APPENDIX ES L

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Archaeological Desk Based Assessment Report and Heritage Impact Assessment on Loxwood Clay Pits, Loxwood, West Sussex

Project No. CBAS1192

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Summary

An Archaeological Desk-based Assessment and Heritage Impact Assessment was carried out at Loxwood Clay Pits, Loxwood, West Sussex, in order to establish the likely presence and importance of any archaeological remains that may be affected by the proposed programme of clay extraction and re-use for landfill, and subsequent restoration back to deciduous woodland.

There is a low probability for archaeology of all periods except the Post medieval period, which has high probability of remains associated with woodland and agricultural activities, and industrial activities such as brick and glass making.

The Lidar and ground truthing survey confirmed the presence of woodland banks, trackways and drainage all associated with 19th-20th century woodland management, although some of the banks and tracks are likely to have earlier origins. No saw pits, charcoal burning platforms or military features were seen during the ground survey. The entrance and access road is located on the site of a 19th century brickworks, and clay pits and other earthworks indicate that there is a high probability of surviving structure being present.

The proposed development will not visually impact upon the setting of any Listed Buildings, however it is likely that the additional movement of vehicles, and associated noise and vibration, on the Loxwood Road could have a small negative impact on Listed Buildings located along this route.

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1.0 Introduction

1.1 Chris Butler Archaeological Services Ltd (CBAS Ltd) was commissioned by Loxwood Clay Pits Ltd (the Client) to prepare An archaeological Desk Based Assessment Report and Heritage Impact Assessment for Loxwood Clay Pits (hereafter, the Site; Figs. 1 & 2) in order to establish the likely presence and significance of any archaeological remains which may be affected by the proposed development of the site for clay extraction. The clay is to be extracted for brick making and other construction/industrial applications, and the site will subsequently be restored back to deciduous woodland[1].

1.2 The Site is located *c.* 1.3km to the north-east of Loxwood Village, in an area of woodland known as Songhurst Furze, in the Parish of Loxwood, (Chichester District) West Sussex (Fig. 1). The border with Surrey (Parish of Alfold) is just to the north of the Site, and Rudgewick Parish (Horsham District) is to the east of the Site. The main part of the Site is c. 6 hectares in size, and is centred on TQ 0500 3275, and is accessed from an entrance on Loxwood Road (TQ 0555 3182) near Pephurst Farm. The Wey-Arun Canal runs to the west and south of Loxwood.

1.3 The Site is on a south-west facing slope which rises gently from *c.* 40m aOD at the southern side to c. 45m aOD at the northern side, set within an undulating surrounding landscape. A seasonal stream rises on the northern part of the site and flows south to join a larger stream, which flows west and then turns south and appears to join the River Arun further to the southeast. The site is covered with woodland; comprising semi-natural broad-leaved woodland in the southwest third, broad-leaved plantation woodland in the northwestern third and mixed plantation woodland in the eastern third (Fig. 3)

1.4 According to the British Geological Survey[2], the bedrock geology of the Site comprises Weald Clay Formation - Mudstone. A Sedimentary Bedrock formed approximately 126 to 134 million years ago in the Cretaceous Period in a local environment previously dominated by swamps, estuaries and deltas.

1.5 Scheduled Monuments, Listed Buildings and Conservation Areas have statutory protection. There is only a single Scheduled Monument within the search area around the Site, this being the medieval moated site and associated pillow mound at Wildwood Copse (DES6677) c. 2.5km to the north of the site in Surrey (Fig. 4). The only Conservation Area in the search area is at Alfold, c. 1.5km to the northwest of the Site, in Surrey (Fig. 4). There are numerous Listed Buildings in the search area, and these are considered within the archaeological and historical background and for setting (Figs. 6, 10 & 11).

[1] Loxwood Clay Pits Ltd – Proposed Development Outline
[2] http://mapapps.bgs.ac.uk/geologyofbritain/home.html; accessed 07/09/2020

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1.6 There are three Areas of High Archaeological Potential (AHAP) and County Sites of Archaeological Importance (CSAI) within the search area, all of which are in Surrey (Fig. 4). These are the AHAP and CSAI of the Wildwood Copse Medieval Moated Site, the AHAPs of Alfold Historic Core and St Nicholas' 12th century church; possible medieval moated site at Alfold; and a Mesolithic flint scatter and Medieval Pottery at Alfold. There are no Archaeological Notification Areas (ANA) within the search area in either Chichester District or Horsham District. There are two ANA's just outside the search area in Horsham District, these being Woodsomes Farm medieval to Post-medieval farmstead (DWS8732) and the medieval moated site and farm at Marshall's Farm (DWS8527), both near Rudgwick[3].

1.7 This desk-based assessment initially covers the objectives and scope of the report, then discusses the methodology used in the survey, followed by a review of the archaeological and historical assets located within a 1km radius of the Site centre. Before conclusions are drawn together, former impacts upon any potential archaeology within the Site are assessed, as is the possible impact of any future development upon this potential archaeology. The heritage impact assessment considers the impact of the proposed development on the heritage assets in the vicinity of the Site, whether directly or indirectly impacted by the proposed development.

[3] https://www.westsussex.gov.uk/land-waste-and-housing/landscape-and-environment/historic-environment-record/archaeological-notification-areas-1/

2.0 Objectives and Scope

2.1 The objective of this report is to gain information about the known or potential archaeological resource within the Site and its immediate area. This information will include that relating to the presence or absence of any archaeology, its character, extent, date, integrity and state of preservation, and the relative quality of the potential archaeological resource. The report will consider the archaeological resource within a Study Area with a 3km radius around the Site centre, although sites further afield are taken into account where relevant.

2.2 This information will allow an assessment of the merit of the archaeology in context to be made, leading to the formulation of a strategy for the recording, preservation and management of the resource or, where necessary, the formulation of a strategy for further investigation where the character and value of the resource is not sufficiently defined to permit a mitigation strategy or other response to be outlined.

2.3 It should be noted that this report can only take into account the existing known archaeology, and by its nature cannot provide a complete record of the archaeological resource of the Site. Its intention is to provide an overview of the known archaeology within the Study Area, from which judgements can be made about the potential archaeological resource of the Site itself.

2.4 The following brief was received:

1. *A search should be made of the three relevant Historic Environment Record databases (Chichester District Council, West Sussex County Council, Surrey County Council), and the findings incorporated and taken into account in the desk based assessment.*

2. *The suggested non-intrusive geophysical survey to identify buried archaeological features (5.4.3) would not be feasible at present, with trees and scrub on the site. Instead, an aerial LiDAR survey of the site (Digital Terrain Modelling, which can filter out trees, and if of sufficiently high resolution show earthworks on the bare earth below tree cover) and access route options is strongly recommended. The LiDAR imagery, with interpretation by a suitably qualified archaeologist, should form part of the desk based assessment.*

3. *An archaeological walkover survey of the site and access route options should also form part of the desk based assessment. There should be illustrations to show which areas were accessible and walked through; where inspection of woodland is possible only from woodland tracks and rides, this should be made clear. The green lane bounding the site on the north-east (Public Footpath 792/1) is a feature of historical landscape interest; earthworks, such as*

boundary banks, associated with the lane should be identified in the walkover survey.

4. *As proposed (Scoping Report para. 5.4.3), potential mitigation measures to minimise any archaeological impacts should also be included in the desk based assessment and/or chapters of the EIA addressing mitigation of scheme impact.*

5. *It is considered likely that the conclusion that the development would have no visual impact on Listed Buildings is correct.*

6. *However, as part of the desk based assessment, the locations of Listed Buildings within 2 km of the site should be shown on a map. Consideration should be given, in detail, of the potential scheme impacts upon the setting of the Grade II Listed Pephurst Farmhouse (visual, noise impacts, from the site and use of the access). The need for mitigation measures should be identified, as should the impact of features such as bunds and stockpiles.*

7. *The expected impact of the scheme, including both the operational area and access, upon Listed Buildings at much greater distance, should be referred to in summary. More detail should be provided in relation to the potential impact of increased noise and vibration on Listed Buildings adjacent to affected main roads.*

3.0 Methodology

3.1 This Desk-based Assessment report has been prepared in accordance with the requirements of the *National Planning Policy Framework* (DCLG 2012); the *Standards and Guidance for Historic Environment Desk-based Assessment* (CIfA 2014); and the *Sussex Archaeological Standards* (2019).

3.2 The research for this Heritage Statement has included an analysis of the following resources:

- Chichester District Historic Environment Record (HER)
- West Sussex Historic Environment Record (HER)
- Surrey Historic Environment Record (HER)
- The National Heritage List for England (a list of all nationally designated heritage assets)
- Historic mapping
- West Sussex Record Office (Currently closed due to Covid19 restrictions)
- Surrey History Centre (on-line access)
- *Woodlands* O. Rackham 2006 & *Ancient Woodlands* O. Rackham 2003
- Personal library resources
- British Geological Survey
- Lidar data (https://www.lidarfinder.com/)

3.3 The following maps were consulted:

- Speed 1610
- Morden 1695 (not reproduced)
- Kitchin 1750 and 1763 (not reproduced)
- Bowen 1756 (not reproduced)
- Yeakell and Gardiner 1778-1783 (not reproduced)
- Budgen 1806 OS Draft map
- Cooper 1808 (not reproduced)
- 1842 Wisborough Green Tithe map (WSRO TD W149)
- 1841 Alfold Tithe Map (SHC 864/1/5)
- 1st Edition OS map (1876)
- 2nd Edition OS map (1897)
- 3rd Edition OS map (1912)
- 4th Edition OS Map (1920)
- 1961 OS map
- 1974 OS map

3.4 Information gained from the map regression exercise is contained within the Post Medieval section below.

3.5 This survey used Lidar data to review the historic environment resource. Airborne lidar (light detection and ranging), also known as airborne laser scanning (ALS), measures the height of the ground surface and other features in large areas of landscape to provide highly detailed and accurate models of the land surface. Originally developed for submarine detection in the 1960s and 70s, it was adopted by the UK's Environment Agency and others such as highways and utility authorities for producing cost-effective terrain maps. Since around 2000, archaeologists have been exploring its potential to recognise and record otherwise hard-to-detect features over large areas.

3.6 Lidar operates by using a pulsed laser beam which is scanned from side to side as the aircraft flies over the survey area, measuring between 20,000 to 100,000 points per second to build an accurate, high resolution model of the ground and the features upon it. Because lidar uses light beams it has the potential to penetrate gaps in the woodland canopy and so record the ground surface under the trees. This can reveal features that would not otherwise be seen, although very dense cover such as rhododendron may prove impenetrable to lidar survey.

3.7 Our experience with using lidar for a much larger survey[4] assessing some 700 sites on Ashdown Forest, which was one of the first in the country to use lidar on this scale, led to the conclusions that:

- Lidar is capable of identifying a substantial number of new archaeological sites – at least a third more than traditional desktop and walkover methods.
- An experienced lidar interpreter can make reliable identifications of known site types in around 75% of cases using desktop methods.
- Around half of known sites identified by traditional desktop and field survey methods are capable of being enhanced by lidar survey, notably in identifying their full extent and precise location.
- Using lidar images as an additional survey tool before going out into the field enables the ground work to be done faster. The extent and precise geographical location of identified archaeological features can be targeted accurately without the need to carry out a full ground survey.
- However, some archaeological features do not show up on current lidar images: lidar should always be used in conjunction with field work, and 'ground-truthing' through field visits is an essential part of this type of survey.

3.8 The lidar survey data (Figs 12 & 13) was studied alongside the photographic and map evidence to identify and transcribe potential features; the results of which were overlaid onto OS mapping as the basis for undertaking the field survey.

[4] *Ashdown Forest historic environment resource: a revised lidar-enhanced archaeological survey*. Butler, C, Blandford, V and Locke, A, April 2011.

3.9 The field survey was undertaken by the author on the 27th August 2020. The weather was good during the survey, with increasing cloud cover during the day, and only occasional light showers. The vegetation varied across the Site with some areas being reasonably open and accessible, whilst other areas were very overgrown and access was not possible. The areas where access was limited on the ground are outlined on the 'accessibility map' (Fig. 5). In the two areas identified on the map, there was limited access from around the perimeter, and the amount of ground cover limited the ability to ground-truth any earthworks in these areas.

3.10 The survey methodology comprised an initial walk along the access route to the Site from the entrance on Loxwood Road, identifying features noted on the Lidar and historic mapping, and where necessary investigating potential archaeological features either side of the track and especially at track junctions. The entire perimeter of the Site was then walked, again identifying features noted from the Lidar and historic mapping, gaining access into the different parts of the Site wherever possible to investigate potential archaeological features.

3.11 A systematic walkover of as much of the Site as possible, using the lidar as a back up to the visual inspection of the ground surface. The transcribed lidar overlay was used in conjunction with the historic mapping to identify features and determine their extent. Features previously identified on the lidar were targeted to confirm their presence, identity, and current state.

3.12 A written record was made for each earthwork or other site encountered, including information on its dimensions, shape and extent, together with any relationships with other earthworks and sites. Each feature encountered was allocated a sequential number which is used in this report and the site archive. Where possible this information was backed up with sketches and digital photographs. A hand-held GPS (Garmin Etrex20) was used to provide an exact location to an accuracy of $\pm$3 to 5m where this could not be established from the Lidar and OS mapping.

3.13 During the survey, the ground surface was also inspected for archaeological artefacts, however only a few fragments of ceramic building material were noted in the woodland areas, and none was retained. On the site of the brickworks adjacent to the entrance a large amount of material was noted, this was photographed but no artefacts were removed from it.

4.0 Archaeological and Historical Background

4.0.1 This section considers each archaeological period in turn, reviewing the known archaeological resource within a 1km radius from the Site (Hereafter the Study Area) and briefly defining its location, extent, character, date, integrity, state of preservation and quality. Historic Environment Record maps are shown in Figs. 6 to 8.

4.0.2 The review of each period will also bring in evidence from a wider area, especially where there is little known archaeological evidence locally. This will enable a more accurate judgement to be made about the archaeological potential of the Site. This evidence will include that taken from similar landscapes and geologies. The Historic Landscape Classification (Fig. 9) shows the site and surrounding area to be an essentially Post medieval landscape, although some medieval landscape survives nearby.

4.0.3 The HER records one intrusive archaeological event to have taken place within the Study Area. The small archaeological evaluation (E693) in advance of a housing development at Farm Close, Loxwood recorded no features or finds of archaeological significance.

4.1 Palaeolithic Period (750,000BC - 10,000BC)

4.1.1 This period covers a huge expanse of time, during which early hominid occupation of Southern Britain was intermittent. The period is divided into warm and cold periods, with the evidence suggesting that hominid occupation occurred during some of the warm periods. Apart from a small number of exceptional sites (e.g. Boxgrove), most of the evidence for human activity in this period comes from isolated finds of stone tools, often in secondary deposits.

4.1.2 A flint knife of probable Palaeolithic date (CD1900) was found in the garden of Chapel Corner, on the east outskirts of Loxwood, in 1956. Beyond the Study Area, the closest Palaeolithic findspot is a site beside the River Arun, outside Billingshurst[5].

4.1.3 The Weald has only a handful of Palaeolithic finds[6]. Such discoveries in Sussex are normally associated with the raised beaches of the Coastal Plain and the gravel deposits in the river valleys[7]. As these specific geological conditions are not found within the Study Area, there is a low likelihood of finding Palaeolithic material within the Site.

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[5] Woodcock, A. 1999. 'Earliest Inhabitants', in Leslie, K. and Short, B. (Eds), *An Historical Atlas of Sussex*. Chichester: Phillimore & Co. Ltd, 10-11.

[6] Pope, M. 2003. 'The Earliest Occupation of Sussex: Recent Research and Future Objectives', in Rudling, D. (Ed.), *The Archaeology of Sussex to AD2000*. Kings Lynn: Heritage Marketing & Publications Ltd, 17-28, Fig. 2.8.

[7] Woodcock, A. 1999. 'Earliest Inhabitants', in Leslie, K. and Short, B. (Eds), *An Historical Atlas of Sussex*.

4.2 Mesolithic Period (10,000BC - 4,000BC)

4.2.1 The start of the Mesolithic period saw Britain largely covered by pine and birch woodland, which was gradually replaced by a mixed deciduous woodland that provided an ideal environment for the bands of hunter-gatherers who exploited the resources on a seasonal basis[8].

4.2.2 Within the Study Area Mesolithic flintwork including microliths and flakes has been recovered. The closest findspot to the Site (CD1887) consists of a few microliths and waste flakes found near Primrose Copse, to the north-east of the Site. In the wider landscape findspots seem to be concentrated on sandy ridges (MWS3214 & MWS5826), on the banks of the River Arun (MWS6623 & MWS6620), and around Alford (MSE698, MSE4199 & MSE5168) A single possible Mesolithic feature is recorded (MSE23452). This pit was recorded during an evaluation near Alfold and dated on the basis of a single Mesolithic to Neolithic flint retrieved from it.

4.2.3 There is limited evidence for Mesolithic activity within the Study Area, and none is known within the Site or its immediate environs. Mesolithic sites in this part of the Weald are commonly found adjacent to streams and springs (e.g. MSE4199 above). Although there is a seasonal stream running through the Site, the availability of all year round streams nearby elsewhere in the landscape suggests the probability of Mesolithic archaeology being present on site is low.

4.3 Neolithic Period (4,000BC - 2,500BC)

4.3.1 A number of changes occurred during the Neolithic, with environmental evidence suggesting that some woodland was being cleared for small-scale agricultural activities. However, the Low Weald has a sparse distribution of stone axes, including two from Rudgwick to the east of the Study Area[9], and these finds are most likely to represent the occasional exploitation of a landscape still dominated by woodland, rather than reflect any settlement or agriculture.

4.3.2 Other changes in the earlier part of the Neolithic period include the construction of large-scale monuments and the first industrial activity. As all causewayed enclosures, burial mounds and flint mines in Sussex are sited on the South Downs[10], this would again imply that many Neolithic settlements were established at some distance from the Low Weald.

Chichester: Phillimore & Co. Ltd, 10-11.

[8] Holgate, R. 2003. 'Late Glacial and Post-glacial Hunter-gatherers in Sussex', in Rudling, D. (Ed.), *The Archaeology of Sussex to AD2000*. Kings Lynn: Heritage Marketing and Publications Ltd,

[9] Drewett, P. 1999. 'First Farming Communities and Communal Monuments', in Leslie, K. and Short, B. (Eds), *An Historical Atlas of Sussex*. Chichester: Phillimore & Co. Ltd, 16-17.

[10] *Ibid.*

4.3.3 A single possible Neolithic findspot is recorded within the wider landscape (MSE5166) in the form of a Neolithic/Bronze Age retouched blade found at Lion's Copse, Alford.

4.3.4 Given that little evidence for Neolithic settlement or agriculture exists within the Low Weald it is considered unlikely finds or features relating to this period are present on Site.

4.4 The Bronze Age (2500BC - 800BC)

4.4.1 The Bronze Age saw continued clearance of the woodland in the Weald. However, as this region has little evidence for complete clearance or widespread agriculture, hunting presumably continued in parallel with farming[11]. Little evidence exists for Bronze Age activity in the Low Weald, other than the Late Bronze Age / Early Iron Age settlement at America Wood sited between the Arun and Adur[12]. In contrast, there is extensive evidence that the South Downs and Coastal Plain were densely populated by small farming settlements in the Middle and Late Bronze Age.

4.4.2 A single Bronze Age artefact, a convex scraper/notched-piece/burin (MSE5167) from Lion's Copse, Alford, has been recorded in the wider landscape.

4.4.3 Given the absence of recorded archaeology dated to this period within the Study area the likelihood of finds/features being present on site is low.

4.5 The Iron Age (800BC - 43AD)

4.5.1 During the Early Iron Age it seems likely that the pattern of settlement and agriculture seen in the Late Bronze Age continued, although house structures dating to this period are rare. The field systems carried on in use throughout the Iron Age, whilst some of the settlements originating in the Late Bronze Age also appear to have remained in use into the Early Iron Age.

4.5.2 Farming in the Low Weald during the Iron Age may have comprised the grazing of livestock in the field systems of enclosed farms, as seen in the High Weald at Kings Standing in the Ashdown Forest[13], for instance.

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[11] Gardiner, M. 1990. 'The Archaeology of the Weald - A Survey and a Review', *Sussex Archaeological Collections* **128**, 33-53.

[12] Hamilton, S. and Manley, J. 1999. 'Regional Traditions *c.*1000-100BC', in Leslie, K. and Short, B. (Eds), *An Historical Atlas of Sussex*. Chichester: Phillimore & Co. Ltd, 20-21.

[13] Margary, I.D. 1946. 'War Damage to Antiquities on Ashdown Forest', *Sussex Notes & Queries* **11**, 1-3.

4.5.3 One major feature of the Iron Age is the hillfort. Many hillforts appear to have originated in the Late Bronze Age, with some having become important centres of control and redistribution in the Middle and Late Iron Age. However, hillforts only began to be built in the Weald during the Middle Iron Age[14], if not the Late Iron Age[15]. The closest hillforts to the Application Site are located 7-8km away, to the northwest at Hascombe Hill[16] in Surrey and to the southwest at Piper's Copse in Sussex. Either hillfort may have extended their range of influence to the Study Area.

4.5.4 The late appearance of hillforts in the Weald is believed to be associated with a more intensive exploitation of the region's iron sources[17]. The closest ironworking site of possible Iron Age date is an unexcavated bloomery at the Piper's Copse hillfort[18]. It has been dated to the 1st century AD.

4.5.5 No Iron Age material is recorded within the Study Area, and therefore features and finds of this date are unlikely to be present at the Site.

4.6 The Roman Period (43AD - 410AD)

4.6.1 The Roman invasion of Britain in 43AD resulted in dramatic changes to this island's social and economic environment[19]. It is likely that many of the rural farmsteads and associated field systems that were in existence in the Late Iron Age continued throughout the Roman period. Where they have been excavated elsewhere, they provide evidence for a mixed farming economy of crops and animal husbandry.

4.6.2 Villas are unknown in the Weald, being almost entirely concentrated on the Sussex Coastal Plain and immediately to the north of the South Downs, or in North Kent. There is also little evidence for any larger settlements.

4.6.3 It has been suggested that the Weald was set aside as an 'Imperial Estate' for iron working[20], which may explain its lack of villas and larger settlements. No iron working sites of Roman date have been identified near to the Study Area[21].

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[14] Hamilton, S. and Manley, J. 1999. 'Regional Traditions *c*.1000-100BC', in Leslie, K. and Short, B. (Eds), *An Historical Atlas of Sussex*. Chichester: Phillimore & Co. Ltd, 20-21.

[15] *Ibid.* 22-23.

[16] Hanworth, R. 1987 'The Iron Age in Surrey' in Bird & Bird *The Archaeology of Surrey to 1540. Surrey Arch. Soc.*

[17] Hamilton, S. and Manley, J. 1999. 'The End of Prehistory *c*.100BC-AD43', in Leslie, K. and Short, B. (Eds), *An Historical Atlas of Sussex*. Chichester: Phillimore & Co. Ltd, 22-23.

[18] http://www.wirgdata.org

[19] Rudling, D. 2003. 'Roman Rural Settlement in Sussex: Continuity and Change', in Rudling, D. (Ed), *The Archaeology of Sussex to AD2000*, Kings Lynn, Heritage Marketing & Publications Ltd.

[20] Cleere, H. et al. 1995. *The Iron Industry in the Weald*. Cardiff: Merton Priory Press.

[21] http://www.wirgdata.org

4.6.4 A fragment of a Roman quern (CD1888) was found in *c.*1961 in a field ditch behind Barnfold Farm, *c.* 1 km to the south of the Site. This findspot would imply the presence of a Roman farmstead nearby.

4.6.5 Outside the Study Area a Roman Alexandrian billon tetradrachm (MSE678) was found in Waynde, Alfold.

4.6.6 The concentration of Roman archaeology within the Study Area is low, and the Site has a low potential for finds/features of this date.

4.7 The Saxon Period (410AD - 1066AD)

4.7.1 In the early Post-Roman period there was a change in the economy and land use, with many areas that had been previously cultivated reverting to woodland. The Weald, none the less, remained an important area for the grazing of pigs and other animals[22].

4.7.2 Evidence for Saxon settlement is scarce, and with few Domesday settlements located within the Low Weald[23], it is reasonable to assume that this region was just as poorly populated in the preceding Saxon period. For the wider area around Loxwood, this may be confirmed by the Old English place names of its settlements[24]. Rudgwick originated as a farm ('Ridge Farm') whilst Alford and Slinfold were both folds ('Old fold' and 'Slope fold' respectively), presumably associated with the transhumance of animals along droveways in the summer months. Only Wisborough Green may have been anything more substantial, as 'green' is a reference to an outlying settlement.

4.7.3 As the Study Area was probably grazed woodland in the Saxon period, this land use is unlikely to have left a trace in the archaeological record, so the chances of finding remains of Saxon activity is Low.

4.8 The Medieval Period (1066AD - 1500AD)

4.8.1 No places in Wisborough Green or its neighbouring parishes are mentioned in the Domesday Book of 1086[25]. From the mid-13th century the Bishops of Chichester had a large pastoral grange (Drungewick Manor) associated with a moated residence that stood to the South of the Study Area[26]. This manor held in common an area or wooded

[22] Gardiner, M. 1990. 'The Archaeology of the Weald - A Survey and a Review', *Sussex Archaeological Collections* **128**, 33-53.
[23] Morris, J. (Ed.), 1976. *Domesday Book: Sussex*. Chichester: Phillimore & Co. Ltd.
[24] http://kepn.nottingham.ac.uk/map/county/Sussex
[25] Morris, J. (Ed.), 1976. *Domesday Book: Sussex*. Chichester: Phillimore & Co. Ltd.
[26] Elwes, D.G.C. 1876. *A History of the Castles, Mansions, and Manors of Western Sussex*. London: Longmans.

'mens' located between the parishes of Rudgwick and Wisborough Green[27]. An inventory compiled in 1308 details the Knights Templar estate in Shipley, West Sussex as having had lands in Loxwood[28].

4.8.2 A church was built at Loxwood in *c*.1404 as a chapel of ease to Wisborough Green parish church[29]. It stood at the Station Road / Guildford Road junction[30]. The population living in and around Loxwood must have been sizeable for a chapel to be built. However, by virtue of a Royal Commission issued by Henry VIII, one muster in the spring of 1539 recorded 'Loxwood, Ibnow and Kyreford' as having a population of just 70 able men[31].

4.8.3 In the Medieval period, the Low Weald was a region of moderate fertility, with wheat and oat being grown and flocks of sheep and some cattle being kept[32]. Within the Study Area, both Brewhurst Farm (CD9521) and Pephurst Farm (CD9553) are medieval in origin; however, Brewhurst and Pephurst may have been place names before the existence of the farms, as 'hurst' is Old English for 'a wooded hill'[33].

4.8.4 A concentration of bloomery tap slag is recorded[34] *c.* 1km to the north of the Site. Finds of Coarse Border Ware pottery may date the bloomery to the 14th century. Bloomery tap slag (MSE23438) was also found at Monktonhook, *c*.750m to the north of the Site, during fieldwalking of a site known to have been occupied from at least 1325. Glass production in the Medieval period was limited to the small-scale production of forest glass for window glass and vessels, and took place predominantly in the Weald[35].

4.8.5 Medieval occupation debris (CD1884) including pottery dating to the 14th to 15th century is recorded *c*. 500m to the north-east of the Site.

4.8.6 Loxwood Manor was a parcel of the Manor of Bury in West Sussex[36]. In May 1585, its wood was leased to Richard Kynge for 21 years on the agreement that 300 cartloads of wood could be taken yearly from it[37]. The Crown held Loxwood Manor during the reign of James I[38]. It had no demesne or copyhold land, only waste or common with trees

[27] http://rudgwick-rps.org.uk/images/3/37/Tisman's_Common.pdf
[28] Page, W. (Ed.), 1973. *A History of the County of Sussex*. **2**, 92-93.
[29] WSRO Loxwood Par/129
[30] Loxwood VDS Steering Group. 2003. Loxwood Village: Design Statement. Loxwood Parish Council.
[31] Gairdner, J. and Brodie, R.H. (Eds), 1894. *Letters and Papers, Foreign and Domestic, Henry VIII,* **14** Part 1: January-July 1539, 264-330.
[32] Gardiner, M. 1999. 'The medieval rural economy and landscape', in Leslie, K. and Short, B. (Eds), *An Historical Atlas of Sussex*. Chichester: Phillimore & Co. Ltd, 38-39.
[33] http://kepn.nottingham.ac.uk/map/county/Sussex
[34] http://www.wirgdata.org
[35] Kenyon, G.H. 1967. *The Glass Industry of the Weald.* Leicester: Leicester University Press.
[36] *Ibid.*
[37] WSRO Add Mss 37159
[38] Dyfnault Owen, G. (Ed.), 1976. *Calendar of the Cecil Papers in Hatfield House,* **24**: Addenda, 1605-1668, 210-229.

growing on it. Sometime prior to 24 May 1612, Richard Threele and Henry Barttelot requested permission to purchase the trees for their own use and that of the other tenants.

4.8.7 Land use on Site during this period is unknown, and the HLC (Fig. 8) identifies the main area of the Site as regenerated woodland dating from the 19th century and later. Much of the surrounding land, however, is described as assart, land cleared for arable farming, dating to the Medieval period and the area of the Site may have been in the same use.

4.8.8 Medieval activity is recorded within the Study Area, and the Site may have been arable farmland at this time. Features such as field boundaries may survive on Site, but the probability of archaeology from this period being preserved on Site is low.

4.9 The Post-Medieval Period (1500AD to the Present Day)

4.9.1 Dungewick Manor was appropriated by Elizabeth 1 and later purchased by Sir Edward Onslow[39].

4.9.2 Loxwood Manor was a parcel of the Manor of Bury in West Sussex[40]. In May 1585, its wood was leased to Richard Kynge for 21 years on the agreement that 300 cartloads of wood could be taken yearly from it[41]. The Crown held Loxwood Manor during the reign of James I[42]. It had no demesne or copyhold land, only waste or common with trees growing on it. Sometime prior to 24 May 1612, Richard Threele and Henry Barttelot requested permission to purchase the trees for their own use and that of the other tenants.

4.9.3 Loxwood is shown on Speed's map of Sussex, dated 1610 (Fig. 14). A glasshouse is plotted to its northeast. This may have been the only working example in the county at that time. Jean Carré was awarded a crown-sanctioned patent to produce window glass, on the condition that prices remained low and that he taught the craft of glassmaking and blowing to the English. By 1567 Carré had built two glasshouses at 'Fernefol' (Fernfold Wood) to produce Normandy and Lorraine glass for windows.

4.9.4 Remains of one glasshouse (CD8131) were found at Old Songhurst Farm, *c*. 600m to the west of the Site in 1997. An alignment of stone blocks and associated finds including ?17th century potsherds, glass slag and a fragment of glazed crucible were found. Glass waste (CD1903) has also been found in a field *c*. 300m to the south of the farmhouse. This site was called 'Glasshouse Field' or 'Glasshouse Piece'[43]

[39] Elwes, D.G.C. 1876. *A History of the Castles, Mansions, and Manors of Western Sussex*. London: Longmans.

[40] *Ibid.*

[41] WSRO Add Mss 37159

[42] Dyfnault Owen, G. (Ed.), 1976. *Calendar of the Cecil Papers in Hatfield House,* **24**: Addenda, 1605-1668, 210-229.

[43] Kenyon, G. H. 1967 *The Glass Industry of the Weald,* Leicester University Press

4.9.5 Evidence for a second glassworks has been found in fields around 700m to the south of the Site. A brick-built furnace measuring 6m long by 1.9m wide (CD1906) was discovered in 1931. It had a fire chamber that measured 2.4m long by 0.74m wide and was associated with exceptional amounts of glass waste. Lumps of glass and some crucible fragments (CD1918) were recovered in *c.*1961 and crucible fragments and slag (CD3210) have also been recovered in this vicinity.

4.9.6 A third glasshouse (CD1883), another possible Site for the glasshouse identified by Speed, is located *c.* 600m to the east of the Site. A furnace, a mass of glass waste and brick and crucible fragments were located here[44]. The glass suggests abandonment at the close of the industry in *c.*1618. Further finds of glass (CD1886) recovered *c*. 400m to the north may be associated with this, or another glassworks.

4.9.7 There are 14 Listed Buildings recorded within the Chichester District part of the Study Area (Fig. 6) of which nine date to the 17th century or earlier (CD1908, CD5591, CD5592, CD5600, CD5923, CD6268, CD7576, CD7670 & CD7740), with the majority of Listed Buildings being located in or around Loxwood village and Brewhurst farm. There are 22 Listed Buildings to the east of the Site in Horsham District (Fig. 7), and 26 Listed Buildings in the Surrey part of the Study Area to the north of the Site (Fig. 8).

4.9.8 The closest Listed Building to the Site is Pephurst Farmhouse (CD7670), a Grade II Listed 17th century or earlier timber-framed building with plaster and painted brick infilling and curved braces. This building is located on the southern side of Loxwood Road, close to the proposed Site access. Crabtree Corner (CD7740) is situated to the southeast along Loxwood Road and is a Listed 17th century or earlier timber framed building. A Listed two bay open hall-house (Hedgecocks Cottage) dating from *c*. 1500 is located a little further to the southeast (DWS5653). To the north (in Surrey), the nearest Listed Building is Males Farmhouse, and is a Late 16th century timber framed building with C17 and C18 extensions (DES2155).

4.9.9 The Ordnance Survey draft map of 1806[45] (Fig. 15) shows the entire site to have been fields at this time, with some woodland to the west of the Site. A road is shown running along the north side of the Site between Woodlands Farm and Songhurst Green, whilst another road runs along the eastern boundary. Along the proposed access road there is a mixture of woodland and fields, with the brickworks shown in the southwest corner of what is now Pephurst Wood. Pephurst Farm is called Boardinghouse Farm at this time. A map of Lord Selsey's property in Wisborough Green and Alfold dated 1825 could not be inspected as the West Sussex Records Office was closed due to Covid19[46].

[44] Kenyon, G. H. 1967 *The Glass Industry of the Weald*, Leicester University Press
[45] http://www.bl.uk/onlinegallery/onlineex/ordsurvdraw/w/002osd000000008u00069000.html
[46] WSRO: Add Mss 41268

4.9.10 The Wisborough Green tithe map of 1842 (Fig. 16) shows a lot more detail. The Site (Fig. 17) is divided between three Plots; firstly Plot 40, forming the eastern part of the Site, and was called 'Crossway Field', which was arable and part of Brick Kiln Farm, which was located just to the northeast of the Site. Plot 118 forms the north western part of the Site and was called the 'Hazards', was arable and belonged to Songhurst Farm, whilst the south western portion of the Site was part of Plot 117, called 'Songhurst Furze Copse', described as wood and again part of Songhurst Farm. Running along the northern boundary of the Site is 'The Lane' (Plot 116) and part of Songhurst Farm. Brick Kiln Farm (Plot 38) is located to the north east of the Site, with Woodhouse farm (Plot 21) located a little further northeast. The apportionment is detailed in Table 1 below. The Alfold Tithe map covers the area to the north of the Site and is included for reference only (Fig. 18).

4.9.11 The proposed access road heads south from the Site through Plot 117 into Plot 81 (13 Acres - arable), also part of Songhurst Farm, and then eastwards through Plots 70 (Farnfold Scrubs – wood), 69 (The Caddicks – wood pasture) both belonging to Farnfold Farm and 68 (Hurst Wood – wood). It then runs through Plot 309 (Old Mead – pasture) into the Plot 310 (Occupation Road) both part of Pephurst Farm, and finally though Plot 311, the Brick Kiln, shed and yard. The Loxwood Road at this time bends to follow the line of the current layby, but the house at the east end of the layby is not present at this time. Pephurst Farm (called Boarding House Farm – Plot 395) is located to the southwest of the brick kiln.

Table 1: Tithe Apportionment

Plot	Name	Type	Farm	Owner	Occupier
40	Crossway Field	Arable	Brick Kiln	D. Onslow	S. Knight
41	Brick Kiln Field	Arable	Brick Kiln	D. Onslow	S. Knight
42	Brick Kiln Rough Pasture	Pasture	Brick Kiln	D. Onslow	S. Knight
43	Woodlands Field Rough	Wood	-	D. Onslow	D. Onslow
44	Second Woodland Field	Arable	-	D. Onslow	H. Knight
45	Third Woodland Field	Arable	-	D. Onslow	H. Knight
67	Four Acres & Redgate Field	Arable	-	D. Onslow	T. Seward
68	Hurst Wood	Wood	-	D. Onslow	D. Onslow
69	The Caddicks	Woody pasture	Farnfold	D. Onslow	-
70	Farnfold Scrubs	Wood	Farnfold	D. Onslow	-
81	Thirteen Acres	Arable	Songhurst	D. Onslow	J. Child
116	The Lane	Lane	Songhurst	D. Onslow	J. Child
117	Songhurst Furze Copse	Wood	Songhurst	D. Onslow	J. Child
118	The Hazards	Arable	Songhurst	D. Onslow	J. Child

307	Farnfold Field	Arable	Pephurst	D. Onslow	T. Seward
308	Brick Kiln Field	Arable	Pephurst	D. Onslow	T. Seward
309	Old Mead	Pasture	Pephurst	D. Onslow	T. Seward
310	Occupation Road	Road	Pephurst	D. Onslow	T. Seward
311	Brick Kiln, shed & yard	-	-	D. Onslow	S. Knight
312	Pephurst Great Wood	Wood	-	D. Onslow	D. Onslow
313	Kiln Field	Arable	Pephurst	D. Onslow	T. Seward
314	Pephurst Orchard	Orchard	Pephurst	D. Onslow	T. Seward
315	Cottage & garden	-	-	D. Onslow	J .Etherington
316	Pephurst Green	Pasture	Pephurst	D. Onslow	T. Seward
317	Outbuildings	-	Pephurst	D. Onslow	T. Seward
395	House	-	Boarding House	D. Onslow	E. Penfold

4.9.12 Evidence for exploitation of the clay resources of the area for brickmaking is shown on the 1st Edition OS map of 1876 (Fig. 19). A Brickworks (CD1890) and associated clay pit are shown on the southern edge of Pephurst wood adjacent to the entrance and the proposed access road. This brickworks was opened in 1842 by Stephan Knight[47], and a kiln and drying sheds are shown on the map. Knight also operated a brick kiln field and brickyard plat (CD1889) at Brickkiln Farm (CD9551), *c.* 500m to the east of the Site. A lime kiln (CD4076) is also identified *c.* 500m to the west of the Site, and a saw pit is shown to the east of Hurst Wood.

4.9.13 The main body of the Site (Fig. 20) is shown to be wooded to its west, with an open field to its east side. The Site boundaries are marked by footpaths on each side, and a further footpath runs roughly westwards across the Site, branching to run northwards in the centre of the Site. The surrounding land is wooded to the west and south and divided into fields to the east and north. An outfarm of Woodhouse Farm (CD9550) can be seen to the north-east of the Site.

4.9.14 The Second Edition OS map of 1897 (Fig. 21) shows little change to the Site or its surroundings. However along the access road, Caddick Copse has been divided up into three parts; Caddick Copse, Great Scrubbs and Woodlands Furze by the 1897 OS map (Fig. 22), and the field to the south of Songhurst Furze has been planted with woodland by 1897, and called Great Birchfield. The saw pit is no longer shown. The brickworks shows a different layout, and now has two kilns.

4.9.15 There is little change to the Site on the Third Edition OS map of 1912 (Figs. 23 & 24), although a small V-shaped area is now shown in the central northern part of the Site

[47] Beswick, M. 2001. *Brickmaking in Sussex: A History and Gazetteer*. Midhurst: Middleton Press.

against the northern boundary. Its function is uncertain, but it is shown on all later maps. The cottage located just to the east of the brickworks in Pephurst Wood is shown for the first time.

4.9.16 The Fourth Edition OS map of 1920 (Figs. 25 & 26) shows no change to the site, although the kilns are no longer shown on the brickworks in Pephurst Wood.

4.9.17 The Site was part of the Pallinghurst Estate, which was sold by the then owner Earnest MacAndrew in 1959[48]. Lot 18 is described as:

Lot 18 – Barnsfold Farm and woodland at Songhurst, 309 acres, having a small brick house at Barnsfold (Loxwood), farm buildings, with woodland in the centre of the farm as a sporting entity and for capital appreciation, including Longhurst Kiln Copse and Furze, Woodlands Furze, Great Scrubbs, Beggar's Copse, Caddick Copse, Hurst Wood. Barnsfold is let to Capt JD Moore [of Little Headsfoldwood, Loxwood] at £180 pa. the sporting rights are in hand. Sold subject to conditions unspecified of an Order of 24 November 1950, Section 11 of Housing Act, 1936 applying to the cottages at Brick Kiln Farm.

4.9.18 On the 1961 OS map (Fig. 27) more of the fields around the site have become scrub woodland, the brickworks in Pephurst Wood is no longer shown, and to the east of the site Woodhouse Farm and its outfarm has gone, and Brickkiln Farm has reduced to just one building.

4.9.19 By the time of the 1974 OS map (Figs. 28 & 29) the deciduous woodland in the north-west of the site had been replaced by conifers, and the field on the east side of the site had also been planted with conifers. The track along the southern edge of the site has been re-aligned, crossing the old boundary to run along its north side to the southeast corner of the Site. The fields to the east of the Site has also been fully planted with conifers. A new track runs northwest through Hurst Wood and Caddick Copse before re-joining the original track.

4.9.20 More recent aerial images between 2001 and 2017 (Fig. 30) show the wooded nature of the site, and the changes over this time period.

[48] Pallinghurst, 1919-1959: The MacAndrew Years, 1919-1959 (https://rudgwick.files.wordpress.com/2014/03/17-hoh-th)

5. **Ground Survey Results** (Figs. 35 & 36)

5.1 The ground survey was carried out on 27th August 2020. The survey commenced at the entrance at the layby on Loxwood Road, and the results are presented in three sections; firstly the access route between the entrance and the development site; secondly the development site, and lastly the brickworks at the entrance. Each feature found was allocated a unique number which is used in this report and on Fig. 36.

5.2 ***Survey of the access route***.

Plate 1: Entrance to site from layby on Loxwood Road

5.2.1 The initial access route enters the site through the entrance (Plate 1), progressing north through the old brickworks site before turning northwest to cross the footpath. It passes between two fields, Brick Kiln Field to the south of the path (Plate 2) and Old Mead to the north (Plate 3). These were arable and pasture respectively at the time of the 1842 Tithe map (Fig. 16), and on the Lidar both have distinct evidence of ridge and furrow ploughing (Fig. 35), although this could not be seen on the ground. Both are currently pasture. There is very limited intervisibility with some farm buildings at Pephurst Farm to the south across Brick Kiln Field.

Plate 2: Brick Kiln Field

Plate 3: Old Mead

5.2.2 The track at this point is a modern metalled track, having been created between 1961 and 1974, prior to this it had just been a field boundary between the two fields, which survives on the southern side of the track as a hedge. On the 1876 OS map (Fig. 19) a saw pit is shown in Old Mead adjacent to Hurst Wood (approx. TQ 05538 32024) although this is not recorded on the HER, and is no longer shown on the 1897 OS map. No evidence for this can be seen from the access road and it does not show clearly on the Lidar.

1. Just prior to entering Hurst wood, there is a pond on the south side of the track (TQ 05521 31967). This is first shown on the Tithe map at the junction of the fields and wood. It is very overgrown, and at the time of the site visit appeared to contain little or no water (Plate 4). This may have originated as a small quarry pit.

Plate 4: Pond (1)

Plate 5: Track through Hurst Wood

5.2.3 On entering Hurst Wood the track is a modern metalled track which continues through the wood in a north westerly direction. This track was constructed between 1961 and 1974 and has a shallow ditch with an external low bank on each side. The original track through the wood (shown on the 1876 OS map) runs along its southern boundary before turning north to rejoin the modern track (at Site 3 below). The woodland on either side here is oak, becoming predominantly conifer at the western end of Hurst Wood, although no trees of any age were noted.

2. On the western edge of Hurst Wood there is a north-south orientated bank and ditch (Plate 6), which is its boundary, noted on the historic mapping from the Tithe map onwards. The ditch is shallow (c250mm deep) and the bank is low (c.300mm high). It has been merged into the modern bank and ditch on the track edge. TQ 05401 32080.

3. The old track rejoins the modern track on its south side, and is cut by the bank and ditch of the modern track. TQ 05315 32122.

5.2.4 The woodland in Caddick Copse is new plantation to the north of the track, with the bank along the trackway being higher. To the south mixed oak and coppice. The trackway here is now following the route of a track first shown on the 1876 OS map.

Plate 6: Bank and ditch on west edge of Hurst Wood (2)

Plate 7: Ditch (4)

4. A north-south orientated ditch c. 2m wide and 0.5m deep noted on both sides of the track (Plate 7). On the Lidar this can be seen to extend south to join the boundary on the western side of Beggars Copse to the south of Caddick Copse, and to the north of the track it curves northeast to join another boundary bank and ditch (6), but is not shown on any historic mapping. Note the field to the west of Beggars Copse has probable ridge and furrow showing on the Lidar. TQ 05294 32135.

5. On the south side of the track there are a number of parallel shallow linears (grips), each c. 0.5m wide and 250mm deep (Plate 8) which run east-west through the woodland, c.4 to 5m apart, extending either side of ditch 4. These are probably for drainage, and are oriented to follow the slope, and are a common feature in later Post medieval managed woodland. On the Lidar only the deeper linears show up, at approximately 20m intervals. TQ 05290 32112.

Plate 8: Drainage linears (5)

Plate 9: Ditch (6)

6. The western and northern historic boundary to Caddick Copse shows as a feature on the Lidar, also continuing west along the south side of the track to form the historic boundary between Great Scrubbs to the south and Woodlands Furze to the north (Feature 8), and is first shown on the 1897 OS map (Fig. 22). This feature survives as a ditch, c. 2m wide with a slight bank 300mm high on its east side. A potential feature showing as a northeast-southwest bank/ditch feature on the Lidar to the east of ditch 6, could not be located on the ground. TQ 05262 32158.

7. This is a track junction (Plate 10) with a historic track, shown south of the track on the 1876 OS map, and extending northwards by 1897. The historic track is still extant but has no flanking bank and ditch (Plate 11). The woodland here is predominantly young coppice and numerous oaks, although none are of any significant age (Plate 12). TQ 05189 32214.

Plate 10: Track junction (7)

Plate 11: Track south of junction (7)

Plate 12: Coppice and oak woodland

Plate 13: Boundary (8)

8. Continuation of Feature 6 continuing west along the south side of the track to form the historic boundary between Great Scrubbs to the south and Woodlands Furze to the north (Feature 8); c. 1m wide and 300mm deep with a slight bank on each side c. 300mm high (Plate 13). TQ 05164 32226.

9. Boundary bank first shown on the 1897 OS map separating Great Scrubbs/Woodlands Furze to the east and Great Birchfield to the west. Comprises bank 0.6m high with a slight ditch on its west side to the north of the track (Plate 14), and to the south of the track the ditch is larger c.1.5m wide and 0.6m deep with a smaller bank on its east side. TQ 05130 32256. Note that the coppice is planted over this boundary feature and therefore post dates it.

Plate 14: Boundary bank (9)

10. Northeast-southwest trackway c. 7m wide crosses access road (TQ 05028 32347), first seen on the 1876 OS map, connecting Woodhouse Farm and Brick Kiln Farm to the north with Loxwood Road. Prior to this it was a field boundary. It has a bank and inner ditch on each side of the track. The ditches are c. 1.5m wide and 0.5m deep, and the banks are c. 1.3m wide and 0.4m high. Coppice is planted over the banks and ditches (Plates 15 & 16). On the northeast side of the junction there is a braided trackway running parallel to the track, suggesting the track has migrated westwards to its current location

Plate 15: Trackway (10) to the south

Plate 16: Trackway (10) to the north

Plate 17: Braided trackway at 10

5.2.5 As Track 10 heads north it turns more to the northeast and there is a branch off to the north into the hollow way (see 35) and track that runs along the east side of the development site and on to Hook Street. The junction with Track 10 sees a change from the mixed coppice and oak woodland (Plate 18) to new plantation to both the north and south of a conifer lined track heading west (Plate 19). This area was an arable field in 1842 (Thirteen Acres), and only became woodland (Great Birchfield) between 1876 and 1897, with this track first shown in 1897. Apart from a small ditch along the track edge nothing is shown here on the Lidar, and nothing was seen during the survey.

Plate 18: Looking east from 10

Plate 19: Track looking west from 10

11. The track originally joined a north-south track, but between 1961 and 1974 the corner was cut off and the track turns northwards towards the development site. The original narrow track was noted as joining the current track. It had no bank or ditch associated with it. TQ04822 32454.

5.2.6 Having turned north the track heads into Songhurst Furze and drops down into the stream valley. The valley sides are covered with coppice and oak.

12. The boundary between Songhurst Furze and Thirteen Acres is formed by a bank c. 0.75m high and 1.5m wide which turns to run along the east side of the track to the north (Plate 20). It has a ditch on the south side which also continues along the track, which is c 1.5m wide and 0.4m deep. The bank also continues westwards on the west side of the track where it is very overgrown. TQ 04847 32486. Historic maps show a track on the south side of this boundary bank, but there was no trace of this during the survey.

13. The track drops down to a modern concrete bridge with metal railings over the stream (Plate 21). TQ 04847 32525. The stream was narrow with a broad flood plain with coppice (Plates 22 & 23). The area around the stream was inspected for evidence of charcoal burning platforms or other industrial activity, but none was seen.

Plate 20: Boundary bank (12)

Plate 21: Bridge (13) looking north

Plate 22: Stream to west of bridge

Plate 23: Stream to east of bridge

14. A footpath shown on the 1876 and later OS maps crosses the track at TQ 04869 32583. It has no features, but is still in use.

15. A boundary bank to the west of the track is first shown on the 1897 OS map. It is c.1.5m wide and 0.6m high with a ditch on the south side c. 1.5m wide and 0.4m deep (Plate 24). It has coppice growing over it. TQ 04892 32638.

Plate 24: Boundary bank (15)

16. To the west of the track there are a series of parallel ridges that show up on the Lidar and could be seen on the ground running northeast / southwest. These are regularly spaced at c. 5m intervals and follow the slope, so were probably for drainage. TQ 04865 32694.

5.3 *Survey of the development site*

5.3.1 At the southwest corner of the development site is the junction (TQ 04906 32707) with the north-south track forming the access road leading from the bridge, and a track heading east along the southern side of the development site, first shown on the 1876 OS map (Plates 25 – 26).

Plate 25: Track north of junction

Plate 26: Track east of junction

17. A bank and ditch orientated northeast-southwest runs northeast from just north of the track junction (TQ 04923 32721). The bank is c. 1.5m wide and 0.3m high, with the ditch on its east side being c. 2m wide and 0.25m deep (Plate 27). Coppice and established oak trees are growing on this feature with some of the trees potentially being >100 years. This feature can be traced on Lidar and on the ground running northeast to Track 18 (see 32) and may reflect an earlier boundary, which is respected by the drainage to its east and west sides (see 30).

Plate 27: Bank & ditch (17)

Plate 28: Track (18)

18. An east-west track (Plate 28) first shown on the 1876 OS map, and previously on the Tithe as a field boundary, runs east through the centre of the Site from its junction with the track on the eastern boundary (TQ 04941 32807). Same as 27

19. A bank c. 2m wide and 0.4m high runs along the north side of Track 18 (Plate 29) and turns to run north along the east side of the track running along the western boundary. It has a ditch on its outside (west and south sides) which is c. 2m wide and 0.4m deep. Trees and coppice grow over the bank and ditch. TQ 04946 32828.

20. The bank continues north along the western boundary track and becomes more substantial. The track swings to the northwest, but the bank continues north (Plate 30) turning slightly to the northeast, before becoming overgrown and lost in the plantation/vegetation. TQ 04956 32955. On the 1912 OS map this bank feature is shown as a track curving around the northwest corner of the development site, however due to the overgrown nature of this part of the site it was not possible to locate this feature, however it is clearly shown as being extant on the Lidar.

Plate 29: Bank & ditch (19)

Plate 30: Bank (20)

5.3.2 The Lane which runs along the northern side of the development site was accessed via the footpath at the north west end. Access into the north western part of the development site from The Lane was almost impossible due to the close new plantation growth and other vegetation.

21. A number of ditches were noted at this location (TQ 04984 32980). They merge and enter the development site from The Lane, breaching the bank (22) which runs along the northern boundary of the development site. The 1920 OS map notes that there are ‘Rises’ in this northwest part of the site, suggesting a spring or wet ground is located here.

22. The boundary bank running along the north side of the Site and separating the Site from The Lane is c. 0.5m high and 1.5m wide, with a ditch on its outside (north) c. 1.2m wide and 0.3m deep at TQ 04989 32969 (Plate 31), although this varies in places. It is covered with coppice.

Plate 31: Boundary bank (22)

23. The Lane is a broad 'ride' running along the entire northern side of the Site from c. TQ 04955 32998 to TQ 05297 32770. It is c.20m wide at its west end narrowing to c 10m wide at TQ 05110 32897 through to the east end. At the west end there is no distinct path and the entire ride is covered with coppice and larger trees (Plate 32), but where it narrows there is a more distinct path with coppice and established trees at the edges (Plate 33). The Lane is bounded by Bank 22 on its south side, and a similar bank and ditch on its north side, with fields barely visible beyond.

Plate 32: The Lane at the west end

Plate 33: The Lane towards the east end

5.3.3 A number of possible features can be seen on the Lidar in this north western part of the development site (Fig. 35). A north-south orientated boundary bank (31) could not be seen at the northern side of the site, and the vegetation prevented any access in this area. Similarly, a potential boundary or track running east-west through this north western part of the site could not be found.

5.3.4 A north-south track shown on the 1876 and all later OS maps could not be seen on the ground, although a more recent path meanders south a little further east. It does not show clearly on the Lidar so presumably has no associated earthworks, although there are breaches in both the northern bank (22) along the site edge, and in the northern bank of

The Lane (Plate 34) at this point (c. TQ 05117 32892). There is a change in the woodland from plantation to trees and coppice

24. The bank (22) turns southeast at c. TQ 05139 32877 (Plate 35) and after a short gap also continues along the north end of the Site. This is the east side of the 'V' shaped area that was formed by 1912, and shows on the Lidar. Within the 'V' the vegetation does not change from the surrounding coppice and trees

Plate 34: Gap in north bank of The Lane

Plate 35: West side of 'V' (24)

Plate 36: East side return of 'V'

Plate 37: South end of 'V'

25. The eastern return of the 'V' is at c. TQ05163 32875 (Plate 36). Although the bank and ditch around the three sides of the 'V' varies, each is broadly c. 2m wide and there is an overall depth/height of 1m.

26. At the south end of the 'V' (Plate 37) the ditch and bank continues initially southwards, then bending round to the southwest, where it is less well defined (Plate 38), before stopping at the east-west track (27) (Plate 39) where it turns, merging into the bank running along the north side of this track towards the west.

27. East-west track running through the centre of the Site, first shown on the 1876 OS map, and previously on the Tithe as a field boundary. Same as 18. To the west of TQ 05106 32765 it is a clear track (Plate 40) with coppice along the edges and a bank (29) on its north side. To the east of this point it heads northeast, but is completely overgrown and could not be traced on the ground in this direction.

Plate 38: Ditch & bank (26)

Plate 39: Ditch & Bank (26) meets Track (27)

Plate 40: Track 27 looking west

Plate 41: Pond (marked by ranging pole) and ditches (28)

28. A possible pond and ditches running south into a stream. TQ 05117 32741. Some of this may be man made and appears to be a spring/risings, which probably only contains water in the winter. Further south this becomes 34. This shows on the Lidar although partly hidden by conifers. The OS mapping shows a boundary running north-south at approximately this location, then turning southwest, although this was not identified on the ground, it may be the stream was this boundary.

29. The boundary bank running along the north side of track 27/18, and is the same as Bank 19. At TQ 05032 32784 it is c. 0.75m high and 1.5m wide with coppice growing on it (Plate 42).

5.3.5 To the south of Track 27 the woodland is mixed coppice and mature oak, with the central and southern part of this area covered with scrubby woodland and ground vegetation which limited access (Plate 43). Part of this area has also been fenced off, possibly to create a pheasant pen or deer proof area. To the north of the track is recent plantation and ground cover which prevented any access.

30. To the south of Track 27 is an area of parallel drainage runs (grips), running north-south downslope, c. 200mm deep and 0.75m wide, and approximately 3 to 5m apart (Plate 44). TQ 05012 32754.

Plate 42: Boundary bank (29)

Plate 43: Scrubby woodland

Plate 44: Parallel drainage runs (30)

31. The boundary bank running north-south through the northwestern area (see 5.3.3) could not be identified at the southern end adjacent to Track 27, however a very slight similarly aligned ditch was noted at TQ 05029 32792, and may be associated with this boundary.

32. The northern end of Bank & ditch 17 was noted at TQ 04983 32790 (Plate 45). It is c. 1m wide and 250mm high, with little trace of a ditch here. It stops at the track (27/18), merging with a low bank which turns east along the south side of the track for a short distance. This area is largely coppice, and there are traces of the parallel drainage runs on its east and west sides.

5.3.6 A track runs along the southern side of the development site, and is first shown on the 1876 OS map (see Plate 26). It crosses a stream and then turns to meet the track (35) that runs along the east side of the development site and north to Hook Street. A stream, running south from 28, is culverted under the track at TQ 05029 32669. The stream appears to have been managed, with straight cut sides and is slightly embanked on both sides. Close to the stream is a mature oak, age >200 years surrounded by coppice.

33. On the north side of the track there is a ditch, with a small bank c. 300mm high and 1m wide on the wood side (TQ 04973 32688). There is coppice growing on the bank (Plate 46).

Plate 45: Bank 32 meeting Track 27/18

Plate 46: Bank 33

34. A short length of bank runs from close to the stream, almost parallel to the track, on the line of the boundary shown on the 1876 OS map. The bank continues out of the site to the south of the track which has cut through the bank when the track was re-aligned northwards between 1961 and 1974. The bank is c. 1.2m wide and 300mm high with a slight ditch on its north side (Plate 47).

Plate 47: Bank 34 in the background with the stream (marked by ranging pole) in the foreground

5.3.7 The track continues past the stream to meet Track 35 at the southeast corner of the Site. There is no bank or ditch on either side of the track here, which was re-aligned between 1961 and 1974. There is recent plantation in this eastern part of the site, which was a field on the Tithe map, and remained open through to the 1920 OS map, after which it has become plantation. The southern part of this area is plantation (Plate 48) with thick ground vegetation, whilst further north it becomes a very scrubby woodland (Plate 49), in both cases making access and surveying almost impossible. Very little shows on the Lidar for this area, although there are some feint northeast to southwest aligned linears, which could be remnant ridge and furrow from when it was a field. A northwest to southeast aligned track shown on the 1974 OS map was not located.

Plate 48: South eastern part of Site

Plate 49: North eastern part of Site

35. Track 35 is an 8m wide north-south orientated 'ride' (TQ 05154 32607), with a bank and ditch on either side, which runs up the eastern boundary of the Site (Plate 50) to meet the east-west track at 36. The banks are c.0.75m high and 2m wide. The ride is no longer used, and the modern track runs parallel to its west side on the site boundary. The ride narrows towards the north end. To the south it becomes a hollow way (Plate 51), which deepens as it curves round to the southeast to join Track 10.

Plate 50: Track 35 looking north

Plate 51: Track 35 as hollow way

36. At the northeast corner of the site Track 35 meets and crosses Track 23 (The Lane) at TQ 05297 32770, which is c. 6m wide with banks and ditches along both sides (Plate 52). Track 23 broadens out and is less distinct as it heads further east. Track 35 continues north with distinct banks and ditches on either side. There is no outlook from the Site to the north or east due to the significant tree cover. There are grass fields to the north of The Lane.

Plate 52: Track 23 looking west from junction (36)

5.4 *Pephurst Wood brickworks*

5.4.1 The area immediately north of the entrance on Loxwood Road was the site of a brickworks, operational before 1842 through to the 1920's. The kilns, drying sheds and clay pits are shown on the various Tithe and OS maps (Fig. 31).

37. A number of clay pits associated with the brickworks are visible to the east of the track (TQ 05627 31913), although now overgrowth by scrub woodland (Plate 53 & 54). Other larger clay pits extend further east into Pephurst Wood.

Plate 53: Clay pit

Plate 54: Clay pit

38. A mound, (Plate 55) possibly incorporating building remains, c.12m x 5m in size and 1m high (c. TQ 05617 31871), together with pieces of machinery is situated to the northeast of the entrance. Numerous bottles and items of pottery, and metalwork, were noted on the ground in this area (Plate 56). An area of concrete hard standing is located to the south of this mound (Plate 57).

Plate 55: Mound in brickworks area

Plate 56: Machinery

Plate 57: Concrete hardstanding

39. Just to the north of the entrance and immediately adjacent to the west side of the access track is another mound (Plate 58). This is c.1.8m high and in excess of 6m in diameter (Plate 58), and is covered with trees. This is on the location of a Kiln marked on historic OS mapping (TQ 05558 31848).

Plate 58: Mound on kiln site

Plate 59: Bottle and pottery dump

Immediately to the north of this mound, and probably in a depression, there is a large quantity of glass, pottery and metal items which appear to have been dumped here (Plate 59). No samples were taken, but from a brief look, this dump would appear to date from the early 20th century, possibly contemporary with the closure of the brickworks.

40. A ditch was noted running north from the west side of the entrance to the site, and probably runs up towards the mound (39), although it is very overgrown.

41. Directly opposite the entrance in the layby a large clay pit is shown on the historic mapping (Plate 60). This appears to have been infilled and is now an area of grass and small trees (TQ 05552 31810).

42. Immediately to the east of the entrance to the site is another clay pit (Plate 61), which extends along the boundary between the layby and the wood (TQ 05587 31834).

Plate 60: Layby location of infilled clay pit

Plate 61: Clay pit to east of entrance

5.5 *Outlook from the Entrance layby*

5.5.1 The layby is accessed from Loxwood Road at both its east and west ends. Directly opposite, to the north of Loxwood Road is a field, and neither Crabtree Corner or Hedgecocks Cottage, both of which are Listed Buildings situated to the southeast, can be seen from the layby.

5.5.2 A cottage is situated at the east end of the layby (Plate 62) and is first shown on the 1912 OS map (Fig. 31). It is set back into the wood from the road, and is accessed from the layby. There is no direct line of sight with the entrance to the site, but it can be seen from the western entrance into the layby (Plate 63). The cottage is not a Listed Building, although it may be considered a non-designated heritage asset due to its age and possible connection with the brickworks.

Plate 62: Layby from the east end

Plate 63: Cottage from west end of layby

5.5.3 Pephurst Farm is situated c100m to the southwest of the layby. The Farm is set back from Loxwood Road, and cannot be seen from the layby due to the tree cover (Plates 64 & 65). The Listed farmhouse is located on the south side of the farm on lower ground, and even from the Farm entrance onto Loxwood Road only part of its roof can be seen (Plate 66). There is no intervisibility between the farm and the layby and site entrance.

Plate 64: View west from layby to Pephurst Farm

Plate 65: Layby from entrance to Pephurst Fm.

Plate 66: Pephurst Farm from farm entrance onto Loxwood Road

6. Discussion.

6.1 There is very limited evidence in the surrounding area on the HER for any prehistoric or Roman activity, and the Lidar and site visit have not added anything further from these earlier periods. The current landscape and nearby farms are likely to have originated in the medieval period, although again there is very little archaeological evidence. Place name evidence suggests that the area may have been wooded with small farmsteads, and it is possible that the woodland provided fuel for the local glass making and iron industries which may have operated on a small scale in the surrounding area.

6.2 It is only in the Post medieval period that there seems to have been an increase in activity, and almost all of the known archaeology from the local area comes from this period. It is likely that all of the archaeological features noted on the Lidar and found on the site visit date to the late Post medieval period.

6.3 The earlier Post medieval period saw the local glass industry rise in importance, with one glasshouse located close to the Site near Woodhouse Farm (Fig. 32), and others in the surrounding landscape at Songhurst Farm and Sparr Farm[49]. The decline of the glass industry locally could have been as the result of a lack of wood for fuel. Competing with the need for fuel with iron makers and lime kilns it is suggested that the local glassworks became uneconomic and closed down in the 17th century[50].

6.4 Much of the landscape appears to have been farmed, with the farms connected by a series of trackways, vital for moving animals and produce between farms and on to nearby markets (Fig. 33). The 1842 Tithe map provides an interesting analysis of the land use at that time (Fig. 34), showing a large area of woodland with mostly arable fields around it. The Lidar shows that many of the fields have evidence for ridge and furrow ploughing, and it is possible that similar evidence may survive in areas of farmland which have more recently been planted with woodland. All of the land covered by the survey was owned at this time by Denzil Onslow, who had retained much of the woodland for his own use, although Songhurst Furze was occupied by James Child of Songhurst Farm.

6.5 The later OS maps show the amount of woodland increasing and during the 19th century woodland becomes the predominant land use. The larger wooded areas are divided up into smaller woods, perhaps to make it more manageable. The division of Caddick Copse into smaller areas (Cants) may have been associated with the management of the coppice woodland that appears to have covered that area[51]. The boundary banks seen on the Lidar in this area (Fig. 35) and found during the survey (Fig. 36) date from between 1876 (Fig. 19) and 1897 (Fig. 22). Other boundary banks such as those within Songhurst Furze are clearly shown on the 1876 OS map (Fig. 20). The boundary banks were the most common feature found during the survey.

[49] Kenyon,G. H. 1967 *The Glass Industry of the Weald*. Leicester University Press
[50] Brandon, P. 1998 *A History of Surrey* Phillimore. P42.
[51] Watkins, C. 1990 *Woodland Management and Conservation*. Nature Conservancy Council

6.6 Other woodland management features noted on both Lidar and the ground truthing were the parallel linear features noted within the woodland areas at the Site. These are almost certainly associated with drainage and are small ditches or 'Grips' running downslope and probably into streams. The 'Grips' were dug to a spade's depth and width, and perhaps formed part of a more extensive network of drainage[52], and are a common feature of 19th century woodland management, especially associated with newly created plantations. Now they are partly in-filled or blocked, due to lack of maintenance, and appear today as parallel ridges/channels running downslope within the woodland.

6.7 Given the amount of coppice it is surprising that no charcoal burning platforms were noted during the survey. Special note was taken during the survey of areas where charcoal burning platforms are typically located, i.e. flat/terraced areas, often above streams; areas devoid of coppice near isolated established trees; and dark (charcoal rich) areas of soil. None were seen. The coppice woodland seen at the site all looks quite recent, perhaps no earlier than the 19th century. It is therefore proposed that the cut coppice was either being processed in metal kilns[53], for which all evidence has gone, or that the cut coppice was being taken to a nearby static kiln for processing, perhaps the nearby brickworks were being used?

6.8 No evidence for any saw pits or log storage areas was noted. These are commonly located near track junctions or at the entrances to woods, and during the survey special attention was given to these areas. A single saw pit is noted on the 1876 OS map (Fig. 19) situated on the eastern edge of Hurst Wood. It is possible that other saw pits were located outside the area surveyed, or have been filled in during later works at the site, or alternatively the timber was removed from the woodland using the good network of tracks to be processed elsewhere.

6.9 The local clay provided a good source of raw material for brickmaking, with two brickworks in the vicinity of the site. Brickkiln Farm to the northeast and the brickyard at Pephurst Wood adjacent to the entrance to the access road. Both were under the tenancy of Stephen Knight in 1842. Brickkiln Farm is outside of the area surveyed and the proposed development has no impact on it. The brickyard at Pephurst Wood has extensive clay pits in the wood, and two mounds which may cover the demolished kilns or other buildings (Fig. 31). There may also be other remains of drying shed and other structures for which the remains are ephemeral or preserved below ground and not seen on the site visit. There are also large quantities of discarded artefacts lying on the ground surface and the large rubbish dump adjacent to one of the mounds.

6.10 Apart from the clay pits associated with the brickworks there was no other evidence noted for quarrying activity across the Site, although there is evidence for quarrying in the broader landscape (Fig. 32). The pond noted at Site 1, may have originated as a small quarry pit.

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[52] Banister, N.R. 2007 *The cultural heritage of woodlands in the South East*, South East AONBs Woodlands Programme

[53] Kelley, D.W. 2002 *Charcoal and Charcoal Burning*. Shire Publications Ltd

6.11 No evidence for military activity was noted during the site visit. The River Arun to the east of the Site was a Stop Line during the early Second World War which continued west along the line of the Wey and Arun Canal into Surrey. There are remnant defence installations at Gibbons Mill and Bucks Green[54]. During the build up to D-Day many woods to the north of the channel ports were used to hide military formations, often leaving features such as slit trenches, however no military features were seen.

6.12 The Lidar and site visit have been able to identify physical above ground features, however as the survey has been non-intrusive, it is not able to establish whether there are any below ground archaeological remains surviving at the site.

6.13 Although there was difficulty in accessing some parts of the site, given the access that was possible and the Lidar images, it is unlikely that any significant physical archaeological remains will have been missed during the survey. There is a high confidence that the majority of above-ground archaeological remains on the Site and along the access road will have been identified and described in this survey.

[54] Butler, C. 2008 *West Sussex under Attack* Tempus Publishing Ltd

7.0 Impact of Development

7.1 Given the evidence accumulated during the preparation of this Desk-based Assessment Report and Heritage Impact Assessment, the probability of finding remains from each of the different archaeological periods is shown in Table 1 below.

Table 1: Archaeological potential for each period

Period	Potential
Palaeolithic	Low
Mesolithic	Low
Neolithic	Low
Bronze Age	Low
Iron Age	Low
Roman	Low
Saxon	Low
Medieval	Low
Post-Medieval	High

7.2 The Desk-based Assessment has established that extremely limited human activity took place within the Study Area throughout prehistory and up to medieval times, presumably because the area was heavily wooded and inhospitable at the time. However, the lack of past archaeological investigations in the vicinity of the Site means that the likelihood of finding archaeological activity from these periods is unknown.

7.3 It is likely that in the medieval period some woodland was being cleared and small farms were established. It seems likely that woodland dominated into the Post medieval period as it was an important resource providing fuel for the nearby glass and iron industries. Although it is unlikely that there is any iron making activity at the Site, it is possible that evidence for glass making could be present on the site, as this is likely to be evidenced by below ground archaeological remains and distributions of waste glass. No evidence for this was seen during the site visit, but it would not have been obvious given the ground cover and non-intrusive nature of the survey.

7.4 Later Post medieval activity is divided between agricultural and woodland land use and industrial activity in the form of the local brickworks. The evidence shows that much of the agricultural land use was for arable land, with the Lidar showing remnant ridge and furrow ploughing. This activity is unlikely to leave much in the archaeological record, and within the woodland areas any evidence for earlier ridge and furrow is likely to have been destroyed by the tree planting.

7.5 There is significant evidence for woodland management in the 19th and 20th centuries, predominantly associated with coppicing, although no evidence for charcoal making was noted during the survey. Similarly, there was no evidence seen for saw pits or timber

storage areas, which are normally found within managed woodlands of this date. It is possible that filled-in saw pits may be present and charcoal burning may have taken place on the site but later activity and tree planting may have removed or obscured the evidence. The major features that survive are the woodland boundary banks demarking areas of woodland, and the drainage 'grips', the latter being a feature of late Post medieval woodland management. These are of local archaeological interest

7.6 The brickworks in Pephurst Wood clearly has significant remains surviving, with potential for other buildings and below ground remains not seen on the survey. Some remains of brickworks, such as timber constructed drying sheds, can be quite ephemeral and not obvious without archaeological excavation. The rubbish dump is also of some potential significance. Whether it is associated with the brickworks or has been imported into the site, it may contain important cultural information.

7.7 Only one Listed Building is located within the vicinity of the Site, the Grade II Listed Pephurst Farmhouse. There are no direct lines of site between the Listed Building and the site, although there is limited visibility between the farm and the proposed access road close to the southern end of its route. The entrance to the site will be through the layby adjacent to the brickworks, and again this is screened from the Listed Building by trees. The noise and vibration of vehicle movement to and from the Site will have some impact, especially if routed past Pephurst Farm on the Loxwood Road, although the Listed Building is set back behind the farm buildings with no real intervisibility with the road.

7.8 There are other Listed Buildings along Loxwood Road, which need to be considered in respect of vehicle movements. To the west in Loxwood prior to the junction with the B2133 (Fig. 6) there are two Grade II Listed Buildings, the 17th century 1 & 2 Hillgrove (CD5923), and 15th/16th century Pancake Cottage (CD10077). To the east along Loxwood Road is Crabtree Corner (CD7740) a 17th century or earlier timber framed building, with Hedgecocks Cottage dating from *c*. 1500 is located a little further to the southeast (DWS5653) of the road. Hale Farmhouse (DWS5054) and Rudgewick Grange (DWS5053) are further east along Loxwood Road, and together with a cluster of Listed Buildings at Tismans Common at Bucks Green (Fig. 10), may all be impacted by the noise and vibration from an increase in vehicles using Loxwood Road.

8.0 Conclusion & Recommendations

8.1 It has not been possible to establish whether there is below-ground archaeology present on the Site due to the non-intrusive nature of this survey, and there is limited archaeological knowledge of the Site. Given the available evidence there is a low probability for archaeology of all periods except the Post medieval period to be present on Site.

8.2 Apart from the brickworks, the remaining archaeological features identified during the survey all relate to woodland management and are probably dated to the 18th – 20th centuries. None are considered to be of national or regional importance, but are of local importance, relating to Post medieval land management and activity.

8.3 It is very likely that the internal woodland boundary banks at the Site will be impacted by the works, and it is recommended that a programme of archaeological works to record a series of example sections through banks/ditches that are to be impacted is undertaken prior to the works to ensure a full record of them is preserved.

8.4 It is recommended that the woodland banks forming the boundary to the site, especially those along its west, north and east sides, which are likely to be the oldest surviving earthworks on the site, are excluded from the development, and are preserved, with a small internal buffer (say 3m width). Thus on reinstatement these earthworks will have survived and will preserve the historic woodland boundary.

8.5 This is especially important where these banks form part of the associated trackways running along the north and east sides of the site. The banks here form integral parts of these historic routeways and should be preserved in-situ. Preservation of these banks should include provision to ensure they are not accidentally tracked over during operations.

8.6 It is also recommended that the small V-shaped enclosure on the northern boundary is either preserved in-situ or mitigated through archaeological investigation.

8.7 The development process will involve the felling of trees, followed by the removal of the topsoil. Given that the archaeological knowledge of pre-Post medieval activity at the Site is unknown, and the nature of the survey undertaken has not been able to add to that knowledge, it is recommended that the topsoil strip is monitored. This should enable artefact retrieval and identification of any below-ground archaeological features.

8.8 The creation of any bunds and storage areas, and the site offices and other facilities, should be located, where possible, to avoid damaging any identified archaeological features.

8.9 The access route is along metalled tracks, and it is not known what enhancement or other works are required for the proposed vehicle access along this route. Most of the sites identified during the survey are set back from the access track and would not be impacted except if the track is to be widened. Along most of its route the bank and ditch alongside the track are of 20th century date and is of limited archaeological interest.

8.10 The track junction at Site 10 and the numerous banks which are cut by the track, especially Sites 2, 6, 8, 9 and 12 are potentially vulnerable to any works to enhance or widen the access track, and any works proposed here should aim to minimise the impact on the features, and will require archaeological monitoring to ensure any features of interest are recorded.

8.11 The brickworks at the entrance is particularly vulnerable. At present it is not known what works will be undertaken at the entrance and access road here. Widening of the access road will impact on potential archaeology. The remains of possible kilns and other buildings are located immediately adjacent to the trackway. It is therefore important that the brickworks is properly surveyed and recorded before and during any works undertaken here.

8.12 The rubbish dump adjacent to the mound is also vulnerable, both to damage from any works or track widening, and because it will potentially become more accessible allowing members of the public and collectors to remove items from it, thus reducing its potential contribution to understanding past use of the site. It is recommended that an evaluation trench with 100% recovery (by hand rather than sieving!) to confirm its date, extent, nature (inc the presence of branded items) and whether it has been dug over by bottle diggers. It would also be useful if the potential source of the waste could be established - the brickworks themselves or a nearby domestic site. Dump assemblages have simply not been studied archaeologically. These late assemblages have started to be looked at as it is now becoming accepted that they are a disappearing snapshot of the developing consumer age. Many sites, especially the larger ones, have been dug over by bottle collectors in the 1970s and 80s so what remains is not necessarily a representative sample. Untouched dumps are therefore of particular interest. The interest factor is even greater if a probably source for the refuse can be established as it sets it in its social context. There are few comparable sites as simply such sites have rarely been looked at[55].

[55] Results of Pers. Com. with Luke Barber.

8.13 No Listed Building will be directly impacted by the proposed development. Pephurst Farmhouse is the nearest but has very limited intervisibility with the development site and the entrance at the nearby layby. The greatest concern is with noise and vibration from vehicle movements along Loxwood Road. However, the negative impact is likely to be low given the set back location of the farmhouse. Other Listed Buildings along Loxwood Road will also have potential limited negative impact due to the noise and vibration from vehicle movements. The impact on all of the Listed buildings is considered to be less than significant, however consideration should be given as to the proposed access road and level of road movements.

9.0 Acknowledgements

9.1 We would like to thank Loxwood Clay Pits Limited for appointing CBAS to produce this Report, and Barrie Thomas of Protreat for providing all the background information.

9.2 John Mills at WSCC provided the brief for the project. Chichester District Council, West Sussex County Council and Surrey County Council provided their HER data. WSRO and the Surrey History Centre provided the Tithe maps. This project was managed for CBAS Ltd by Chris Butler.

Fig. 1: Site Location Map

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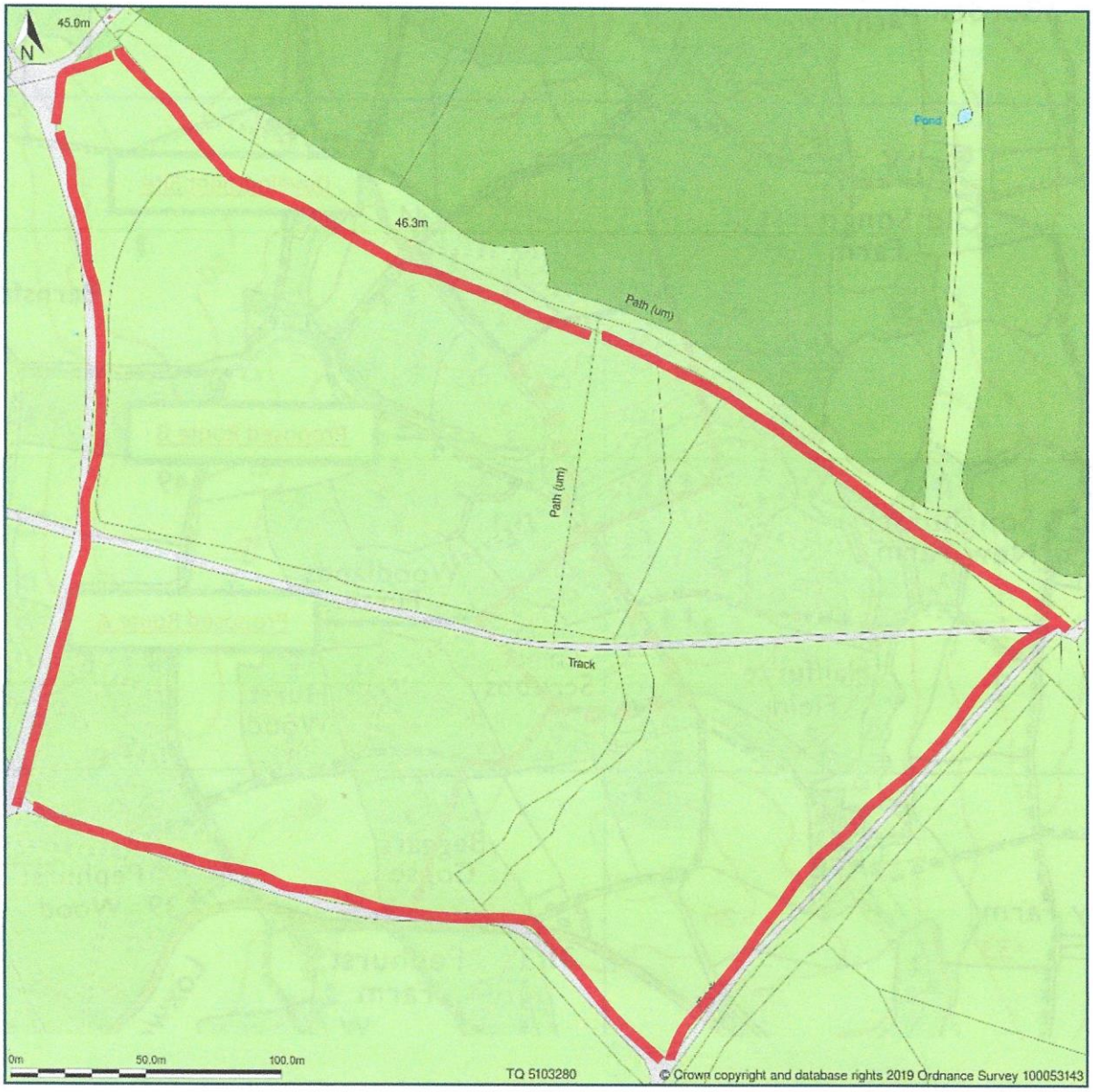

Fig. 2: Development Site Plan
Adapted from map provided by client
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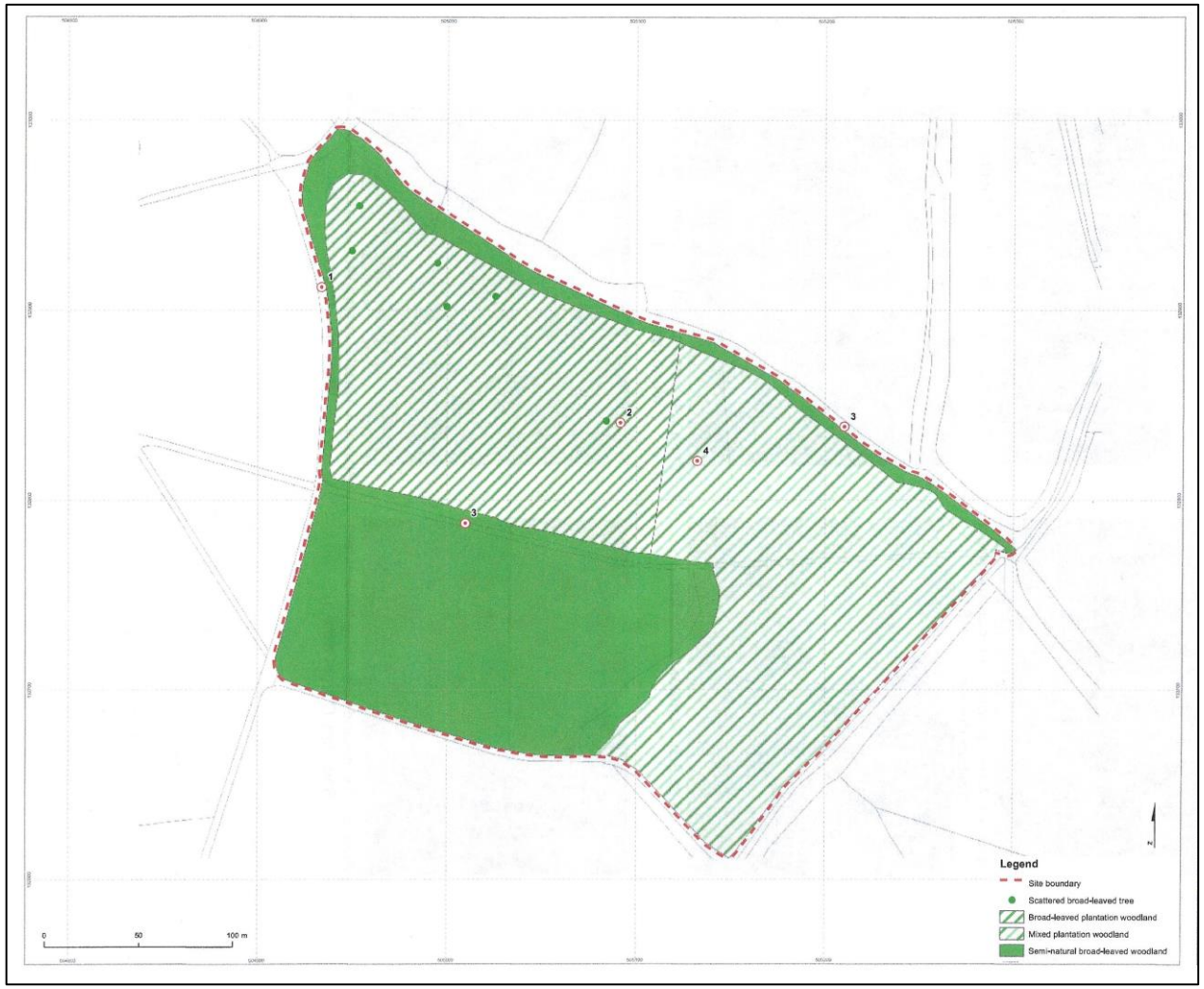

Fig. 3: The Site: Woodland habitat coverage
Adapted from map provided by Middlemarch Environmental
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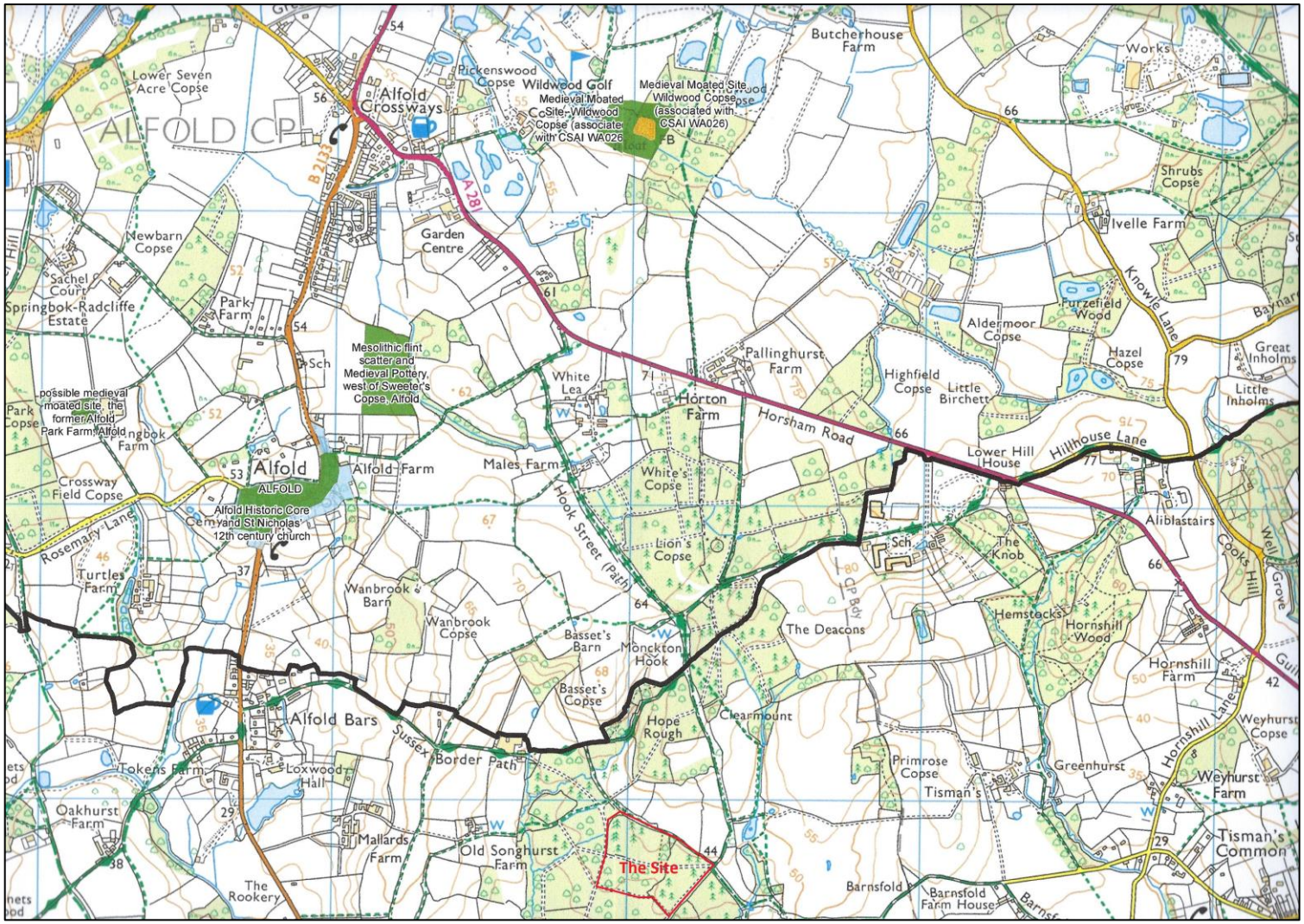

Fig. 4: Archaeological sensitive areas and Scheduled Monuments
Adapted from map provided by Surrey County Council
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Fig. 5: The Site: Accessibility map
Adapted from map provided by Middlemarch Environmental
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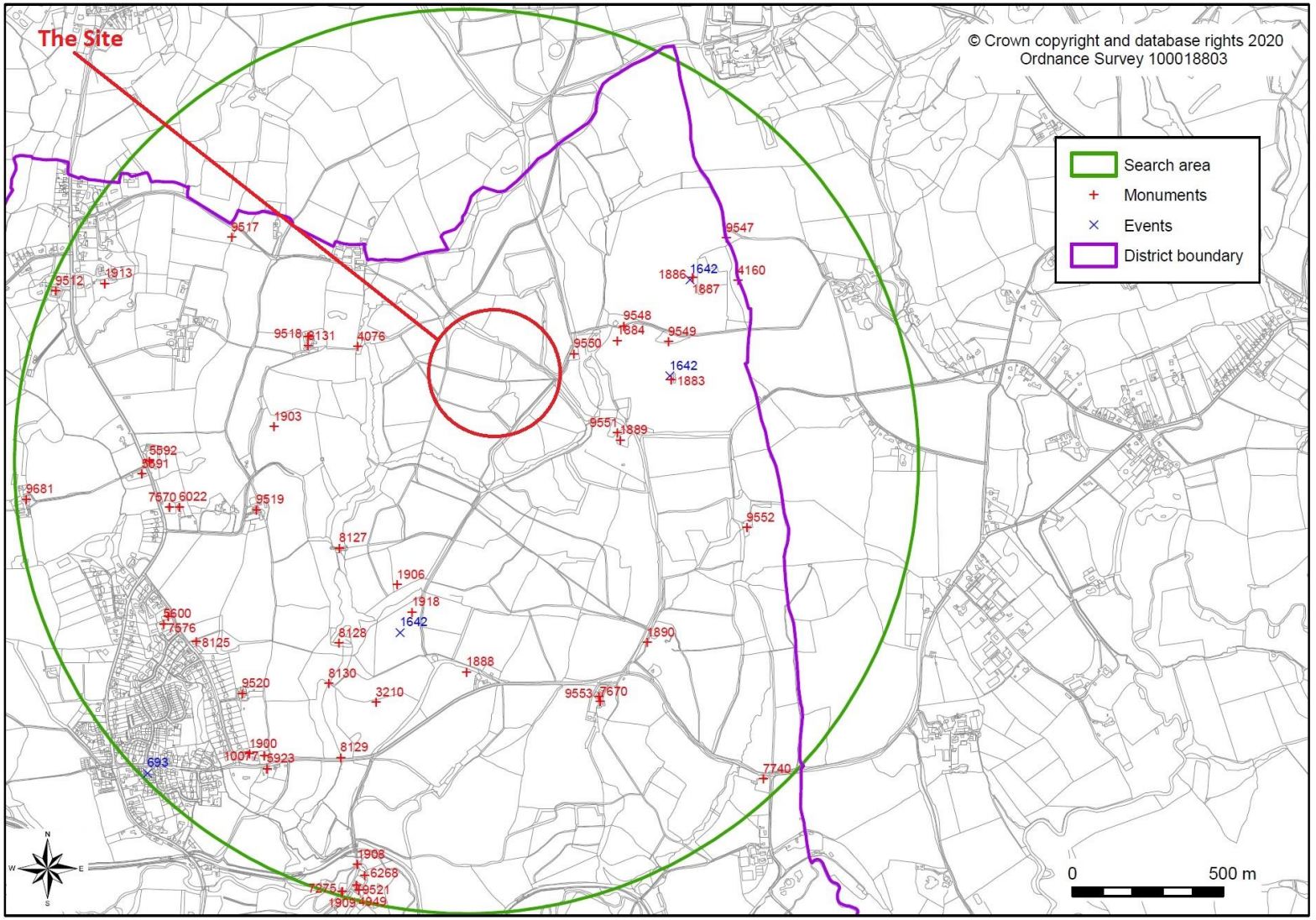

Fig. 6: Sites on the Chichester District HER
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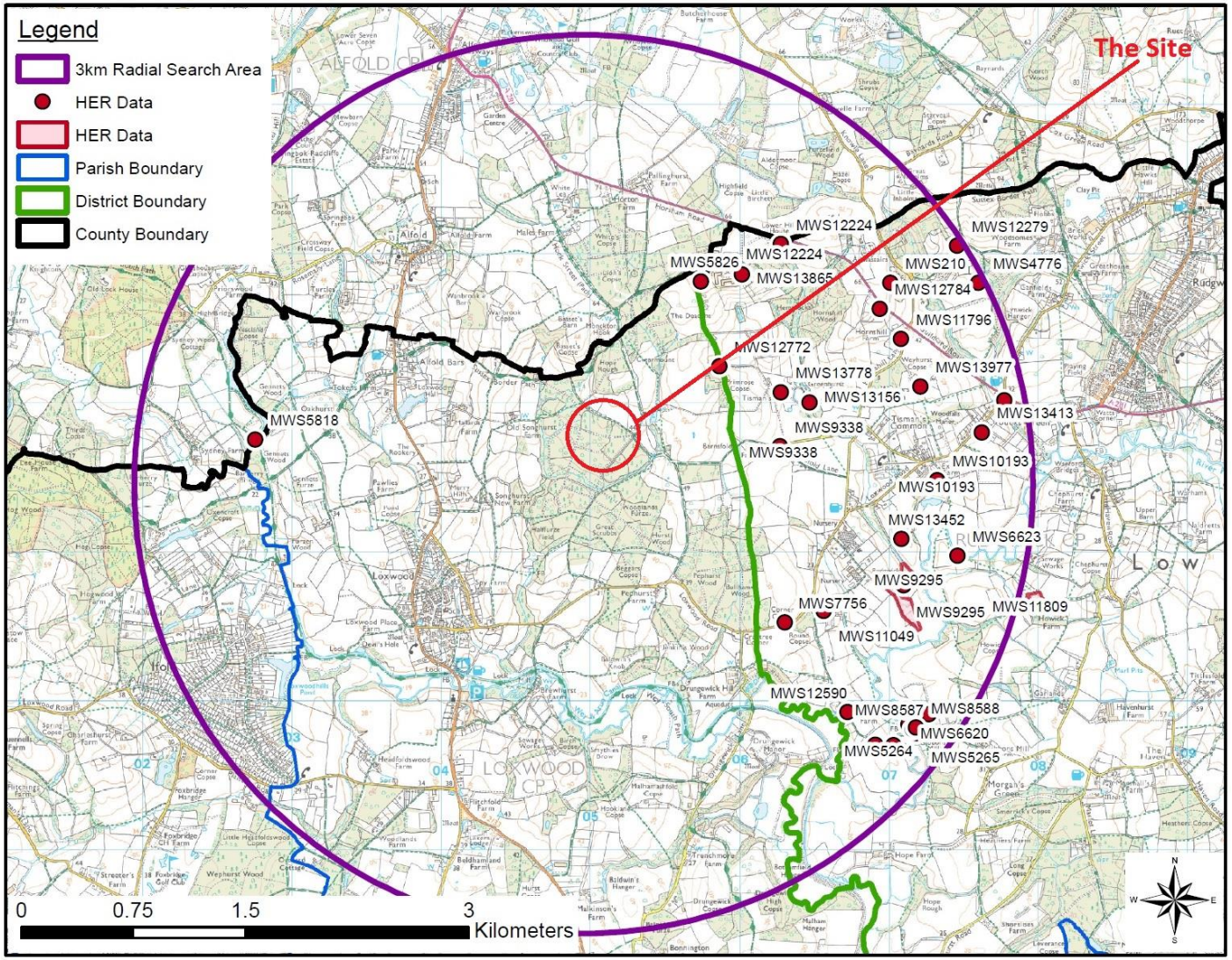

Fig. 7: Sites on the West Sussex (Horsham District) HER
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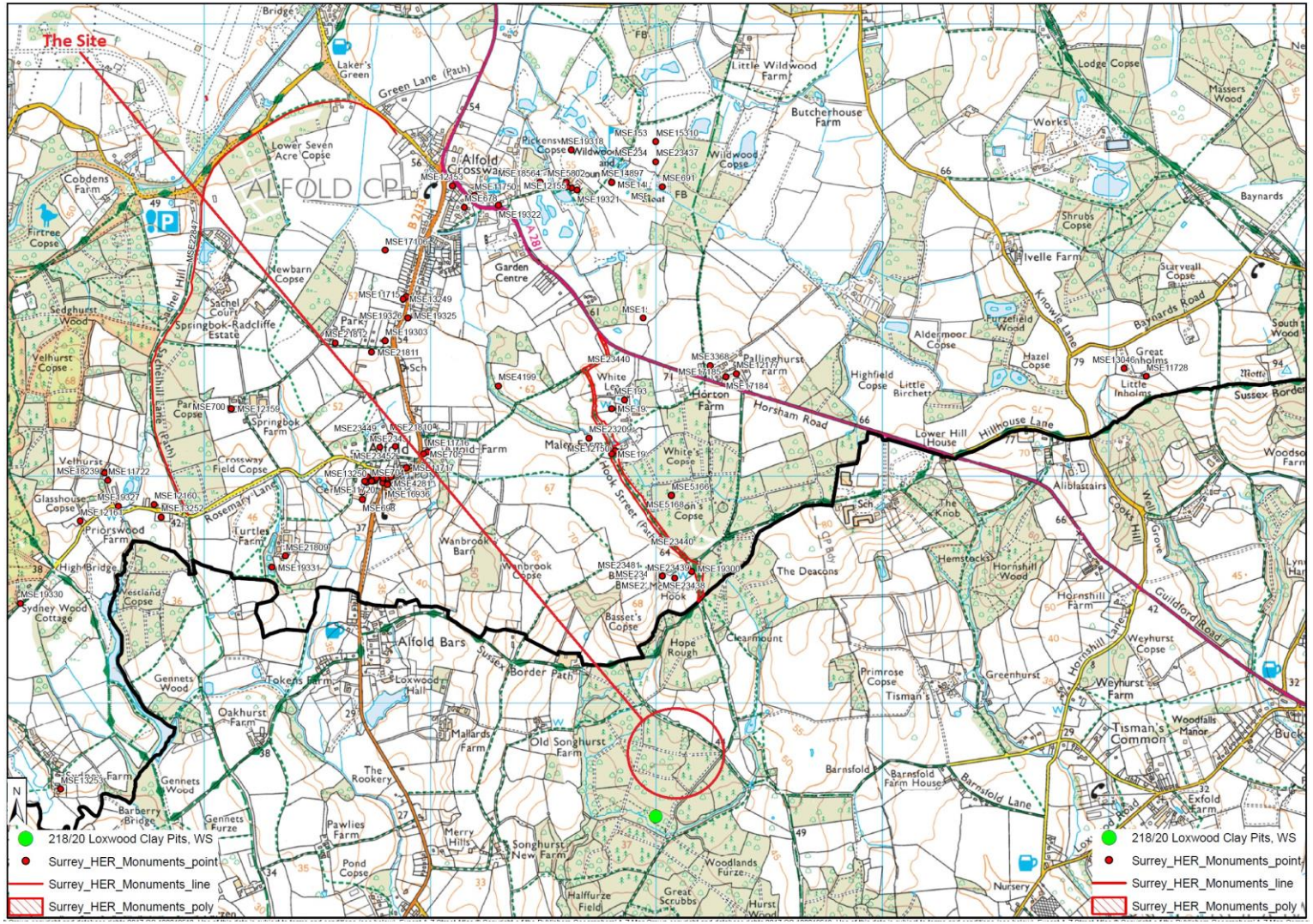

Fig. 8: Sites on the Surrey HER
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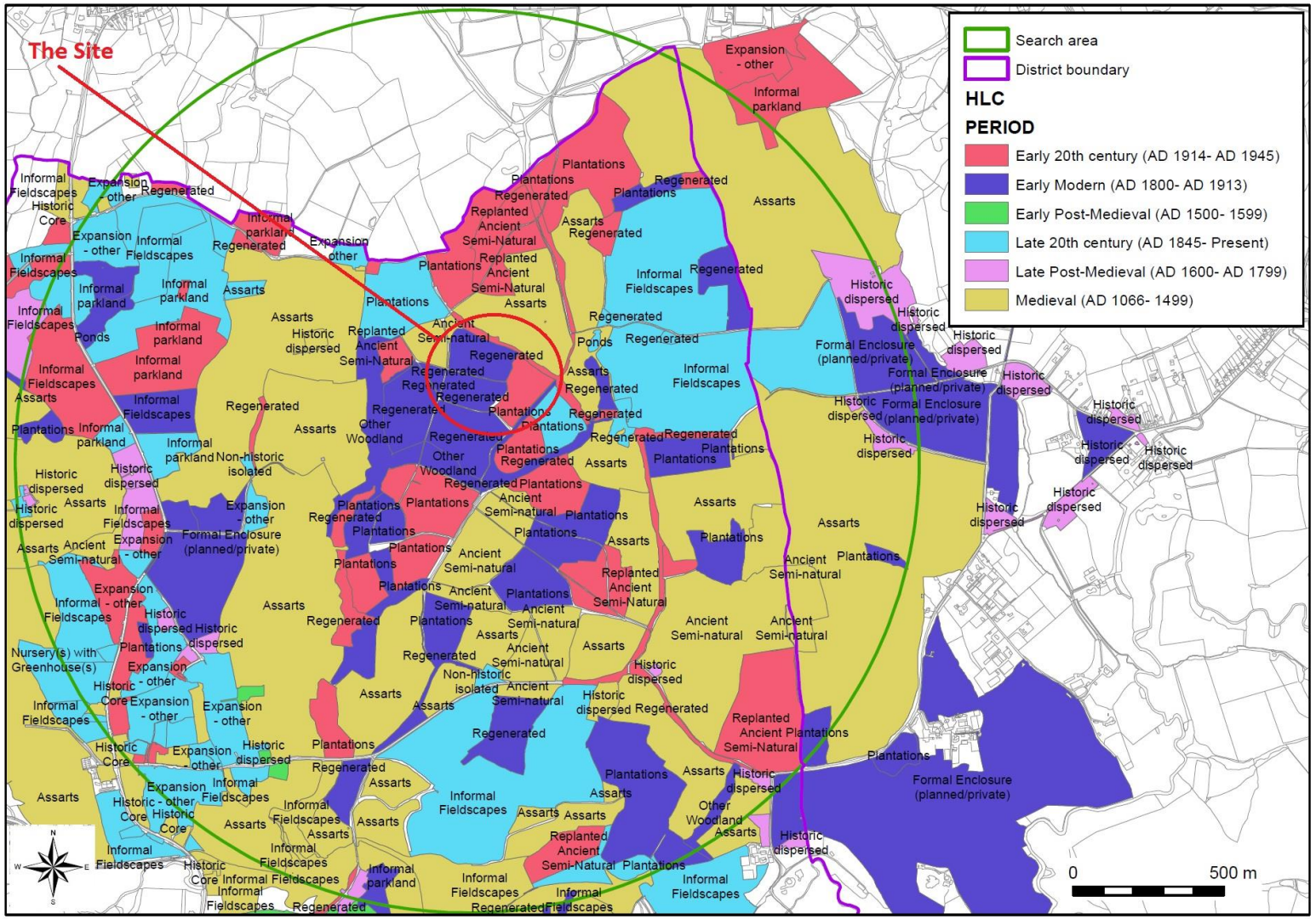

Fig. 9: Chichester District Historic Landscape Classification
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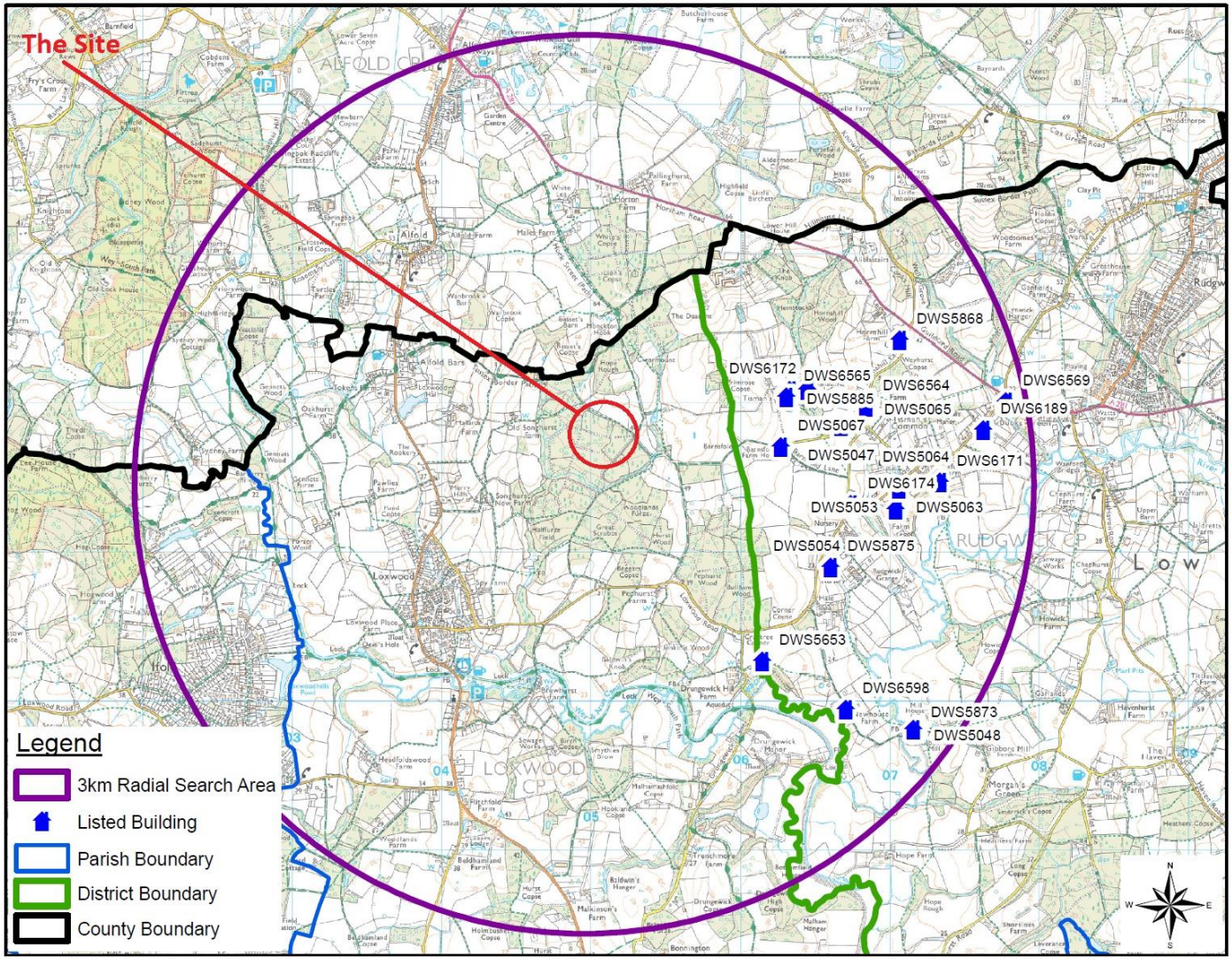

Fig. 10: Listed Buildings on the West Sussex (Horsham District) HER
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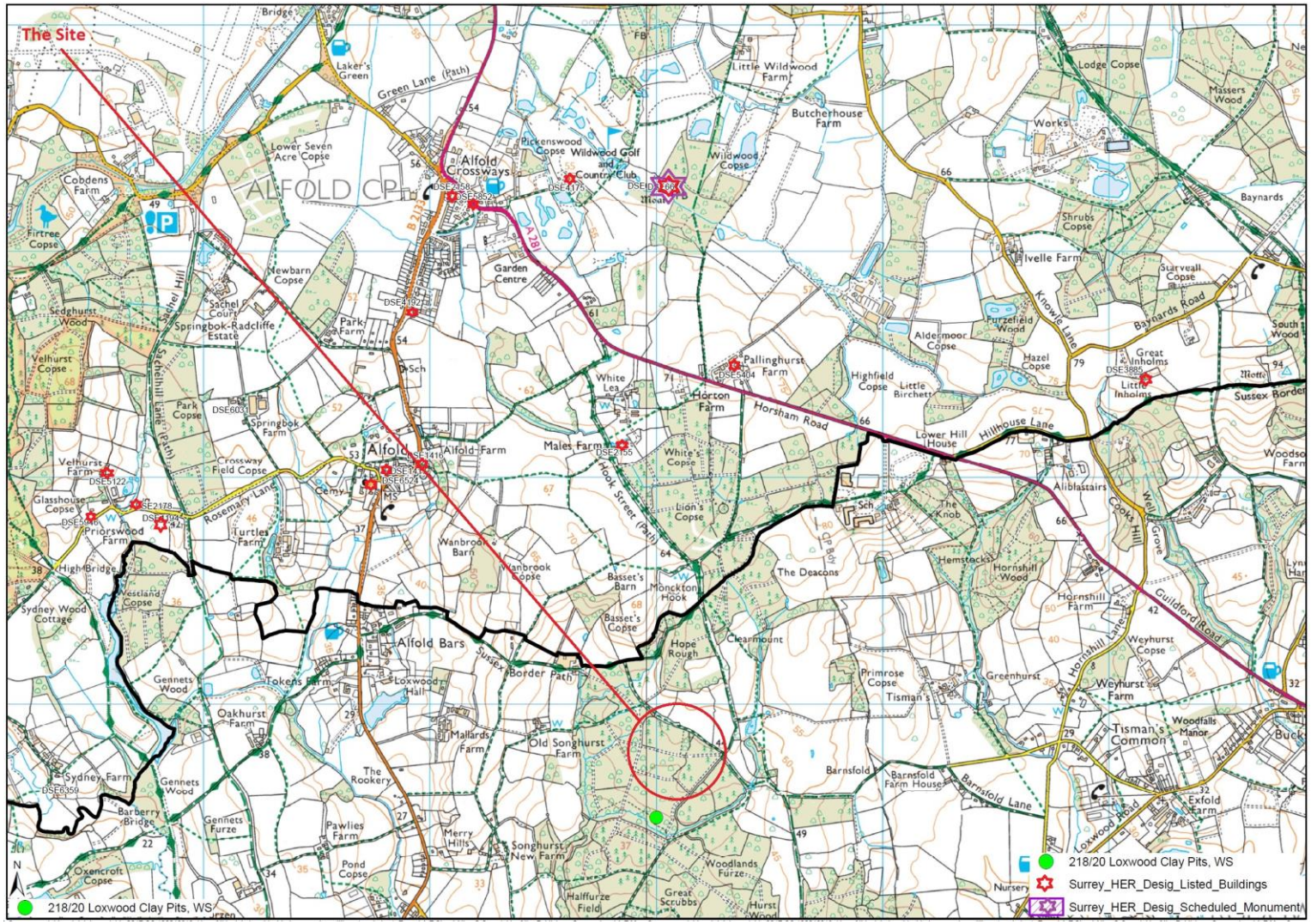

Fig. 11: Listed Buildings on the Surrey HER
Adapted from map provided by Surrey County Council
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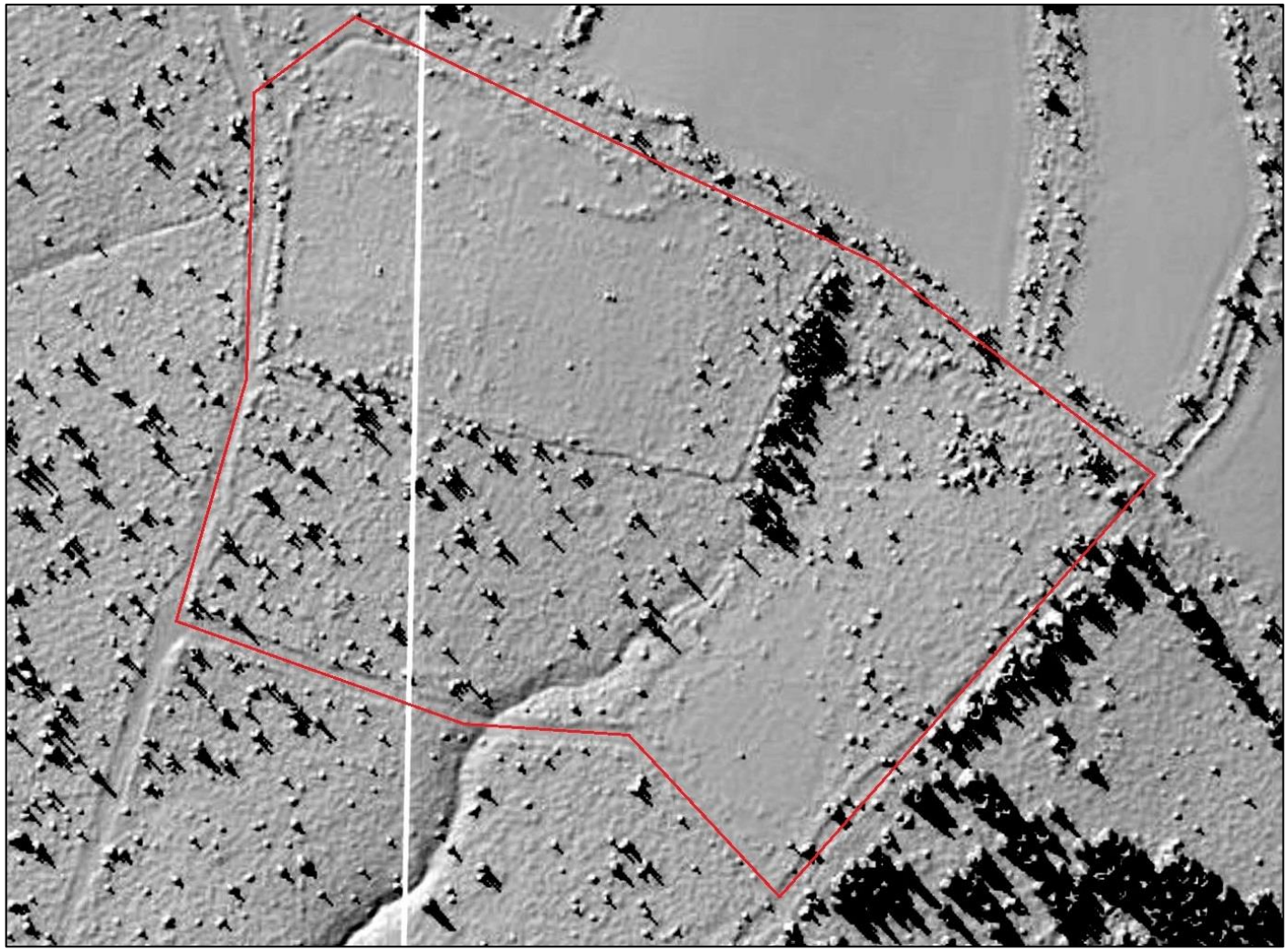

Fig. 12: Lidar image of the Development Site
Adapted from https://www.lidarfinder.com/

Fig. 13: Lidar image of site
Adapted from https://www.lidarfinder.com/

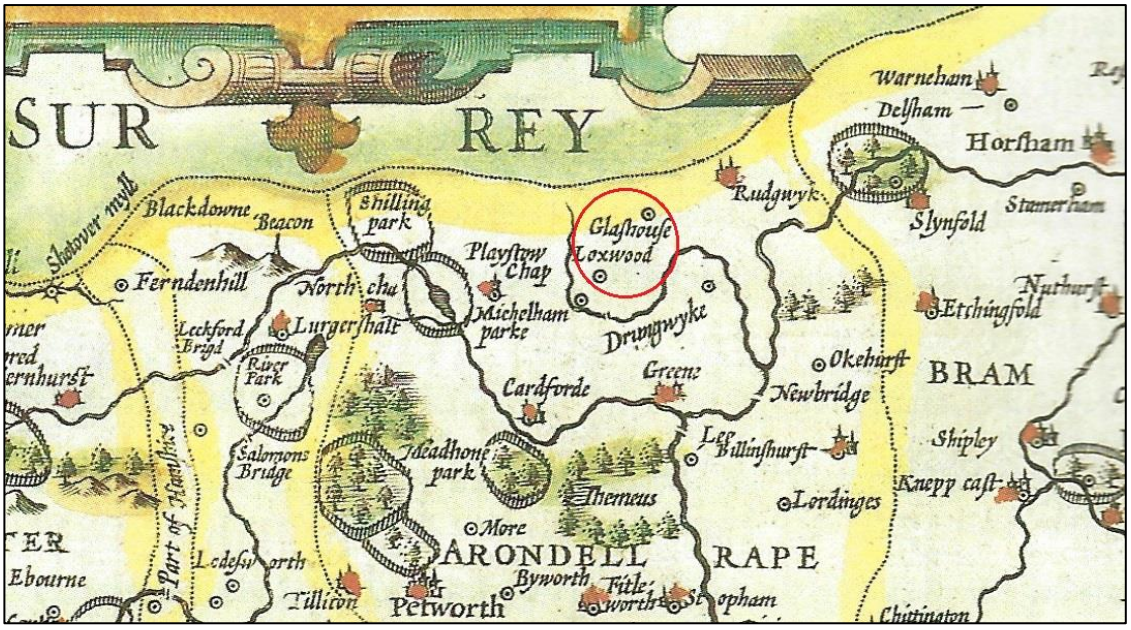

Fig. 14: Speed's map of Sussex 1610

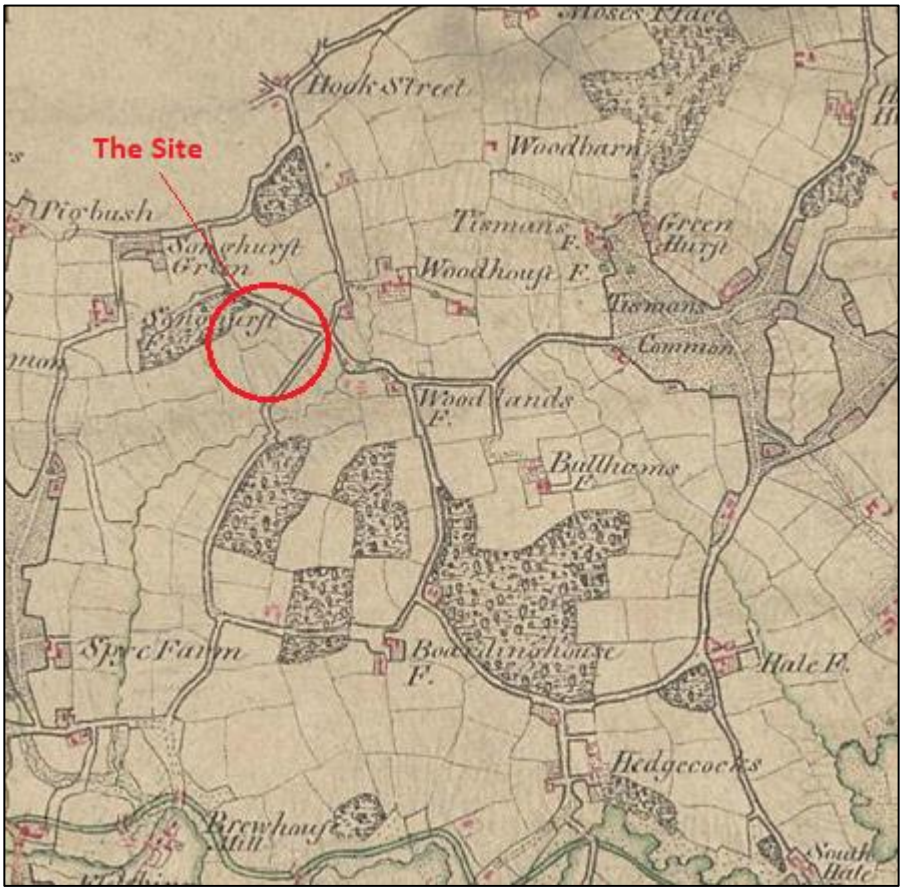

Fig. 15: 1806 OS Draft Map (Thomas Budgen)
(British Library: OSD91)

Fig. 16: Wisborough Green 1842 Tithe Map
(WSRO TD W149)
(Red = The Site; blue = Route of access road)

Fig. 17: Wisborough Green 1842 Tithe Map showing the Site (WSRO TD W149)

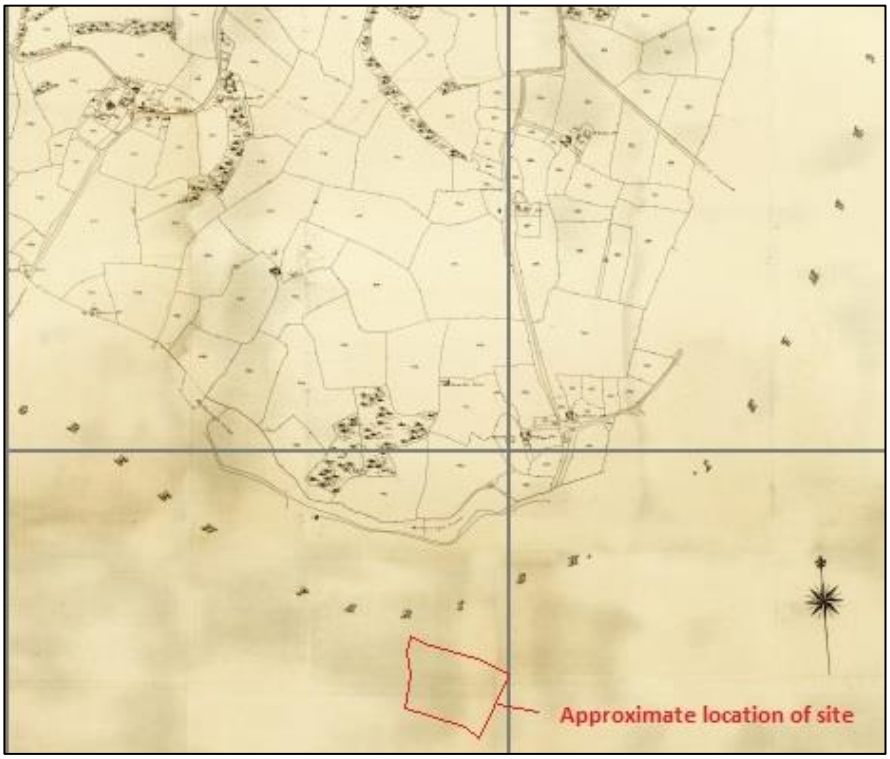

Fig. 18: Alfold 1841 Tithe Map showing the approximate location of the Site (SHC 864/1/5)

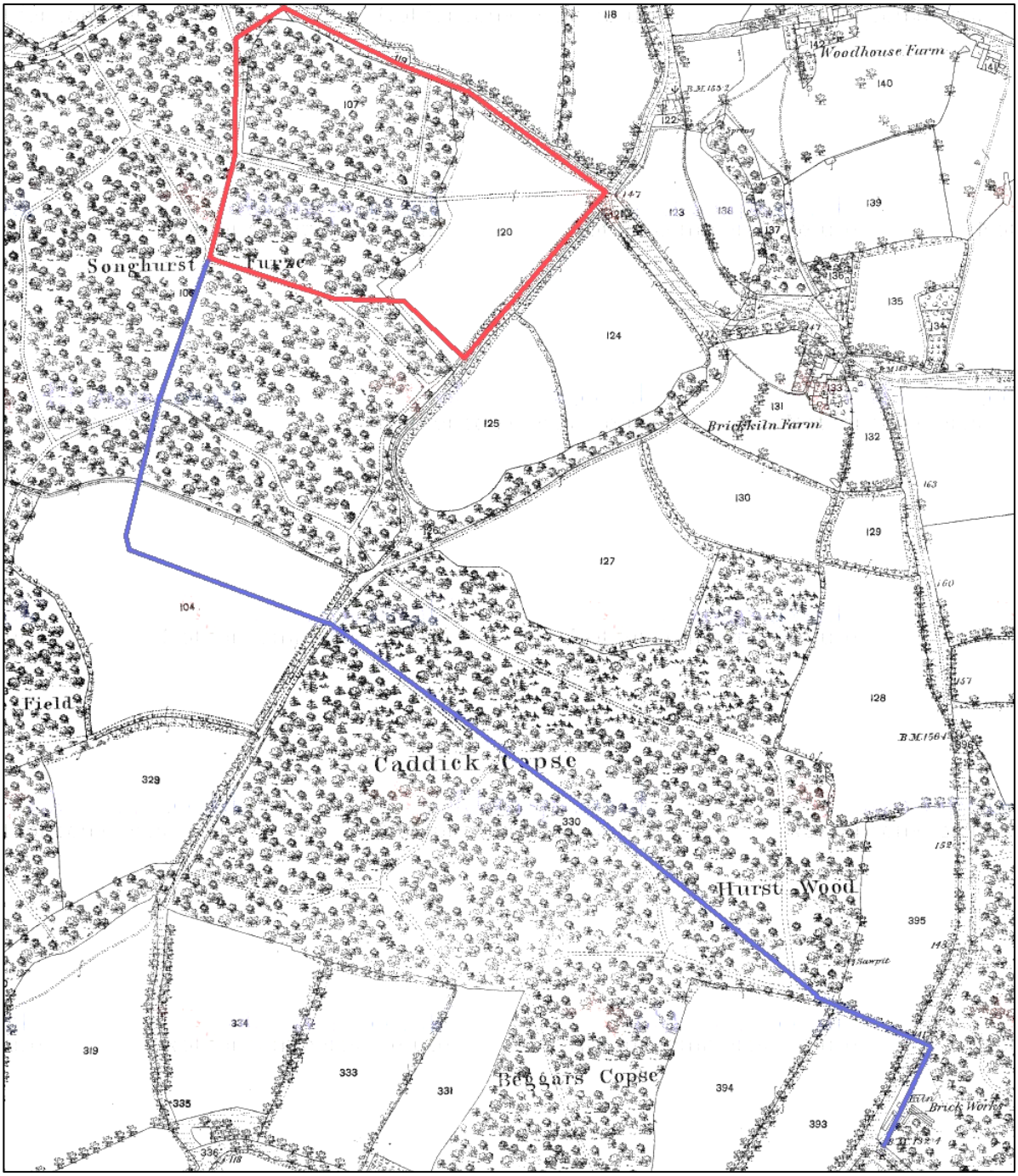

Fig. 19: 1st Edition OS Map (1876) showing site and access route
(Red = The Site; blue = Route of access road)

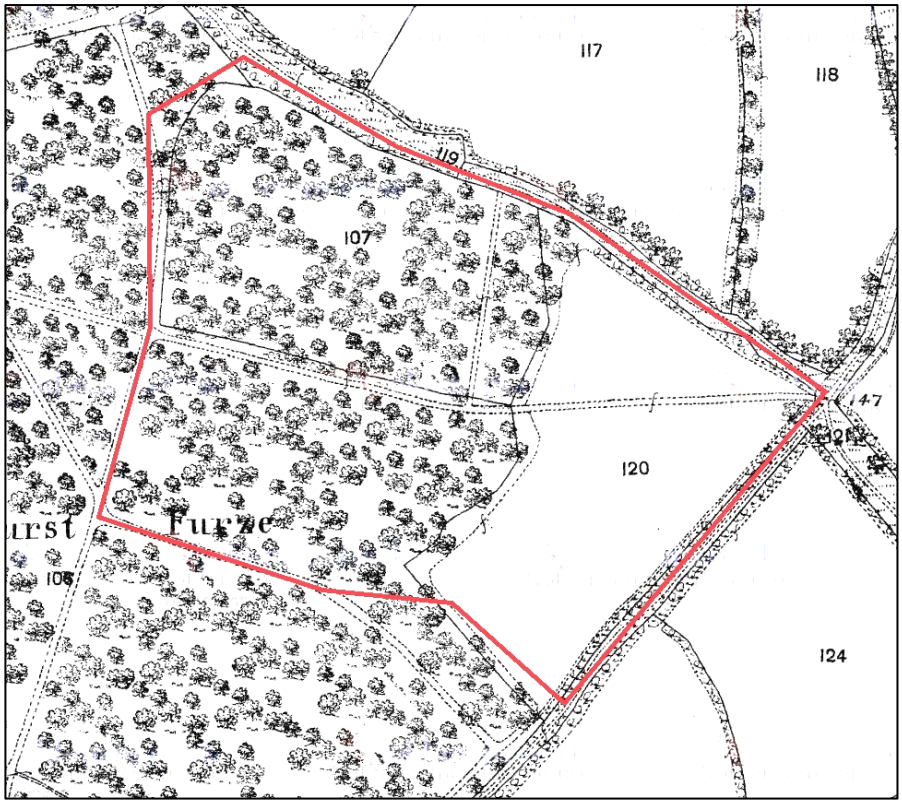

Fig. 20: 1st Edition OS Map (1876) of the development site

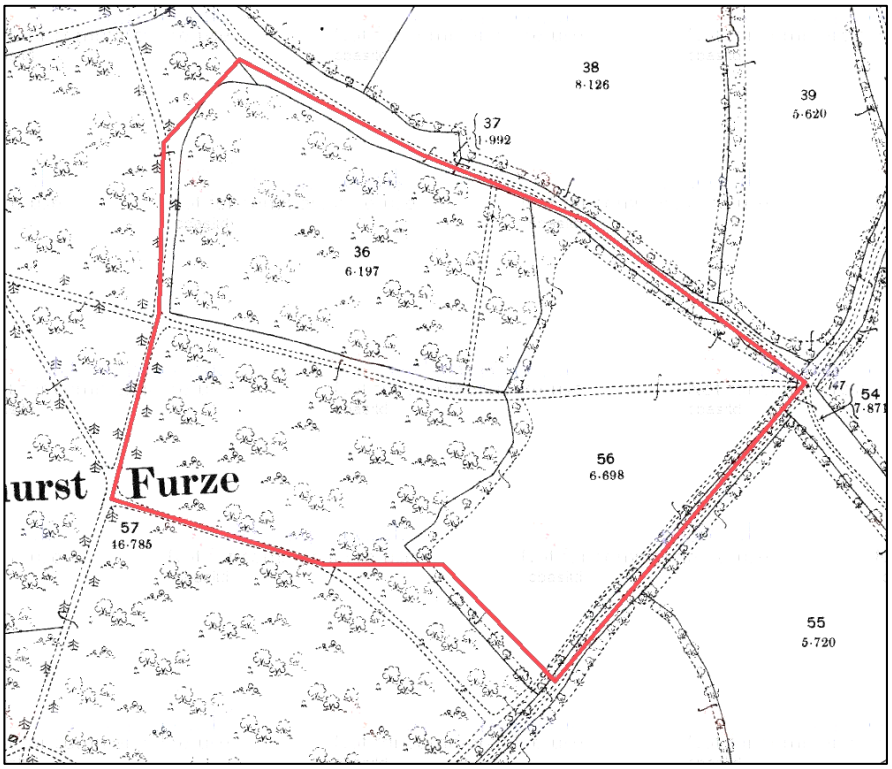

Fig. 21: 2nd Edition OS Map (1897) of the development site

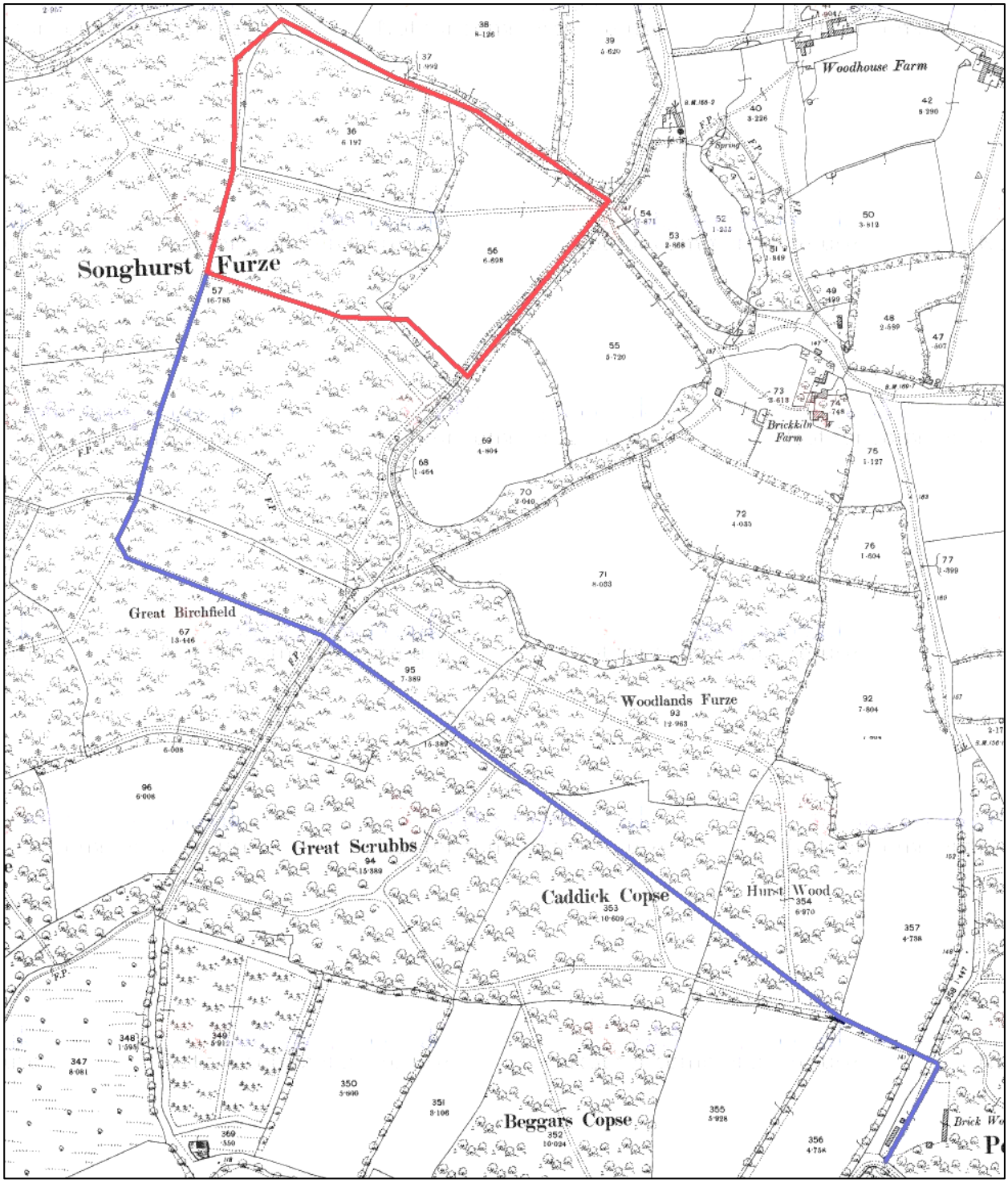

Fig. 22: 2nd Edition OS Map (1897) showing site and access route
(Red = The Site; blue = Route of access road)

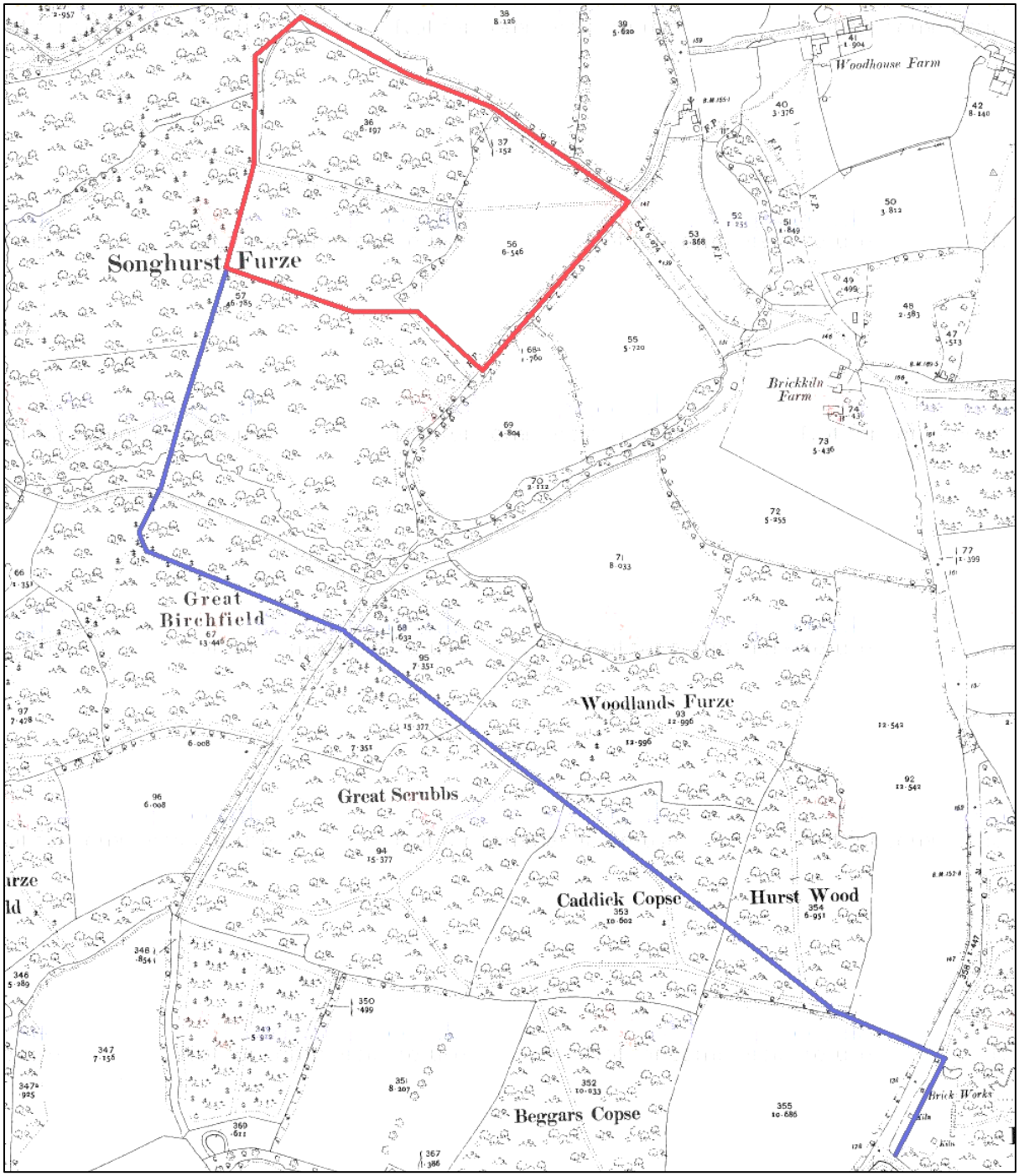

Fig. 23: 3rd Edition OS Map (1912) showing site and access route
(Red = The Site; blue = Route of access road)

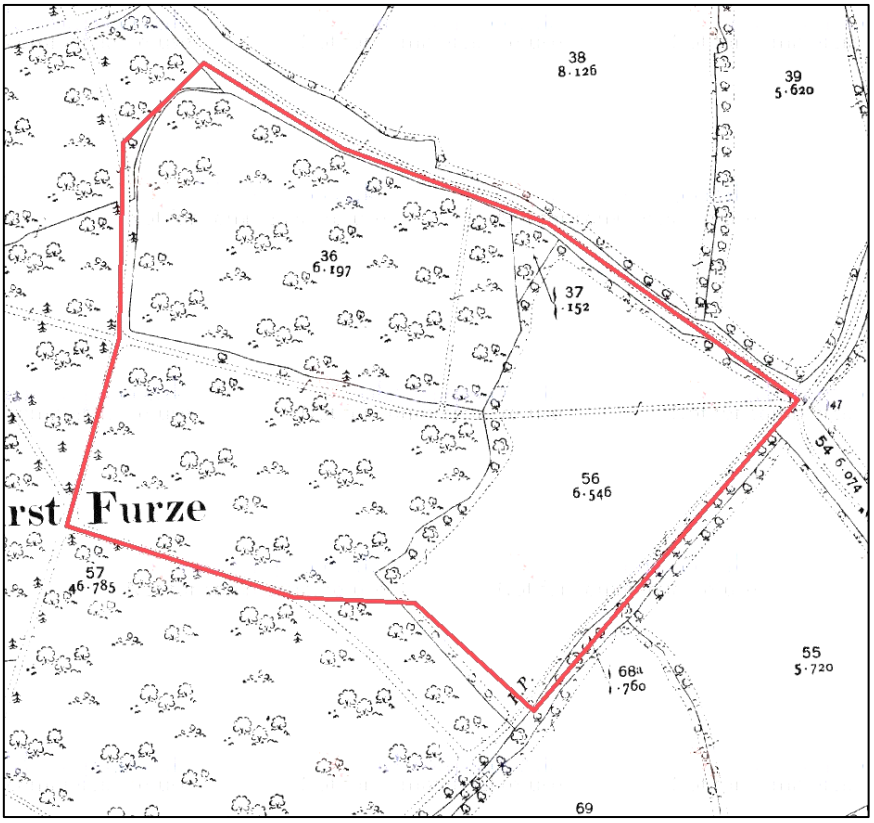

Fig. 24: 3rd Edition OS Map (1912) of the development site

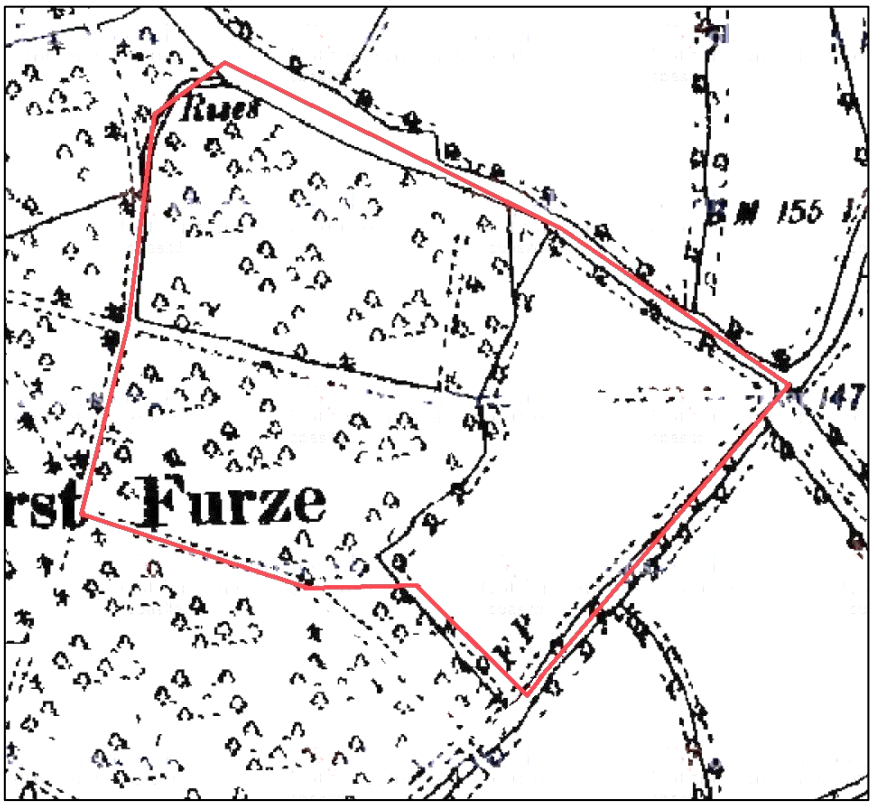

Fig. 25: 4th Edition OS Map (1920) of the development site

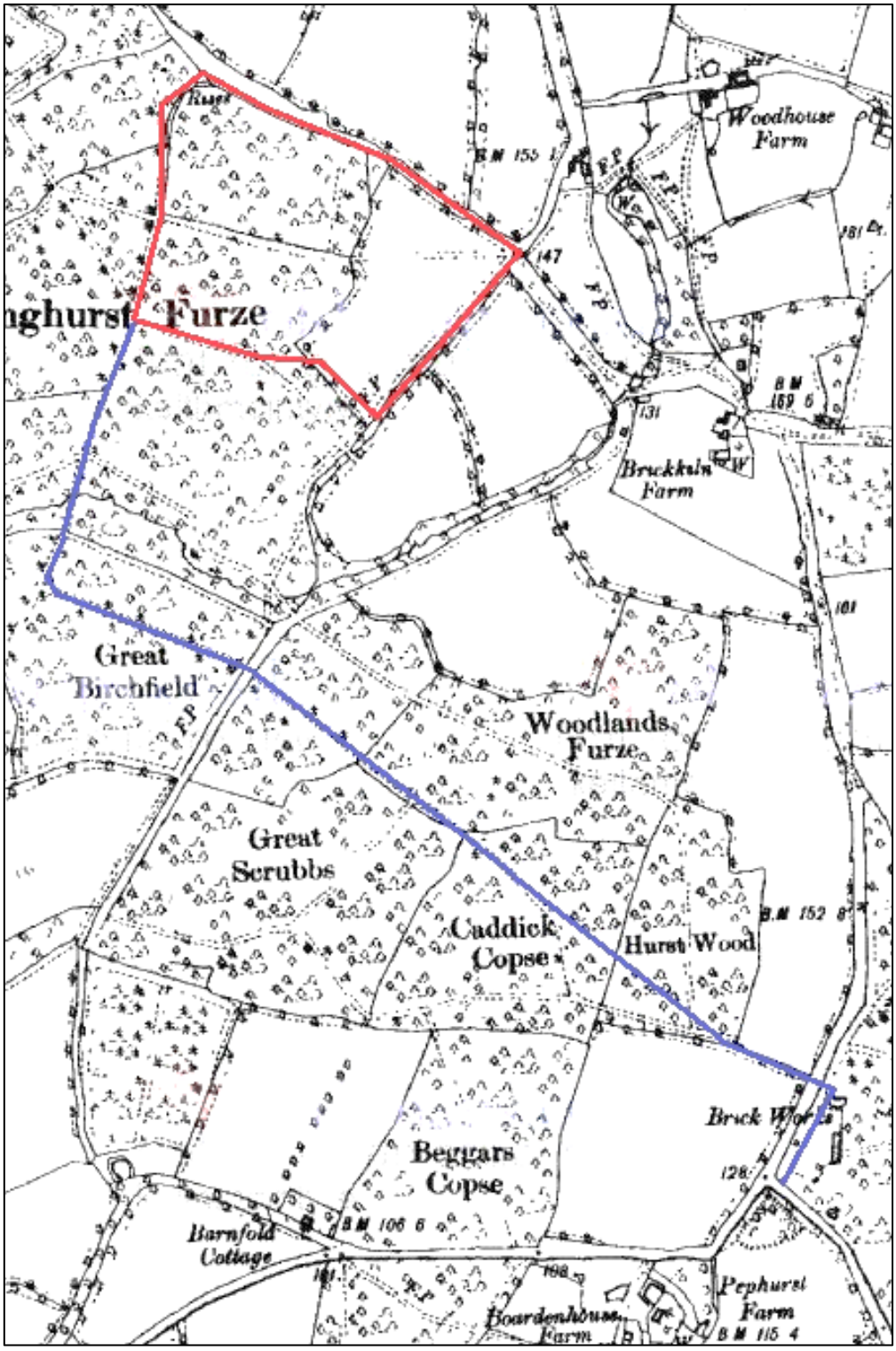

Fig. 26: 4th Edition OS Map (1920) showing site and access route
(Red = The Site; blue = Route of access road)

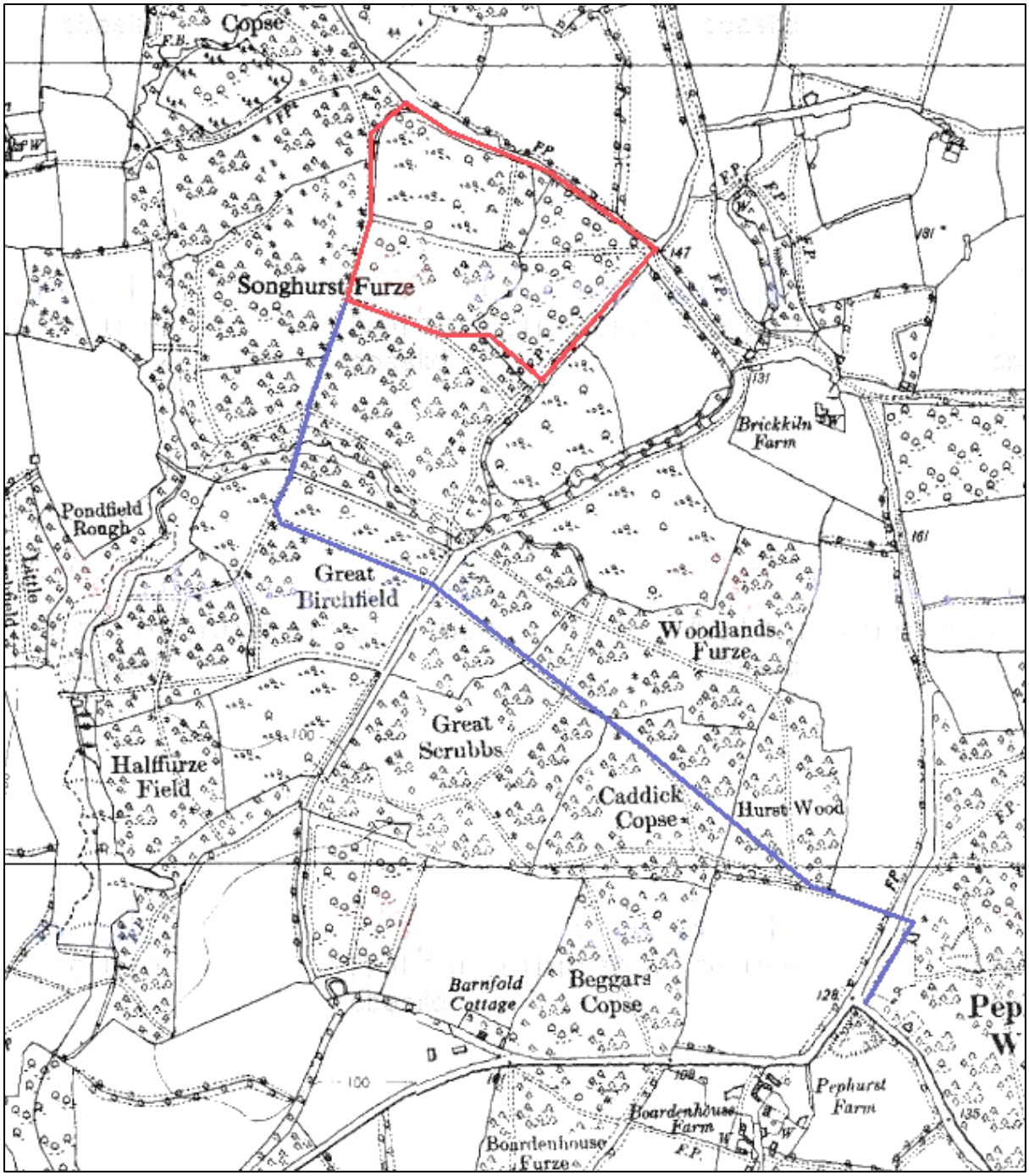

Fig. 27: 1961 OS Map showing site and access route
(Red = The Site; blue = Route of access road)

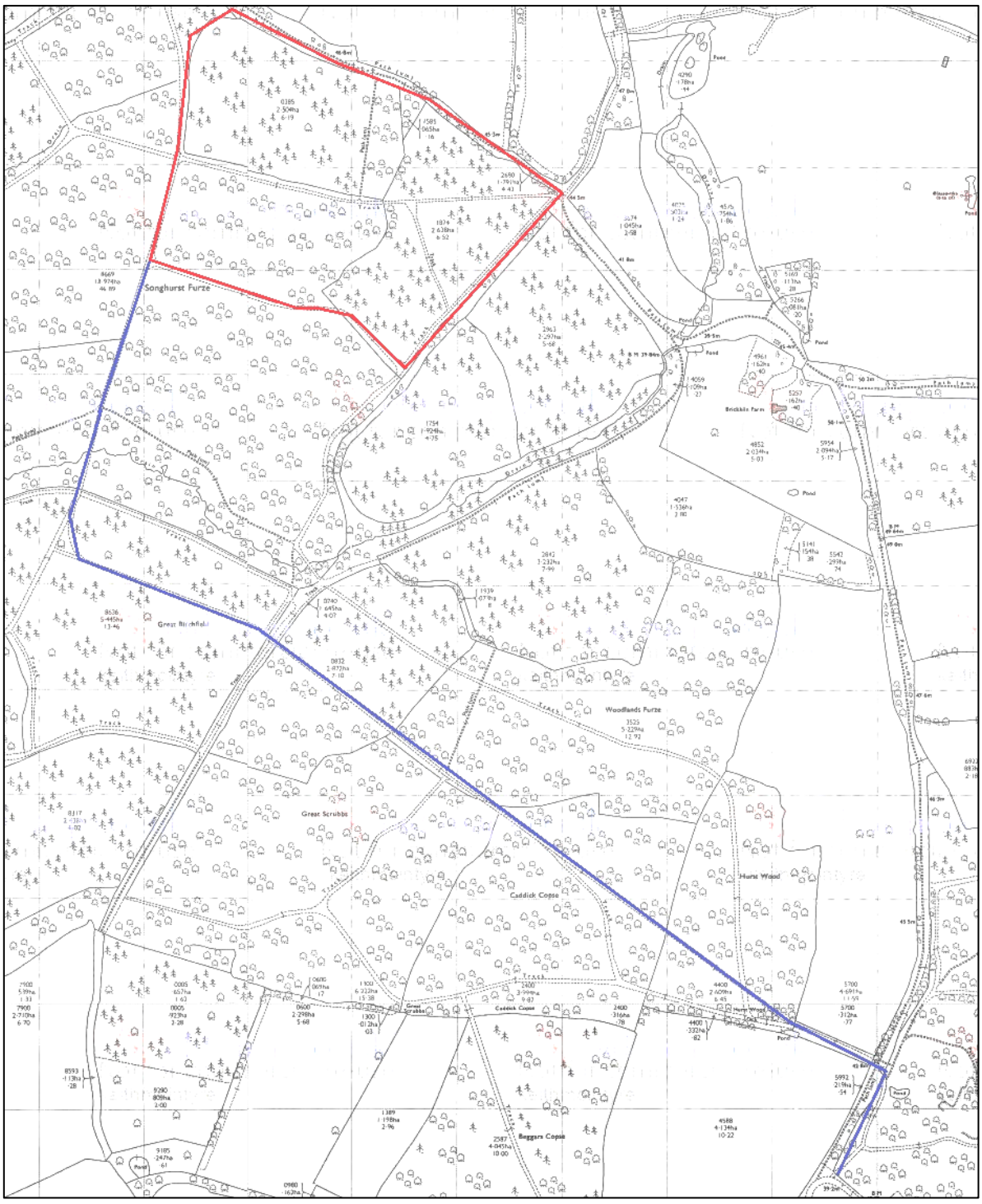

Fig. 28: 1974 OS Map showing site and access route
(Red = The Site; blue = Route of access road)

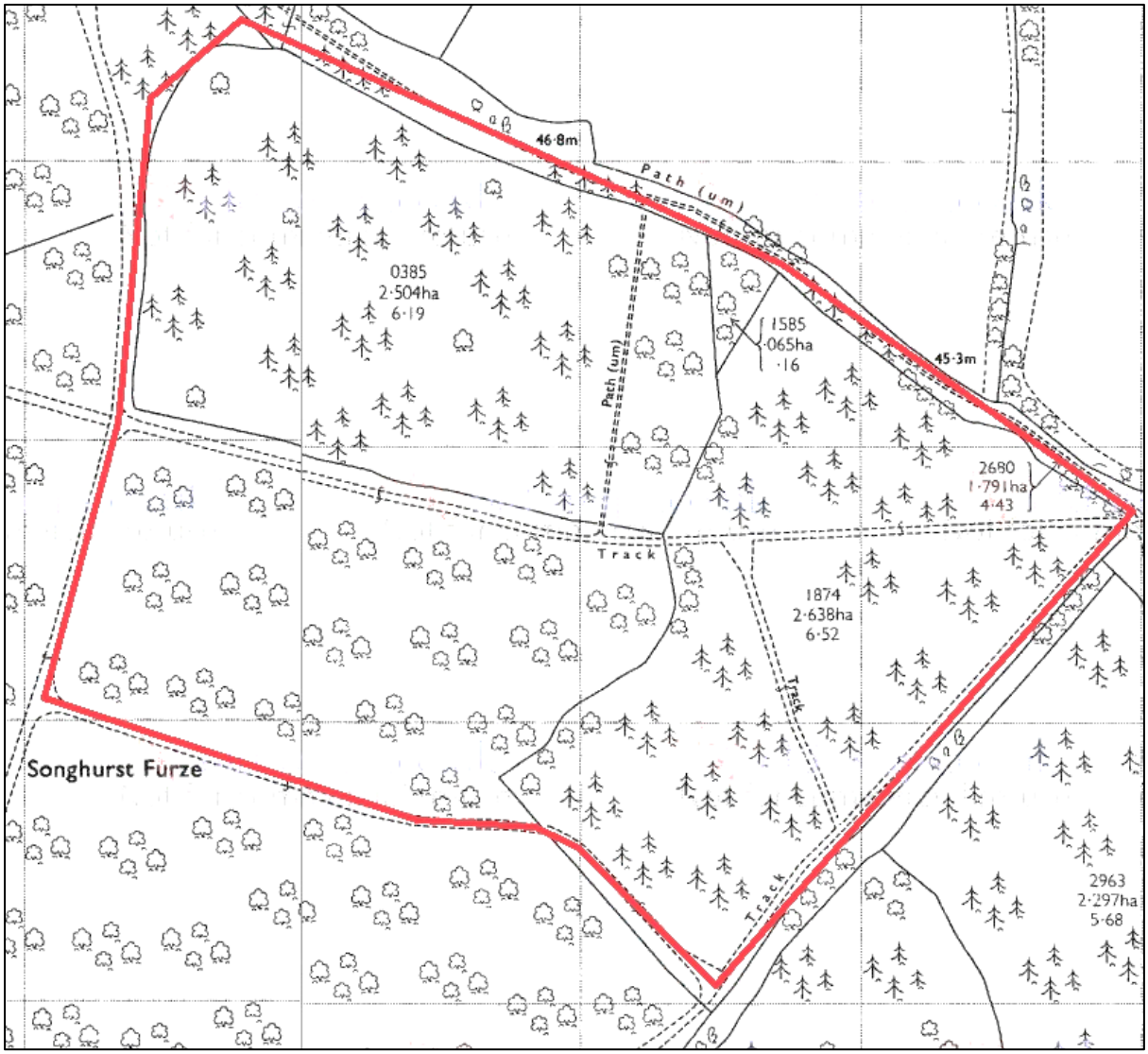

Fig. 29: 1974 OS Map of the development site

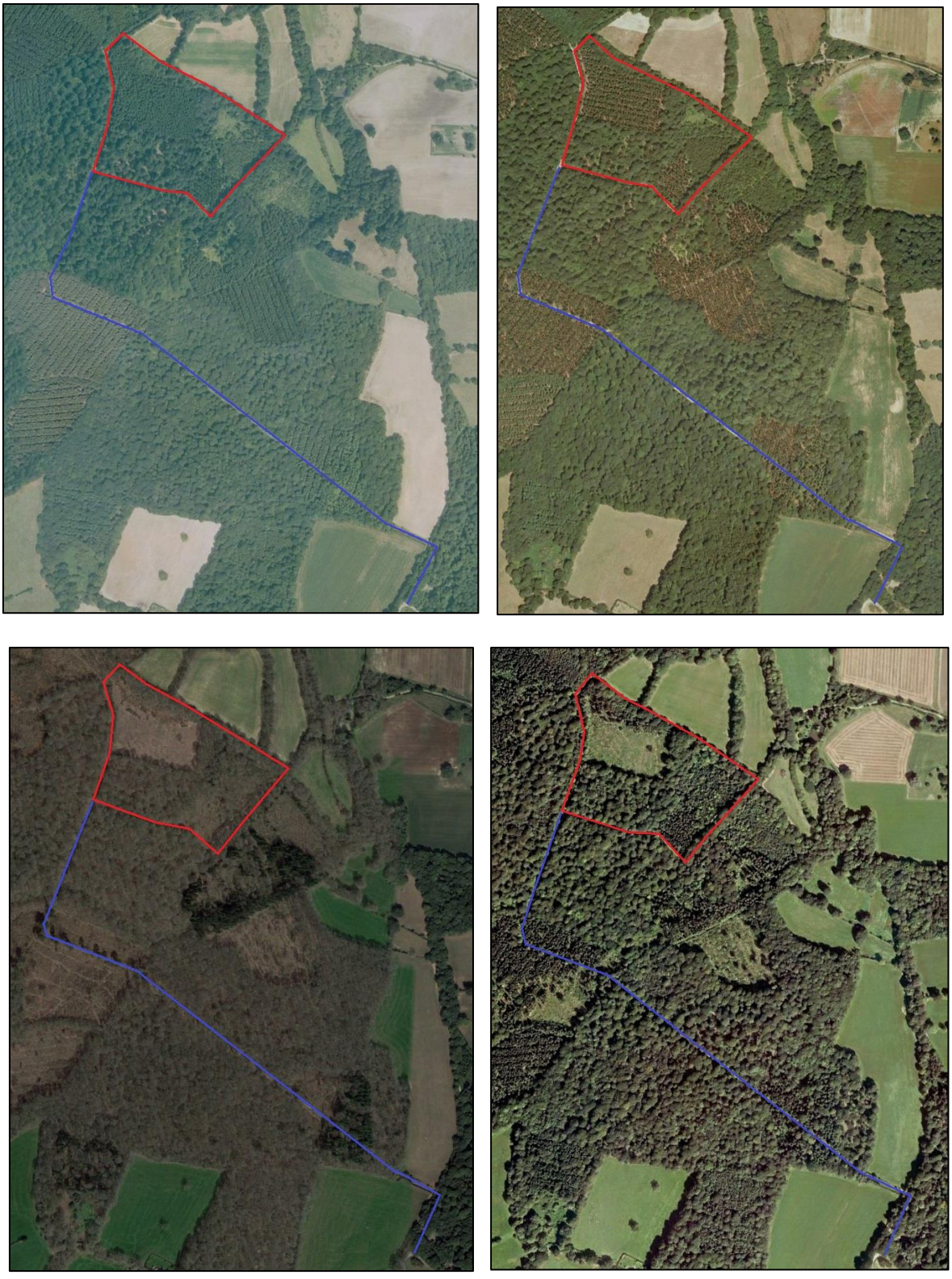

Fig. 30: Aerial images of the Site
(Clockwise from top left: 2001, 2005, 2012, 2017)
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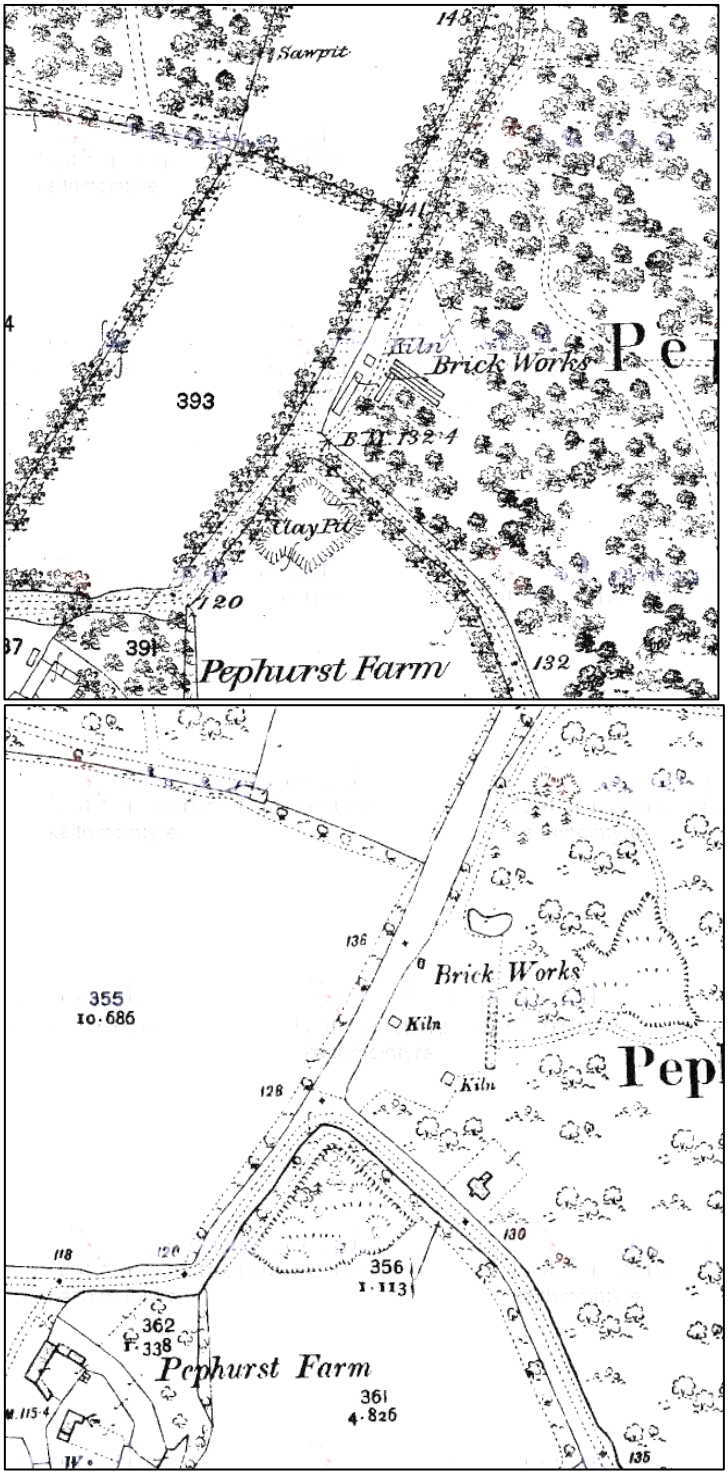

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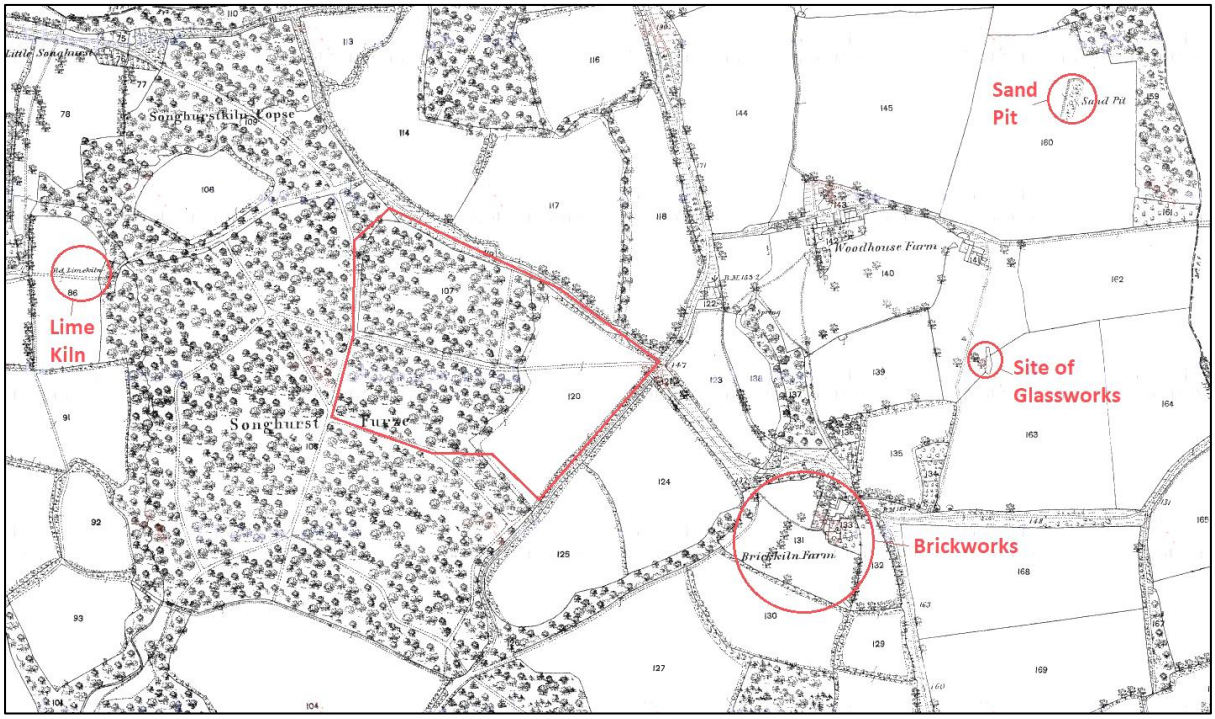

Fig. 32: Other industrial sites in the vicinity of the development site

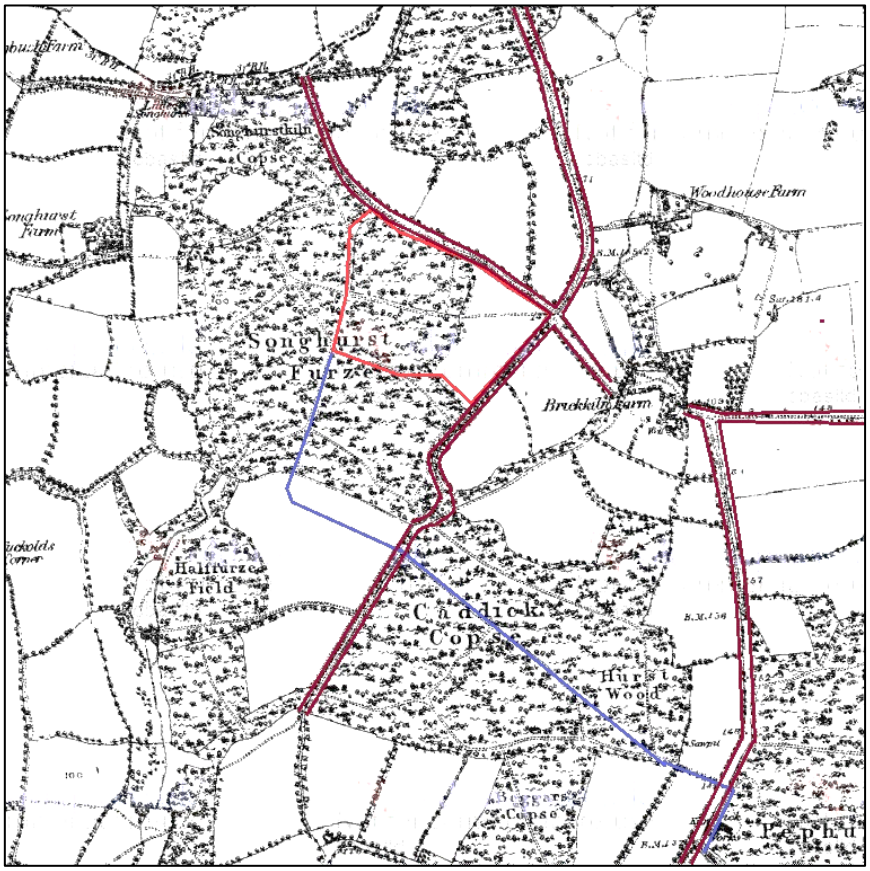

Fig. 33: Major tracks in the vicinity of the site

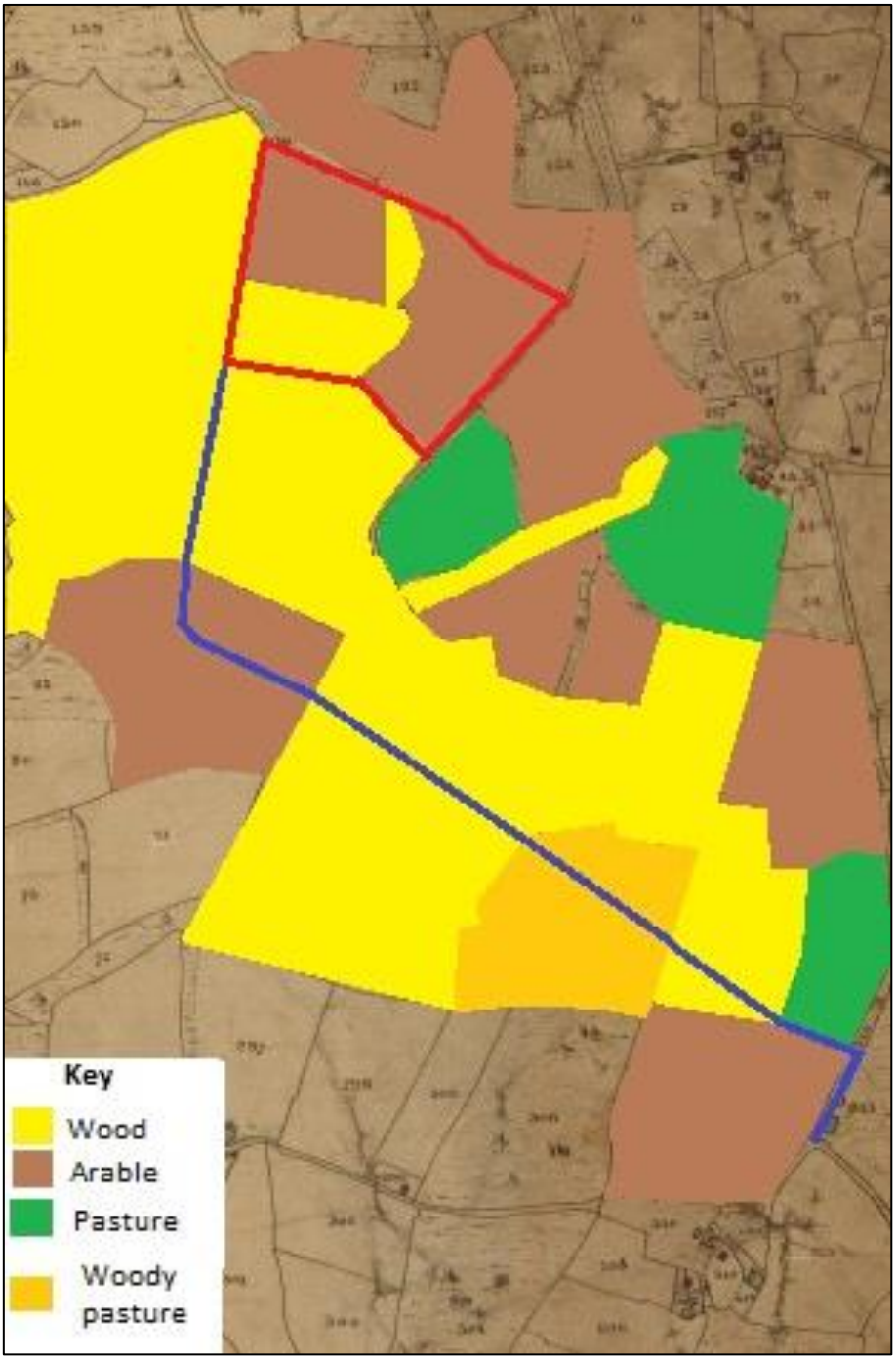

Fig. 34: Land use at the time of the 1842 Tithe Map

Fig. 35: Marked up Lidar image

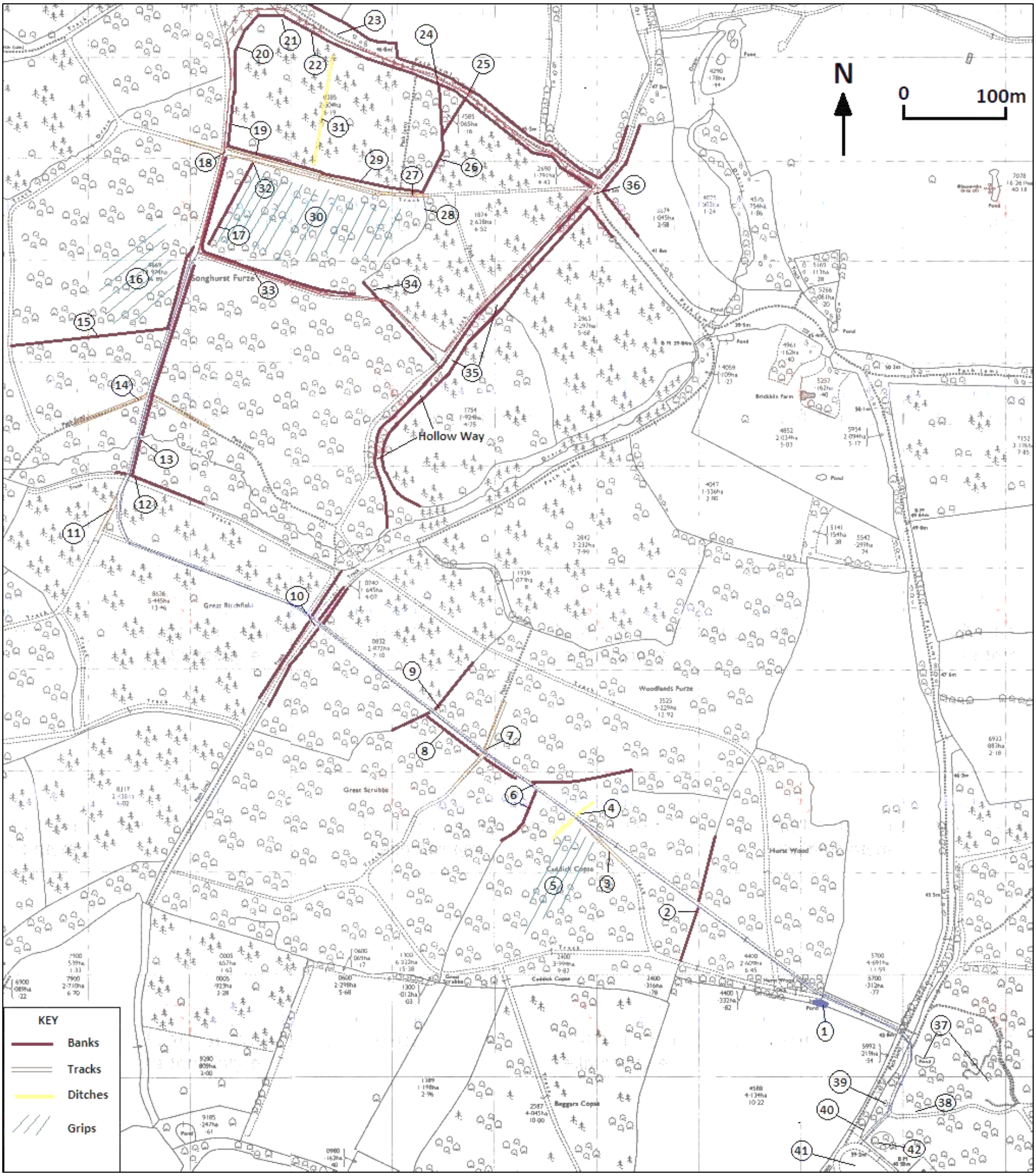

Fig. 36: Marked up OS Map

Chris Butler Archaeological Services Ltd

Chris Butler has been an archaeologist since 1985, and formed the Mid Sussex Field Archaeological Team in 1987, since when it has carried out numerous fieldwork projects, and was runner up in the Pitt-Rivers Award at the British Archaeological Awards in 1996. Having previously worked as a Pensions Technical Manager and Administration Director in the financial services industry, Chris formed **Chris Butler Archaeological Services** at the beginning of 2002.

Chris is a Member of the Chartered Institute for Archaeologists, and a Fellow of the Society of Antiquaries of London, and was a part time lecturer in Archaeology at the University of Sussex, and until recently taught A-Level Archaeology at Bexhill 6th Form College.

Chris specialises in prehistoric flintwork analysis, but has directed excavations, landscape surveys, watching briefs and evaluations, including the excavation of a Beaker Bowl Barrow, a Saxon cemetery and settlement, Roman pottery kilns, and a Mesolithic hunting camp. Chris is Co-Director of the Barcombe Roman Villa excavations. He has also recently undertaken an archaeological survey of Ashdown Forest and Broadwater Warren.

Chris Butler Archaeological Services Ltd is available for Flintwork Analysis, Project Management, Military Archaeology, Desktop Assessments, Field Evaluations, Excavation work, Watching Briefs, Fieldwalking, Landscape & Woodland surveys, Post Excavation Services and Report Writing.

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Loxwood Clay Pits, Loxwood, West Sussex

Written Scheme of Investigation for Archaeological Earthwork Survey

Planning Ref.:
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wessexarchaeology

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Loxwood Clay Pits
Loxwood, West Sussex

Written Scheme of Investigation for Archaeological Earthwork Survey

1 INTRODUCTION

1.1 Project background

1.1.1 Wessex Archaeology has been commissioned by Protreat Ltd ('the client') to produce a written scheme of investigation (WSI) for a proposed earthwork survey in advance of clay extraction at Loxwood Clay Pits (**Fig. 1**).

1.1.2 The proposed development comprises the use of the site for clay extraction. The clay is to be extracted for brick making and other construction/industrial applications, and the site will subsequently be restored back to deciduous woodland. In addition, an access track will be developed

1.1.3 This earthwork survey is part of a programme of archaeological works, which has included a desk based assessment and heritage impact assessment of the Site (Chris Butler Archaeological Services Ltd, 2020).

1.2 Scope of document

1.2.1 This WSI sets out the aims of the project, and the methods and standards that will be employed. In format and content, it conforms to current best practice, as well as to the guidance in *Management of Research Projects in the Historic Environment* (MoRPHE, Historic England 2015a) and *Understanding the Archaeology of Landscapes - A Guide to Good Recording Practice (Second Edition)* (Historic England, 2017).

1.2.2 This document will be submitted to Chichester District Council Archaeological Officer, archaeological advisor to the Local Planning Authority (LPA), for approval, prior to the start of the watching brief.

1.3 Location, topography and geology

1.3.1 The proposed earthwork survey will cover historic woodland banks forming the northern and eastern boundaries of the Site.

1.3.2 The Site is on a south-west facing slope which rises gently from c. 40m aOD at the southern side to c. 45m aOD at the northern side.

1.3.3 The underlying geology is mapped as Weald Clay Formation – Mudstone, a Sedimentary Bedrock formed approximately 126 to 134 million years ago in the Cretaceous Period in a local environment previously dominated by swamps, estuaries and deltas. (British Geological Survey online viewer).

2 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

2.1 Introduction

2.1.1 The archaeological and historical background was assessed in a prior desk-based assessment (Chris Butler Archaeological Services Ltd: 2020), which considered the recorded historic environment resource within a 3 km study area of the development. A summary of the results is presented below, with relevant entry numbers from the West Sussex Historic Environment Record (HER) and the National Heritage List for England (NHLE) included. Additional sources of information are referenced, as appropriate.

2.2 Previous investigations related to the development

2.2.1 No previous intrusive archaeological investigations have taken place within the Site.

2.3 Archaeological and historical context

Prehistoric: Palaeolithic to Iron Age (-750,000 BC to 42 AD)

2.3.1 No sites or finds of prehistoric date have been recorded within the Site. A number of early prehistoric finds have been recorded within the 3 km study area, including a 'flint knife of probable Palaeolithic date', Mesolithic flintwork (including microliths and flakes), and a single possible Neolithic findspot in the form of a Neolithic/Bronze Age retouched blade. However, these have mainly been isolated finds, and the landscape position and geology of the Site are not conducive to early prehistoric activity; as such the potential for early prehistoric archaeology within the Site is considered to be negligible.

2.3.2 A single Bronze Age artefact has been recovered from the Study Area, in the form of a convex scraper/notched-piece/burin, however there is no evidence of further activity within the surrounding landscape. No Iron Age sites or finds have been recorded within the Study Area – accordingly, the potential for later prehistoric archaeology to present within the site is considered to be negligible

Roman (43 to 410 AD)

2.3.3 No sites or finds of Roman date have been found within the site, and recorded activity within the surrounding Study Area is limited to a single fragment of a Roman quern. This is suggestive of some activity in the area, however the potential for Roman archaeology within the Site is considered to be low.

Saxon (410 to 1065 AD)

2.3.4 There are no recorded Saxon sites or finds within the Site, and evidence for recorded activity within the wider area is scarce. It is likely that the Site would have been situated within an area of grazed woodland in the Saxon period, so archaeological potential is considered to be negligible.

Medieval (1066 to 1540 AD)

2.3.5 No sites or finds dating to the medieval period are recorded within the Site. Identified activity within the wider area includes the establishment of settlements from the 13th century onwards, as well as evidence of industrial processes including glass production. Medieval occupation debris, including pottery dating to the 14th to 15th century is recorded c. 500 m to the north-east of the Site, however it is likely that the Site itself is situated within an area of arable farmland. Considering this, potential for archaeological remains dating to this period is considered to be low.

Post Medieval and Modern (1540 AD to Present)

2.3.6 Loxwood was the site of a number of glasshouses during the 16th and 17th centuries, and the remains of one such glass house have been found at Old Songhurst Farm, c. 600 m to the west of the Site, with evidence for further glasshouses found to the east and south of the Site.

2.3.7 Historic mapping from the early 19th century onwards shows the Site to have been predominantly fields, with some areas of woodland. A brickworks is shown to have been situated to the south east of the site, and a further brick kiln field and brickyard plat was situated at Brickkiln Farm c. 500 m to the east of the Site. A lime kiln is also identified c. 500 m to the west of the Site.

2.3.8 Later 19th century Ordnance Survey mapping shows the western portion of the Site to be wooded, with an open field on its eastern side. A number of footpaths are also depicted, with a v-shaped earthwork depicted from the 3rd edition Ordnance Survey map onwards in the central northern portion of the Site. The exact nature of this earthwork is unknown, however it is likely related to later woodland management activities, such as an artificial rabbit mound. Considering the likely later date of this feature, as demonstrated by historic mapping, it is considered to be of limited archaeological interest.

2.3.9 By the late 20th century, the Site has been planted with conifers. A site visit undertaken as part of the desk based study has identified a number of probable boundary earthworks and drainage features, most likely associated with 19th century woodland management, as well as the v-shaped earthwork shown on later historic mapping. In addition, a number of clay pits, mounds and a dump of early 20th century material, probably associated with the brickworks depicted to the south east of the site, was identified. While not within the Site itself, these features are adjacent to the entrance of the proposed access track.

3 AIMS AND OBJECTIVES

3.1 Aims

3.1.1 The aims (or purpose) of the earthwork survey are to:

- allow, within the resources available, the preservation by record of historic woodland banks forming the northern and eastern boundaries of the Site, in advance of the proposed extractive works

3.2 Objectives

3.2.1 In order to achieve the above aims, the objectives of the earthwork survey are to:

- record and establish, within the constraints of the works, the extent, character, date, condition and quality of any surviving archaeological remains (a preservation by record);
- place any identified archaeological remains within a wider historical and archaeological context in order to assess their significance; and
- make available information about the archaeological resource on the site by preparing a report on the results of the earthwork survey.

3.3 Site specific objectives

3.3.1 The desk based assessment has identified a number of extant woodland management features, notably historic boundary earthworks that are likely to date to the late 19th century.

In particular, boundary features along the northern and eastern side of the Site have been identified as being of some local importance, as they preserve historic routes that may predate late 18th and early 19th century landscape reorganisation.

3.3.2 The proposals have included for retention of the northern boundary of the Site, which will preserve the historic boundary features, however the proposals will necessitate the removal of the eastern boundary. As such, it is considered that an earthwork survey of these features will create an appropriate record in advance of their removal.

4 FIELDWORK METHODS

4.1 Introduction

4.1.1 All works will be undertaken in accordance with the detailed methods set out within this WSI. Any significant variations to these methods will be agreed in writing with the Chichester District Council Archaeological Officer and the client, prior to being implemented.

4.2 Service location and other constraints

4.2.1 The client and/or their principal contactor will be responsible for the identification and protection of any above- and below-ground services within the watching brief area/s. The client and/or their principal contactor will also be responsible for informing Wessex Archaeology of, and delimiting, any other areas of environmental, ecological or other constraints.

4.2.2 The Client will make all access arrangements for the survey works. Any areas which are not accessible during the survey, or which are deemed by Wessex Archaeology staff to be unsafe to access, will not form a part of this survey work. Any such areas will be documented for future reference.

4.3 Survey methods

4.3.1 The survey will be conducted by means of photogrammetry. Photographs will be captured using a DJI Mavic 2 Pro equipped with a Hasselblad L1D-20c 20-megapixel camera. The survey will be carried out using a Leica Total Station Theodolite (TST) set up within a site grid tied into the OS National Grid and heights above OD (Newlyn). The grid will be established, with a three-dimensional accuracy of at least 50 mm, using a Leica Global Navigation Satellite System (GNSS) connected to Leica's SmartNet service to receive real time kinematic (RTK) corrections.

4.3.2 The photogrammetric survey shall record all visible features within the survey areas using a ground sampling distance of <2 cm/px. This is described with the Historic England Metric Survey Guidance as being suitable for a reproduction scale of 1:200 or larger.

4.4 Recording and Processing

4.4.1 All images recorded will be processed into a 3-D point cloud and mesh which will then be exported as a series of survey products, including a digital surface model, and digitised. Processing shall be undertaken using the latest iteration of Agisoft Metashape Professional software and features were digitised using AutoCAD Map 2020. The extent and profile of any extant features will be identified. Photogrammetric survey and processing will be conducted in line with guidance provided by Historic England in Photogrammetric Applications for Cultural Heritage (2017). An interpretive hachure plan will be created from the digital surface model.

4.4.2 Agisoft Metashape will also be used, to generate a dense point cloud which shall then be imported into the latest version of Cloud Compare. Native tools will be used to rasterise the point cloud into a digital surface model and generate contours of 0.25m interval to aid in the interpretation of the landscape data.

4.5 Monitoring

4.5.1 The client will inform the Chichester District Council Archaeological Officer of the start of the survey and its progress. Reasonable access will be arranged for the Chichester District Council Archaeological Officer to make site visits to inspect and monitor the progress of the survey. Any variations to the WSI, if required to better address the project aims, will be agreed in advance with the client and the Chichester District Council Archaeological Officer.

5 DELIVERABLES AND REPORTING

5.1 Reporting

5.1.1 Following the processing and analysis of the data, a draft report will be submitted for approval to the client and the Chichester District Council Archaeological Officer for comment. Once approved, a final version will be submitted.

5.1.2 The report will include the following elements:

- Non-technical summary;
- Project background;
- Archaeological and historical context;
- Aims and objectives;
- Methods;
- Results;
- Conclusions in relation to the project aims and objectives, and discussion in relation to the wider local, regional or other archaeological contexts and research frameworks etc;
- Archive preparation and deposition arrangements;
- Appendices;
- Illustrations; and
- References.

5.1.3 A copy of the final report will be deposited with the HER, along with surveyed spatial digital data (.dxf or shapefile format) relating to the survey.

Publication

5.1.4 A short report on the results of the earthwork survey will be prepared for publication in a suitable journal, if considered appropriate and agreed with the client and the Chichester District Council Archaeological Officer.

OASIS

5.1.5 An OASIS (online access to the index of archaeological investigations) record (http://oasis.ac.uk/pages/wiki/Main) will be created, with key fields completed, and a .pdf version of the final report submitted. Subject to any contractual requirements on

confidentiality, copies of the OASIS record will be integrated into the relevant local and national records and published through the Archaeology Data Service (ADS) ArchSearch catalogue.

6 ARCHIVE STORAGE AND CURATION

6.1 Museum

6.1.1 It is recommended that the project archive resulting from the survey be deposited with the Chichester District Museum. Provision has been made for the cost of long-term storage in the post-fieldwork costs. The museum will receive notification of the project prior to fieldwork commencing, and an accession number will be obtained.

6.1.2 Should the Chichester District Museum not currently be accepting archaeological archives, every effort will be made to identify a suitable repository for the archive resulting from the fieldwork, and if this is not possible, Wessex Archaeology will initiate discussions with the local planning authority in an attempt to resolve the issue. If no suitable repository is identified, Wessex Archaeology will continue to store the archive, but may institute a charge to the client for ongoing storage beyond a set period.

6.2 Preparation of archive

6.2.1 The complete archive, which may include paper records, graphics and digital data, will be prepared following the standard conditions set by the Chichester District Museum, and in general following nationally recommended guidelines (SMA 1995; CIfA 2014c; Brown 2011; ADS 2013). The archive will usually be deposited within one year of the completion of the project, with the agreement of the client.

6.3 Security copy

6.3.1 In line with current best practice (e.g. Brown 2011), on completion of the project a security copy of the written records will be prepared in the form of a digital PDF/A file. PDF/A is an ISO-standardised version of the Portable Document Format (PDF) designed for the digital preservation of electronic documents through omission of features ill-suited to long-term archiving.

7 OUTREACH AND SOCIAL MEDIA

7.1.1 In line with its charitable aims, Wessex Archaeology will, where possible and in consultation with the client, seek opportunities to disseminate the results of the watching brief and engage with the local community through social media, press releases, open days and volunteer involvement, while taking into account issues such as health and safety, confidentiality and vandalism.

8 COPYRIGHT

8.1 Archive and report copyright

8.1.1 The full copyright of the written/illustrative/digital archive relating to the project will be retained by Wessex Archaeology under the *Copyright, Designs and Patents Act 1988* with all rights reserved. The client will be licenced to use each report for the purposes that it was produced in relation to the project as described in the specification. The museum, however, will be granted an exclusive licence for the use of the archive for educational purposes, including academic research, providing that such use conforms to the *Copyright and Related Rights Regulations 2003*. In some instances, certain regional museums may

require absolute transfer of copyright, rather than a licence; this should be dealt with on a case-by-case basis.

8.2 Third party data copyright

8.2.1 This document, the watching brief report and the project archive may contain material that is non-Wessex Archaeology copyright (e.g. 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 such material.

9 WESSEX ARCHAEOLOGY PROCEDURES

9.1 External quality standards

9.1.1 Wessex Archaeology is registered as an archaeological organisation with the Chartered Institute for Archaeologists (CIfA) and fully endorses its *Code of conduct* (CIfA 2014d) and *Regulations for professional conduct* (CIfA 2014e). All staff directly employed or subcontracted by Wessex Archaeology will be of a standard approved by Wessex Archaeology, and archaeological staff will be employed in line with the CIfA codes of practice, and will normally be members of the CIfA.

9.2 Personnel

9.2.1 The fieldwork will be directed and supervised by an experienced archaeologist from Wessex Archaeology's core staff. The overall responsibility for the conduct and management of the project will be held by one of Wessex Archaeology's project managers, who will visit the fieldwork as appropriate to monitor progress and to ensure that the scope of works is adhered to. Where required, monitoring visits may also be undertaken by Wessex Archaeology's Health and Safety manager. The appointed project manager and fieldwork director will be involved in all phases of the investigation through to its completion.

9.2.2 The following key staff are proposed:

- TBC
- TBC

9.2.3 Wessex Archaeology reserves the right, where necessary due to unforeseen circumstances, to replace nominated personnel with alternative members of staff of comparable expertise and experience.

9.3 Internal quality standards

9.3.1 Wessex Archaeology is an ISO 9001 accredited organisation (certificate number FS 606559), confirming the operation of a Quality Management System which complies with the requirements of ISO 9001:2015 – covering professional archaeological and heritage advice and services. The award of the ISO 9001 certificate, independently audited by the British Standards Institution (BSI), demonstrates Wessex Archaeology's commitment to providing quality heritage services to our clients. ISO (the International Organisation for Standardisation) is the most recognised standards body in the world, helping to drive excellence and continuous improvement within businesses.

9.3.2 Wessex Archaeology assigns responsibility to individual managers for the successful completion of all aspects of a project including reporting. This includes monitoring progress and quality; controlling the budget from inception to completion; and all aspects of health and safety for the project. At all stages, the project manager will carefully assess and monitor performance of staff and adherence to objectives, timetables and budgets, while the manager's own performance is monitored by the team leader or regional director. The technical managers in the Graphics, Research, GeoServices and IT sections provide additional assistance and advice.

9.3.3 All staff are responsible for following Wessex Archaeology's quality standards but the overall adherence to and setting of these standards is the responsibility of the senior management team who, in consultation with the team leaders/regional directors, also ensure projects are adequately programmed and resourced within Wessex Archaeology's portfolio of project commitments.

9.4 Health and Safety

9.4.1 Health and safety considerations are of paramount importance when conducting all fieldwork. Safe working practices override archaeological considerations at all times. Wessex Archaeology supply trained, competent and suitably qualified staff to perform the tasks and operate the equipment used on site. All work will be carried out in accordance with the *Health and Safety at Work Act 1974* and the *Management of Health and Safety at Work Regulations 1999*, all other applicable health and safety legislation, regulations and codes of practice in force at the time.

9.4.2 Wessex Archaeology will supply a copy of the company's Health and Safety Policy and a Risk Assessment to the client. The Risk Assessment will have been read, understood and signed by all staff attending the site before any fieldwork commences. Wessex Archaeology staff will comply with the Personal Protective Equipment (PPE) requirements for working on site, and any other specific additional requirements of the Principal Contractor.

9.4.3 All fieldwork staff are certified through the Construction Skills Certification Scheme (CSCS), and have undergone UKATA Asbestos Awareness Training. Staff who carry out specific tasks are suitably trained and competent to do so through training accredited by the Construction Industry Training Board (CITB), Institute of Occupational Safety (IOSH), and the National Plant Operators Recognitions Scheme (NPORS).

9.5 Insurance

9.5.1 Wessex Archaeology holds Employers Liability (£10,000,000), Public Liability (£5,000,000) and Professional Indemnity (£5,000,000) policies.

REFERENCES

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Historic England 2017 Understanding the Archaeology of Landscapes: a guide to good recording practice. Swindon, English Heritage

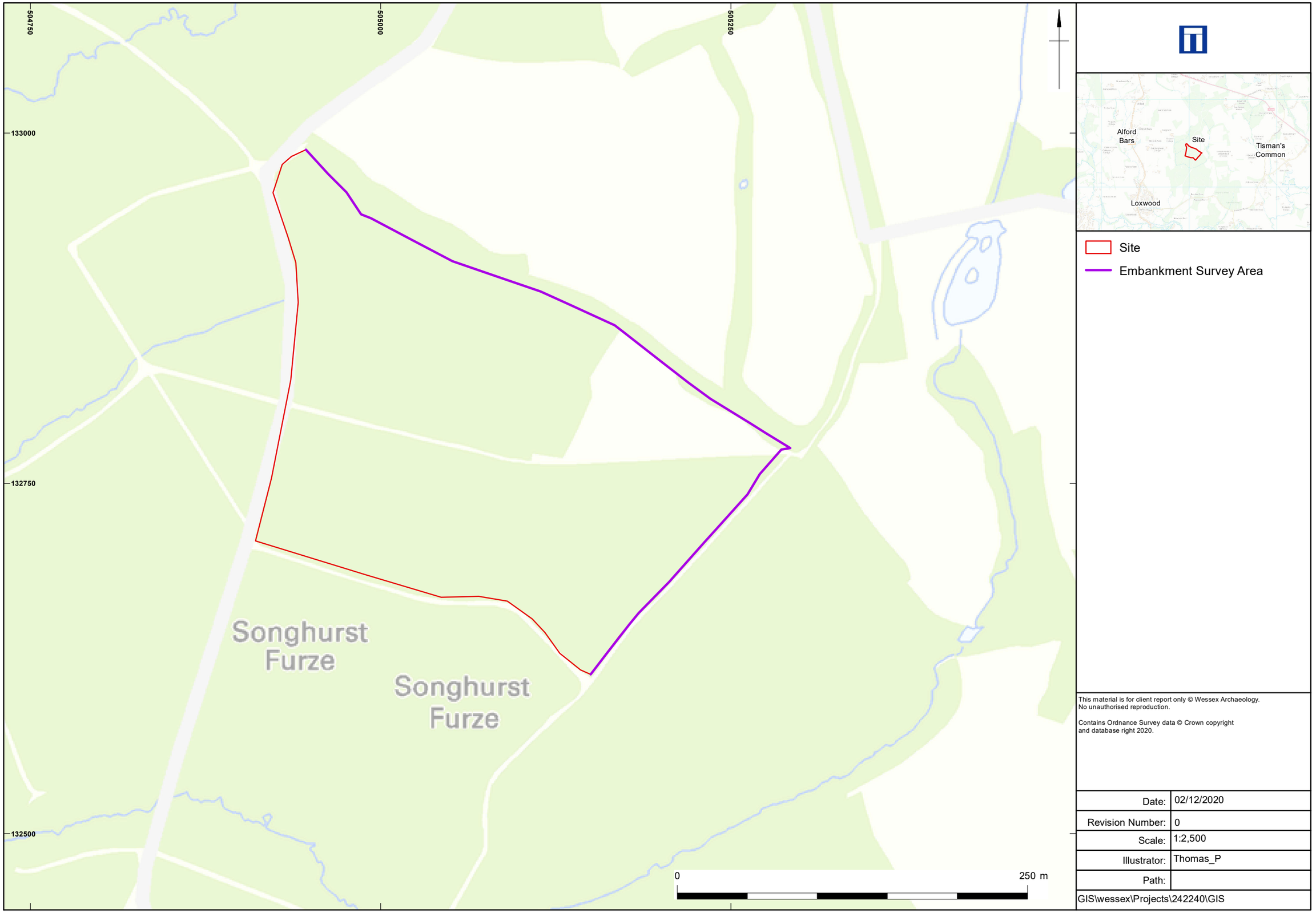
SMA 1993 *Selection, Retention and Dispersal of Archaeological Collections*. Society of Museum Archaeologists

SMA 1995 *Towards an Accessible Archaeological Archive*. Society of Museum Archaeologists

APPENDICES

Appendix 1 Finds and environmental specialists

Name	Qualifications	Specialism
Phil Andrews	BSc; FSA; MCIfA	Slag and metal working debris
Pippa Bradley	BA; MPhil; Dip Post Ex; FSA; MCIfA	Prehistoric flint and worked stone, shale and jet
Elina Brook	BA; MA; PCIfA	Later prehistoric and Romano-British pottery, and small finds
Alex Brown	BA; MSc; PhD	Geoarchaeology, palynology
Ceridwen Boston	B.Soc.Sc.; MA; MSc.; D.Phil.	Osteoarchaeology; funerary archaeology
Andrew Shaw	BA; MA; PhD	Palaeolithic lithic artefacts and Pleistocene geoarchaeology
Kirsten Egging Dinwiddy	BA; MA; MCIfA	Human remains (inhumations)
Inés López-Dóriga	BA; MA; PhD	Archaeobotanical remains
Erica Gittins	BA; MA; PhD	Prehistoric flint
Phil Harding	PhD	Prehistoric flint, particularly Palaeolithic flint
Lorrain Higbee	BSc; MSc; MCIfA	Animal bone
Grace Jones	BA; MA; PhD; MCIfA	Prehistoric and Roman pottery, ceramic building material, fired clay, and small finds
Matt Leivers	BA; PhD; ACIfA	Prehistoric pottery and flint
Jacqueline McKinley	BTech; FSA	Human remains (inhumations and cremations)
Erica Macey-Bracken	BA; ACIfA	Post-medieval finds, ceramic building material and worked wood
Katie Marsden	BSc	Pottery from prehistoric to post-medieval/modern. Metalwork of all periods, including coins. Small and bulk finds including fired clay, ceramic building material, worked bone
Nicki Mulhall		Geoarchaeology and archaeobotanical remains
David Norcott	BA; MSc; MCIfA	Geoarchaeology
Richard Payne	BSC; MSc; MPhil	Geoarchaeology
Holly Rodgers	BA; MSc	Geoarchaeology
Lorraine Mepham	BA; MCIfA	Pottery and other ceramic finds of all dates, concentrating on later prehistoric and post-Roman;
Sue Nelson	BA; MA; ACIfA	Prehistoric and Romano-British pottery, small finds, glass, and tile
Emma Robertson	BA; MSc	Human remains (inhumations)
Rachael Seager Smith	BA; MCIfA	Pottery with particular emphasis on Roman ceramics; and metalwork, fired clay, ceramic building material, stone, worked bone, shale, glass, and wall plaster
Amy Thorp	BA; MA	Pottery with emphasis on Roman ceramics, small finds
Lynn Wooten	BSc; ICON; MIoC	Archaeological conservator



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Scale:	1:2,500
Illustrator:	Thomas_P
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Site location and extent of embankment survey area

Figure 1

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