

Wessex Archaeology

LEC Refrigeration Site, Shripney Rd Bognor Regis, West Sussex

Archaeological Desk-Based Assessment

Ref: 54880.01

November 2003

**LEC Refrigeration Site,
Shripney Road,
Bognor Regis, West Sussex**

Archaeological Desk-based Assessment

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Contents

1	INTRODUCTION	1
1.1	Project Background	1
1.2	The Site.....	1
1.3	Geology.....	2
1.4	Hydrography	2
1.5	Site visit	2
1.6	Archaeological and Historical Background.....	2
2	PLANNING AND LEGISLATIVE BACKGROUND	8
2.1	National planning guidance.....	8
2.2	Hedgerow Regulations 1997.....	9
2.3	Local planning guidance.....	9
2.4	Statutory and local designations.....	10
3	METHODOLOGY	11
3.1	Introduction	11
3.2	Sites and Monuments Records.....	11
3.3	Documentary sources.....	11
3.4	Cartographic sources.....	12
3.5	Site Visit	12
4	RESULTS.....	13
4.1	Introduction	13
3.1	The nature of the evidence	13
3.2	Statutory protection	13
4.2	Palaeolithic to Neolithic (500,000 – 2,400 BC).....	13
4.3	Bronze Age and Iron Age (2,400 – AD 43).....	14
4.4	Roman (AD 43 – 410).....	15
4.5	Saxon (AD 410 – 1066).....	15
4.6	Medieval (AD 1066 – 1499)	15
4.7	Post Medieval (AD 1500 - 1799) and Modern (AD 1800 – present)	16
4.8	Undated	16
4.9	Map Regression exercise	16
4.10	Site visit	18
5	ARCHAEOLOGICAL POTENTIAL	19
5.1	Introduction	19
5.2	Archaeological Potential.....	19
5.3	Proposed development impacts.....	20
5.4	Summary and Recommendations for Mitigation.....	20
6	BIBLIOGRAPHY.....	22

APPENDIX 1 – Gazetteer of sites mentioned in the text

List of Figures

Figure 1: Site location plan
Figure 2: Sites and Findspots identified in the Study
Figure 3: Map Regression Exercise

LEC Refrigeration Site, Shripney Road, Bognor Regis, West Sussex

Archaeological Desk-based Assessment

Summary

Wessex Archaeology (London) was commissioned by Environ UK to undertake an archaeological Desk-based Assessment of some 4.2 ha of land occupied by the LEC refrigeration site (centred on NGR 494250 100820), hereafter 'the Site' (Figure 1) in advance of proposals for residential development of the Site.

This Assessment has gathered and synthesised archaeological and historical information from a range of readily available, publicly accessible sources, and is intended to form a baseline report on the known and potential archaeological resource within the LEC refrigeration site, and a surrounding area of c.1000 metres.

The Desk-Based Assessment has demonstrated that there is a low potential for the survival of Palaeolithic deposits in the form of a 'raised beach' on the Site. Whilst the potential for the presence of these deposits is low, their importance requires a scheme for mitigating the possible effects of this mitigation. We cannot be certain, however, that these deposits have not suffered significant truncation by the course of the Aldingbourne Rife, or by subsequent development.

The Aldingbourne Rife itself, a substantial periglacial channel, has an intrinsic archaeological potential itself. Potentially important Mesolithic deposits have been identified within the Alluvium filled channel close to the western bank on the foreshore, and the possibility of similar material being present on the Site cannot be discounted.

The likely survival of later archaeological remains and deposits, ranging in date from the Neolithic to the Post-medieval period is likely be strongly influenced by the depth of any truncation the Site has suffered, along with the potential protective benefits which may have occurred from alluviation. The level of this truncation is not only likely to influence the assessment of the archaeological potential for the Site, but also to influence any requirement for further archaeological investigation to mitigate the effects of the proposed development.

Accordingly, it is recommended that a preliminary investigation is undertaken in order to further this understanding. This investigation should establish the level of truncation to which the underlying deposits have been subjected and characterise any deposits associated with the Aldingbourne Rife and with the Pagham Raised Beach. This will enable a detailed mitigation strategy for such remains to be drawn up in consultation with the relevant authorities.

On the basis of this study, a more detailed methodology for the mitigation of any potential archaeological remains and deposits can be formulated in conjunction with the appropriate bodies.

Acknowledgements

Environ UK commissioned this desk based assessment and Wessex Archaeology is particularly grateful to John Towner in respect of this. Wessex Archaeology would like to acknowledge the assistance and co-operation of John Mills and Keith Watson (West Sussex SMR) and the help provided by the staff of the West Sussex County Council Records Office in Chichester. The author would like to thank Dr Martin Bates for his advice on the Sussex 'raised beaches'

Research for this Assessment was undertaken by Vaughan Birbeck and Nicholas Cooke (*Senior Project Officers*), this report was compiled by Nicholas Cooke and the illustrations were prepared by Mark Roughley. The project was managed for Wessex Archaeology (London) by Lawrence Pontin (*Senior Project Manager*).

LEC Refrigeration Site, Shripney Road, Bognor Regis, West Sussex

Archaeological Desk-based Assessment

1 INTRODUCTION

1.1 Project Background

1.1.1 Wessex Archaeology (London) was commissioned by Environ UK to undertake an archaeological Desk-based Assessment of some 4.2 ha of land occupied by the LEC refrigeration site (centred on NGR 494250 100820), hereafter 'the Site' (Figure 1) in advance of proposals for residential development of the Site.

1.1.2 The purpose of this assessment is to provide a detailed appraisal of known archaeological remains and findspots within the Site, and within a circular Study Area centred on NGR 494250 100820. In order to place the two parcels of land in their wider archaeological and historical context, the radius of the Study Area has been set at 1,000m. This will, therefore, encompass any remains that lie within any part of the scheme, and provide clear coverage of the known archaeological remains in the area. Based on the results of this desk-based assessment, recommendations will be made regarding the potential for the survival of *in situ* archaeological remains on the Site.

1.1.3 This desk-based assessment has been carried out in accordance with the guidelines contained in the Institute of Field Archaeologist's *Standard and Guidance for Archaeological Desk-based Assessments* (IFA 1999)

1.2 The Site

1.2.1 The site lies on the northern outskirts of the town of Bognor Regis, within the parish of South Bersted, a small village which only became absorbed by the expansion of Bognor Regis in the 20th century. It comprises an irregularly shaped parcel of land, amounting to some 4.2ha. The Site is bounded to the south by a municipal amenity centre and the northern bank of the Aldingbourne Rife, and to the east by the line of the Bognor Railway line. The western edge of the Site is formed by the line of the Shripney Rd, and the northern by an industrial estate. The Site itself is currently heavily developed, being covered in industrial buildings and associated areas of tarmac and hardstanding. The Site lies on relatively level ground at some 15m above Ordnance Datum (aOD).

1.2.2 Because the precise details of the impact of the proposed development are unclear, it has been assumed that the entire Site is potentially threatened by the development, and recommendations have been made accordingly. It may be possible, within the scope of the development, to mitigate potential damage to any archaeological remains by means other than archaeological excavation, but these have not been explored in detail here.

1.3 Geology

1.3.1 The solid geology of the area comprises beds of the London Clay Formation overlying Chalk. The British Geological Survey map of the area shows the drift geology in the immediate vicinity of the Site dominated by alluvium lain down by the Aldingbourne Rife, although a small pocket of Brickearth is recorded in the north-eastern corner of the Site (BGS Maps 317 and 332).

1.4 Hydrography

1.4.1 The hydrography of the area is dominated by the course of the Aldingbourne Rife, the two main tributaries of which join just to the south-east of the Site. The Aldingbourne Rife is a small watercourse within a large alluviated channel that extends inland as far as Barnham, Westergate and Aldingbourne. It is one of a series of such alluviated channels along with the Arun to the East and Pagham Harbour to the west. In the past, it may have formed a natural inland harbour.

1.5 Site visit

1.5.1 A very brief site visit to the Site was undertaken on Wednesday 19th November 2003 in order to establish the nature of the ground conditions and in order to allow a visual examination of potential areas of archaeological interest. It was not possible to gain access to the complex however, and only limited observations were made from the site boundary.

1.6 Archaeological and Historical Background.

1.6.1 During the Palaeolithic (500,000 – 10,000BC), Britain was subjected to a series of glacial periods, although the ice sheets covered most of the country, they appear to have never reached Sussex (Woodcock 1978, Wessex Archaeology 1994). During the cold glacial periods sea level was up to 40m lower than the present day, and evidence suggests that the coastline was c. 30km to the south of the Site (Bellamy, 1995). Cold periglacial conditions produced substantial changes in the landscape including deeply incised river valleys cut by the melt waters. The large ancient channel of the Aldingbourne Rife was created by these processes during the last or Devensian glaciation. It has now been infilled with a mixture of deposits, sands, gravels and alluvium.

1.6.2 The majority of Palaeolithic artefacts found in Sussex have come from ‘raised beaches’. These relicts of ancient coastlines, which now lie above present sea-level, appear to have been created by the relatively high sea levels of the interglacials, the result of ice melting and returning water to the oceans and of a gradual (tectonic) land rise.

1.6.3 The highest and oldest of these beaches has been traced between Slindon and Chichester and lies at about 45m aOD some 8km to the north of the Site. Palaeolithic remains associated with this ‘raised beach’ include the internationally renowned ‘*in situ*’ site at Amey’s Eartham Pit, Boxgrove near Chichester (Pitts and Roberts, 1997, 63 – 8).

1.6.4 Traces of another ‘raised beach’, some 6km to the north of the Site (the Aldingbourne Raised Beach), survive at a lower elevation of about 25m aOD between Aldingbourne and Arundel. This has also yielded Palaeolithic artefacts, notably from gravel pits at Aldingbourne, Easthampnett and Oving (Wymer 1999, 152).

1.6.5 A third 'raised beach', recently identified lies on the lower coastal plain. This beach, the Norton Raised Beach, has been largely identified through geophysical prospecting and boreholes. Small quantities of Palaeolithic artefacts and mammalian remains have been recovered in association with this raised beach (Wymer, 1999, 152)

1.6.6 Some 9km west of the Site at Selsey, Palaeolithic artefacts have been recovered from interglacial deposits exposed on the foreshore. These are associated with the most southerly of the raised beaches identified to date – the Pagham Raised Beach. Artefacts clearly associated with these deposits are very rare, and may reflect a period of little or no inhabitation in Britain. This beach is likely to date to the last (Ipswichian) interglacial, a period in which there is growing evidence that Britain was uninhabited by hominids. None of the artefacts recovered from these raised beach deposits can be shown to be *in situ* (Wymer 1999, 153). The nearest Palaeolithic artefact recorded in the Southern Rivers Palaeolithic Survey to the Site, recovered from a stone-heap outside a newly built shop in Aldwick Rd in Bognor in 1929, is probably associated with this beach (Wessex Archaeology, 1994).

1.6.7 The Mesolithic period (8,500 – 4,000 BC) is characterised by environmental change including changing sea levels, rising temperatures, and subsequent shifts in associated vegetation. Mesolithic sites are often represented as small scatters of worked flint representing hunting camps. Hunting, gathering and fishing sustained an expanding population. Mesolithic settlement sites are extremely rare, as the population was seasonally nomadic. Groups of worked flint may be recovered from the area, especially along the river valleys, where suitable resources for exploitation are likely to have been more abundant.

1.6.8 The Mesolithic or post-glacial period was marked by a rise in sea level after the Devensian glaciation, slowly infilling the then mainly dry English Channel. However, the sea level rise was neither continuous nor consistent, but was punctuated with many small recessions. Mesolithic remains in Sussex tend to be concentrated on Lower Greensand deposits from Hassocks in the East through Storrington and Iping to West Heath in the west (Jacobi 1978). In addition there are a scatter of Mesolithic sites from lower lying sites in the Weald and Sussex coastal plain (Pitts 1980). Mesolithic flints have been recovered from the foreshore at Bognor Regis, just to the south-west of the site. These were found along with burnt flint from the 'shingle bank', a flint layer along the western edge of the alluvial filled channel within the ancient channel of the Aldingbourne Rife. This western bank has been intermittently exposed on the foreshore by coastal erosion. Although the site has never been published, some 30 'blades and flakes unretouched' are recorded (Wymer, 1977, 234).

1.6.9 The Neolithic period (c. 4000-2400 BC) is characterised by drastic cultural changes. Most notably this period saw the development of agriculture and therefore much more sedentary settlement patterns and complex ceremonial practices. Monumental construction and elaborate material culture assemblages also became common, especially in lowland Britain. With this shift in exploitation strategies, the human impact on the landscape increased greatly. The evidence for Sussex points to the introduction of domesticated animals and cultivated cereals, in addition to new artefact types such as pottery and new stone tools. There is evidence for a reduction in woodland as a result of sedentism and farming, although the population may have continued to be seasonally nomadic to an extent, exploiting different areas in the winter and in the summer.

1.6.10 The majority of Neolithic Sites in Sussex have been found on the South Downs, some 10km north of the Site. These sites include enclosures, barrows and flint mines. The fact that many of the sites overlook floodplains of the major river valleys suggests that there was intensive exploitation of the river gravel sediments. Later sedimentation may have also have masked any traces of any settlements in these river valleys.

1.6.11 Cultural complexity increased in the Bronze Age (2400-700 BC), which was characterised by both mixed agriculture and specialised labour linked by a complicated trade network as evidenced by imported metal and ceramics. Settlement patterns also became denser. From an archaeological perspective, more is generally known about this period because of better preservation. In general, site types common to the Bronze Age include major settlement/redistribution enclosures, lesser enclosures, downland farmsteads, lowland settlements, heathland farmsteads, bronze-working sites, bronze findspots, and wrecked boats. Although Bronze Age sites (both settlement and burial) are predominantly found on the Downs in Sussex, findspots of Bronze artefacts tend to cluster in river valleys, and there is some evidence for Lowland settlement (Ellison 1978). Remains from the Sussex Coastal Plain include a density of bronze artefacts as well as concentrations of burnt flint and 'burnt mounds'. Bronze working sites appear to be confined to the lower lying areas such as river valleys (Ellison, 1978).

1.6.12 The Iron Age in Britain (700 BC – AD 43) saw a continued evolution of society and culture, with a tribal system of government and control, based on kinship, economic and military ties. West Sussex lay within the tribal territory of the Regnenses. The characteristic forms of sites during this period are hillforts and both unclosed and unenclosed settlements of roundhouses, although the former are better known. Some of the larger of these hillforts may have been proto-urban in nature. Agriculture is likely to have focussed on exploiting the fertile river valleys and the lower upland slopes. There is evidence for the extensive settlement and exploitation of the coastal plain in the Iron Age, including the likelihood of a possible Late Iron Age 'oppida' in the Selsey Area. Other types of sites have been found in the area, ranging from hillforts to small settlements and cemeteries. A number of sites and findspots are recorded in the vicinity of the site, beyond the extents of the Study Area, including sites at North Bersted, Bognor and Flansham.

1.6.13 Roman Britain (AD 43 - 410) was a heavily populated and developed place, relative to previous periods, and south east England is no exception. Both a 'Romanisation' of the population took place, as well as a continuation of trends observed in the Iron Age. Population and settlement increased. A hierarchical system of settlement was developed, with major towns constructed in tribal areas – the *civitas* capital of the Regnenses lay at Chichester (*Noviomagus Regnenses*) some 9 km away. Much of the countryside is likely to have been intensively farmed, either by settlements similar to those predominant in the Iron Age, or by more Romanised settlement forms such as the *villa*. Plenty of evidence for Roman activity has been found in the area, ranging from findspots of Roman coins and pottery to possible farmsteads or settlements to the west of Shripney and at Middleton-on-Sea.

1.6.14 With the withdrawal of Roman influence in Britain, the Saxon period (AD 410-1066) was characterised by a decline in the production and trade of goods due to a lack of coinage. Another notable trend was a shift of power, wealth and population from urban centres to rural locations. There is no evidence from the area of the Site for activity during this period. A number of the medieval villages in the area may well have had their origins in this period, including Bognor, Felpham and Bersted.

Place name studies suggest that Felpham, Bognor and Bersted are all Saxon place names. Ekwall (1991) provides the following sources and translations:

Village Name	Text and date	Translation
Felpham	Felhamm (AD 880), Felham (AD 953) Falchenham (AD 1089)	Newly cultivated land or low lying land at edge of the sea.
Bognor	Bucganora (AD 680), Bugenor (AD 1275)	Bucge's (female name) gravelly landing place
Bersted	Beorganstede (AD 680), Beorganstedinga mear (AD 988)	Homestead or manor at the tumulus

1.6.15 Of these, however, only Felpham is mentioned in the Domesday Book. Documentary evidence shows that King Alfred devised an estate at Felpham to Osferth, a relative, and in AD 953 King Eadred granted what may have been the same estate (described as 30 hides) to his mother. From the bounds listed, the latter was clearly at least as large as the ancient parish. By 1066, Felpham was in the possession of Shaftesbury Abbey in Dorset, with which it remained until the Dissolution of the Monasteries (VCH 1997, 170)

1.6.16 The Domesday Book for Felpham clearly refers to a sizeable parish:

"St Edward's Abbey holds and held Felpham before 1066. Then it answered for 21 hides, now for 15½ hides. Land for 12 ploughs. In lordship 1 plough. 48 villagers and 19 cottagers with 15 ploughs. A church; a fishery at 5s; 6 burgesses in Chichester at 7s. Meadow 8 acres; woodland at 30 pigs. Value before 1066 £10; now £20." (Morris, 1976)

1.6.17 It is not clear whether any of the lands included in this assessment relate to land now either in Bersted or Bognor parishes.

1.6.18 During the medieval period (AD 1066–1499) the pattern of settlement comprised small villages or hamlets. The likely extent of these is depicted on Figure 2 (taken from the extent of these villages depicted on the 1778 map by Thomas Yeakell and William Gardiner) which represents the position prior to the massive expansion of the coastal resorts in the 19th and 20th centuries. The economy probably depended as much on exploiting the resources offered by the sea as by the land. A manorial fishery is recorded in Felpham in 1086, whilst in the 14th and 15th century, there was a fishery at Felpham belonging to the Archbishop of Canterbury's estate beyond the Aldingbourne Rife, which was devastated by the sea in 1426. The rector of Felpham was paid his tithes in fish in 1341, and numerous boats are recorded in 15th and 16th century documents. The estuary of the Aldingbourne Rife may have offered a harbour, but it seems that the best landing place between Pagham and Littlehampton was the beach itself.

1.6.19 To prevent incursion of the sea into the valley of the Aldingbourne, sea defences were constructed in the early 15th century. A bridge, called Felpham Bridge, had been built by 1405, presumably at the same spot as the modern bridge, where the estuary is at its most narrow. Banks or sea walls were probably added in the early 15th century – a commission of walls and ditches for the estuary was formed in 1422. A sluice at the bridge probably controlled the flow of water into and out of the Rife.

1.6.20 The medieval bishops of Chichester had a 'palace' or 'manor house' at Aldingbourne, along with a demesne farm and a park pale. This appears on two 16th

century maps. This was in decay by 1606, and was sold, including the manor house and chapel in 1648. No buildings now survive. Close to this estate lie the remains of Tote Copse Castle, a small motte and bailey castle built in the 12th century by Seffrid de Escures, the Bishop of Chichester. This was excavated in 1961 – 2.

- 1.6.21 The Post-medieval coastal settlement pattern remained one of small nucleated scattered villages and hamlets until the 19th and 20th centuries when the development of the holiday industry caused the massive expansion of the coastal villages. Felpham led the way as a seaside resort in the mid 18th century, but by the 1790's it began to lose ground to Bognor Regis. Bognor pier was constructed in 1865. The rapid growth in the seaside resorts was supported by the local brick industry and many 'brickfields', 'brickworks' and 'brick crofts' are marked on 19th and 20th century maps.
- 1.6.22 Documentary sources show that the construction of sluices and sea defences (embankments, sea walls and groynes) continued through the Post-medieval period but continually suffered from storm and coastal erosion (VCH 1997, 161). A sluice is mentioned at Felpham is mentioned in 1535, and shown on the 1595 map of Sussex. A further timber sluice was constructed in 1680 on land to the south of Felpham Sluice. There are numerous records of the construction of groynes, embankments and timber sea walls in the 18th and 19th centuries (VCH 1997, 161).
- 1.6.23 The expansion of Bognor as a spa town owes much to the vision of a London hatter named Richard Hotham. He stayed at a farmhouse by the sea in 1784 – 6. At the time, bathing in seawater was viewed as a cure for all sorts of illness. Among the wealthy spending summer at the seaside and bathing in seawater had become fashionable. Seaside resorts such as Brighton, Hastings and Eastbourne grew up.
- 1.6.24 Hotham had the idea of creating his own seaside resort at Bognor, planning to name it Hothamtown. He started by purchasing the farmhouse at which he had stayed, and constructing a new building called Bognor Lodge. Hotham also bought 1,600 acres of land around Bognor. He bought the one pub in Bognor and converted it into a hotel, and then built an entertainment building with a library, newspaper reading room, milliners shop and bath room where people could bathe in warm sea water. He also built two terraces – Hotham Place and Long Row, with a view to renting these out for the summer season. The first season for summer visitors was 1791, and attracted some wealthy people.
- 1.6.25 In the 1790's, Bognor continued to expand, as Hotham built new houses along Upper Bognor Road, as well as building Hotham Park House for himself. By the time of his death in 1799, Hotham had built numerous buildings, using bricks from his own brickyards at Bognor and cement from his own cement works. Just before his death, he finally got the Royal visit for Bognor he craved – Prince George visited in order to be with his mistress in 1796. Other Royal visitors included Princess Charlotte, daughter of George III and Queen Victoria, who stayed there several times as a child in the 1820's and who spoke of her happy memories. The town continued to grow slowly after Hotham's death, and expanded even faster after the railway line reached the town in 1864. In 1873, Bognor was created as a parish in its own right, having previously been part of the parish of Bersted. The town's expansion continued through the period of both wars, largely due to the town's status as a holiday resort. Bulins holiday camp opened on undeveloped land in 1960.
- 1.6.26 The town suffered a decline in the 1960's and 1970's, largely as a result of the decline in popularity of the British seaside holiday, and the growth in popularity and affordability of package holidays abroad.

1.6.27 In the 1930's, a local fishmonger, Charles Purley started building his own refrigerators in order to ensure the freshness of his fish. He founded the North Bersted Engineering Company, closing down the fishmongers to become a full time engineer in 1939. In 1942, the business had expanded, and was renamed the Longford Engineering Company, which was shortened to LEC in 1954. By the late 1940's LEC were producing 2,000 fridge's a week, many of which were exported overseas. The company were on the Shripney Road site from the 1940's onwards, gradually expanding the complex as the business grew, and were one of the major employers in Bognor in the second half of the 20th century. By 1989, the company employed some 1900 people. However, the company went into decline, largely due to an influx of cheaper imports and was sold to a Malaysian corporation. A new factory was built on the site in 1998, but the company was unable to regain its former market position, and the inevitable job losses followed. In 2001, the company deposited its archive of records between 1945 and 1995 with West Sussex County Council Records Office (Accession No. 12286)

2 PLANNING AND LEGISLATIVE BACKGROUND

2.1 National planning guidance

Archaeology

2.1.1 Principal legislation concerning protection of important archaeological sites comprises the *Ancient Monuments and Archaeological Areas Act 1979* (as amended). Guidance on the importance, management and safeguarding of the archaeological resource within the planning process is provided by *Planning Policy Guidance Note 16: Archaeology and Planning* (PPG 16) (DoE 1990). This sets out the policy of the Secretary of State on archaeological remains on land, and provides many recommendations that have subsequently been integrated into Local and Unitary Development Plans. The underlying principle of this guidance is that archaeological resources are non-renewable, stating that:

'where nationally important archaeological remains, whether scheduled or not, are affected by proposed development there should be a presumption in favour of their physical preservation. (Para 8)'

In addition, Paragraph 19 states:

" in their own interests... prospective developers should in all cases include as part of their research into the development potential of a site... an initial assessment of whether the site is known or likely to contain archaeological remains."

Paragraph 22 also states:

'In their own interests...prospective developers should in all cases include as part of the research into the development of a site...an initial assessment of whether the site is known or likely to contain archaeological remains'.

Paragraph 25 adds:

'Where planning authorities decide that the physical preservation in-situ of archaeological remains is not justified in the circumstances of the case and that development resulting in the destruction of the remains should proceed, it would be entirely reasonable for the planning authority to satisfy itself, before granting planning permission, that the developer has made appropriate and satisfactory provision for the excavation and recording of the remains. Such excavation and recording should be carried out before the development commences, working to a project brief prepared by the planning authority and taking advice from archaeological consultants'.

Listed buildings

2.1.2 Protection for historically important buildings is principally based upon the *planning (Listed Buildings and Conservation Areas) Act 1990*. Recent guidance on the approach of the planning authorities to development and historic buildings is provided by *Planning Policy Guidance Note 15: Planning and the Historic Environment* (PPG 15).

2.1.3 Paragraph 2.16 of PPG 15 states:

'Sections 16 and 66 of the Act [Planning (Listed Buildings and Conservation Areas) Act 1990] require authorities considering applications for planning permission or listed building consent for works which affect a listed building to have special

regard to certain matters, including the desirability of preserving the setting of the building’.

2.1.4 Paragraph 1.1 of PPG 15 addresses the historic environment:

It is fundamental to the Government’s policies for environmental stewardship that there should be effective protection for all aspects of the historic environment. The physical survivals of our past are to be valued and protected for their own sake, as a central part of our cultural heritage and our sense of national identity. They are an irreplaceable record which contributes, through formal education and in many other ways, to our understanding of both the present and past. Their presence adds to the quality of our lives, by enhancing the familiar and cherished local scene and sustaining the sense of local distinctiveness which is so important an aspect of the character and appearance of our towns, villages and countryside. The historic environment is also of immense importance for leisure and recreation’.

2.2 Hedgerow Regulations 1997

2.2.1 Under the *Hedgerow Regulations 1997*, hedgerows are deemed to be Important if they are documented to be of pre-enclosure date, which for the purposes of the Regulations, is currently taken (by case law precedent) to mean pre-1845 (the earliest Act of Inclosure recorded in the *Small Titles Act* of 1896). Decisions regarding consent or denial for the removal of Important hedgerows, or significant parts thereof, is granted by local planning authorities in response to an application.

2.2.2 Although originally framed to identify and preserve pre-enclosure landscapes and boundaries, the established date of 1845 actually post-dates the great majority of parish tithe maps, which in themselves often document fully or predominantly enclosed landscapes.

2.2.3 It is therefore generally taken that hedgerows are deemed Important under the *Hedgerow Regulations 1997* if they can be demonstrated to exist on the appropriate parish tithe map. Comparison of modern mapping with the early maps of Bognor and South Bersted, notably the 1778 map published by Yeakell and Gardiner has shown that none of the boundaries shown on this map and other early maps survive in any form today.

2.3 Local planning guidance

2.3.1 The *West Sussex Structure Plan 2001-2016, Deposit Draft* also contains policies and explanatory text relating to management of archaeology and the wider historic environment.

2.3.2 Explanatory paragraph 3.10.25 states

“(a) Development should not be permitted unless the archaeological heritage of West Sussex is protected and preserved and, where possible, opportunities are taken to promote the educational and amenity value of sites and areas (historic landscapes).

(b) Local plans will include policies to ensure:

(1) the physical preservation in-situ of nationally important archaeological areas, sites or monuments, whether scheduled or not, and their setting;”

- (2) *the protection of other important archaeological areas and sites including, where appropriate, the preservation of the remains in-situ;*
- (3) *where necessary, that site evaluation is undertaken to define the character and significance of the archaeological or historic interest of proposed development sites; and*
- (4) *where necessary, the excavation and recording of archaeological remains, the preservation of any finds and the subsequent publication of results.”*

2.3.3 The *Arun District Local Plan 2003* also contains policies and explanatory text relating to management of archaeology and the wider historic environment.

2.3.4 Policy AREA17, which relates to sites of archaeological interest, states

“Permission will not be granted for development that would be harmful to the significant archaeological interest of a site. Where the presence of archaeological remains is known or suspected:

- (i) *the applicant must arrange for archaeological assessment of the site to be carried out before the planning application is determined;*
- (ii) *where the assessment shows that the physical preservation of remains in situ is not justified, conditions may be attached to any permission granted that development will not take place until provision has been made by the developer for a programme of archaeological investigation and recording. The programme will be carried out prior to the commencement of the development; and*
- (iii) *whenever practicable, opportunities should be taken for the enhancement and interpretation of archaeological remains left in situ.”*

2.4 Statutory and local designations

2.4.1 The Site does not contain areas protected by Statute, and will not have a significant bearing upon any areas designated as or containing:

*Scheduled Monuments
Listed Buildings
Conservation Areas*

3 METHODOLOGY

3.1 Introduction

3.1.1 The primary aim of this survey is to identify and characterise known and potential archaeological sites and findspots within the Site and its surrounding area, on the basis of this work, recommendations will be made regarding the likelihood of archaeological remains within the area of the Site. In order to assess the Site's potential in a wider context, a Study Area has been defined, comprising an area with a radius of 1,000 metres from Site centre (Figure 2).

3.1.2 The objectives of the assessment were:

- to assess the archaeological and historic potential of the Study Area;
- to produce an overview of the known archaeological resource within the Study Area;
- identify areas of potential for all periods of archaeology,
- assess the impact, where known or expected, of any proposed works on the archaeological resource,
- assess the importance of the archaeology and historic environment of the Study Area in national, regional and local terms.

3.1.3 A number of different sources and archives were consulted as part of this exercise. The study included searches of both national and local archives, and covered cartographic, photographic and documentary sources.

3.1.4 The following sources were consulted:

- The West Sussex County Council Sites and Monuments Record, held by the West Sussex County Council in Chichester.
- West Sussex County Record Office
- Documents in Chichester Library
- Wessex Archaeology library and reports

3.2 Sites and Monuments Records

3.2.1 The West Sussex County Council Sites and Monuments Record for the region was consulted. An initial cover search was undertaken by an Archaeological Officer for West Sussex. This was supplemented by a visit to the Sites and Monument Record. The results of this form the basis of the findspots indicated on Figure 2.

3.3 Documentary sources

3.3.1 A range of documentary sources were consulted, including local and national journals, popular booklets and historical and archaeological syntheses. Books and documents were examined from the West Sussex County Council Record Office, online on the internet, from the Wessex Archaeology library and from the authors personal collection.

3.4 Cartographic sources

3.4.1 Maps belonging to the West Sussex County Record Office, Wessex Archaeology and online internet map collections were consulted. The following maps were consulted:

- Christopher Saxton's 1575 Map of Kent, Surrey, Sussex and Middlesex
- 1595 John Norden's Map of Sussex (inset map of Chichester)
- 1778 Yeakell and Gardiner Map of Felpham and Bognor Set 1 (2 miles to 1 inch).
- 1829 Map of Bognor and Felpham Level (ADD/MS/2194)
- 1842 Tithe Map of South Bersted
- 1st edition Ordnance Survey 25" Map of 1876 Sheet LXXIV.2
- 2nd edition Ordnance Survey 25" Map of 1898 Sheet LXXIV.2
- Ordnance Survey 25" Map of 1912 Sheet LXXIV.2
- Ordnance Survey 25" Map of 1932 Sheet LXXIV.2
- Ordnance Survey 25" Map of 1939 Sheet LXXIV.2
- Ordnance Survey 25" Map of 1947 Sheet LXXIV.2
- British Geological Survey Map 317/332 (1996)

3.5 Site Visit

3.5.1 A Site visit was carried out on 19th November 2003. No access to the factory or its grounds was possible. However, the Site was viewed from publicly accessible areas, and observations made regarding its general aspect, character, condition and setting.

4 RESULTS

4.1 Introduction

4.1.1 These results represent a synthesis of the information collected from the sources listed above. The location of these findspots is indicated on Figure 2, and a comprehensive list is provided in Appendix 1. As indicated above, for the purpose of this assessment, a circular Study Area centred on NGR 494250 100820 and with a radius of 1 km has been used. In total, some 29 sites or findspots have been identified, some of which lie just outside the Study Area. The distribution of findspots is instructive, as the vast majority of sites and findspots are recorded from built up areas. Much of the northern half of the Site is in use as agricultural land, from which very little has been recovered, but which almost certainly carries the same archaeological potential.

4.2 The nature of the evidence

4.2.1 The nature of the surviving archaeological evidence that exists within and just outside the Study Area is varied. This ranges from sites identified from excavation, findspots of individual artefacts to standing buildings other structures.

4.3 Statutory protection

4.3.1 *Scheduled Monuments*: No scheduled monuments lie within the bounds of the Site,

4.3.2 *Listed Buildings*: No listed buildings lie within the Site.

4.4 Palaeolithic to Neolithic (500,000 – 2,400 BC)

4.4.1 No Palaeolithic remains (500,000 – 10,000 BC) have been identified during the course of this study. However, areas of the Site may overlie deposits associated with the ‘raised beaches’. Given the location of the site, it is may overlie remains of the Pagham Raised Beach. Although this beach is thought to date to the last (Ipswichian) interglacial, it is unlikely to be associated with an episode of human inhabitation. If these deposits do underlie the Site, they may well do so at a depth sufficient to prevent significant truncation by the modern construction on the Site. It is unclear, however, how far these deposits are likely to have survived truncation by movement of the course of the Aldingbourne Rife.

4.4.2 The deposits lain down by the Aldingbourne Rife itself are important in their own right. Recent work at Felpham has established that a substantial periglacial channel formed when sea levels were at the –20m to –40m OD level. Rapid silting during the Holocene may have led to the formation of a riverine tidal marsh. The evidence suggests that silting kept in line with the rising sea levels, and by the medieval period, the Rife seems to comprise an alluvial floodplain with a tidal meandering underfit stream which was too small to have a recognised harbour or haven at its mouth.

4.4.3 No finds of the Mesolithic period (8,500-4,000 BC) have been found within the Study Area. However, two findspots of Mesolithic material have been recovered from just outside the Study Area (1, 2). Both of these are findspots of Mesolithic tools and struck flints. The first of these comprised a number of diagnostic Mesolithic flints from later contexts recorded during the excavation of an Iron Age settlement. The second is an isolated find of a Mesolithic tranchet axe. Both of these

are in classic locations for Mesolithic activity, occupying the liminal zone between the estuary and the surrounding areas of dry land. In this respect, the Site itself occupies a classic Mesolithic exploitation site - an area of dry land bordering the junction of two tributaries of the Aldingbourne Rife. Within the wider area, there is good evidence for the Mesolithic exploitation of the Rife and its resources in the form of the Mesolithic tools recovered from the 'shingle bank' excavated within the fills on the western edge of the alluviated channel on the foreshore. The possibility of similar deposits surviving within the alluvium that covers much of the Site cannot be discounted.

4.4.4 Although no Neolithic sites or findspots lie within the Study Area, there is evidence for Neolithic activity within the wider area. The nearest findspot is that of a Neolithic Axe found in North Bersted (3). Whilst Neolithic activity in the area may have involved the exploitation of the resources offered on the Site, the wider range of Neolithic exploitation strategies make it less likely that material of this date would occur on the Site.

4.5 Bronze Age and Iron Age (2,400 – AD 43)

4.5.1 Two Bronze Age (2,400 – 700BC) sites or findspots were identified within or close to the Study Area. The earliest of the two comprises a small assemblage of Early Bronze Age (Beaker) pottery and worked flint recovered from the excavation of an Iron Age settlement just outside the Study Area at North Bersted (4). The second, from within the Study Area, comprises a small assemblage of fourteen worked flints. Twelve of these were flakes (three of which were retouched) and the remaining two a core and an end scraper respectively. Although these could not be closely dated, these are likely to be Bronze Age in date. These finds probably reflect a widespread pattern of exploitation of the coastal plain. Finds from the wider area include a bronze looped and socketed axe found on a building site in Felpham in 1946, part of a macehead found at Bognor and a burnt mound found adjacent to Felpham church. A number of founder's hoards have been recovered from either side of the Aldingbourne Rife. One, from Bognor contained 80 palstaves which still bear their casting flashes and are unsharpened, whilst two other hoards were recovered in North Bersted and Flansham.

4.5.2 This pattern of general settlement and farming is likely to have continued unchanged into the Iron Age, although on a more intensive scale. Five different findspots have been identified within or close to the Study Area, all on the west bank of the Aldingbourne Rife. Four of these refer to findspots or excavations outside the Study Area. Iron Age pottery was amongst the material recovered from the garden of Parson's grocer's shop at Shripney (6), whilst separate excavations on the same site in North Bersted revealed evidence for Iron Age settlement. The earliest excavations in 1974 - 6 revealed a shallow V-shaped ditch containing charcoal, burnt flint, daub, animal bones, slag and saucepan-type pottery (Bedwin and Pitts, 1978). The presence of an Iron Age settlement was revealed, characterised by a series of drainage ditches forming the boundaries of approximately rectangular fields. A single circular hut, 6m in diameter, was excavated (7). This settlement was further investigated by excavation in 1979 (8). A watching brief undertaken on road works at the junction of the A29 and the A259 (9) recovered Iron Age pottery. The only Iron Age Site identified within the Study Area is the single Iron Age pit and assemblage of largely residual Iron Age material recovered from excavations in South Bersted (10). The range and distribution of these sites points to a fairly intensive occupation and exploitation of the coastal plain, and the possibility that remains of this date survive on the Site cannot be discounted.

4.6 Roman (AD 43 – 410)

4.6.1 Five Roman finds were identified within the local area, but none were recovered from the Study Area. They do, however, clearly point to continued Roman activity in the area. A number of these finds represent continuity of activity on the same site from the Iron Age into the Roman period. This was the case on the Parson's grocer's shop in Shripney, where both Roman and Iron Age pottery was amongst the material recovered (11) and also on the excavation of the Iron Age settlement in North Bersted, where a number of ditches containing pottery dated to between the 1st and 3rd centuries AD and a number of coins (12). Another site where both Iron Age and Roman material were recovered was the watching brief undertaken on road works at the junction of the A29 and the A259, where pre-Flavian Roman pottery was recovered in addition to the Iron Age material (13).

4.6.2 Two individual finds were also identified to the south-west of the Study Area. Both of these represent isolated finds of pottery. A single Roman oil lamp, dated to the 1st century AD was found in Felpham (14), whilst Roman occupation debris was recorded elsewhere in Felpham, which included Roman grey ware pottery (15). Clearly there is some possibility that remains of this date may survive on the Site.

4.7 Saxon (AD 410 – 1066)

4.7.1 No finds or sites of this period were found during this study. There are inevitably, some problems with dating sites of this period. Whilst occupation is likely to have continued in the area, perhaps linked to a re-use of hilltop settlements or settlements on spurs above the valley floor, there is no evidence for such remains within the Study Area, and the potential for remains of this date within the Site can be regarded as very low.

4.8 Medieval (AD 1066 – 1499)

4.8.1 Eight separate medieval sites or finds were identified within or close to the Study Area, none of which lay within the bounds of the Site. Some of these include sites from which earlier material was recovered, including the site of Parson's grocer's shop in Shripney, where sherds of 13th century medieval pottery were recovered from a layer sealing cobbling which contained a single sherd of Roman pottery (16). Other finds, such as the recovery of a 15th century English jetton from a garden within the Study Area (17), represent single finds. An archaeological evaluation undertaken by Development Archaeology Services on land at Old Shripney Lane revealed two medieval features (18). Subsequent excavation on the Site revealed medieval evidence in the form of a well, pits and a gully, which probably represented a tenement boundary.

4.8.2 The remaining sites identified comprise the historic cores of the villages and hamlets in the area and their parish churches. The closest parish church is the Church of St Mary Magdalene, Bersted, which mainly dates to the 13th century, but has 16th century modifications and a number of modern additions (19), which lies at the western edge of the core of South Bersted (20). The likely core of the hamlet of Little Bognor is marked (21) as well as the parish church of Felpham (22), along with its historic core (23). The parish church of St Mary, Felpham has a 12th century nave with 12th and 13th century aisles, a 15th century tower and 19th century additions.

4.8.3 The pattern of medieval settlement is a fairly settled one, and probably reflects that of the Saxon period. It was only within the Post-medieval period that the massive expansion of Bognor subsumed these villages and hamlets.

4.9 Post-medieval (AD 1500 - 1799) and Modern (AD 1800 – present)

4.9.1 One Post-medieval and two modern sites or findspots were identified in the search. The evaluation undertaken by Development Archaeology Services at Old Shripney Lane identified the possible remains of Post-medieval structures in the form of a floor and a flint wall (24). The two remaining sites are both associated with brickmaking, with one (25) a brickfield marked on the 1898 Ordnance Survey Map, and the other a 20th century brickworks (26).

4.10 Undated

4.10.1 Three of the findspots or sites identified during the search could not be dated closely. These include an undated archway identified near Shripney excavated in the 1920's some 2 – 3 feet below the ground (27). An archaeological investigation prior to a housing development in South Bersted, just to the west of the Site identified no significant archaeological deposits, but did recover some (probably modern) timbers (28). Work undertaken to the south-east of the Study Area by development Archaeology Services did identify the presence of an undated raised beach, but did not identify any associated archaeological remains (29).

4.11 Map Regression exercise

4.11.1 A map regression exercise was undertaken in order to establish whether there have been any significant changes in the pattern of land use in the historic period. This has established that the pattern of land-use around the Site has changed significantly since the late 18th century. The earliest maps – Saxton's Map of 1575 and Norden's Map of 1595 are not sufficiently detailed to be useful or informative, although both show the general distribution of hamlets and villages.

4.11.2 The earliest map which is sufficiently detailed to provide an accurate contemporary picture is the 1778 Yeakell and Gardiner Map (Figure 3). This depicts the area of the Site as occupied by a number of fields to the east of the road from South Bersted to Shripney. The site lies to the east of a major bend in the road. A trackway continues from this corner in a north-easterly direction into these fields. The fields are generally noticeably larger than those depicted in and around the villages and the surrounding countryside. The fields along the line of the channel of the Aldingbourne Rife are generally less regular, slightly larger, and appear to be depicted as containing different vegetation. A number of the boundaries appear to be depicted with thicker lines suggesting that these acted as channels for managing water. This is supported by the depiction of these boundaries on the 1842 Tithe Map and the early Ordnance Survey maps.

4.11.3 The earliest detailed map to cover much of the Site is the 1829 Map of Felpham and Bognor Level. This Map covered the areas in and around the Aldingbourne Rife which were responsible for paying level tax. However, it only covers the southern half of the Site. The northern half was presumably not subject to the tax. There is no significant difference between the divisions shown on this map and those evident on the South Bersted Tithe Map, dating to 1842 (Figure 3). On the Tithe Map, the area of the Site is similar to that shown on the 1778 Map. The large fields on the earlier maps appear to have been subdivided. There is also evidence for buildings on the Site, with a cottage and gardens adjacent to the bend in the road, to the south of the

track continuing to the south-east, and a larger building in the field to the north of this track. This is described in the Tithe apportionment as a ‘yard and shed’, and may have been a small barn.

- 4.11.4 This 1st edition Ordnance Survey Map, dating to 1876, shows a few developments. The railway line, which forms the eastern edge of the Site had been built in 1864, dividing up a number of the fields shown on the Tithe Map. The building on the corner of Shripney Rd appears little changed, although an extension or outbuilding is evident from the plan. The shed or barn to the north of the track had also been developed – although the shed itself appears unchanged, two buildings had been built along its southern edge. There is no indication whether these are domestic or agricultural buildings.
- 4.11.5 By the time of the 2nd edition Ordnance Survey Map of 1898, this complex had been extended yet further (Figure 3). The original shed appears to have been replaced or incorporated into an ‘L’ shaped building whilst the two buildings along its southern edge had been extended still further to the north-east and north. The complex had also been provided with a small yard or garden and was called Brook Gate.
- 4.11.6 This complex at Brook Gate has also been altered again by the time that the 1912 map was drawn up. The large L shaped building had been demolished and replaced by a smaller building parallel to the southern range. Two small outbuildings were also apparent – one to the north of the complex, and the second to the south-west.
- 4.11.7 The encroachment of the expanding resort of Bognor Regis is apparent for the first time on the 1932 Ordnance Survey Map (Figure 3). The southern half of the Site is occupied by an industrial complex which included a number of large circular and rectangular tanks, whilst a Refuse Destructor belonging to Bognor Regis U. D. C. has been built to the south of the Western branch of the Aldingbourne Rife. The complex at Brook Gate shows little in the way of changes, although the northern outbuilding is no longer evident, whilst a building is shown linking the northern and southern ranges. The presence of the allotments to the south of the Site and the new buildings along Shripney Rd all point to the expansion in this area having a domestic as well as an industrial impetus.
- 4.11.8 Interestingly the 1939 Ordnance Survey Map shows no trace of the tanks on the southern half of the Site, presumably in order to prevent the information on the use of the Site from becoming available generally in a time of war. There is evidence for some change on the northern half of the Site, with a straightening of the corner on the Shripney road, and the construction of a number of buildings and gardens fronting onto the realigned road. The complex at Brook Gate is little changed.
- 4.11.9 The 1947 Ordnance Survey Map once again shows the industrial complex of tanks covering the southern half of the Site, as well as the re-aligned Shripney Rd and the new houses (Figure 3). Other new buildings include a large Engineering Works and Wire Factory on the northern half of the Site. The former may well represent the first occupation by the Longford Engineering Company. The complex at Brooks Gate seems little change, although it is possible, if not likely, that these buildings changed hands and presumably function, with the industrialisation of the area. It is not clear whether either of these industrial buildings – the Engineering Works or the Wire factory were incorporated within the current buildings, or whether they were demolished and subsequently replaced.

4.12 Site visit

4.12.1 The Site visit, undertaken on 19th November 2003, was confined to a brief survey from publicly accessible areas. Much of this land is under factory buildings and concrete and tarmac aprons, making it difficult to further assess either any truncation or landscaping or the archaeological potential of the area.

5 ARCHAEOLOGICAL POTENTIAL

5.1 Introduction

5.1.1 This study has identified archaeological sites and findspots dating from several periods within the Study Area. In total, some 29 separate sites and structures are recorded within and in the vicinity of the Study Area.

5.2 Archaeological Potential

5.2.1 The identification of a small number of archaeological sites and findspots within the Study Area, indicates that there may be a potential for their survival within the Site footprint. There are a number of factors which are likely to have influenced the preservation or truncation of any archaeological remains on the Site, ranging from the impact that the current industrial complex may have had on any buried remains to the possible benefits of preservation that may have been afforded by the covering of much of the Site in alluvium.

5.2.2 The location of the site, on the lower coastal plain places it within an area in which 'raised beaches' may survive. It is most likely that any such deposits would represent the most recent 'raised beach' in the area – the Pagham Raised Beach. This is most likely to date to the last (Ipswichian) interglacial, a period in which Britain was probably uninhabited by humans. This beach, however, is not well understood or studied in this area, and should such deposits survive, would be worthy of study. It is uncertain whether such deposits exist on the Site, and if they do, to what extent these might have suffered truncation by the course of the Aldingbourne Rife. The potential for the presence and survival of these deposits should be regarded as low.

5.2.3 The presence of Mesolithic and Neolithic findspots in the vicinity of the Study Area indicate that the area was exploited during these periods. In both periods, these remains are likely to be ephemeral, largely comprising scatters of flint tools, or occasional small features. They point to the exploitation of the resources in the river valley. Because much of the site lies in the floodplain of the Aldingbourne Rife, there is a possibility that remains of this date were sealed by later layers of alluvium. Mesolithic remains have already been identified within the alluvium filled channel of the Aldingbourne Rife, on the foreshore. Any attempt to evaluate this area through intrusive methods should take this possibility into account. The potential for the survival of Mesolithic and Neolithic remains must be regarded as moderate.

5.2.4 Whilst only one site dated to the Bronze Age was identified within the Study Area, there is clearly Bronze Age activity in the area. This includes a number of metalwork hoards, which point to metalworking in the area, as well as settlement and agricultural exploitation. Settlement and exploitation of the area appears to have increased in the Iron Age, with Iron Age settlements excavated nearby. In view of this, the likelihood of Bronze Age or Iron Age remains within the Site, must be regarded as moderate.

5.2.5 Roman activity within the wider area appears to be fairly common, although no findspots or sites were identified within the Study Area. As a result of this, the likelihood of remains of this date being recovered on the Site should be regarded as moderate to low.

- 5.2.6 There is no evidence for Saxon activity within the Study Area, and the potential for remains of this period within the site is very low.
- 5.2.7 Medieval and Post-medieval activity within the study area and the wider area comprises a dispersed settlement pattern of small villages and hamlets which exploited both agriculture and the resources offered by the sea. For much of this period, much of the land in the area was owned by religious institutions such as the Abbey at Sherbourne and the Bishops of Chichester. There appears to be little medieval or Post-medieval activity which is likely to have left archaeologically detectable remains on the Site. The exceptions to this are the buildings identified on maps as early as 1829. At this early stage, a small cottage is shown adjacent to the bend in the Shripney Rd, and it is possible that the shed recorded on the 1842 Tithe Map was also present at this date. Both may have their origins in the Post-medieval period, and the potential for deposits or structures associated with these structures cannot be discounted. In view of this, the potential for the survival of medieval and Post-medieval remains on the Site must be regarded as moderate to low.
- 5.2.8 The map regression exercise has identified that none of the field boundaries identified on the 1829 Level Map or the 1842 Tithe Map survive today. It has also established that the land on which the Site stood was undeveloped until the early 20th century, when it was finally subsumed in the expanding resort of Bognor Regis. The potential for significant modern remains on the Site should be regarded as very low.

5.3 Proposed development impacts.

- 5.3.1 At the time of writing, the precise details of the proposed developments were not available, and this report has therefore assumed that any archaeological remains on the Site are likely to be threatened with complete destruction. When detailed plans and construction techniques are known, this assessment can be re-evaluated in consultation with the appropriate monitoring bodies and the mitigation strategy modified accordingly.

5.4 Summary and Recommendations for Mitigation.

- 5.4.1 The desk based assessment has demonstrated that there is a low potential for the survival of Palaeolithic deposits in the form of a 'raised beach' on the Site. Whilst the potential for the presence of these deposits is low, their importance requires a scheme for mitigating the possible effects of this mitigation. We cannot be certain, however, that these deposits have not suffered significant truncation by the course of the Aldingbourne Rife.
- 5.4.2 The Aldingbourne Rife itself, a substantial periglacial channel formed when sea levels were at the -20m to -40m OD level, has an intrinsic archaeological potential itself. Rapid silting during the Holocene may have led to the formation of a riverine tidal marsh. Potentially important Mesolithic deposits have been identified within the Alluvium filled channel close to the western bank on the foreshore, and the possibility of similar material being present on the Site cannot be discounted.
- 5.4.3 The likely survival of later archaeological remains and deposits, ranging in date from the Neolithic to the Post-medieval period is likely be strongly influenced by the depth of any truncation the Site has suffered, along with the potential protective benefits which may have occurred from alluviation. The level of this truncation is not only likely to influence the assessment of the archaeological potential for the

Site, but also to influence any requirement for further archaeological investigation to mitigate the effects of the proposed development.

5.4.4 Accordingly, it is recommended that a preliminary investigation is undertaken in order to further this understanding. This investigation should have two primary aims:

- To investigate the level of truncation to which the underlying deposits have been subjected by the successive industrial developments on the Site.
- To investigate and characterise any deposits associated with the Aldingbourne Rife and with the Pagham Raised Beach. This will enable a detailed mitigation strategy for such remains to be drawn up in consultation with the relevant authorities.

5.4.5 Such an investigation could take the form either in conjunction with a geotechnical investigation of the Site or as a stand alone piece of work, and should be designed to characterise the nature of the underlying deposits across the Site. The team undertaking this investigation should include a suitably qualified geo-archaeologist.

5.4.6 On the basis of this study, a more detailed methodology for the mitigation of any potential archaeological remains and deposits can be formulated in conjunction with the appropriate bodies.

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Appendix 1: Gazetteer of sites mentioned in the text
(see figure 2)

No	Eastings	Northings	SMR No	District	Parish	Date	Site type	Description
1	493190	101020	1431	Arun	Bersted	Mesolithic	Findspot	During the excavation of an Iron Age settlement at North Bersted (see 1429) Mesolithic flints were found in a context indicating settlement.
2	493700	102030	5529	Arun	Aldingbourne	Mesolithic	Findspot	A Mesolithic 'tranchet' axe was found at NGR 493700 102030 near Shorey. It is quite translucent and glossy, it is two-toned and smooth, containing 2mm diam 'bubbles' throughout
3	492920	100910	5527	Arun	Bersted	Neolithic	Findspot	Findspot of a Neolithic axe
4	493190	101020	1430	Arun	Bersted	Early Bronze Age	Occupation site	During the excavation of an Iron Age settlement at North Bersted (see 1429) Beaker pottery and flints were found indicating Bronze Age occupation.
5	495000	100900	6741	Arun	Felpham	Bronze Age	Site	14 worked flints, including 12 flakes (3 of which were retouched), a core and an end scraper - probably Bronze Age
6	493810	101960	1413	Arun	Bersted	Iron Age	Findspot	Iron Age (see 1413) and Roman (see 1414) pottery has been found in the garden of Parson's grocer's shop at Shorey. The finds are in Lewes Museum. The first finds of Anglo-Saxon pottery were made whilst digging a pit at a depth of about 5ft in 1924 at SU 93810196. Associated with the pottery were identified bones and the evidence of fire. Trial excavation in 1974 revealed C13 pottery (see 1412) but no sign of structures. Examination of the material in Barbican House Museum suggests that nothing need be pre-Roman in date.
7	493190	101020	1429	Arun	Bersted	Iron Age	Occupation site	An Iron Age occupation site was found at North Bersted in 1974 during the construction of a council estate. Excavations revealed a shallow V-shaped ditch containing charcoal, burnt flint, daub, animal bones, slag and saucer-pottery pottery. Further excavations were carried out in 1976. The presence of an Iron Age settlement was revealed, characterised by a series of drainage ditches forming the boundaries of approximately rectangular fields. A single circular hut, 6m in diameter, was excavated. In addition to pottery from the late C3 BC to late C1 BC, artefacts of the beaker and Mesolithic periods were found (see 1430 and 1431). For a Roman settlement on the same site see 4833.
8	493190	101020	4833	Arun	Bersted	Iron Age	Occupation site	Housing development at North Bersted (in an area of an Iron Age settlement excavated in 1975 - 6; see 1429) revealed Roman ditches containing pottery of C1-C3, including Samian. Coins of Valens and Claudius were found at 17 Durleston Drive and Oak Grove respectively
9	493570	099920	1231	Arun	Bognor Regis	Iron Age	Findspot	Iron Age pottery found during a watching brief
10	493865	100300		Arun	Bognor Regis	Iron age	Site	Excavation on the site revealed the presence of a shallow Iron Age pit, as well as an assemblage of residual Iron Age material in later fills.
11	493810	101960	1414	Arun	Bersted	Roman	Findspot	Iron Age (see 1413) and Roman pottery has been found in the garden of Parson's grocer's shop at Shorey. The finds are in Lewes Museum. The first finds of Anglo-Saxon pottery were made whilst digging a pit at a depth of about 5ft in 1924 at SU 93810196. Associated with the pottery were identified bones and the evidence of fire. The second find, some 10 years later, was of probable Roman pottery and a pit filled with oyster shells. The pottery cannot be located. Trial excavation in 1974 revealed C13 pottery (see 1412) but no sign of structures. Below this was a layer of flint cobbles with animal bones and a single sherd of colour-coated Roman pottery.
12	493190	101020	4833	Arun	Bersted	Roman	Settlement	Housing development at North Bersted (in an area of an Iron Age settlement excavated in 1975 - 6; see 1429) revealed Roman ditches containing pottery of C1-C3, including Samian. Coins of Valens and Claudius were found at 17 Durleston Drive and Oak Grove respectively
13	493570	099920	1232	Arun	Bognor Regis	Roman	Findspot	Pre-Flavian Roman pottery found on watching brief
14	495160	099830	1238	Arun	Felpham	Roman	Findspot	1st century Roman lamp found

15	495590	100320	1460	Arun	Felpham	Roman	Findsport	Occupation debris and grey ware pottery found.
16	493810	101960	1412	Arun	Bersted	Medieval	Findsport	Iron Age (see 1413) and Roman pottery has been found in the garden of Parson's grocer's shop at Shripney. The finds are in Lewes Museum. The first finds of Anglo-Saxon pottery were made whilst digging a pit at a depth of about 5ft in 1924 at SU 93810196. Associated with the pottery were identified bones and the evidence of fire. The second find, some 10 years later, was of probable Roman pottery (see 1414) and a pit filled with oyster shells. The pottery cannot be located. Trial excavation in 1974 revealed C13 pottery (see 1412) but no sign of structures. Below this was a layer of flint cobbles with animal bones and a single shard of Roman pottery (see 1414). Examination of the material in Barbican House Museum suggests that nothing need be pre-Roman in date.
17	495200	100700	6458	Arun	Bersted	Medieval	Findsport	A find of an English Jetton, C15, in LS Bournes garden
18	493865	100300	6733	Arun	Bersted	Medieval	Feature	Two medieval features revealed, also presence of a floor to a Post-Medieval barn confirmed, and a Post-Medieval flint wall identified. Excavation revealed further medieval features including a well, pits and a gully probably representing a tenement boundary. Some of the material may be Saxon-Norman in date.
19	493470	100220	1396	Arun	Bersted	Medieval	Structure	Church of St Mary Magdalene, Bersted, 13th century with 16th century modifications and modern additions.
20	493600	100200		Arun	Bersted	Medieval	Settlement	Village of South Bersted, extent taken from the 1778 Yeakell and Gardiner Map
21	493900	099800		Arun	Bognor Regis	Medieval	Settlement	Hamlet of Little Bognor, extent taken from the 1778 Yeakell and Gardiner Map
22	494930	099880	1222	Arun	Felpham	Medieval	Structure	Church of St Mary, Felpham. 12th century nave with 12th and 13th century aisles, a 15th century tower and 19th century additions.
23	495000	099800		Arun	Felpham	Medieval	Settlement	Village of Felpham, extent taken from the 1778 Yeakell and Gardiner Map
24	493865	100300	6733	Arun	Bognor Regis	Post-medieval	Settlement	Two medieval features revealed, also presence of a floor to a Post-Medieval barn confirmed, and a Post-Medieval flint wall identified.
25	493700	099700	6066	Arun	Bognor Regis	Post-medieval	Site	Brickfield marked on 1898 Map
26	495600	101130	6039	Arun	Felpham	Modern	Site	20th century brickworks
27	493850	101810	5526	Arun	Bersted	Undated	Site	An archway was observed at OS grid ref SU 9385 0181 near Shripney in the 1920's, 21 - 3 ft below the ground.
28	493500	101100	6677	Arun	Bersted	Undated	Site	An investigation was carried out prior to a housing development, between 27th August and the 3rd September. No archaeological deposits or artefacts were observed. A large fragment of roughly shaped timber at the base of layer 12 in trench 1 (and probably dragged into that position by the machine) is almost certainly the remains of a relatively recent fencepost.
29	494200	099650	6732	Arun	Bognor Regis	Undated	Site	Work undertaken on this site by Development Archaeology Services identified the presence of a raised beach, but no archaeological remains were identified.

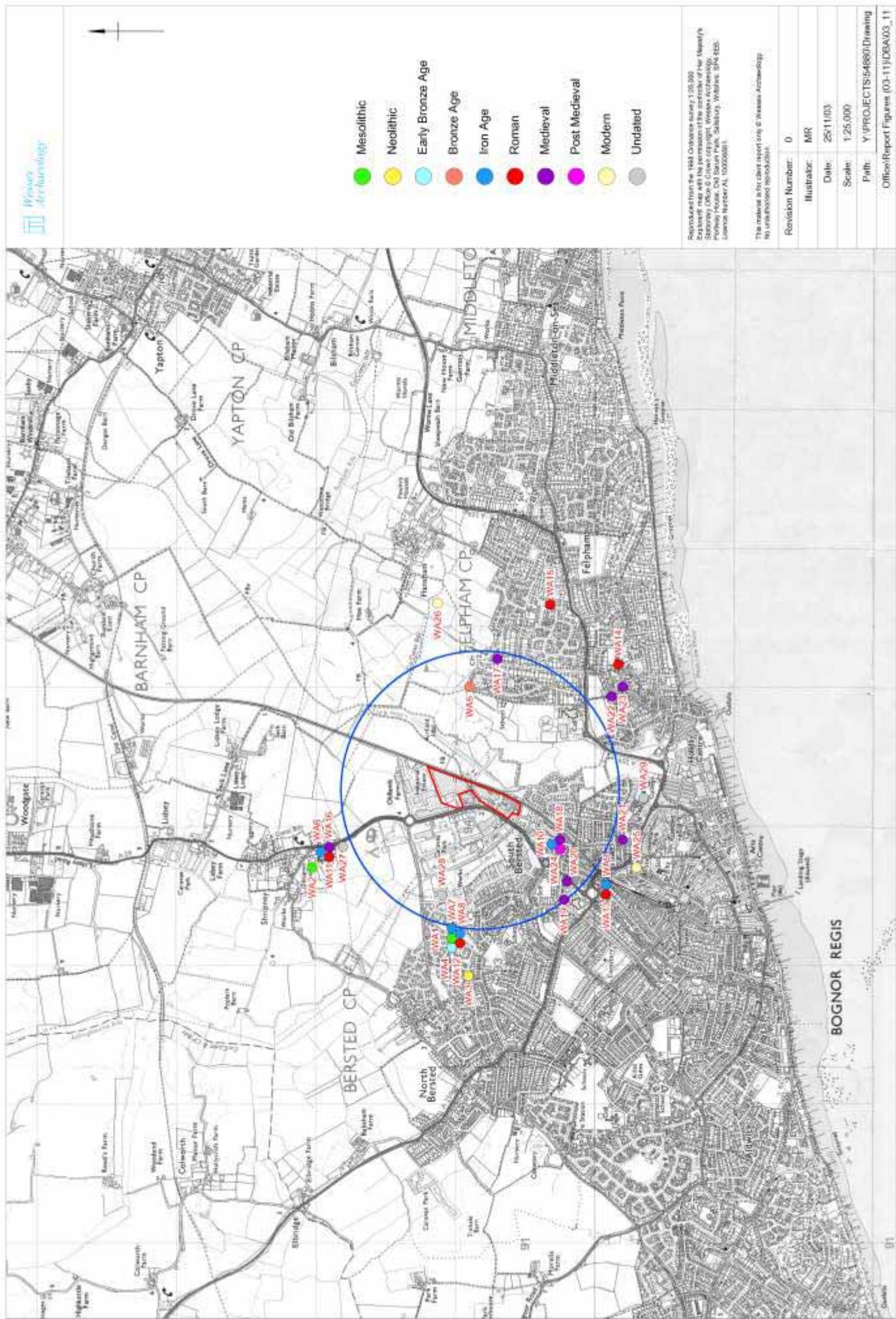


Figure 1

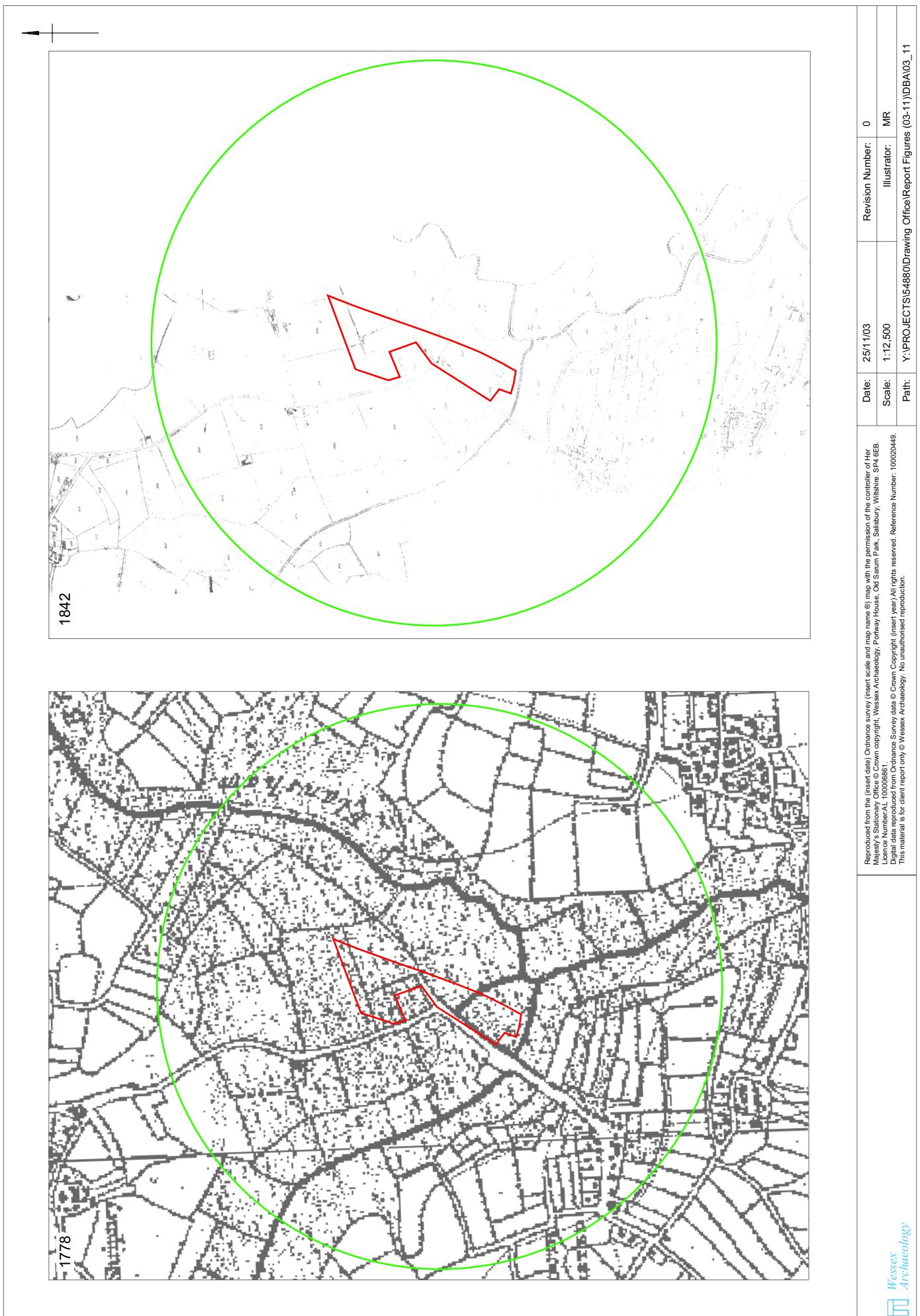
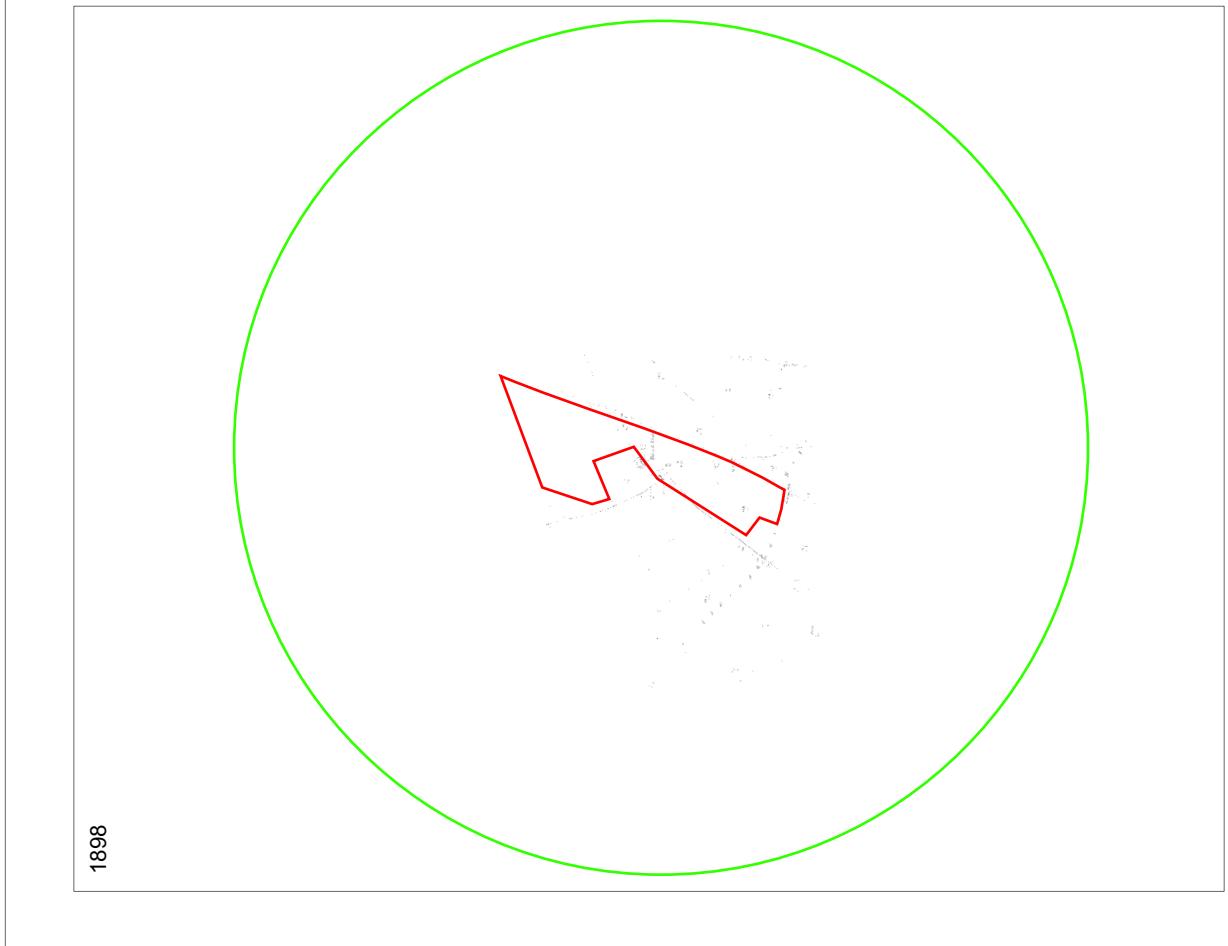


Figure 2



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Figure 3

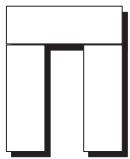
Ordnance Survey 25" maps of 1898 (2nd Edition) and 1932



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Ordnance Survey 25" map, 1947

Figure 4



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