rather than on a local level (Williams 1989).
- 5.6.104 At Dully a 'Chalk Hole' is shown on the tithe map of 1840 recorded as Dully Chalk Hole on the apportionment and owned by the same landowner as Dully farmstead located to the south. A small square building is shown to have been associated with the chalk quarry. The quarry is shown as 'Old Chalk Pit' by 1898 so it likely to have been out of use by this time. The small building is also shown to have been removed by this time (**WA196**). The provisional edition map labels this as 'Old Kiln' suggesting that the building had been used for lime burning.
- 5.6.105 A quarry and limekiln are shown on the first and second edition OS maps to the south of the farmstead known as Jeffries located to the east of the Site. A small square building is shown within the quarry on the 1885 map. By 1896 the limekiln is labelled as disused and as Old Chalk Pit.
- 5.6.106 A quarry and limekiln are shown on the 1st edition OS map 370m to the south east of the Site at Rawling Street but is shown as Old Chalk Pit on the 2nd edition map suggesting that it was out of use by this time. Another limekiln is shown west of Bargains Farm on the

1st and 2nd editions. It is unlabelled by 1908 so may have been out of use by this time. Large chalk pits dating to the late 19th century can be seen on the 2nd and 3rd edition maps at the edge of the Study Area (**WA200**).

- 5.6.107 Brick earth quarrying is known to have been undertaken 150m to the north of the Site. A brickfield is labelled at Muddy Lane on the 1st edition OS map from within the Site. In the northern corner of the field are a few rectangular buildings and further south a well is shown to exist (**WA200**).
- 5.6.108 In the northern part of the Study Area a brick works is shown near Bunces Farm, which is shown as a few small buildings and a field labelled brickfield on the 1898 edition but by the 1909 edition also had an associated tramway. It is likely to have been out of use by the 1930s (**WA201**).
- 5.6.109 The third edition map shows evidence of another possible brick field at Bapchild, showing evidence for the edge of excavation a few small buildings and the label for a tramway. The 1930s edition shows that the brick earth extraction may have ceased but a washing mill and tramway are still shown to be active. By the 1960s the mill is still shown but the tramway is not shown to be still in use (**WA202**).
- 5.6.110 The Site of a windmill built in 1835 is shown at the edge of the Site at Rodmersham Green and can be seen on the tithe map from 1840. The windmill is labelled as disused on the 1930s and 1960s edition map (**WA204**).
- 5.6.111 Union Mill was located to the south of Claxfield Farm to the east of the Site. This was a corn mill and was known to have existed from at least 1868 but is shown as having been demolished by 1896 (**WA205**).
- 5.6.112 Watercress beds are recorded to have existed at Tonge likely to date to the 19th century. The growth of watercress needs a fresh supply of running water at a particular depth and temperature for the best results. The watercress at Tonge is thought to have been supplied by the Tonge Mill pond and a leat associated with it (**WA206**).

Modern (AD 1900–present day) (Figure 6)

- 5.6.113 The Highsted Chalk Quarry was located within the western part of the Site. The first indication of the quarrying at this location is shown on the 1898 edition map which shows a wash mill and a label for a chalk pit located to the east of Highsted Road. On the 1909 edition the extent of the chalk quarry can be seen with the wash mill located within the excavation. The chalk was put through the small wash mill and driven by a stationary steam engine, pumped via iron cast pipes to Smeed Deans Cement Works at Murston. By the 1930s/40s this original quarry was disused and was labelled 'Old Chalk Pit'. A new chalk quarry opened up on the western side of Highsted Road with a much larger wash mill and tramway. The expansion of the quarry may have been due to the introduction of rotary kilns at the Murston cement works in 1920s. By the early 1960s the quarry and the tramway had both been extended to the west and by the late 1960s the quarry had extended to the south of Cromers Road with a tunnel beneath the road for the tramline. The southern quarry was extended further west and south during the 1970s, but extraction had ceased by 1980 (**WA211**).
- 5.6.114 Brick earth extraction is known to have taken place at Panteny Lane and Haywood Farm as a large number of prehistoric artefacts were recovered during the extraction in 1927-1928. A plan shown within the results of the excavation show some of the areas of quarrying by 1930s however it is likely that this was much more extensive. Brick earth

quarrying was frequently not recorded on OS maps as the depth of the excavation was not considered to be deep enough in most cases for it to be shown, so no brickearth quarrying is shown on the historic maps in this area. However, the LIDAR data does show disturbance at Panteny Lane and Haywood Farm which likely relates to the brickearth quarrying in this area and extends further than that shown on the 1928-1930 plan. The possible extent of the quarrying is shown on **Figure 6**.

- 5.6.115 The 19th century farmstead of Oakwood farm lies adjacent to the Site boundary. This area was originally part of Oak Wood until the later 19th century when the woodland was cleared, and the land was used for orchards and agriculture. Oakwood Farm is first shown on the 1896 OS map adjacent to Ruins Barn Road with a farmhouse and garden adjacent to the road and some barns or farm buildings set within a courtyard to the rear. A well and animal shelters are also indicated within the courtyard area. The layout of the farm has remained much the same (**WA208**).
- 5.6.116 The oast north west of Rodmersham Court Farm is adjacent to the Site boundary. Buildings are shown at this location from 1872, and the 1894 map shows three round oasts connected by a rectangular building. The edition dating to 1896 shows five round oasts, two at the northern end and three at the southern end. It is likely that the surrounding fields were used for the growing of hops to warrant this size of oasthouse in this location. By the 1970s the oasts were removed and a rectangular building was located in the position of the former building (**WA209**).
- 5.6.117 The Chatham to Dover Railway was constructed through the Study Area in the 1850s as part of an extension to the north Kent line which stopped at Sittingbourne (**WA210**).
- 5.6.118 The crash site of a Supermarine Spitfire I is recorded 880m to the north of the Site, however the location of crash sites is rarely the actual position of the crash itself and is a representative point placed upon a grid reference. The crash is recorded to have happened on 23rd September 1940; the location recorded as 'near Sittingbourne' following combat over Gravesend. The pilot was unhurt, but the aircraft was written off (**WA213**). A crash site of an RAF Hurricane is recorded 150m to the north of the Site boundary (**WA226**). A licence to excavate the wreck was issued in June 2004 but there are no details on what was found or where the excavation took place (**WA226**). An anti-aircraft battery is recorded 400m to the east of the Site (**WA212**) and a Nodal Point is recorded 880m to the north of the Site, also probably placed on a broad grid reference (**WA227**).
- 5.6.119 Four Voluntary Aid Detachment (VAD) hospitals are recorded in the Study Area that were used during World War I (**WA215-218**). Two Royal Observer Corps posts are known to have existed within the Study Area during the 1950s. One is recorded as an underground two-man bunker located to the rear of Pitstock Farm, 1km to the east of the Site (**WA224**). A similar bunker is recorded to the east of Tunstall village, 86m to the north of the Site to the east of Tunstall (**WA225**).

Unknown date (Figure 6)

- 5.6.120 A number of features are recorded on the KHER of unknown date Two flint celts have been found at Rodmersham (**WA240 & WA228**) and two others were found 940m to the east of the Site (**WA241**), another flint celt was found within the Site adjacent to the Kent Science Park (**WA243**). During excavations at the Sittingbourne Community College to the north of the Site boundary a number of ditches of unknown date were recorded (**WA229**). An undated ditch was also recorded at Fulston Manor during investigations 360m to the north of the Site (**WA238**).

- 5.6.121 A cropmark of a D shaped enclosure is recorded within the Site on the KHER which is explored further below (**WA230**). To the east of the Site cropmarks of a square enclosure and a possible field system are recorded near Bredgar (**WA231** and **WA233**). A cropmark noted as an irregular curvilinear feature is recorded on the HER within the western extent of the Site, discussed in more detail below (**WA246**). A cropmark possibly related to a square enclosure is recorded close to Tonge (**WA232**) and a ring ditch cropmark is recorded close to this at **WA234**.
- 5.6.122 Possible bank and ditch earthworks (**WA235**) and a possible Holloway were recorded at Highsted Wood. These were first identified as cropmarks observed from ground level and seem to relate to a double ditch and bank. A geophysical survey of the area identified a few anomalies of possible archaeological origin. Possible post-holes and a ditch and bank were found during investigations. The publication on the findings at Highsted Wood suggested a number of other earthworks possibly relating to an Iron Age settlement however the date of these earthworks has not been confirmed by any archaeological excavation (Feakes 2001). One of the ditch and banks recorded by Feakes was identified during the Site visit (**Plate 10**).
- 5.6.123 A pit is recorded from aerial photographs within the Site which is discussed in further detail below (**WA239**). Undated pits and postholes were recorded during an investigation at Henley Place (**WA242**) and further undated ditches were recorded at Fulston Manor School (**WA244**), during a watching brief at Bredgar part of a linear feature was exposed however no dating evidence was recovered (**WA245**). Ring ditches are recorded as cropmarks 1km to the south of the Site; however, the presence of these features has not been confirmed (**WA249**).

5.7 Aerial Photography and LIDAR

- 5.7.1 The HER has recorded a small number of features visible from aerial photographs within the Site and the Study Area and in addition the NMP also recorded a small number of cropmarks within the Site which are recorded on the HER. **WA246** is a curvilinear cropmark which is recorded within the western extent of the Site. It has been digitised onto the NMP cropmark map, but is also visible on the 2013, 2011, 2008, 2007 and 1940 aerial photographs. Its description within the HER is of 'an irregular curve of lighter soil, poorly defined so could be natural'. Other irregular lighter patches of soil can be seen within the same field likely to be of natural origin however these cannot be as consistently identified on as many of the aerial photos. This feature correlates with geophysical anomaly 1009 which was identified as being of possible archaeological origin. This was tentatively to be a pit backfilled with modern material (Wessex Archaeology 2021).
- 5.7.2 Another feature identified as part of the NMP project is located within the eastern part of the Site recorded on the HER as a pit or earthwork (**WA239**). A large pit can be seen on the 1940 aerial photograph at the edge of one of the arable fields to the north of Rodmersham House. From this photograph it looks as if it may have been a quarry pit that has been backfilled and allowed to become overgrown. By the 1960s it had been completely infilled and a trace of the pit can be seen as a cropmark across two of the fields bisected by a field boundary. These fields were later used as an orchard, so the feature is not identifiable on any of the later photographs. Historic maps do not record any quarrying or other activity that may could explain the function of the pit.
- 5.7.3 A cropmark of a D shaped enclosure is recorded within the eastern part of the Site. This can be seen on the 2018 and 2013 aerial photographs slightly to the east of the HER point **WA230** but is not visible on the earlier images. This was not identified as a geophysical anomaly during the survey.

- 5.7.4 **Figures 9-14** show the 50cm LIDAR data covering the Site as a multi-directional layer, hillshade from the east and hillshade from the northwest. Possible archaeological features have been identified from this information and plotted on these figures. Due to the continued agricultural use of the Site a large number of former field boundaries are visible on the LIDAR images which are also visible on the historic maps. These are included on the figures for completeness.. The presence or absence of the features identified on the LIDAR images is currently unconfirmed, and it is possible that some may be of geological or topographical origin rather than archaeological.
- 5.7.5 The LIDAR imagery shows two possible semi-circular concentric linear ditch-like features at the edge of the high ground in the north western part of the Site. These can be seen on all three images however show up best on the multi-directional layer (**Figure 10**). The Site visit showed that this feature has no identifiable expression on the ground. It could be that this feature relates to an enclosure, with a double ditch. If this is the case this enclosure may have made use of its position at the edge of the high ground for defensive purposes or as a vantage point (**Figures 10,12 and 14**). A possible break in the outer ditch could be an entrance to the enclosure on the northern side. However, it could be that this is a feature of natural origin and relate to a former stream bed associated with tributaries of the swale that may have extended further south than they do today. This feature does not appear to be as distinct on **Figure 14**. There does not appear to be a corresponding western edge to the semi-circular feature to complete the enclosure. This feature was not identified as a geophysical anomaly during the survey.
- 5.7.6 To the south of the possible enclosure smaller and larger possible circular features were identified, these can be seen best on **Figures 12 and 14**.
- 5.7.7 Possible medieval or post-medieval strip field system can be identified from the LIDAR data to the east and west of Rodmersham. These are shown as N-S aligned field boundaries to the east and E-W aligned field boundaries to the west that do not appear on any of the 19th or 20th century historic maps (**Figures 10, 12 and 14**). To the immediate east of the strip fields to the east of Rodmersham a small circular feature can be identified, this is shown best on **Figures 12 and 14**.
- 5.7.8 In the eastern part of the Site a possible linear feature and two possible circular features could be identified. The two circular features show up well on **Figures 10, 12, and 14** and the linear features show best on **Figures 10 and 14**. The linear feature could not be identified through the geophysical survey however the large circular feature is likely to be anomaly 3009 thought to be a possible extraction pit (Wessex Archaeology 2021).
- 5.7.9 A possible square feature can be seen on the LIDAR in the north western corner of the Site measuring approximately 105m in length (N-S) and 89m in width (E-W). It is possible that there may be an internal division aligned N-S however this is less clear. This could be of archaeological origin or could perhaps be related to quarrying or brickearth extraction (**Figures 9, 11, and 13**).
- 5.7.10 Possible linear features can be seen to the east of the Highsted Quarry however these correlate with the former edges of Golden Wood which can be seen on the historic maps so may be a remnant of a wooded boundary rather than an archaeological feature (**Figures 9, 11 and 13**). To the south east of Highsted quarry a small section of a linear feature could be identified, this is within the area where previously earthworks were recorded by Feakes (**WA235**).

- 5.7.11 To the north of the Kent Science Park other linear features can be identified best on **Figure 11**. Two of these features look as if they could form a square enclosure however the north eastern edge of this is incomplete on the LIDAR survey. If this is a square enclosure it may be that this area has been more heavily ploughed and as such nothing shows on the LIDAR in this area. Two other possible associated features are shown to the east of this possible enclosure.
- 5.7.12 A circular feature can be identified within the western part of the Site which also correlates with the position of a cropmark in this area (**WA246**). This feature can be identified on **Figures 9, 11** and **13**. Another possible linear feature can be seen in the south of the Site north of the M2 motorway. It is possible that this may be a former field boundary however did not seem to correlate with those shown on the historic maps, so could be an earlier field boundary.
- 5.7.13 Within Highsted Wood within the western part of the Site, a series of possible features are visible on the LIDAR which seem to correlate with the plan of the earthworks recorded during a walkover and archaeological investigation of the area. These were largely ditch and banks with possible trackway thought to enclose an Iron Age site. A small circular possible feature can also be seen to the east of this. It is likely that these are the same features as shown on the plan created by Feakes who interpreted these as being part of an Iron Age site (Feakes 2001; **WA235**).

5.8 Geophysical Survey

- 5.8.1 The Site was subject to gradiometer survey, full details of the results of the geophysics are presented within the geophysical survey report (Wessex Archaeology 2021a). A summary of the results is provided here and the areas surveyed are shown on **Figure 25**. Selected figures from the geophysical survey report have also been reproduced (**Figures 26-35**).

Phase 1

- 5.8.2 Phase 1 was located in the western part of the Site west of Ruins Barn Road. Within this area anomalies of likely archaeological origin were identified predominantly ditch-like linear anomalies associated with enclosures or former field boundaries. Several pit-like anomalies were also identified. In the north east of LP1.2 and south east of LP1.1 a series of linear anomalies were identified at 1000-1001 (**Figure 26**). Collectively the anomalies form an uneven rectilinear shape measuring 221m east-west and 143m north-south, and are likely to be ditch features forming an enclosure. Linear features were also identified internally to the enclosure. A tentative Iron Age date was suggested for these features, although this has not been ground truthed by intrusive work. In the centre and north east of LP1.1 and 1.2 relatively large subcircular anomalies were identified (1002-1007; **Figure 27**). These pit-like features are generally located close to the enclosure and could be associated with it. However these could also be natural features.
- 5.8.3 In the south west of LP1.2 a concentration on strong dipolar anomalies which corresponded with a depression noted at the time of the survey could relate to ferrous and/or fired material backfilling a pit-like depression (1009; **Figure 26**). The location of the feature also corresponds with a cropmark on the aerial photos and a depression on the LiDAR. The size (27m in diameter) and coherent shape suggest it's a man-made feature filled with modern material however this has not been confirmed by any intrusive investigation.

5.8.4 A possible former field boundary was identified in LP1.1, this does not correspond with field boundaries shown on the historic maps (1010).

5.8.5 A number of anomalies were identified within Phase 1 thought to relate to modern services and ploughing regimes.

Phase 2

5.8.6 Phase 2 covered a large area in the southern part of the Site, south of Highsted Wood. A series of enclosures and evidence for probable settlement and associated industrial activity has been identified and it was tentatively suggested that this could date to the Iron Age or Roman period.

5.8.7 A complex arrangement of linear and curvilinear anomalies were identified directly north of the M2 motorway in LP2.24 (**Figure 30**). A series of linear anomalies arranged irregularly forming a trapezoid shape and are likely to be ditch features representing numerous interconnected enclosures (2000). Within 2000 there are a series of fragmented linear anomalies, which appear to demarcate the western (A) and eastern (B) extent of a cluster of poorly defined enclosures. In the centre there is also a concentration of curving anomalies (C), with one of these being characterised by a notably stronger response (D), possibly indicative of burnt or fired material. There are also several large pit-like features (E, F). The concentration of pits and areas of increased magnetic enhancement is likely representative of settlement activity associated with domestic and/or industrial activity. Weaker responses at G and H are possible associated features (pits and ditches).

5.8.8 In the north western corner of LP2.24 further linear anomalies have been identified at I and J which form a triangular arrangement with four distinct circular anomalies at the centre (K). The dipolar nature of these features is indicative of in situ burning suggesting that they are associated with industrial features such as furnaces and kilns. Directly north of the circular anomalies at K are further rectilinear anomalies which may represent further enclosures (L, M) with a number of dipolar anomalies detected in the centre (N). The features at K and N are thought to be associated with the industrial activities which required prolonged heating such as hearths, kilns or metal working furnaces. This interpretation is reinforced by the separation of these features from the settlement to the south. Settlements are rarely isolated and typically lie alongside or within walking distance to where inhabitants worked, such as farmland or production sites. Whilst it is not possible to provide a specific date for the anomalies at 2000 and 2001, the extensive Iron Age and limited Romano-British activity in the surrounding area suggests that these anomalies may be related to settlement spanning these periods. This interpretation is based upon the concentration of remains and the configuration of the ditches, which are similar to known examples of later prehistoric settlement. In the northern part of LP2.24 a cluster of circular positive anomalies thought to be pit-like features could represent refuse pits associated with the nearby settlement 2002.

5.8.9 A possible square enclosure with pit-like internal features was noted in L.P2.21 at 2004 (**Figure 28**). A likely contemporary adjacent enclosure was also noted with a C shaped internal feature which could be a structure or division (2005/2006). Surrounding the enclosure were additional linear features (2007/2008). Two semi-circular positive anomalies could be ploughed down remains of ring-ditches associated with roundhouses (2009). These are surrounded by several pit-like features which could be associated refuse pits (2010).



- 5.8.10 Within LP2.20 a further concentration of archaeological anomalies was identified comprising linear and curvilinear anomalies approximately 4-5m wide. These likely relate to ditch features associated with an enclosure of uncertain date (**Figure 26**).
- 5.8.11 Several more isolated linear anomalies have been detected throughout Phase 2 which indicate likely ditch features but are not arranged in any particular fashion that suggests a more specific interpretation. Numerous oval and circular positive anomalies approximately 0.5-0.7m in diameter are likely pit-like features. It is unclear whether these are of natural or archaeological origin. Several former field boundaries and possible evidence of agricultural activity have also been identified across Phase 2.

Phase 3

- 5.8.12 Phase 3 was located within the central and northern sections of the Site. The survey identified the variable nature of the geology in this area associated with the dry river valley deposits as well as periglacial striping. Several probable archaeological anomalies were identified including two enclosures and several other ditch-like features. A possible pit alignment was also identified but could equally be a series of solution hollows.
- 5.8.13 The most distinct anomalies within Phase 3 were located in the east of 3.7 and consist of a series of linear anomalies forming a ditched enclosure with internal pit-like features (3000; **Figure 32**). A tentative Romano-British date was suggested for these features based on their form and known archaeological remains in the surrounding area. A curvilinear anomaly was identified to the north of the enclosure (3001).
- 5.8.14 In the south east of LP3.4 another ditched enclosure was identified at 3002, with two weaker anomalies extending from it which are likely to be associated with it but could be of a different phase or function (**Figure 33**). Other more isolated linear anomalies have been identified in LP3.6, LP3.4, LP3.1. Numerous amorphous positive anomalies have also been detected which could relate to extraction activity or alternatively could be solution hollows. Such features were detected in LP3.1.
- 5.8.15 Possible pit alignments were identified in LP3.4 consisting of a series of discrete positive anomalies (3020). These are pit-like features which appear to have some discernible alignment and are adjacent to the possible Romano-British enclosure suggesting that they could be associated with it. Other more isolated pit-like features have been identified across Phase 3 (**Figures 32-34**). Numerous former field boundaries have also been identified that correspond with those shown on historic maps and aerial imagery. These are found throughout LP3.7, LP3.6, LP3.4, LP3.2 and LP3.1. Possible ridge and furrow has also been identified within Phase 3 in LP3.10 (**Figure 31**). Natural and geological features have also been identified within Phase 3 due to the variation in geological deposits in this area, as well as features thought to relate to extraction activities.

6 ASSESSMENT OF ARCHAEOLOGICAL POTENTIAL AND SIGNIFICANCE

6.1 Introduction

- 6.1.1 This section provides an initial assessment of the significance of potential archaeological remains which may lie within the Site, that may be subject to physical impacts. The significance of the archaeological resource is predominantly derived from its archaeological interest as outlined in sections 6.4 and 6.5.



6.2 Assessment of archaeological survival and previous impacts

- 6.2.1 Historic mapping has indicated that the majority of the Site has been used as agricultural land and much of the Site has been periodically used for orchard. Agricultural activities such as ploughing, planting of fruit trees, removing of fruit trees, changes to field boundaries, and installation of land drains have the potential to have damaged archaeological remains within the Site. However, the depth of these activities and disturbance is currently unknown across the Site and there is potential for archaeological remains to survive beneath the level of impact of these activities. Excavations within the Site have revealed that archaeological remains have been shown to be preserved within the Site.
- 6.2.2 Areas of the Site used for chalk quarrying at Highsted Quarry will have removed pre-dating archaeological deposits within the footprint of these works. Brickearth extraction to the south of Bapchild in the areas east and west of Haywood will also have impacted on the Quaternary deposits and associated archaeology. However, although this brickearth extraction will have likely removed all post-Palaeolithic archaeology from these areas, parts the Pleistocene Head-brickearth sequence and underlying Coombe deposits known to be associated with Middle Palaeolithic archaeology are likely to be preserved. These areas may also contain industrial archaeological remains. Areas of quarrying shown on historic maps, on Environment Agency Landfill information and disturbance shown on LIDAR data area shown on **Figure 5**.

6.3 Historic Environment Areas

- 6.3.1 The Site has been divided into Historic Environment Areas to demonstrate the different areas of archaeological potential across the Site. The Historic Environment Areas are based upon the data collected for the baseline, including the Historic Environment Record, Historic mapping, Site visit, Aerial photographs, LIDAR imagery and geological and topographic information. A description of each area is provided in the **Table 2** below and shown on **Figure 14**.
- 6.3.2 Entries in the table are assigned a '*Potential*' rating, which represents a measure of probability. This has been determined via the application of professional judgement, informed by the evidence presented in the preceding sections of this assessment. '*Potential*' is expressed on a four-point scale, assigned in accordance with the following criteria:
- **High** Situations where archaeological assets are known or strongly suspected to be present within the Site or its vicinity and which are likely to be well preserved.
 - **Moderate** Includes cases where there are grounds for believing that archaeological assets may be present, but for which conclusive evidence is not currently available. This category is also applied in situations in which archaeological assets are likely to be present, but also where their state of preservation may have been compromised.
 - **Low** Circumstances where the available information indicates that archaeological assets are unlikely to be present, or that their state of preservation is liable to be severely compromised.
 - **Unknown** Cases where currently available information does not provide sufficient evidence on which to provide an informed assessment with regard to the potential for heritage assets to be present.



6.3.3 The relative ‘*Significance*’ of known and potential heritage assets included in **Table 1** has been determined in accordance with the criteria set out in **Section 3.3**.

6.4 Location and Topography of HEAs

6.4.1 The following table presents a description of the location and topography of each of the HEAs described below.

Table 1 Summary of background for HEAs

HEA No.	Location and Topography	Previous Investigation	Previous Impacts
HEA_1	HEA1 lies to the south of the A2 within the northern part of the Site, east and west of Dully’s Lane. This lies within topographic zone 7 which covers the area east of Rodmersham. This zone starts to gradually incline from the lower lying marshland outside of the Site to the north.	Archaeological investigation of land at Panteny Lane (EKE1563); within the northern part of HEA1. Comprising archaeological evaluation, watching brief and strip, map sample excavation. Only the southern extent of HEA1 was subject to geophysical survey.	Area used as arable land and as orchard, which may have affected the survival of archaeological remains. Some small chalk pits are recorded on historic maps. Overall, the survival of archaeological remains in this area is expected to be good.
HEA_2	HEA2 covers an area which was extracted for brickearth in the 1920s. This isn’t shown on the OS mapping but can be seen on LiDAR imagery and is plotted on a plan relating to Palaeolithic findings during the extraction. Topographically this area lies within zone 7, to the south of the A2 and immediately east of Bapchild; although the natural topography of this area has been altered through the extraction.	The previous quarrying produced large numbers of artefacts recovered from these works in the 1920s, however this was not systematic investigation for archaeological purposes.	Whilst some Palaeolithic finds were recovered during the quarrying works it is likely that these works have removed archaeological potential of HEA2 for the post-palaeolithic period.
HEA_3	HEA3 covers an area which was extracted for brickearth in the 1920s. This isn’t shown on the OS mapping but can be seen on LiDAR imagery and is plotted on a plan relating to Palaeolithic findings during the extraction. Topographically this area lies within zone 7, to the south of the A2, in the eastern part of the Site, east of Dully Road and south of Radfield. Although the natural topography of this area has been altered through the extraction.	The previous quarrying produced large numbers of artefacts recovered from these works in the 1920s, however this was not systematic investigation for archaeological purposes.	Whilst some Palaeolithic finds were recovered during the quarrying works it is likely that these works have removed archaeological potential of HEA2 for the post-palaeolithic period.
HEA_4	HEA4 lies in the southern corner of the north eastern part of the Site, east of	HEA4 has not been previously investigated aside from the geophysical	Area used as arable land and as orchard, which may have affected the survival of



	Rodmersham and west of Dully Road. This area is currently used predominately as arable land with a single parcel used for orchard. This area lies within topographic zone 7 with the land on a gradual incline from the lower lying areas to the north.	survey undertaken in 2020 for the purposes of the development.	archaeological remains. Some small chalk pits recorded on historic maps. Overall the survival of archaeological remains in this area is expected to be good.
HEA-5	HEA5 lies immediately to the west of Rodmersham and north of Rodmersham Court Farm. This area lies within topographic zone 6 where the land is on a gradual incline from the lower lying areas to the north.	No previous archaeological investigation has been undertaken in this area and this area did not form part of the geophysical survey undertaken within the Site.	Area used as arable land and as orchard, which may have affected the survival of archaeological remains. Some small chalk pits recorded on historic maps. Overall the survival of archaeological remains in this area is expected to be good.
HEA_6	HEA6 lies between the south west of Bapchild and the south east of Sittingbourne within topographic zone 6. This zone lies on the land which gradually rises from the lower lying ground in the south to the higher ground in the south. This area is currently comprised on agricultural land.	No previous intrusive archaeological investigation has been undertaken within this area. A corridor which is proposed for the road was subject to geophysical survey for the purposes of this assessment	Previous impacts in this area have consisted of planting of areas of woodland and orchard. The remaining areas have been used for agricultural land.
HEA_7	HEA7 lies to the south east of Sittingbourne and to the west of Rodmersham. To the south HEA7 is bordered by part of the Highsted Chalk Quarry, now covered by woodland. HEA7 is currently used for a mixture of arable and commercial orchard.	No previous intrusive investigation has been undertaken within HEA7 although numerous investigations have been undertaken immediately to the west. Part of HEA7 has been subject to geophysical survey as part of the route of the road and for the proposed Highsted Village West. Part of this area could not be undertaken due to orchard in the north western corner of HEA7. The area surrounding the road was excluded from the geophysical survey.	This area has previously been used as orchard and arable land. HEA7 lies adjacent to a former area of chalk quarrying but this is not thought to have extended within HEA7.
HEA_8	HEA8 is formed of two areas which were formerly the Highsted Chalk Quarry. The chalk quarry was not backfilled and as such is surrounded by a high fence with no public access permitted due to health and	There is a record that burials of Iron Age date were found during the excavation for the quarry in 1922 comprising between 19 and 26 burials enclosed by a ditch.	This area was formerly the Highsted Chalk Quarry and extraction of the chalk bedrock would have taken place within this area. This would have removed all archaeological remains, however some industrial



	safety reasons. Since the closure of the quarry the area has become wooded.		archaeological could survive
HEA_9	HEA9 lies within the centre of the Site, adjacent to the former Highsted Quarry. This area is currently used as a mixture of arable and orchard. Part of HEA9 is also covered by Highsted Wood which is an area of ancient woodland. This area is part of topographic zone 4 which covers the elevated land around Highsted Wood which is topographically bounded by dry valleys to its west and east and the Kent Science Park to the south.	A series of fieldwalking, earthwork recording and trenching was undertaken in Highsted Wood, which found finds dating from Mesolithic to Roman and a series of bank and ditch earthworks and some possible Neolithic postholes. Some geophysical survey for the purposes of the development has been undertaken within HEA9 along the eastern and northern edge of Highsted Wood. The eastern and northern parts of HEA9 have not been subject to any intrusive or non-intrusive survey.	HEA9 has previously been used as a mixture of arable and orchard. Highsted Wood was also more extensive than today so a larger area would have been wooded.
HEA_10	HEA10 lies within the eastern part of the central portion of the Site, to the east of Highsted Quarry. It is currently occupied by arable land. HEA10 lies within topographic zone 6 with the land rising quite steeply from Highsted Road to the south east towards the higher ground at Rodmersham Green.	There has been no previous intrusive investigation within HEA10. Part of HEA10 was covered as part of the geophysical survey within the area proposed for the road. This did not identify any anomalies of possible or probable archaeology but did reveal some trends interpreted as evidence for ridge and furrow	HEA10 has previously been used for orchard with a linear section formerly part of Golden Wood. Previous impacts may have occurred from planting of trees and rooting, although archaeology can survive below the level of these impacts.
HEA_11	HEA11 lies within the central southern part of the Site. This area is currently occupied by an arable field and an area of overgrown meadow/scrub. HEA11 lies over both topographic zones 4 and 8 where the land slopes down toward the dry valley along Bottom Pond Road along the eastern boundary of the Site.	The Site has not been subject to any previous intrusive or non-intrusive archaeological surveys.	HEA11 has been previously used as a mixture of arable and orchard. It is possible that some previous ground impacts may have arisen due to activities such as planting of orchard and ploughing although archaeological remains can survive beneath the levels of these activities.
HEA_12	HEA12 lies in the central southern part of the Site over what was formerly the grounds of Woodstock Manor. This area is currently occupied by arable fields and the northern part of the Kent Science Park.	No previous intrusive investigation has been undertaken within HEA12. The majority of HEA12 has been subject to geophysical survey aside from the Kent Science Park which was unsuitable for survey.	Previous impacts within HEA12 would have been associated with its use as the grounds associated with the manor such as planting, pathways and buildings as well as a small chalk pit in the southern extent. Following this the southern part of HEA12 was



			developed as part of the Kent Science Park.
HEA_13	HEA13 lies within the south western part of the Site, to the west of Ruins Barn Road. This area is currently comprised of two large arable fields. This area sits within topographic zone 1, which is delineated to the east and the south by dry valleys. The land parcels themselves sit on higher ground and are relatively flat.	No previous intrusive investigation has been undertaken in HEA13. This area has been subject to geophysical survey as L.P.1.1, 1.2 and 2.19.	HEA13 has predominantly been used as arable land, with the north western corner used temporarily for orchard in the mid 20th century. Previous impacts may have occurred from continuous ploughing and planting in the north western corner, although archaeological remains area can survive below the level of these impacts.
HEA_14	HEA14 lies towards the south eastern corner of the Site, covering the eastern part of the Kent Science Park and the two areas to the east of this which are currently used as arable land. HEA14 is part of topographic zone 3, and HEA14 lies on an area of high ground to the west of the dry valley along Bottom Pond Road. This area lies adjacent to Cromers Wood.	No previous intrusive investigation has been undertaken within this area. The areas that were suitable for geophysical survey were undertaken for the purposes of this project as L.P.2.6, 2.7, 2.8 and 2.9	HEA14 has previously been used for orchard and arable land, which may have affected below ground archaeological remains in these areas through continuous ploughing and planting, although archaeological remains are known to survive beneath this level of impact. The construction of the Kent Science Park is likely to have truncated archaeological remains within the footprint of these buildings although archaeological remains could survive in areas such as car parks or landscaped areas.
HEA_15	HEA15 lies within the southernmost extent of the Site, covering the large arable fields on either side of the M2 motorway. This area lies within topographic zone 3 which overs the high ground to the west of the dry valley which runs along Bottom Pond Road.	No previous intrusive archaeological investigation has been undertaken within HEA15. The areas which are proposed for development within HEA15 have been subject to geophysical survey in L.P.2.1, 2.24 and 2.25.	The main previous impact within this area would have arisen from the construction of the M2 motorway, which is likely to have damaged/removed archaeological remains within its footprint The remainder of HEA15 has been used as arable land, with one instance of historic chalk quarrying over a very small area. As such archaeological remains within the arable fields are expecting to be well preserved.
HEA_16	HEA16 lies within the south western corner of the Site and is currently comprised of predominantly arable land with an area of ancient	No previous intrusive archaeological investigation has been undertaken within HEA16. This area was subject to geophysical	This area has previously been used as arable land and orchard. Bexon Wood was also previously larger and extended further north



	<p>woodland (Bexon Wood) and the south western part of the Kent Science Park. This area lies within topographic zone 2 which lies on a promontory of land that is bound by the dry valley to the north which sweeps southwards on the areas eastern boundary. Another dry valley runs immediately east of the Kent Science Park</p>	<p>survey for the purposes of this application as L.P.2.20, 2.21, 2.23 and part of 2.1.</p>	<p>than its current extent. Previous impacts may have occurred from rooting and planting as well as continuous ploughing of the area, although these impacts are not likely to have diminished the archaeological potential of this area.</p>
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Table 2 Historic Environment Areas (Figure 15)

HEA no.	Period	Potential	Description	Significance
HEA_1	Bronze Age, Iron Age, Romano-British	High	Archaeological investigation within the northern part of this area of the Site have revealed Bronze Age remains which may extend beyond the limits of the investigation. Romano-British finds have been recorded within and adjacent to the site and Romano-British settlement evidence was found adjacent to this part of the Site at Radfield. The northern part of this area lies adjacent to the Roman Road and part of a metalled surface was identified at Radfield. There is potential for further roadside settlement to be found within this area. A number of Iron Age finds have also been found within this area. Geophysical anomalies of possible archaeological origin were identified in the south western part of HEA1.	Moderate/Low
	Palaeolithic	High	Adjacent to areas that have produced Middle and late Upper Palaeolithic archaeology from Head-brickearth and underlying solifluction deposits. Head-brickearth deposits mapped as infilling valley running north-south through area. Lateral equivalents of deposits associated with Middle and Upper Palaeolithic archaeology likely to be present.	Moderate-High
HEA_2	20th century	Moderate for industrial archaeology. Low for other periods due to former quarrying	Potential for 20th century industrial archaeology to be found associated with the brick earth extraction. Previously Romano-British inhumations and cremations were found during the quarrying works so there is potential for survival of archaeological remains to survive within areas that have not been subject to quarrying. It is unlikely that archaeological remains of post-Palaeolithic date will survive in this area.	Low
	Palaeolithic	High	Area has produced Middle Palaeolithic archaeology. Area has been subject to previous brickearth extraction. Middle Palaeolithic archaeology recovered from solifluction deposits at base of brickearth; high potential that continuation of these deposits are present. Parts of Head-brickearth sequence may also be present.	Moderate-High
HEA_3	20th century	Moderate for industrial archaeology. Low for other periods due to former quarrying	Potential for 20th century industrial archaeology to be found associated with the brick earth extraction. Unlikely that post-Palaeolithic archaeology will survive below the level of the brickearth extraction, so survival of archaeology is considered to be low. It should be noted that the potential for archaeology would be high in this area had it not been for the brickearth extraction.	Low
	Palaeolithic	Moderate/High	Area has produced Late Upper Palaeolithic archaeology from Head-brickearth sequence, including from gravelly unit at base. Area has been subject to brickearth extraction. Potential for parts of Head-brickearth sequence and underlying solifluction deposits to preserved within area.	Moderate-High
HEA_4	All periods	Moderate	Undated D shaped enclosure cropmark recorded in this area and possible features were identified from the LIDAR survey in this area. Potential for post-medieval and modern agricultural activity associated with the surrounding farmsteads. Area lies adjacent to Rodmersham thought to have had its origins in the Anglo-Saxon period so possibility for medieval agricultural landscape. 19th century limekiln recorded in the eastern extent of the Site. Possible features were identified from the LIDAR survey in this area. A number of possible archaeological anomalies were identified across HEA4 comprising ditch-like and pit-	Moderate/Low



HEA no.	Period	Potential	Description	Significance
			like features. A rectilinear enclosure was also identified of probable archaeological origin (3002).	
	Palaeolithic	High	Adjacent to areas that have produced Middle and late Upper Palaeolithic archaeology from Head-brickearth sequence and underlying solifluction deposits. Head-brickearth deposits mapped as infilling valley running north-south through central part area indicating that lateral equivalents of these likely to be present. Additional Head-brickearth sequences recorded in eastern part of area and along western margin; indicates that deposits broadly equivalent to those which have produced Middle and Upper Palaeolithic archaeology in HEA_1 and HEA_2 are present.	Moderate-High
HEA_5	Medieval, Post-medieval to Modern	Low/Unknown	Post-medieval and 19th century outfarm is recorded adjacent to this area, reflecting the agricultural land surrounding Rodmersham and Rodmersham Green. Possibility for earlier medieval field systems to be present so close to the village. No archaeological investigation within this area so potential for other unknown archaeology. The southern part of the possible large semi-circular feature identified on the LIDAR lies within this area and there is potential for this to be of archaeological origin. Two possible circular features identified on the LIDAR were also present within this area.	Low
	Palaeolithic	Moderate	Head-brickearth deposits are mapped in the northern part and eastern and western sides of the southern part of the area; indicates that deposits broadly equivalent to those which have produced Middle and Upper Palaeolithic archaeology in HEA_1 and HEA_2 are present. Two handaxes are recorded from Rodmersham	Moderate-High
HEA_6	All periods	Moderate/High	Excavation undertaken at Sittingbourne community college found evidence for Neolithic/Bronze Age, Iron Age/Roman, Anglo-Saxon period and undated ditches to the north of the Site. This area also lies close to a number of post-medieval outfarms/farmsteads to the north of the Site. Archaeological remains dating to Bronze Age, Iron Age and Romano-British period were discovered to the west of the Site as well as a Romano-British cemetery. Geophysical survey identified a rectilinear enclosure and a curvilinear and linear anomaly in this area (anomalies 3000 and 3001). Possible pit-like features were also identified (3021 and 3049). LIDAR images show the northern part of the large semi-circular feature to lie within this area as well as some possible medieval or post-medieval strip fields.	Low-Moderate
	Palaeolithic	Moderate/High	This area lies adjacent to area that has produced Middle Palaeolithic archaeology. Head-brickearth deposits mapped across large parts of area; indicates that deposits broadly equivalent to those which have produced Middle and Upper Palaeolithic archaeology in HEA_1 and HEA_2 are present.	Moderate-High
HEA_7	Iron Age, Romano-British, Bronze Age and Medieval	High	This area lies between two cemeteries of Romano-British date as well as some Iron Age inhumations also recovered to the south and it is possible that the extents of the cemeteries could extend beyond the known boundaries. Bronze Age and medieval remains were discovered to the west of the Site and as such there is potential for further remains to continue into this area. LIDAR images show a potential square feature within the northern corner of this area which could be of archaeological origin or as a result of quarrying. Possible evidence for ridge and furrow was identified during the geophysical survey in HEA_7.	Moderate-High



HEA no.	Period	Potential	Description	Significance
	Palaeolithic	Moderate	Head-brickearth deposits are mapped in the central part and along eastern and western margins of area; indicates that deposits broadly equivalent to those which have produced Middle and Upper Palaeolithic archaeology in HEA_1 and HEA_2 are present.	Moderate-High
HEA_8	19th-20th century industrial archaeology	High for Industrial Archaeology. Low for all other periods due to quarrying	Potential for industrial archaeology associated with Highsted quarry. Historic maps show a chalk pit, wash mill and tramway with tunnel beneath the road. Also thought to have been used as an air raid shelter during WWII. Pre-dating archaeology was recorded/destroyed during quarrying.	Moderate/Low
	Palaeolithic	Low	Chalk extraction associated with Highsted quarry likely to have removed all Pleistocene deposits; potential for Pleistocene deposits and associated Palaeolithic archaeology is low.	Unknown
HEA_9	Prehistoric and Romano-British	Moderate	Iron Age pottery and Neolithic postholes were recorded during an investigation within this area. Geophysical Survey also identified some anomalies of possible archaeological origin. Earthworks relating to a bank and ditch and a possible holloway have also been suggested within this area which were thought to relate to an Iron Age site. Adjacent to the western boundary of the Site is a possible cropmark of a Roman Road thought to be aligned NE-SW which could continue within the Site.	Moderate/Low
	Palaeolithic	Moderate	Head-brickearth deposits are mapped across much of area; indicates that deposits broadly equivalent to those which have produced Middle and Upper Palaeolithic archaeology in HEA_1 and HEA_2 are present.	Moderate-High
HEA_10	Medieval-Post-medieval and Iron Age-Romano-British	Low/Unknown	This area surrounds Rodmersham Green and it is possible that the surrounding area may have been used as agricultural land at this time and during the post-medieval period. It is possible that the Iron Age and Roman Cemetery recorded during the quarrying to the north west of this area could continue into this area. Possible features were identified on the LIDAR but is possible that these were associated with the wooded boundary of Golden Wood.	Low/Moderate
	Palaeolithic	Moderate	Head-brickearth deposits are mapped across southern and central part of area, as well as along eastern and western margins; indicates that deposits broadly equivalent to those which have produced Middle and Upper Palaeolithic archaeology in HEA_1 and HEA_2 are present. Two handaxes are recorded from Rodmersham.	Moderate-High
HEA_11	Bronze Age	Low/Unknown	A possible Tumulus is recorded in Cromers Wood but its exact location is unknown. This HEA area may have been previously covered by woodland extending from Cromers Wood. Potential for archaeology within this area is largely unknown due to a lack of investigation within the surrounding area.	Low/Unknown
	Palaeolithic	Moderate	Head-brickearth deposits are mapped across eastern margin of areas; this indicates that deposits broadly equivalent to those which have produced Middle and Upper Palaeolithic archaeology in HEA_1 and HEA_2 are present.	Moderate-High
HEA_12	Medieval-Post-medieval	Low/Unknown	This area covers Woodstock/Pistock Manor, known to have existed throughout the post-medieval period and may have had earlier origins. Possible parkland features could be found within this area. A possible square enclosure can be identified on the LIDAR data within this area of unknown date.	Low/Unknown



HEA no.	Period	Potential	Description	Significance
	Palaeolithic	Moderate/Unknown	Head-brickearth deposits are mapped in north, eastern and western parts of area; indicates that deposits broadly equivalent to those which have produced Middle and Upper Palaeolithic archaeology in HEA_1 and HEA_2 are present. Clay-with-flints is mapped in the southern part of the area; indicates broad potential for capture points associated with Palaeolithic archaeology to be present but no information is available to assess specific potential.	Moderate-High/Unknown
HEA_13	Prehistoric, Roman, Post-medieval	Moderate	A small number of isolated finds have been found within this part of the Site and to the immediate north suggested some low-level activity in this area. The unfinished Cromers Manor lies to the north of the Site but are unlikely to extend within the Site itself however some land management of the time could be evident. An undated curvilinear exists has been identified from cropmarks which can be seen as a circular feature on the LIDAR within this HEA. Geophysical survey within this area has identified a number of probable and possible archaeological features comprising possible enclosures, ditch-like and pit-like features currently of unknown date but tentatively suggested to be of Iron Age or Roman date.	Low
	Palaeolithic	Unknown	Clay-with-flints is mapped in the central part of the area; indicates broad potential for capture points associated with Palaeolithic archaeology to be present but no information is available to assess specific potential.	Unknown
HEA_14	Post-medieval, Bronze Age	Low/Unknown	This HEA lies adjacent to a number of post-medieval/19th century farmsteads and is likely to have formed the agricultural land surrounding the farmstead. This area also lies close to the possible tumulus recorded within Cromers Wood. Possible archaeological linear features were identified in HEA14 comprising short sections of linear features, although it was noted that these are more likely to pertain to natural features rather than archaeology.	Low
	Palaeolithic	Moderate/Unknown	Head-brickearth deposits are mapped along eastern margin of area; indicates that deposits broadly equivalent to those which have produced Middle and Upper Palaeolithic archaeology in HEA_1 and HEA_2 are present. Clay-with-flints is mapped across eastern and southern part of the area; indicates broad potential for capture points associated with Palaeolithic archaeology to be present but no information is available to assess specific potential.	Moderate-High/Unknown
HEA_15	Possible Iron Age/Roman	Unknown	No intrusive archaeological work has been undertaken within or close to this area so the potential for archaeological remains within the area is unconfirmed. Geophysical survey within this area has identified to areas of concentrated archaeological anomalies interpreted as being possible settlement activity with an associated industrial area to the north (anomalies 2000 and 2001). These have been tentatively assigned a Late Iron Age or Roman date. A possible former field boundary has been identified from the LIDAR data. This area is not known to have been previously disturbed so survival in this area is expected to be good.	Low to Moderate
	Palaeolithic	Unknown	Clay-with-flints is mapped across much of area; indicates broad potential for capture points associated with Palaeolithic archaeology to be present but no information is available to assess specific potential.	Unknown
HEA_16	Iron Age to Romano-British	Unknown	No intrusive archaeological work has been undertaken within or close to this area so the potential for archaeological remains within the area remains unconfirmed. This area is not known to have been previously disturbed so survival in this area is expected to be good. Geophysical survey within this area has identified a number of probable and possible archaeological features comprising possible enclosures,	Low



HEA no.	Period	Potential	Description	Significance
			ditch-like and pit-like features currently of unknown date but tentatively suggested to be of Iron Age or Roman date.	
	Palaeolithic	Moderate/Unknown	Small outcrops of Head-brickearth deposits are mapped in northern part of area; indicates that deposits broadly equivalent to those which have produced Middle and Upper Palaeolithic archaeology in HEA_1 and HEA_2 are present. Clay-with-flints is mapped across central and southern parts of the area; indicates broad potential for capture points associated with Palaeolithic archaeology to be present but no information is available to assess specific potential.	Unknown



6.5 Known heritage Assets with Archaeological Interest

- 6.5.1 Small scale intrusive archaeological investigations have been undertaken within the Site to date. Investigations within the Site have demonstrated that where Head-Brickearth deposits infill dry valleys they can overlie 'Coombe deposits' consisting of clays, sands and gravels that have been soliflucted downslope under cold conditions. In addition, the Head-Brickearth itself has been shown to include windblown loessic sediments. These aeolian deposits include Limons a Doublet (paired silts) – these reflect periods of primary loess deposition sandwiched between periods of stabilisation without loess being deposited. During the latter, clay translocation forms alternating clay silt horizons. Limons a Doublet are geoarchaeologically important as they demonstrate episodic fine grained aeolian deposition, whilst stabilisation horizons (which can be associated with soil formation) within such sequences have the potential to preserve horizons containing minimally disturbed archaeology. These deposits are considered to be of moderate to high significance.
- 6.5.2 In the northern part of the Site features pertaining to a Bronze Age farmstead were identified. Features included parallel ditches or droveways set out at right angles, coupled with enclosure ditches and features associated with animal husbandry, comprising pens, droveways and sorting of livestock. A three-way drafting gate system was also recognised. The absence of an occupation site indicates that the living areas have either been destroyed by ploughing or lay beyond the area excavated. This site represents evidence for early management of the landscape and the primary focus of this site would have been associated with land divisions and demarcation comprising the management and control of domesticated livestock within a co-axial system of land division. The social and economic pressures of a growing population of humans and animals in the Bronze Age, resulted in a growing pressure on the land and the middle Bronze Age has some of the first complex field systems seen in Britain. The Bronze Age farmstead is considered to be of low significance.
- 6.5.3 Iron Age and Romano-British burials were discovered within the site in the early 20th century from Highsted Quarry. Between 19 and 26 Iron Age inhumation burials were discovered enclosed by a ditch. Roman burials included cremation and inhumation burials including the discovery of a lead coffin. Typically, burials within the Roman period were placed outside of settlements and commonly alongside the routes of main Roman roads. As such the position of these burials close to the route of Watling Street (A2) is not unexpected. These burials have been excavated and removed from the Site however there is potential for further burials to exist. The burials discovered and any additional burials that may exist would be of high significance.
- 6.5.4 A small number of features were found during investigations at Highsted Wood comprising an undated ditch and Neolithic postholes. A possible Iron Age site was suggested after a series of fieldwalking, earthwork recording, geophysics and trenching at Highsted Wood. The fieldwalking revealed finds dating from the Mesolithic to Roman period and a series of banks and ditches were recorded suggested to be part of an Iron Age settlement site, however none of the features identified during the archaeological investigation were positively identified as being of Iron Age date. These features in isolation and the uncertainty of the date, mean that these are considered to be of low significance.
- 6.5.5 Pistock/Woodstock manor is known to have existed from at least the late 15th century and represents the development of the manor from a small farm to a formal manor with an associated formal parkland landscape by the 18th century. The manor was built alongside the farmstead but by 1930 had fallen into disrepair. In the 20th century the farmhouse, stable and dairy were incorporated into the Kent Science Park. Parts of the parkland



landscape survive within the Site including parkland trees and iron fencing. The former manor and its parkland derive their significance predominantly from their historic interest, with a small part derived from archaeological interest should remains of the former structures exist below ground. The manor and its parkland are considered to be of low archaeological significance.

6.6 Potential Heritage Assets with Archaeological Interest

- 6.6.1 A number of potential features have been identified within the Site through consultation with aerial photographs and LiDAR data. These have not been ground truthed by any intrusive investigation and as such their date and significance is confirmed. A range of likely significance is applied where this uncertainty remains.
- 6.6.2 Geophysical survey has identified a number of anomalies identified as being of archaeological origin or possible archaeological origin. The geophysical survey identified a number of ditch-like features which could relate to enclosures or field boundaries as well as a number of possible pit-like features. Within the south eastern corner of the Site a concentration of features is thought to represent possible settlement and/or industrial activity possibly dating to the Iron Age or Romano-British period. The features identified through the geophysical survey are expected to be of low to moderate significance.
- 6.6.3 There is potential for assets of unknown date and significance to exist within the Site that have not been identified through the geophysics or LiDAR survey. At present the date, presence and significance of such features remains unknown. Potential features identified from aerial photographs include a curvilinear feature, possible quarry pit, and a D-shaped enclosure as well as some pit-like and possible linear features identified from the LiDAR. Based upon the size and density of these features these are likely to be of low significance.

7 HISTORIC LANDSCAPE CHARACTER- METHODOLOGY

7.1 Introduction

- 7.1.1 The European Landscape Convention, which was ratified by the UK government in 2006, states that 'landscape means an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors'.
- 7.1.2 At each point in the past, therefore, the character of the landscape has been a product of interactions between the natural environment (geology, soils, climate, flora and fauna), human impacts past and present (land use, settlement and inclosure) and an array of social discourses (religious, political and aesthetic). All landscapes, therefore, are intrinsically historic landscapes.
- 7.1.3 Not only has the physical environment of the Site been transformed over the last 10,000 years by both human and natural forces, but people's perceptions of their relationships to the land have also continually changed.

7.2 Historic Landscape characterisation history and principles

- 7.2.1 Historic Landscape Characterisation (HLC) involves the systematic identification and description of historic components in the present-day landscape. The method, pioneered by the Cornwall Archaeological Unit and since developed in subsequent studies, produces a typology of historic landscape character types by analysing the present-day landscape in terms of its historic origins, process and change.



7.2.2 In order to manage future change in the landscape it is important to understand the evolution of the landscape that surrounds us. While HLC, as a means of giving time-depth to assessments of present-day landscape character, necessarily looks at historic character from the perspective of the present, a landscape's historic character is an evolving attribute which cannot be properly understood without attempting to trace its evolution through the past (English Heritage and Lancashire County Council 2004).

7.2.3 Some of the key principles of Historic Landscape Characterisation are (after Aldred and Fairclough 2003):

- *Present not past; landscape as material culture: it is the present-day landscape that is the main object of study and protection;*
- *Landscape as history not geography: the most important characteristic of landscape is its time depth; how change and earlier landscapes exist in the present landscape;*
- *HLC- based research and understanding is concerned with area not point data-landscapes not sites;*
- *All aspects of the landscape no matter how modern, are treated as part of the historic landscape character; and*
- *Semi-natural and living features (woodland, land-cover, hedges) are as much part of the landscape characters as archaeological features.*

7.2.4 When characterising the historic landscape, it is important to consider the following:

- *Define historic character first and foremost in its present-day landscape;*
- *Identify interactions and change in the landscape through time;*
- *Characterise the whole of the landscape, not designate selected parts;*
- *Use an archaeologist's approach to 'read' landscape as material culture;*
- *Use the present-day landscape itself as the main source, through the desk-based medium of maps, satellite imagery, using GIS;*
- *Understand 'landscape' through interpretation and perception rather than purely as an objective thing; and*
- *Remember that landscape is and always has been dynamic, both in terms of physical material components and shifting attitudes to it; thus, management and change not preservation is the aim.*

7.3 Sources

7.3.1 A number of publicly accessible sources of primary and synthesised information were consulted. These comprised:

- *Historic manuscripts, surveyed maps, and Ordnance Survey maps held at the Kent History and Library Centre;*
- *Online Satellite Imagery from Google Maps and Bing Maps;*



- *The Kent Historic Landscape Characterisation Project;*
- *The National Heritage List for England (NHLE), the official and up to date database of all nationally designated heritage assets; and*
- *The KHER comprising a database of recorded archaeological sites, find spots, and archaeological records within the county.*

7.4 Broad Character Type

7.4.1 The characterisation process began by identifying physical patterns in the present landscape, largely from satellite imagery and modern OS mapping. GIS polygons were then drawn around the areas with common characteristics. Six Broad character types were defined within Site and are listed below;

- *Enclosed Land;*
- *Orchard;*
- *Woodland;*
- *Settlement;*
- *Transport; and*
- *Industrial.*

7.5 Character Type

7.5.1 The six broad character types were then sub-divided into more specific character types (**Figure 15** and **16**). These types largely reflect those character types used within the existing Kent Historic Landscape Characterisation (**Figure 14**; Oxford Archaeology 2001) and the rationale behind their use is set out in Volume 2 of that report.

Table 3 Historic Landscape Characterisation types

Broad Type	Character type
Enclosed Land	Fields predominantly bounded by tracks roads and other rights of way Large regular fields with straight boundaries Medium regular fields with straight boundaries Miscellaneous valley bottom paddocks and enclosures Prairie fields (19 th century enclosure with extensive boundary loss)
Orchard	Orchards
Woodland	Pre 19 th century Coppices Other pre-1810 woodland Replanted other pre-1810 Woodland
Settlement	Scattered settlement with paddocks (post 1800 extent) Post 1810 Settlement Pre 1801 Parkland Hamlet or Village 1810 extent Post 1801 parkland
Transport	Local Roads Highways and Motorways



Broad Type	Character type
Industrial	Active and disused chalk quarries Industrial complexes and factories

7.5.2 Where a proposed present-day character type would cover an area with more than one previous historic character, two or more polygons were drawn to allow the difference to be highlighted. As the present historic character is the same, these polygons will have the same broad type and character type, but the database will record the variation in past character (**Appendix 4**).

7.5.3 Each present character type has been given a rating in relation to the legibility of historic patterns and characteristics that can be seen within the existing landscape (an attribute pioneered by the South Yorkshire Historic Environment Characterisation Project 2008). The extent of such legibility is recorded as Complete, Significant, Partial, Fragmentary or Invisible, depending on the ease with which such remains can be read in the present landscape.

Table 4 Historic Legibility

Legibility	Description
Complete	Used if the present-day character type has historical value
Significant	Many elements of the previous historic landscape character types are visible and form prominent elements in the present environment
Partial	Evidence relating to previous character types is visible within the present landscape but is, on the whole, discontinuous
Fragmentary	Very Little Remains visible; intelligible only through detailed study
Invisible	Evidence relating to previous character types is not visible

7.5.4 Analysis of the characterisation data will result in a narrative for each geographical area detailing the character types in term is historic landscape processes, time depth, historic legibility and in comparison to other landscape data. For each geographical area (parish), and examination of the following information will be made:

- *The geological, topographical and hydrological context of each area;*
- *The areas present character, as defined by the component character types;*
- *The historic background of the area; and*
- *The present state of the archaeological knowledge as presented on the Kent Historic Environment Record.*

7.5.5 Each area will then be assigned a significance rating based on criteria set out in **Section 6.6**. An assessment of the effect of the development on the historic landscape will then be addressed fully in the Environmental Statement.

7.6 Significance

7.6.1 There is no statutory guidance for evaluating the significance of historic landscapes, although, within a historic landscape zone certain elements of that landscape may have statutory designations, such as Registered Parks and Gardens (Grades I, II* and II), Registered Battlefields, Scheduled Monuments and Listed Buildings which individually

may be as highly significant. However, the overall significance of the historic landscape is not necessarily determined by the presence or absence of statutorily designated sites and/or areas. Rather, the character of a given landscape is shaped by a combination of historically derived land uses, key features and patterns which are still in evidence within the landscape today. In many cases, the more prominent features of a landscape area, such as traditional field boundaries, settlement patterns or transport routes may not be highly valued individually. Nevertheless, such elements are considered to contribute to the overall significance of a landscape, the sum of which may be greater than its individual components.

7.6.2 The following table outlines the different significance ratings in relation to the historic landscape;

Table 5 Significance Criteria

Significance	Categories
Very High	World Heritage Sites inscribed for their historic landscape qualities. Other historic landscapes of international importance
High	Designated historic landscapes of outstanding interest. Undesignated landscapes of outstanding interest. Undesignated landscapes of high quality and importance, and of demonstrable national importance.
Moderate	Designated special historic landscapes. Undesignated historic landscapes that would justify special historic landscape designation. Landscapes of regional importance. Historic landscapes with specific and substantial importance to the wider community
Low	Undesignated historic landscapes of local importance. Historic landscapes with specific and substantial importance to local interest groups, but with limited wider importance. Historic landscapes whose importance is limited by poor preservation and/or poor survival of contextual associations. Historic landscapes of limited value. Including those for which detailed information is available in primary sources and where further investigation would add no significant information.
Negligible	Landscapes that are so badly damaged that too little now remains to justify their inclusion in a higher grade. Sites with no surviving historic content.
Unknown	The importance of the resource cannot be ascertained due to limited existing information.

8 HISTORIC LANDSCAPE BASELINE RESOURCE

8.1 Introduction

8.1.1 The following section provides a summary historic landscape character within the Site, compiled from the sources summarised above and detailed in the references section of this report. The aim is to identify the known and potential components of the historic landscape that could be affected by the proposed development. The Kent Historic Landscape Characterisation is shown on **Figure 15** and more detailed areas referenced in the text are shown on **Figures 16** and **17** with a gazetteer produced in **Appendix 4**. Historic maps referenced in the text are shown on **Figures 19-22**.

8.2 Historical context

8.2.1 The following section summary of the historical development of the Site compiled from observations on the Site visit, aerial photographs, LIDAR images, the Kent Historic

Landscape Character Assessment, historic and modern OS maps and earlier historic mapping. The Site has been divided based upon its modern parish boundaries, for ease of reference, which are shown on **Figures 16** and **17**.

Bapchild

- 8.2.2 The parish of Bapchild covers a small part of the north western part of the Site (**Figure 17**). Bapchild lies between the parishes of Tong and Sittingbourne and covers an area to the north and south of the A2. Bapchild lies on a relatively low lying area of ground between 15-20m aOD. Towards the southern extent of Bapchild the land starts to incline to around 35m aOD. The Kent Historic Landscape Characterisation characterised the areas of the Site within the parish of Bapchild as being '*medium regular with straight boundaries (parliamentary type enclosure)*', '*orchard*' and '*fields predominantly bounded by tracks, roads and other rights of way*'. These types represent the former and current character of these parts of the Site.
- 8.2.3 Currently the part of the Site within the parish of Bapchild comprises parts of two large fields. This area has been divided into its past use which has been largely used for arable and orchard. These parts of the Site have predominantly been used for orchard in the mid-20th century with some orchard planted in the early part of the 20th century. This area had been returned to arable land by the end of the 20th century. These fields were formerly divided into smaller fields/orchard areas. As farming methods changed during the agricultural revolution in the 20th century, fields were amalgamated to accommodate larger farm machinery.
- 8.2.4 A small part of this area was formerly woodland until around the 1960s when this was removed for the land to be used for agricultural purposes. The small tract of woodland was known as Chestnut Shaw and formed a roughly north south strip of woodland.
- 8.2.5 HLC_85 contained a building with a water well shown from at least 1870. The building appears to be larger on the 2nd and 3rd edition maps of the late 19th and early 20th century buildings, and the rounded edges on the eastern and western sides may indicate the presence of oast houses at each end. The building appears to be smaller and more rectangular on maps dating to the 1930s-1960s and it maybe that earlier oast elements were removed. A well is shown to have been present alongside the building.
- 8.2.6 This part of the Site lay just beyond the extent of the settlement at Bapchild but close to Morris Court located to the north east of the Site. It is likely that this area was the agricultural farmland surrounding the small rural village. Since the field boundaries have changed over time and the use of the Site has changed, the historic legibility and time depth of past uses of the Site is partial or significant, except in the case of the woodland where the legibility is now invisible. The significance of the historic landscape within the part of the Site within Bapchild is considered to be low.

Tonge

- 8.2.7 The parish of Tonge covers the eastern part of the Site (**Figure 17**). The parish is long and thin in form extending south within the eastern part of the Site and continuing south beyond this. The area of the parish which lies within the Site is low lying at its northern extent towards the Swale and gradually increases in elevation with the highest point (within Tonge) in the south eastern corner of the Site. The Kent Historic Landscape Characterisation of this area has been characterised as '*fields predominantly bounded by tracks, roads and other rights of way*', '*small regular with straight boundaries (parliamentary type enclosure)*', '*post 1810 settlement*' and '*orchards*'. These types

represent the current and former uses of these parts of the Site. The current uses of these areas are largely arable with two small pockets used for pasture.

- 8.2.8 Tonge is known to have been used for chalk quarrying and brick earth extraction throughout the 19th and 20th centuries. Early evidence of this is shown on the historic maps which indicate a number of chalk pits within the Site, some of these are labelled old chalk pit by 1870 and as such are likely to have been used within the mid-19th century. It was common at this time for farmers/landowners to have their own private quarries rather than company owned quarries. The early quarries within the parish of Tonge seem to be focussed around Dully and Little Dully with three 'Old Chalk Pits' shown on the 2nd edition map. The parts of the Site around Dully and Little Dully are shown in **Plates 21-22**.
- 8.2.9 Large scale brickearth extraction was undertaken during the 20th century within the northern part of the Site. This activity is not shown on the historic maps however a plan from the 1920s-1930s includes a hand drawn plan of the areas where the extraction took place at this time. The quarrying is known to have continued after this time and the rough extent of the quarrying can be estimated from the areas of disturbance shown on the LIDAR survey and through aerial photographs. These have been mapped on **Figure 5**.
- 8.2.10 Archaeological works were undertaken in the northern part of the Site in advance of brickearth extraction in the early 2000's whilst the extent of this extraction is not included upon OS mapping, the Site visit observations did show some evidence of brick earth extraction in this area (**Plate 24**). A wash mill was located within HLC_102 which was associated with the brickearth extraction undertaken in the surrounding area during the 1920s-1930s, it may be that the extraction continued in this area into the 1960s as the washmill is still shown on the 1960s edition. However, the 1940s and 1960s aerial photos (AP) do not show any obvious extraction ongoing at these times. However, the 1940s AP shows that there may have been some former extraction immediately to the south of the wash mill. The areas that were formerly used for clay extraction were backfilled after use and as such there is little historic legibility of this use of the Site in the present landscape aside from a slightly dip in some areas. In these areas the historic legibility of the historic landscape character is invisible or fragmentary.
- 8.2.11 When the area has not been used for extraction the land has been used for arable use and orchard at various times. As with other areas of the Site there seems to have been more use of the area for orchard in the 20th century. Earlier smaller fields were also amalgamated into larger fields in the second part of the 20th century. The removal of these field boundaries degrades the historic legibility of the former character of the Site and as such many of these are considered to be partial or fragmentary. Areas of orchard exist within this part of the Site today (**Plate 20**).
- 8.2.12 The brickearth and chalk quarrying has local significance as it is an industry which was prevalent within the locality and would have provided a source of income for the area. Similarly, the use of this area for fruit growing during the 20th century would have had a local significance as a dominant agricultural industry which the area was known for.

Rodmersham

- 8.2.13 The parish of Rodmersham covers much of the central section of the Site (**Figure 16 & 17**) and extends south beyond the Site. Topographically this area lies at the interface between the lower lying ground to the north and the higher ground to the south. In addition a number of dry valleys bisect this area, resulting in a ridge with valley either side and another area of higher ground. This area is currently used as orchard, arable land and woodland, with much of the orchard focussed around the settlement at Rodmersham. The

Kent Historic Landscape Characterisation has characterised this part of the Site as 'orchards' and 'small regular with straight boundaries (parliamentary type enclosure)', 'active and disused gravel and clay workings', 'fields predominantly bounded by tracks, roads and other rights of way' and 'medium regular with straight boundaries (parliamentary type enclosure)'.

- 8.2.14 HLC_2 is currently occupied by woodland and forms one of the earlier parts of the Chalk quarrying at Highsted. It is currently occupied by woodland which has grown up within the disused quarry (**Plate 11**). The historic maps show that this quarry was open prior to the larger quarries which opened upon the south west in the 20th century. The 1870 OS map shows no evidence of any quarrying at this location however by 1896 a washmill is labelled with a small chalk pit surrounding it with a track leading from the main road. By 1909 the chalk quarry had grown considerably in size and additional buildings associated with the washmill and a short section of tramway or track can also be seen within the quarry. By the 1930s the Chalk Pit is labelled Old Chalk Pit suggesting its disuse, however the extents of the quarrying seem to have extended to the north between 1909 and 1930. Parts of the chalk pit appear to have been overgrown by this time, but the buildings are still shown on the mapping. By this time the adjacent quarry had opened up to the south west (HLC_1) to replace this one.
- 8.2.15 Much of the area of Rodmersham within the Site has been used as orchard at some point during the 19th and 20th centuries. The earlier OS maps of 1870 and 1898 show that small areas of the parish are covered by orchard, with orchard located on the north western side of Rodmersham and another area to the east of the quarries. By 1909 this had spread further south of Rodmersham and to the east of the quarries. Throughout the middle part of the 20th century this gradually increased and by 1961 almost all of the parish within the Site is covered by orchard. This gradually began to decrease again throughout the second part of the 20th century when much of the land was returned to arable. The historic legibility of this expanse of orchard surrounding Rodmersham can only really be read through the remaining areas of orchard currently at Rodmersham. Across much of this area the previous use of the Site as orchard is invisible within this landscape. The remaining field boundaries across this part of the Site were in place prior to the orchard so these reflect the former agricultural use of the Site rather than the orchard.
- 8.2.16 One part of the Site close to Cromers Wood is currently scrubland. This area has a wooded boundary at its northern edge and lies immediately adjacent to Cromers Wood. It is likely that this area was formerly occupied by woodland, but this is likely to have been cleared prior to the creation of the historic maps. This area is not shown to have been used for orchard but may have been used for arable at some point however the small size and unusual shape of the area may have made this impractical. Aerial photos from 1940s onwards show the area to be scrub.
- 8.2.17 Prior to the use of the area for orchard parts of Rodmersham were part of Golden Wood. This was a swathe of woodland which stretched from the modern A2 at Bapchild through the site and may have eventually joined up with Cromers Wood further south at some point. HLC_61, HLC_62 and HLC_63 were all part of Golden Wood as shown on the 1870 Ordnance Survey map. This area had been cleared and replaced with orchard by 1896 and the house known as Golden Wood was built. HLC_63 remained as woodland after much had been cleared, until 1960 when it was finally incorporated into the orchard.
- 8.2.18 Another small area of woodland was located within the northern part of the parish of Rodmersham known as Step Style Wood. This was a small square area of woodland and

the name may indicate a small step style used to exist within the area. It appears that the area had started to be cleared for orchard by the 1960s.

- 8.2.19 The historic legibility across Rodmersham is varied as Rodmersham covers the largest proportion of the Site. This ranges from complete to invisible where in some areas the historic landscape character has completely changed and in others is well preserved. The significance of the Historic Landscape Character types is considered to be low.

Sittingbourne

- 8.2.20 The parish of Sittingbourne covers small sections of the north western part of the Site (**Figure 17**). This part of the Site is located on the gradual topographical incline from the south to the north and lies at an elevation of approximately 30m aOD. The Kent Historic Landscape Characterisation has characterised the areas of the Site within the parish of Sittingbourne as being '*active and disused gravel and clay workings*', '*orchard*' and '*small regular with straight boundaries (parliamentary type enclosure)*'. These types represent the former uses of these parts of the Site but only as a snapshot in time, as many of these areas had more than one former use. The current use of these areas includes woodland, orchard, settlement and enclosed land.
- 8.2.21 HLC_1 forms the northern part of Highsted Quarry which was active between 1938 and 1969, after which time it became disused and is now overgrown with woodland. As this area was abandoned once the quarrying ceased the historic legibility of its use as a quarry is significant, however its previous use as arable land in the early 20th century and before is invisible. The time depth is therefore restricted by the impacts that the quarry had upon this landscape and the inability to read the landscape which came before this. The time depth within HLC_1 is considered to be limited and the significance of the HLC is considered to be low.
- 8.2.22 One area within the Site within the parish of Sittingbourne is currently occupied by orchard (HLC_57). This area was previously arable land until 1909 when it was given over to orchard. Since the field boundaries in this area have remained relatively unchanged historic legibility in this area is partial and the level of time depth moderate. The significance of this historic landscape character is low.
- 8.2.23 The remainder of the Site which lies within the parish of Sittingbourne is largely arable land which has been alternately used for arable and orchard since at least 1870. Small areas of this part of the Site have been used for settlement and as a nursery.
- 8.2.24 Areas of woodland are also evident on early editions of the Ordnance Survey maps and on earlier maps dating to 1769. These show a swathe of woodland known as Golden Wood which stretched from the Modern A2 and Bapchild down towards Milstead. This woodland was gradually cleared throughout the 19th and 20th centuries and as such small pockets of this woodland gradually remain until the whole of the woodland has been cleared by around 1935. A smaller area of woodland known as Step Style Wood is also evident until around 1935. Much of this woodland appears to have been cleared to allow for additional areas of orchard, it may have been that existing orchards needed to be removed and relocated to allow the soil to recover. The previous use of the areas as woodland is almost invisible, however the later uses of the areas for orchard and arable land are still legible within the landscape overall the historic legibility of these areas is partial. The significance of these historic landscape character types is considered to be low.

Tunstall

- 8.2.25 The parish of Tunstall covers the southern part of the Site in the western and central sections of the Site (**Figure 16**). This area lies on relatively high ground when compared to the northern part of the Site and is bisected by a number of dry valleys which are predominantly aligned north to south through the Site. One of these roughly follows the alignment of Ruins Barn Road with higher ground on either side and with another which curves around to the west, north of Oakwood Farm. Another snakes around the east of the parish, east of Cromers Wood.
- 8.2.26 The Kent Historic Landscape Characterisation has characterised the areas of the Site within the parish of Tunstall as being '*orchard*', '*fields predominantly bounded by tracks, roads and other rights of way*', '*other pre-1810 woodland*', and '*industrial complexes and factories*'. Much of this characterisation accurately represents the current or former use of the Site. The broad types for this part of the Site are predominantly of enclosed land with areas of woodland, settlement and transport.
- 8.2.27 The Woodstock Estate formerly existed within the parish of Tunstall and HLC_14 covers the extent of the estate within the Site shown on the historic mapping. The development and history of the estate is described within paras 5.3.84-5.3.87. The character of this area was comprised of an open grassed landscape with parkland trees, however, was later used for agricultural use and with areas of woodland. Much of this character has been removed to make way for the agricultural use of much of the former parkland. Whilst most of the fields are ploughed and sown with crop, it is still possible to read some of the former parkland landscape through the retention of some of the large parkland trees that exist within some of the arable fields (**Plates 3, 6 and 8**). In addition, there is one part of this area where the parkland landscape is easiest to read, HLC_16 (**Plate 3**), adjacent to Bex Wood (**Plates 7 and 4**). This area is not agricultural and appears to have been used for pasture at some stage, however this area retains the highest density of parkland trees with the remainder left as scrubland.
- 8.2.28 The estate would have formerly had a wrought iron boundary fence commonly used to denote parkland estates (**Plates 1 and 2**). Parts of this fence are surviving particularly along the boundary with Ruins Barn Road and on either side of Broadoak Road. The historic legibility of the Woodstock Estate is quite varied as in some ways it does survive well, but only within small pockets. Overall, the historic legibility of the parkland is considered to be partial.
- 8.2.29 The southern part of Highsted Quarry lies within the parish of Tunstall (HLC_3; **Plate 11**). This was an extension to the original quarrying which took place to the north of Cromers Road. This quarry was in operation between 1960 and 1980. The Quarry contained a tramway which ran beneath Cromers Road through a tunnel which led to the washmill. Access within the quarry was not undertaken as part of the Site visit due to health and safety constraints however it was evident from the edge of the quarry that it has not been deliberately backfilled but has become overgrown with woodland. The historic legibility of this area is considered to be significant. The area was previously used as arable land prior to its use as a quarry.
- 8.2.30 Highsted Wood is an area of Ancient and Semi-Natural Woodland and as such has complete historic legibility as this area has not changed use, however it is likely that the woodland was formerly more extensive than what remains today. Archaeological investigations within this area have suggested a series of earthworks within the woodland and a number of finds are said to have been recorded from fieldwalking. The Site visit did identify a ditch and bank around the western side of the woodland which had previously

been recorded as an earthwork (**Plate 10**). The date of these earthworks is currently unknown however they could date to the medieval period or earlier suggesting a high level of time depth within this part of the Site. At the edge of Highsted Wood was an area marked as 'the Dell' on the historic mapping, this was overgrown scrubland at the edge of the wood on the Site visit (**Plate 9**).

- 8.2.31 An area within the western part of the Site was formerly an area of woodland known as Oak Wood. These areas are currently arable land but are shown on a map of 1769 as being Oak Wood. Parts of this woodland had already begun to be cleared by 1896 for the use of this area as arable land and orchard. The Wood is labelled Bexon Wood on a map from 1801 but is labelled Oak Wood by 1870. The edges of the fields within this area are lined with mature trees which could be part of the former use of the Site as woodland (**Plate 23**). The retention of these trees at the edges of the more recent fields increase the historic legibility of the woodland to fragmentary rather than invisible.
- 8.2.32 Woodland currently exists at Bex Wood close to where Oak Wood would have formerly been, and it is likely that this was formerly one complete section of woodland prior to settlement within the area. This section of woodland is known as Bex Wood is ancient and semi-natural woodland and would have formerly been more extensive than what remains today. The woodland is shown on a map of 1801 as unnamed and is called Bix Wood by 1870 and Bex Wood from 1870 onwards. Bex Wood would have formerly formed part of the boundary to the Woodstock Park Estate and previously extended further north into HLC_16. This area has been recently used for grazing but does still contain some parkland trees which may have been planted for the parkland associated with the Woodstock manor. These trees were of a different species and density to those which are within the remainder of Bex Wood (**Plates 4 and 7**).
- 8.2.33 Much of the area of Tunstall within the Site is agricultural land which has been periodically used for orchard and arable purposes throughout the 19th and 20th centuries. Fruit growing was one of the main agricultural industries and across the Site as a whole much of the area has been used for fruit growing at some time. This seems to have peaked in the mid-20th century after which time much of the land was returned to crop growing. None of the land within Tunstall is currently occupied by orchard. The return to crop growing also saw the amalgamation of smaller fields into larger fields to facilitate increased size of machinery used in farming. The amalgamation of fields does not necessarily affect the ability to read the former orchard character of the site as often the areas of orchard did not have a defined field boundary as the trees of the orchard formed their own boundary.
- 8.2.34 There is an area of settlement within the Site within Tunstall which is the Club House and Sports Facility close to the Kent Science Park (HLC_15). On earlier maps the label for the earlier manor of Pistock is shown at this location, however its exact location is unknown. This area would have been adjacent to the later Manor House of Woodstock which can be seen on more recent Historic Maps, known to have been demolished in the 1970s. It is likely that this area was formerly part of the grounds immediately surrounding both manor houses at some time, but this former character cannot currently be read within the landscape. The historic legibility of this area is considered to be invisible.
- 8.2.35 The character types within the parish of Tunstall within the Site is varied however these are mostly considered to be of local significance. The Historic Landscape surrounding the manors of Pistock and Woodstock are considered to have a slightly higher significance of moderate to low significance. Areas of Ancient Woodland within the parish of Tunstall are considered to be of moderate significance.

Milstead

- 8.2.36 The parish of Milstead covers the south eastern corner of the Site (**Figure 16**). This part of the Site is some of the highest ground within the development area with a valley located to the east along Bottom Pond Road. This part of the Site is situated on steep slope. The majority of this area is currently arable, with areas of scrub and paddocks and small tracts of woodland.
- 8.2.37 The Kent Historic Landscape Characterisation characterises this area as '*fields predominantly bounded by tracks, roads and other rights of way*'. This is accurate in that this part of the Site is within the south eastern corner of the Site so is bound by Broadoak Road and Bottom Pond Road and a public footpath runs through the centre of this area accessed from Broadoak Road and runs along the northern and western edges of HLC_41. The broad type in this part of the Site is largely characterised as Enclosed Land (arable) with a small area of settlement and a few small areas of woodland.
- 8.2.38 An unusual feature of this landscape is Broadoak Bank, this is shown on the historic maps and is still present within the Site (**Plates 16-18**). This area is a belt of trees which occupy a very steep bank between two arable fields HLC_41 and HLC_42 have a relatively gradual slope south eastwards which increases in steepness as it descends towards the bank. The bank itself is very steep and heavily wooded. However, at the base of the bank HLC_44 is relatively flat. The road which runs alongside and the opposite field to the north east are likely to show the natural gradient of this slope, so it is likely that HLC_44 may have been deliberately flattened over the years to make it useful for arable purposes. The valley rises again much more gently in the field to the south east.
- 8.2.39 Patches of woodland lie within the southern part of the Site and this area is also close to Cromers Wood which lies outside the Site boundary. Cromers Wood is ancient woodland as are two areas located to the south of the Site Birch wood and Robes Shaw. The remaining woodland within the southern part of the Site is comprises Dukes Shaw which was previously larger and extending to the north west (HLC_40). Historic maps show that Dukes Shaw had previously extended further south just beyond the Site boundary prior to the construction of the M2. The presence of other wooded areas within the landscape indicates that the woodland is likely to have been more extensive than that which is recorded on the maps and remains today.
- 8.2.40 A large part of the Site which lies within Milstead was previously used for orchard at different times such as HLC_23, HLC_41, HLC_44, HLC_45, HLC_48, HLC_49 and HLC_50. None of this area is currently used for orchard however HLC_45 was until quite recently. Many of these parcels of land seem to have a cycle of being used for arable and orchard alternately, perhaps to allow for the soil to recover in between.
- 8.2.41 The legibility of the historic landscape character within the parish of Milstead ranges from complete in some areas which have been woodland or continued arable land to partial in other areas where former field boundaries have been removed and evidence of former phases of orchard or arable land are not immediately obvious. The retention of some field boundaries has allowed the legibility to be partial as the field patterns have remained the same despite the change in use.
- 8.2.42 The time depth in this area is limited to the information that can be gained looking at the historic maps. Detailed historic mapping of this area dates to 1840 however earlier maps can indicate more broadly settled areas and areas of woodland. However, it is likely that this area has continued to be rural since at least the medieval or post-medieval periods as it lies between the rural settlements which would have had an agricultural focus.



8.2.43 The significance of the historic landscape Character within Milstead has been characterised as being of low significance. The agricultural focus of the use of this land would have and continued to have a local importance to the area as an area known for its fruit growing over the centuries.

Bredgar

8.2.44 Only a small area of the southern part of the Site lies within the parish of Bredgar, this is the area that covers the M2 and the fields to the south of this and part of the fields to the north of the M2 (**Figure 16**). This area covers some of the highest ground within the Site overlooking the lower lying ground to the north.

8.2.45 The Kent Historic Landscape Characterisation has characterised much of this area as 'orchard', with a small part as 'scattered settlement with paddocks' and to the north of the M2 as 'fields predominantly bounded by tracks, roads and other rights of way'. The broad characterisation type for this area is characterised as enclosed land with a very small tract of woodland to the north of the M2 probably instated as a result of the construction of the M2 as a visual and noise barrier.

8.2.46 HLC_29 and HLC_30 were formerly part of a large area of woodland known as Oak Wood which can be seen on historic maps from 1769. It is labelled as Bexon Wood on a map from 1801 however was known as Oak Wood by 1870. This has been assigned a historic legibility of fragmentary as the boundary of the field boundary respects the former boundary of the woodland shown on the historic maps. In addition to this the boundary comprises large mature trees which reflect the former wooded character of this part of the Site (**Plate 23**).

8.2.47 HLC_35-38 are a mixture of orchard and arable use over time with partial historic legibility evident within the retention of some of the field boundaries which have existed since at least 1840. The coming of the M2 to this area has shaped the northern parts of these fields and adjusted the boundaries within this area making the legibility partial for most of the parcels of land. The only parcel with complete historic legibility is HLC_37 which has been used as arable land since 1840.

8.2.48 The significance of the historic landscape character of the Site within the parish of Bredgar is considered to be of low significance. As with many other parts of the Site, the land use has been a rotation of arable land and orchard over the centuries. The woodland of oak wood was cleared within the later part of the 19th century to make way for the use of the land for agricultural purposes likely to have been owned by the adjacent and contemporary Oak Wood Farm.

9 POTENTIAL DEVELOPMENT EFFECTS- ARCHAEOLOGICAL REMAINS

9.1 Introduction

9.1.1 This section provides an initial assessment of the potential effects of the proposed development in relation to elements of the archaeological resource that may be subject to physical impacts.

9.2 Statement of potential impact

9.2.1 The construction of the proposed development is anticipated to entail the following sources of ground disturbance and excavations:

- Preliminary site investigation works;



- Setting up a secure construction compound within the Site;
- Plant movement;
- Topsoil stripping;
- Piling and/or excavation of new foundation trenches;
- Installation of services, drainage and other infrastructure;
- Establishment of new car parking areas, estate roads and access points;
- Installation of new spine road and motorway junction as well as local roads;
- Hard landscaping works (levelling, remodelling); and
- Soft landscaping and environmental enhancement works, including planting.

9.2.2 The aforementioned works have the potential to result in the damage to or loss of any buried archaeological features which may be present within their footprint. This could in turn result in a total or partial loss of significance of these heritage assets.

9.2.3 The proposed development has the potential to affect below ground archaeological remains within the footprint of the development. Preservation of archaeological deposits is expected to be good across much of the Site however some parts of the Site have been subject to quarrying activities which is likely to have removed post-Palaeolithic archaeology. Chalk quarrying is likely to have removed both Palaeolithic and post-Palaeolithic archaeology however areas just quarried for brickearth do retain some potential for Palaeolithic archaeology as these areas would have been extracted to a shallower depth.

9.2.4 The development design is currently at an early stage and as such specific depths of development have not been finalised. Activities such as installation of new foundations, services and roads have the potential to affect archaeological remains within the Site.

9.2.5 Dependent upon the depth of excavation required for proposed sports pitches it is possible that archaeology could be preserved beneath the level excavated for sports pitches but this would be dependent upon the depth of the potential archaeology in these areas and the depth of excavation required. Any services such as lighting or drainage associated with the sports pitches are more likely to require increased depth of excavation and therefore have an increased risk to impact upon archaeological remains.

9.2.6 Some parts of the site are to be retained as greenspace as part of the development and other areas will continue to be used for agriculture, potential archaeological remains within these areas would remain unaffected by the proposed development and would be preserved in situ.

9.2.7 Any adverse impact to buried archaeological features would be permanent and irreversible in nature. This potential adverse effect could be reduced through the implementation of an appropriate scheme of archaeological mitigation.

9.2.8 The specific development effects will be assessed within the forthcoming Environmental Statement Chapter.



10 POTENTIAL DEVELOPMENT EFFECTS- HISTORIC LANDSCAPE CHARACTER

10.1 Introduction

10.1.1 This section presents an assessment of the potential effects of the proposed development in relation to the effects of the development upon the Historic Landscape Character of the Site.

10.2 Statement of potential impacts

10.2.1 The proposed development has the potential to change the historic landscape character of the Site through the introduction of built development within a largely rural area. The assessment above has identified a variety of landscape character types within the Site with differing levels of legibility and time depth. Most of the character types are considered to be of low significance with a small number of low to moderate or moderate significance. Due to the size of the Site the proposed change to the historic landscape will occur over a large area of the currently rural landscape between Sittingbourne and the surrounding villages to the south east. The design is currently at an early stage however it is likely that the Historic Landscape Character could be affected by the proposed development through;

- *The removal of historic field boundaries;*
- *Introduction of built form within an agricultural landscape;*
- *Removal of parkland fencing and parkland trees at former Woodstock Manor;*
- *Removal of part of the northern edge of Ancient Woodland at Highsted Wood;*
- *Removal of wooded boundaries, indicative of the previously wooded nature of the area;*
- *Removal of areas of orchard, a key part of the agricultural history of the surrounding villages; and*
- *Spread of developed areas within an existing landscape of small, isolated villages.*

10.2.2 The development proposals have the potential to change the historic landscape character of the Site and the ways in which the past character types can be read within the current landscape. Due to the size of the Site the change has the potential to occur over a large area, changing the rural character of the Site and surrounding isolated villages through the introduction of built form and a road network linking the A2 and M2. The effects of the development upon the Historic Landscape Character will be assessed within the forthcoming Environmental Statement.

11 CONCLUSIONS

11.1 General

11.1.1 The effect of the development proposals on the known and potential archaeological resource will be a material consideration in determination of the planning application.



Archaeological remains

- 11.1.2 This assessment has established that there is an archaeological interest within the Site and the Site lies within an archaeologically rich area. The Head-Brickearth and, where present, underlying Coombe deposits have been shown to have high potential to preserve highly significant Middle and Upper Palaeolithic archaeology. The potential of such deposits to preserve such material will vary across the Site, dependent on the age and specific depositional processes associated with these deposits.
- 11.1.3 There is potential for prehistoric remains, in particular dating to the Bronze Age and Iron Age. Less evidence has been discovered within the Site relating to the Mesolithic and Neolithic periods however this may be due to its relative rarity within the archaeological record.
- 11.1.4 There is potential for Romano-British remains as the Site and surrounding area have both shown evidence for both cremation and inhumation burials. In addition to this the Roman Road of Watling Street lies adjacent to the Site and settlement evidence has been found at Radfield adjacent to the Site. It is thought that to the north of the A2 the Romano-British community made use of the creek system of the Swale which may have been the focus for the settlement at this time, however investigation has shown Romano-British activity to the south of the A2 as well.
- 11.1.5 The villages which surround the Site largely had their origins in the Anglo-Saxon or early medieval period and it is thought that these settlements may have originally been Anglo-Saxon farmsteads which later developed into small villages. The area remained largely agricultural throughout the medieval and post-medieval period, and it is likely that the Site made up the agricultural land surrounding these settlements.
- 11.1.6 Some possible features of unknown date have been identified through LIDAR images and aerial photographs and features of possible and archaeological origin have been identified through geophysical survey. The presence, date and significance of these features is unconfirmed.
- 11.1.7 A record of a crash site of a Hawker Hurricane is recorded within the Site. A licence to excavate the remains was previously issued however no information is available on what was found or where the excavation took place. It is likely that any remains of the aircraft were removed during these excavations and no longer exist within the Site.
- 11.1.8 Areas of the Site have been subject to chalk quarrying and these areas are thought to have no potential for the recovery of archaeological remains. Areas which have been quarried for brickearth still retain some potential for the recovery of Palaeolithic material but are unlikely to have any potential for post-Palaeolithic archaeology as these deposits are likely to have been removed. Preservation across much of the rest of the Site is expected to be good.
- 11.1.9 Due to a lack of previous archaeological investigation within the Site, the potential for and significance of any such remains could not be accurately assessed on the basis of the available evidence.
- 11.1.10 Any adverse impact to buried archaeological features as a result of the implementation of the development proposals would be permanent and irreversible in nature. This potential adverse effect could be reduced through the implementation of an appropriate scheme of archaeological mitigation, in accordance with national and local planning policy.



Historic Landscape Character

- 11.1.11 The historic landscape character of the Site has remained largely agricultural since at least the post-medieval period. The surrounding villages are thought to have originated as small farmsteads in the Anglo-Saxon period, with much of the surrounding area comprised of woodland or agricultural areas. During the medieval period these villages grew in size but still remained isolated from one another. Some evidence of possible medieval or post-medieval strip fields could be identified through the LIDAR data surrounding Rodmersham. During the later part of the 19th century there appears to have been an increase in the area of the Site and surrounding areas that were used for orchard which seems to have peaked around the middle of the 20th century. Many of the fields within the Site appear to have been on rotation, used for orchard for a number of years then returned to agriculture and orchard again some years later. This agricultural industry was an important source of income for this part of Kent and this agricultural industry forms part of its historic character. This is reflected in the present-day landscape as areas of the Site are still used for this purpose.
- 11.1.12 Brickearth extraction and chalk quarrying is another industry which is prevalent within the Site and surrounding area. This began as small local quarries or limekilns owned and run by the farmers themselves. Larger scale chalk quarries were established at Highsted during the 20th century and Brickearth quarrying is known to have taken place at Bapchild within the northern part of the Site. Aside from the large quarries at Highsted these have largely been backfilled and as such are not immediately obvious within the present landscape.
- 11.1.13 Much of the Site has been used for agricultural practices since the post-medieval period and the surrounding villages relied on this industry for employment and prosperity. Much of the character types identified within the Site are considered to be of local value.
- 11.1.14 Woodstock Park was parkland associated with the manor of Woodstock. Parts of the former character of the parkland can be read within the current landscape such as the remaining parkland trees some isolated and some more closely clustered close to the Kent Science Park and the sections of parkland fencing which are present along Ruins Barn Road and Broadoak Road.

11.2 Recommendations

Archaeological remains

- 11.2.1 The presence, location and significance of any buried archaeological remains within the Site cannot currently be confirmed on the basis of the available information.
- 11.2.2 To assess the potential for Palaeolithic archaeology, geoarchaeological field evaluation will be required. This should encompass all Pleistocene deposits across the Site and be focussed on areas where Head-Brickearth deposits are known to be present (BGS online viewer). Such deposits, along with underlying soliflucted Coombe material, have high known potential to preserve significant Middle and Upper Palaeolithic archaeology. Investigation should include partially quarried areas south of Bapchild located east and west of Haywood where such material has previously been recovered; although quarried, the basal parts the Pleistocene Head-brickearth sequence and underlying solifluction deposits (known to be associated with Middle Palaeolithic archaeology) may be preserved in these areas.
- 11.2.3 Although limited borehole data is currently available for the Site, that which exists indicates that the Pleistocene sequence may be in excess of 3.00m thick in places.

Consequently, the most effective method of evaluating these deposits would be through test pitting. This should aim to investigate the underlying deposits to evaluate their potential to preserve archaeological and paleoenvironmental datasets and for dating. Scope for stepping a proportion of the test pits should be included to allow sections to be hand-cleaned in order to identify significant features within the stratigraphy, including Limons a Doublet. The investigations should be carried out by a recognised Palaeolithic specialist with experience of recording and interpreting Pleistocene sediments.

11.2.4 Evaluation for post-Palaeolithic archaeology will take the form of a geophysical survey in the first instance followed by targeted trial trenching.

11.2.5 The need for, scale, scope and nature of any further archaeological works should be agreed through consultation with the statutory authorities.

11.2.6 The desk-based assessment has indicated that further work could address some key research goals of the South East Regional Research Framework (Research Agenda Chapters, Seminar Notes, Seminar Papers and Agenda Conference Notes). The list below is not exhaustive but could include;

- to understand how sites of all types related to their wider landscape setting (in view of the evidence for the varying nature and density of later prehistoric activity);
- Is there a detectable shift in the settlement and landscape organisation from the Late Bronze Age to the Early Iron Age? Why did this occur and what happened to the Late Bronze Age systems when out of use?
- The physical layout of the landscape (during the Roman period). Where are the (Roman) settlement sites? Are villas surrounded by groups of smaller farmsteads?
- The incidence of Anglo-Saxon origin of many rural settlements along with the impact (if any) of the conquest;
- More understating of the (medieval) landscape of primarily dispersed rural settlement in terms of development and maintenance over space and time;
- The impact the city gentlemen's retreats had on the landscape from the later 18th century in terms of area taken, social control exerted by gate houses, gates, boundaries etc, garden styles and impact on the local population.



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1838 Plan of the parish of Murston Tithe Map

1838 Plan of the parish of Milstead Tithe Map

1838 Plan of the parish of Rodmersham Tithe Map

1838 Plan of the parish of Bapchild



1841 Plan of the parish of Bredgar Tithe Map
1841 Plan of the parish of Sittingbourne Tithe Map
1841 Plan of the parish of Tunstall Tithe Map
1870 First Edition Ordnance Survey 25-inch map (1:2,500)
1896-98 2nd Edition Ordnance Survey 6-inch map (1:10, 650)
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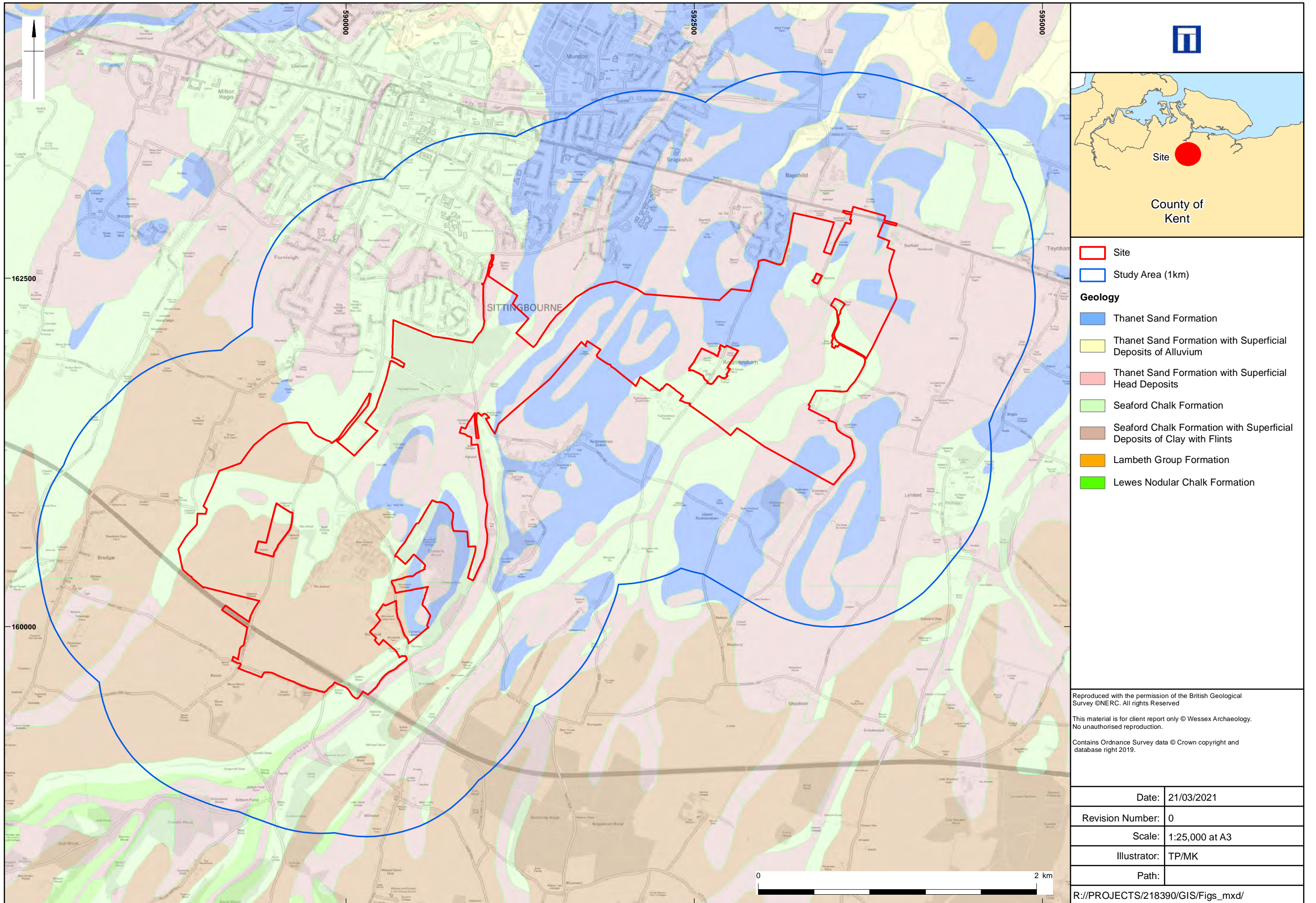
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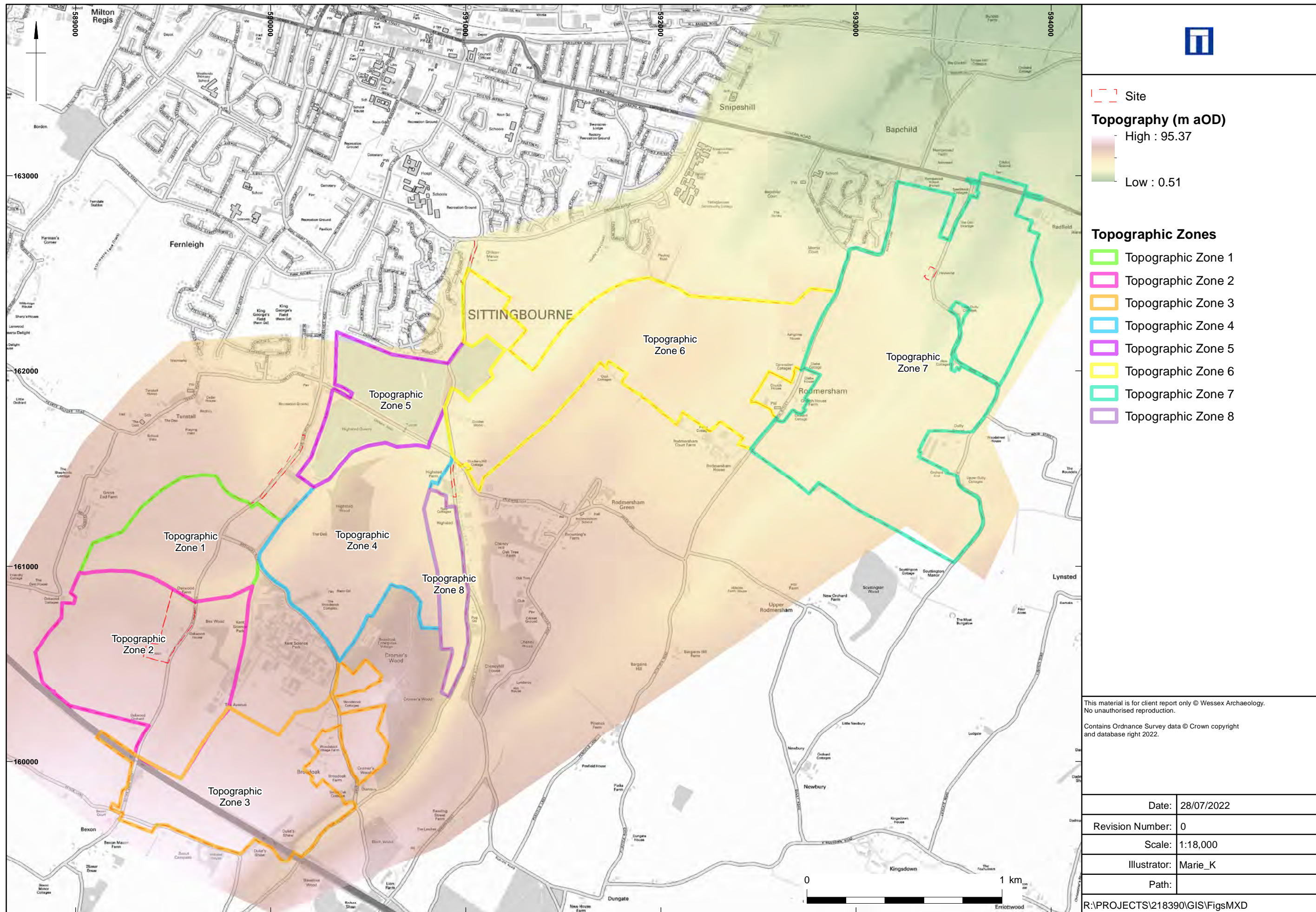
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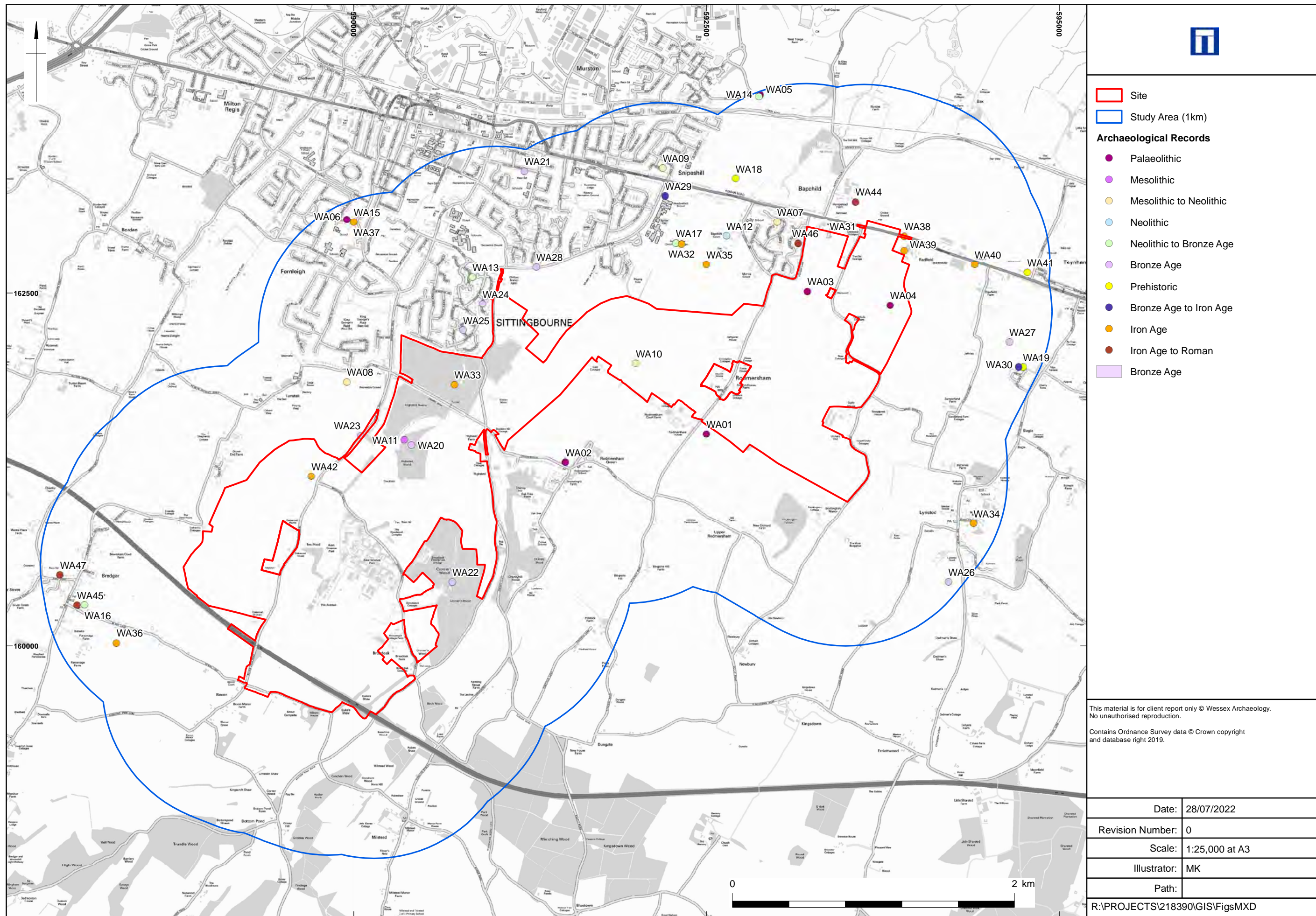
Site Location and Recorded Geology based on the British Geological Survey

Figure 1

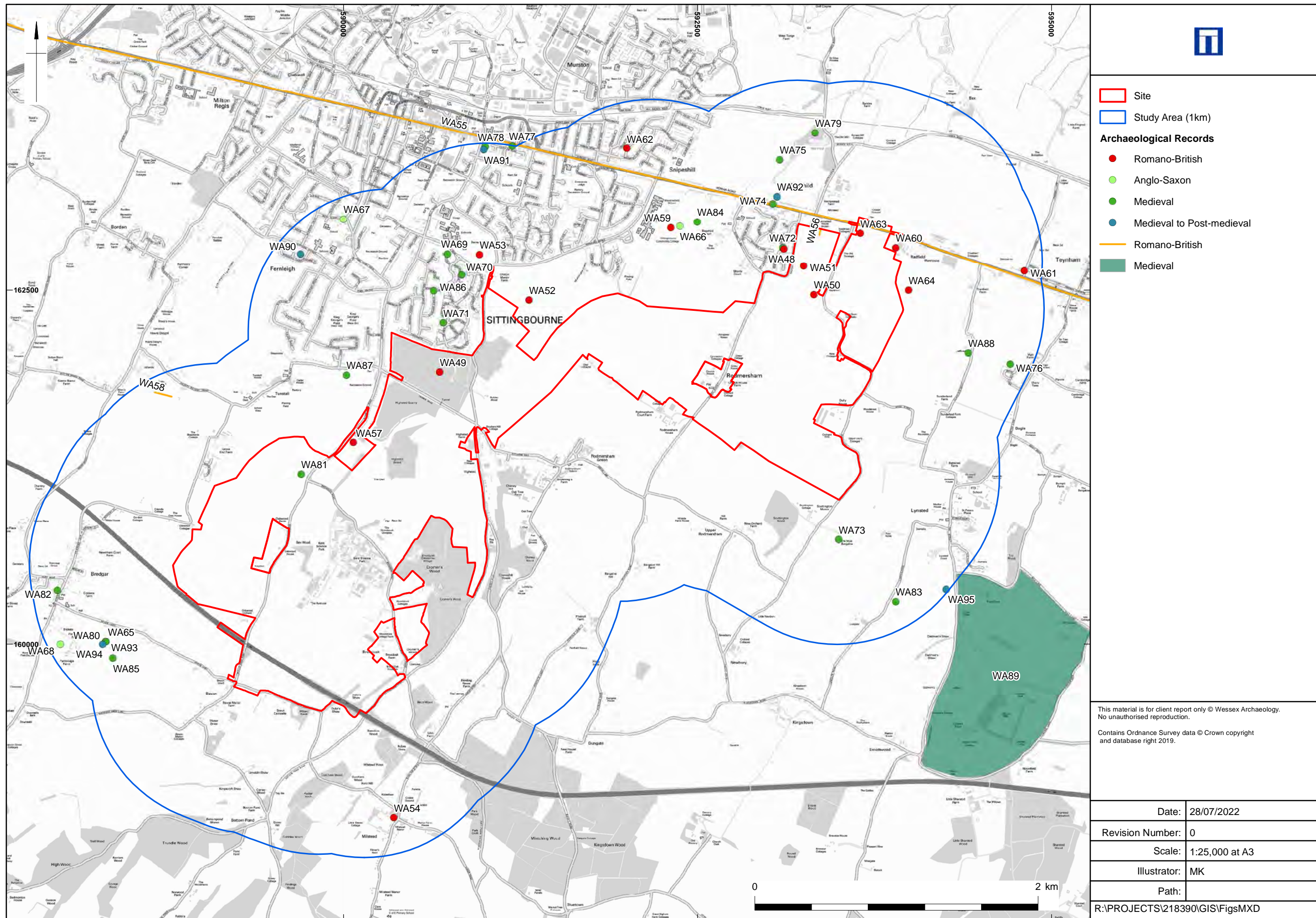


The Site, Topography and Topographic Zones within the Site

Figure 2



The Site, Study Area and Archaeological Records dating to the prehistoric periods, based on the KHER



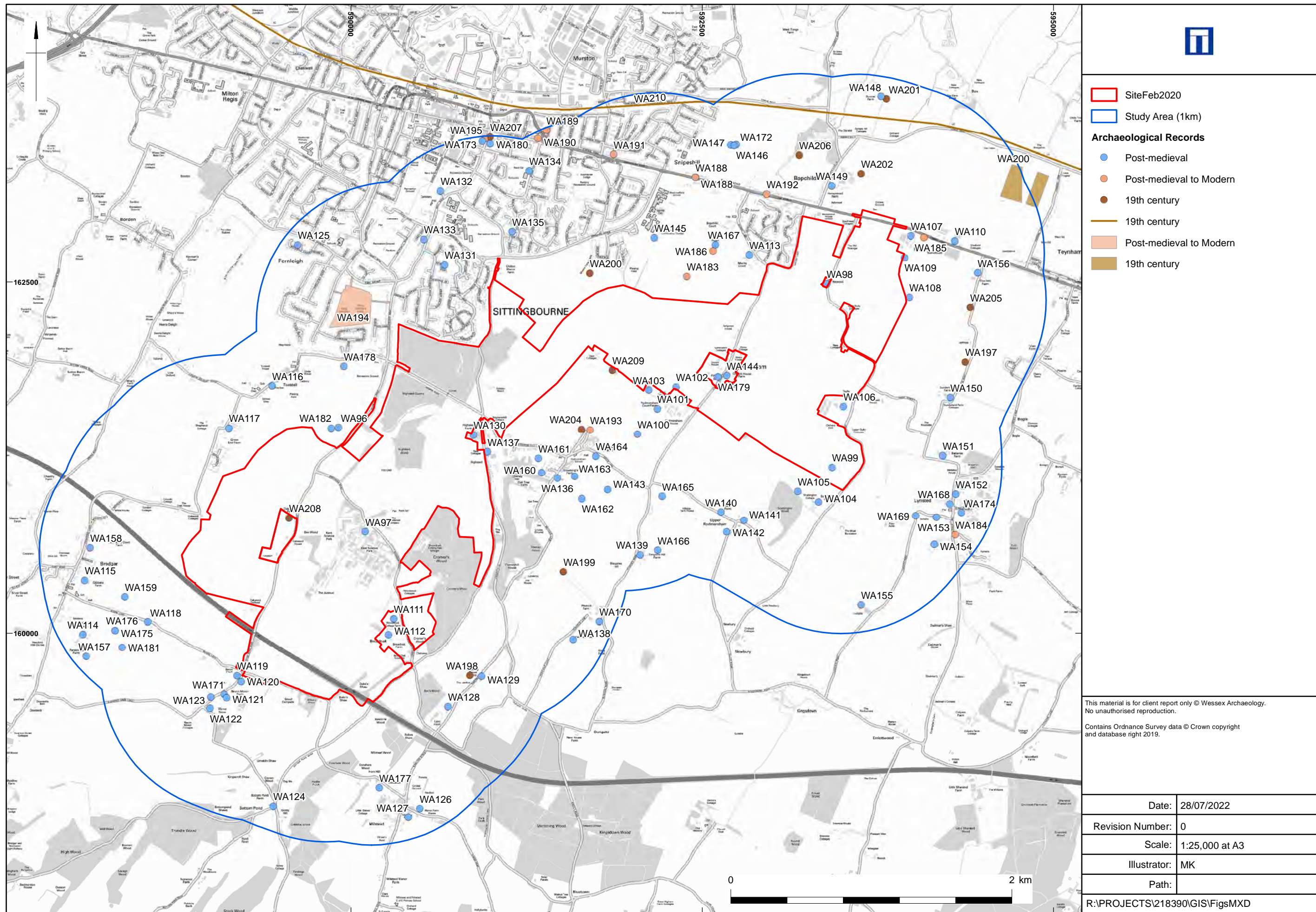
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The Site, Study Area and Archaeological Records dating to the Romano-British to Medieval periods, based on the KHER

Figure 4



- SiteFeb2020
- Study Area (1km)
- Archaeological Records**
- Post-medieval
- Post-medieval to Modern
- 19th century
- 19th century
- Post-medieval to Modern
- 19th century

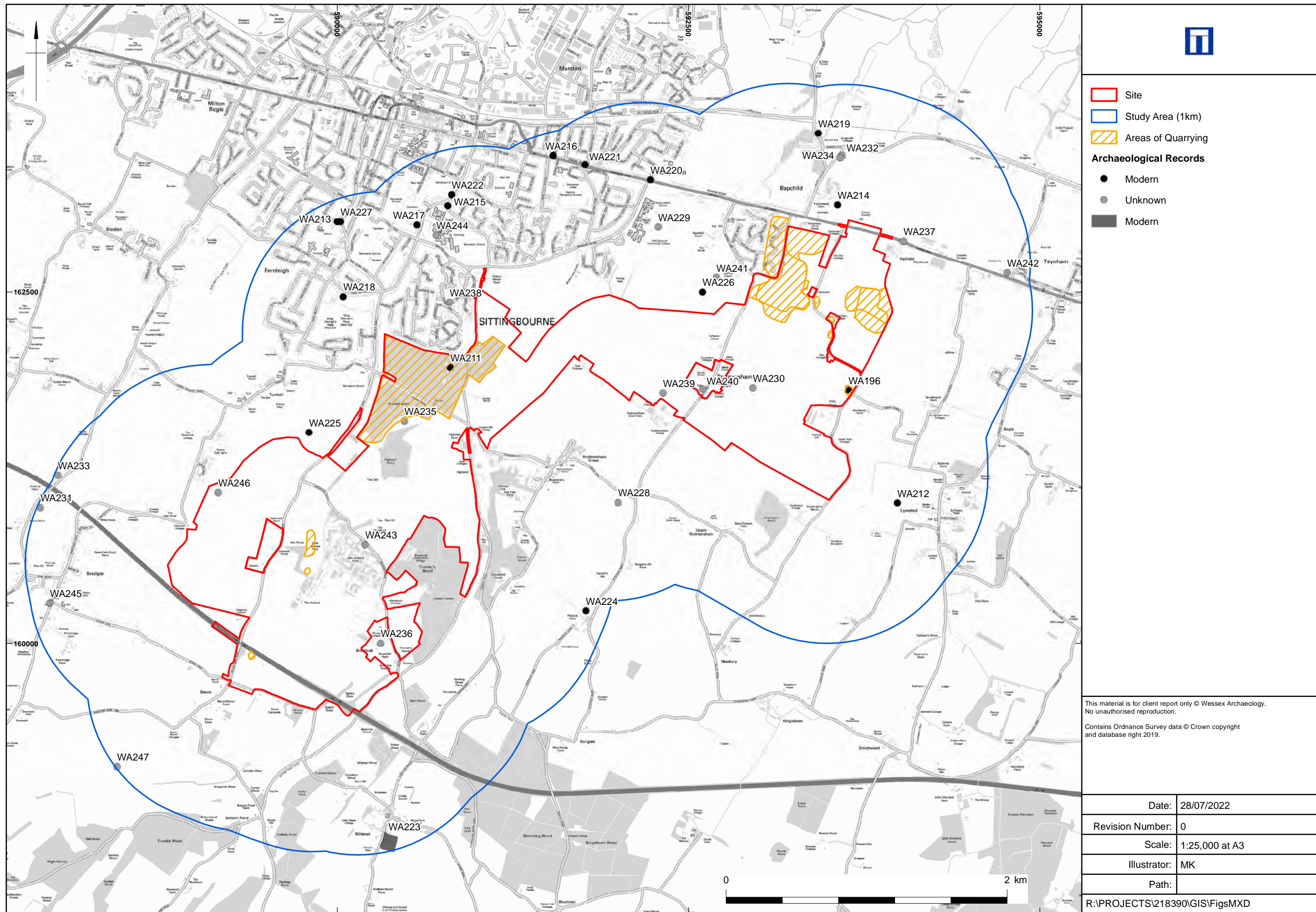
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The Site, Study Area and Archaeological Records dating to the Post-medieval period to 19th century based on the KHER

Figure 5



- Site
 - Study Area (1km)
 - Areas of Quarrying
- Archaeological Records**
- Modern
 - Unknown
 - Modern

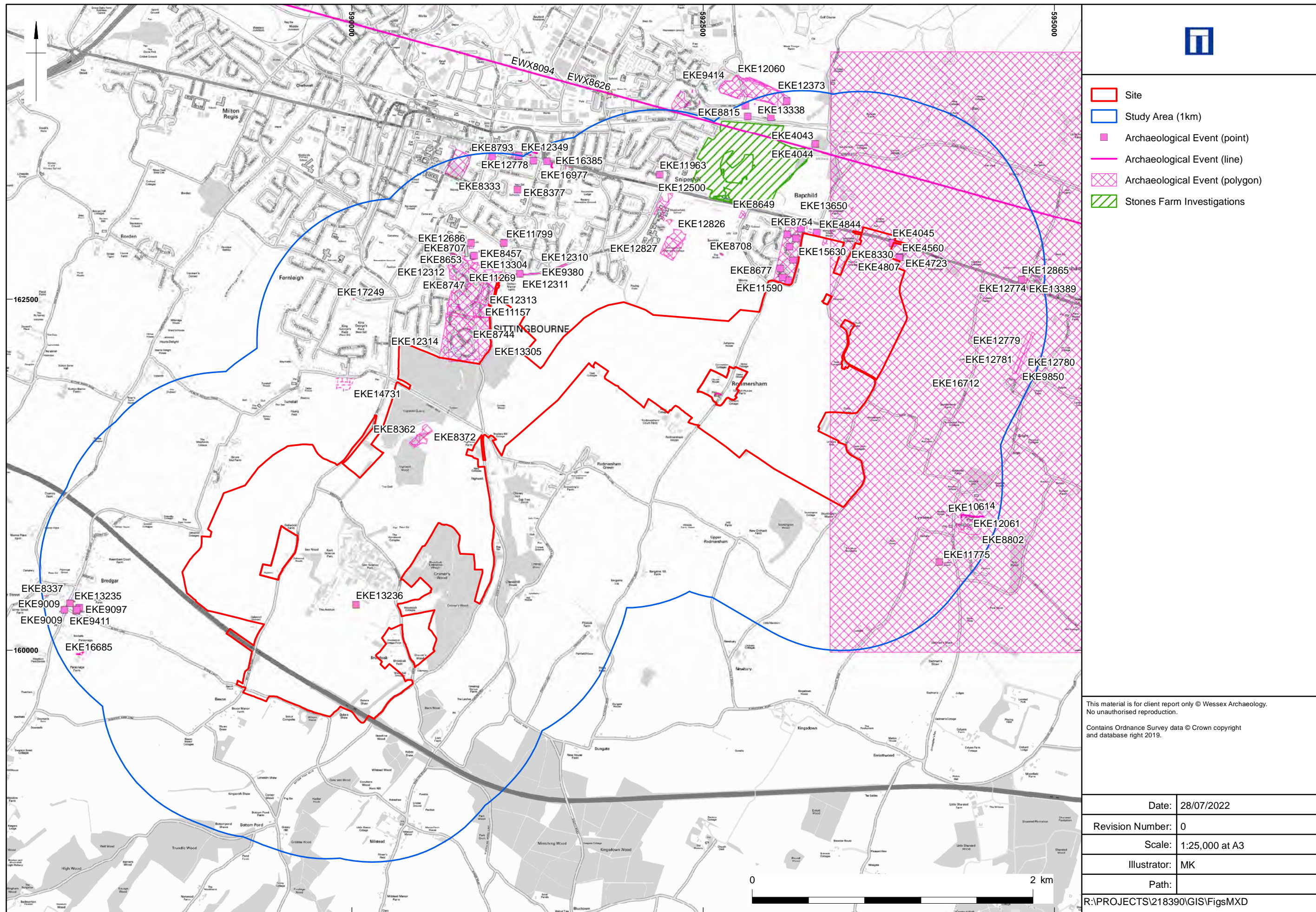
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The Site, Study Area and Archaeological Records of Modern and Unknown date and areas of 19th and 20th century quarrying






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The Site, Study Area and Archaeological Events based on the KHER

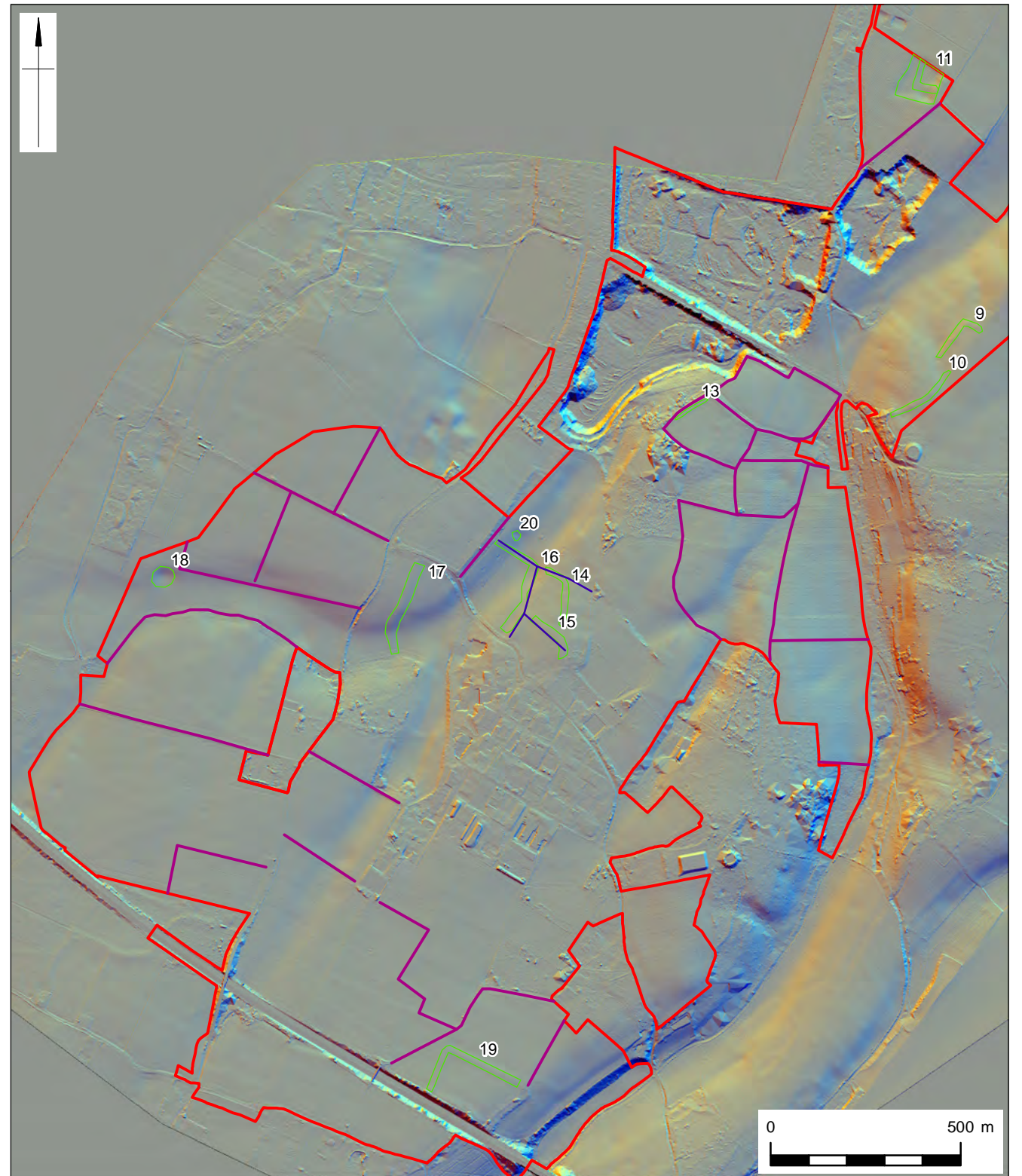
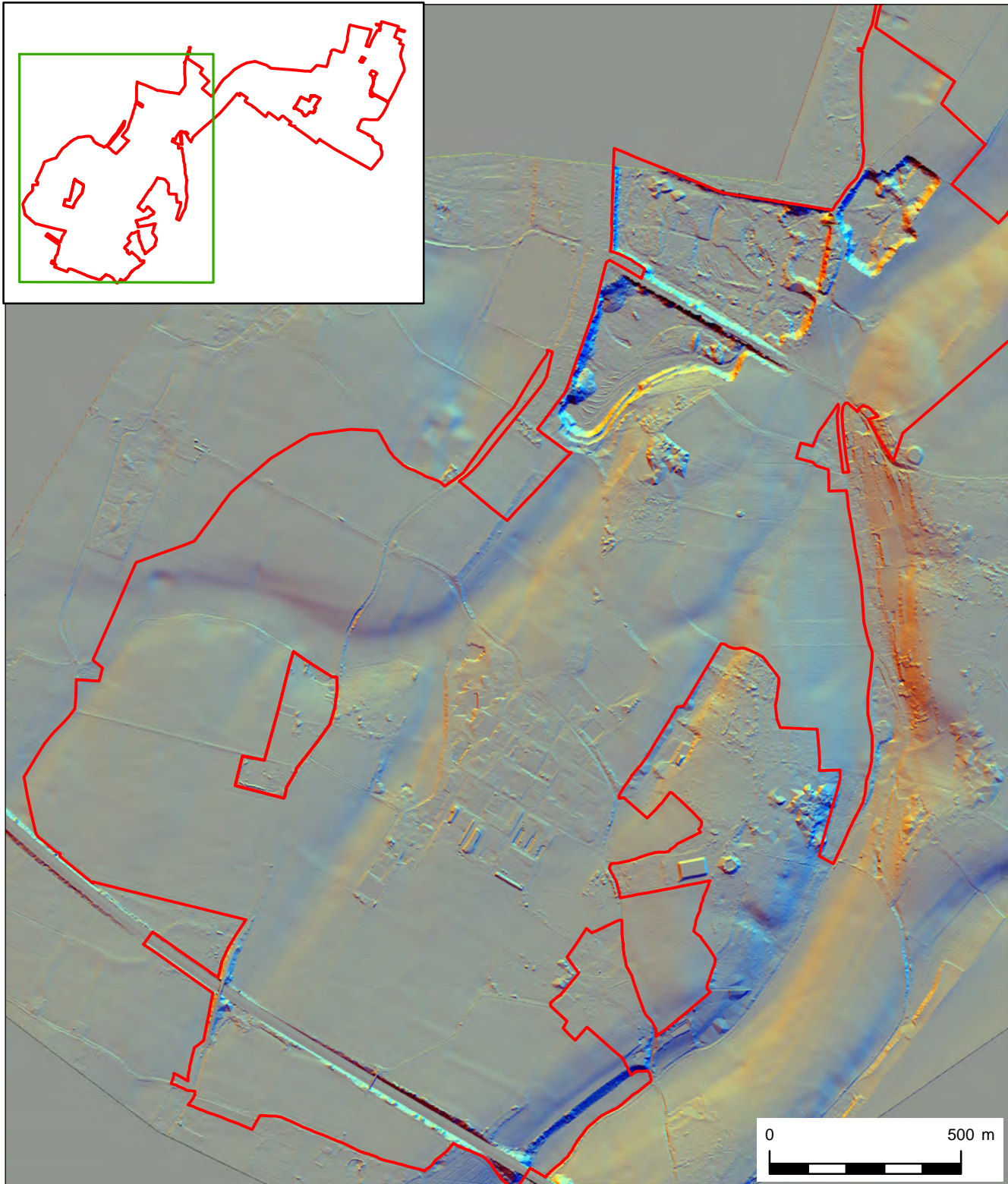
Figure 7



	 Site		<small>This material is for client report only © Wessex Archaeology. No unauthorised reproduction.</small>	Date: 28/07/2022	Revision Number: 0
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Site Location and Aerial Photographs dated to 1947

Figure 8



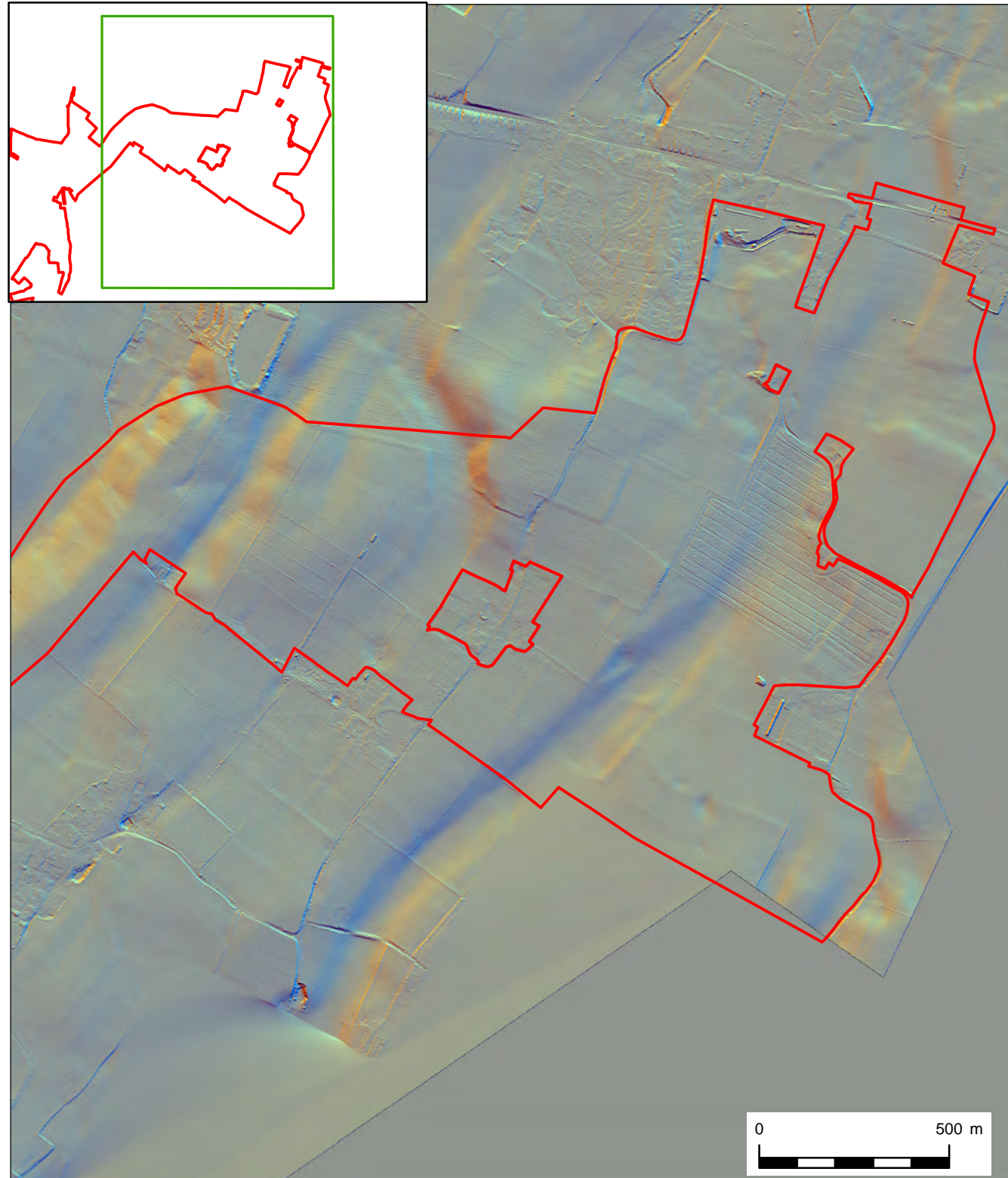
- Site
- Field Boundaries shown on historic maps
- Potential Features
- Potential Field Boundaries

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Site Location and LIDAR: Multi-directional 50cm (Part 1)

Figure 9



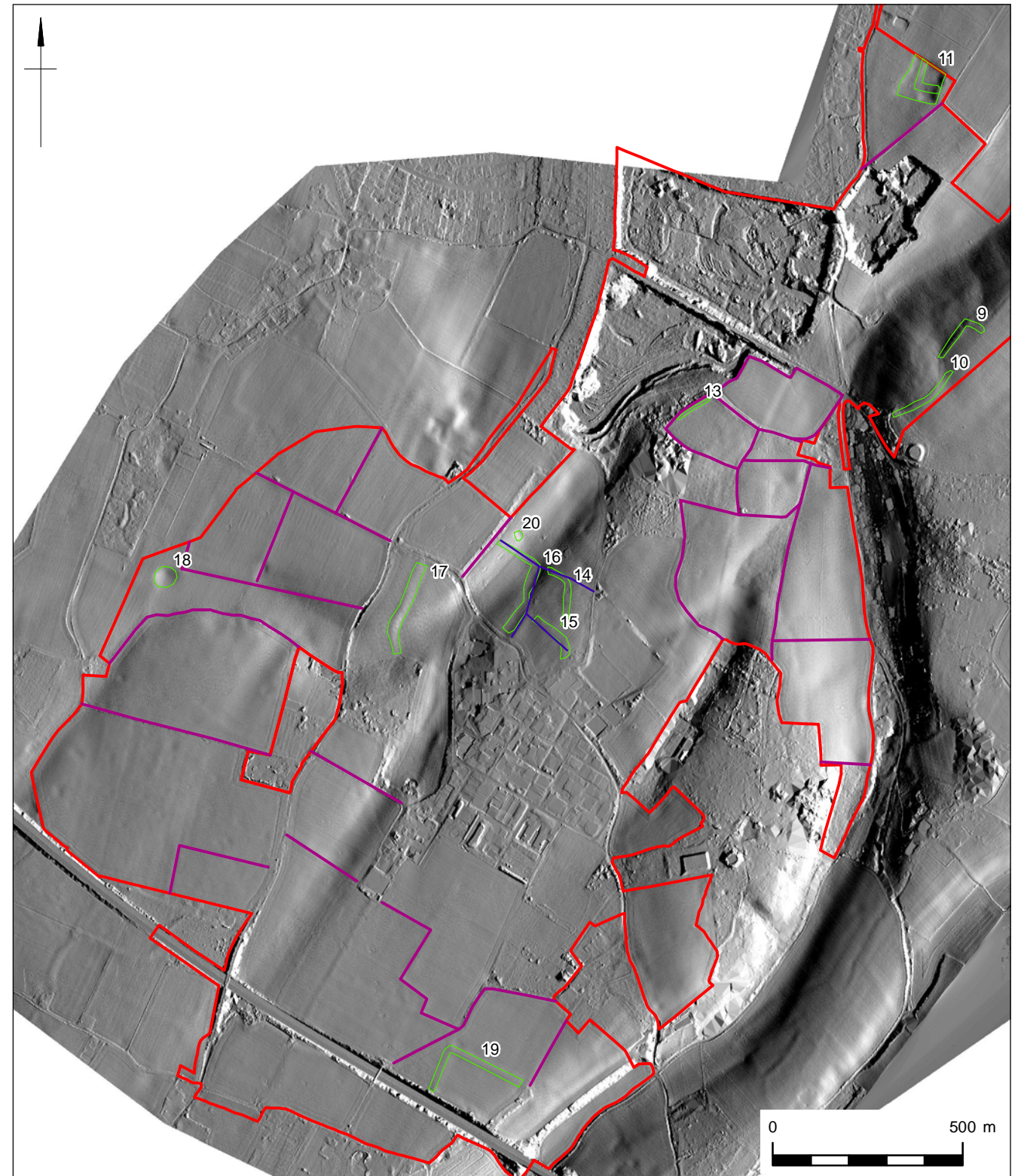
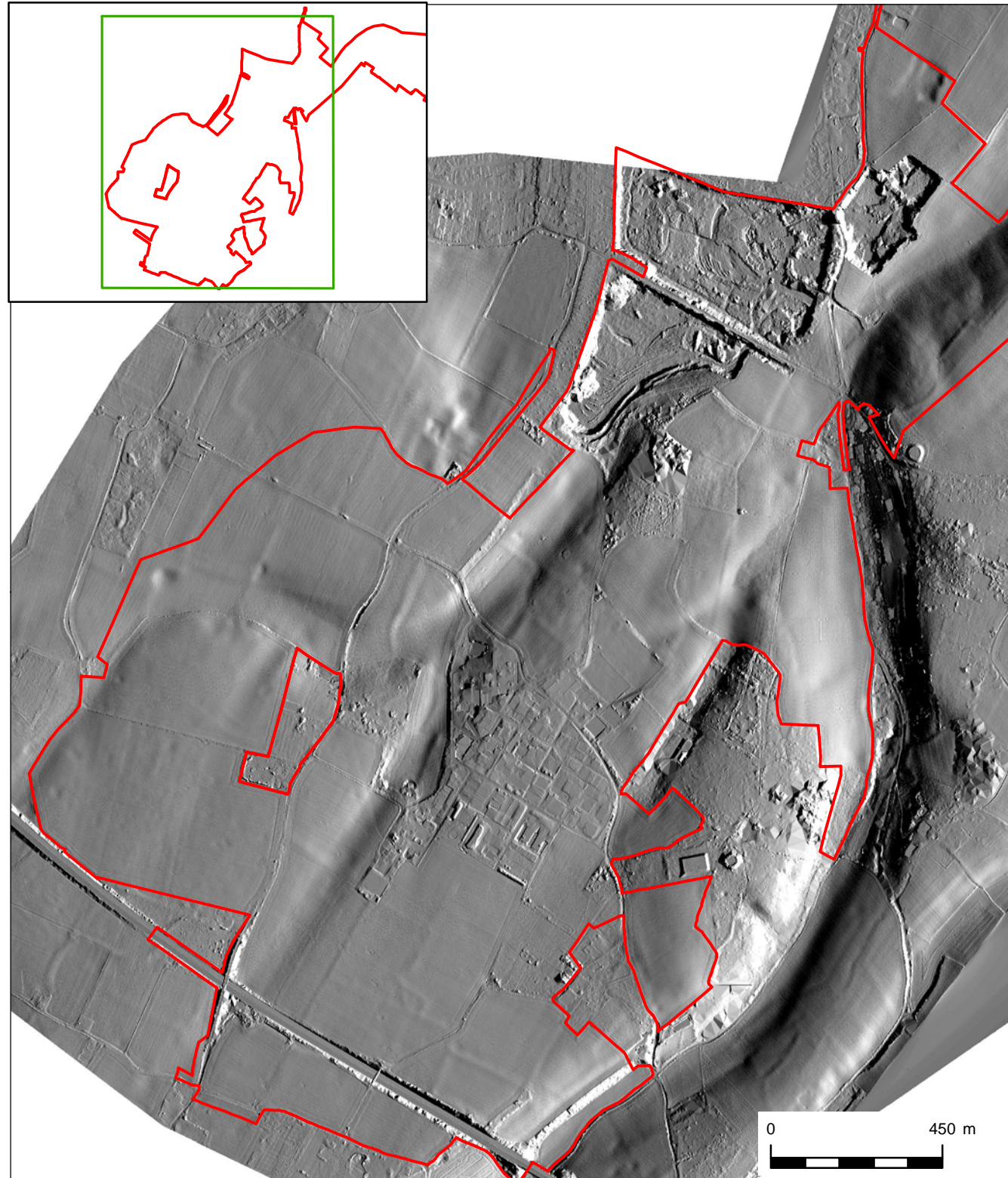
- ▭ Site
- ▭ Potential Field Boundaries
- ▭ Potential Features
- ▭ Former Field Boundary shown on Historic Maps

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Site Location and LIDAR: Multi-directional 50cm (Part 2)

Figure 10



- Site
- Potential Features
- Field Boundaries shown on historic maps
- Potential Field Boundaries

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Site Location and LIDAR: Hillshade from East (Part 1)

Figure 11