

ARCHAEOLOGY
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SOLUTIONS

Land to the west of Shripney, West Sussex

Archaeological Assessment

Prepared for:
BNRG Renewables

14th May 2014



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APS 14/405

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Non Technical Summary

Introduction

This report presents the results of an assessment of the potential archaeological impacts which may be caused through the construction of a proposed solar photovoltaic farm on land (the Site) to the west of Shripney in West Sussex.

Results

Given the flat nature of the Site and the distances from the nearest Listed Buildings and the Shripney Conservation Area there will be no impact on the settings and therefore the significance of any nearby designated heritage assets through the construction or operation of the solar photovoltaic farm.

However, archaeological fieldwork directly to the south-west of the Site has identified the presence of an extensive prehistoric and Romano-British landscape with occupation areas and small enclosures set amongst field systems, together with a high-status Iron Age burial. Given the proximity of these archaeological remains and the discovery of Roman pottery within and close to the Site it is possible that this archaeological landscape continued into the Site and that elements of this landscape may still survive as a buried archaeological resource.

Recommendation

The proposed groundworks, notably the narrow trenches required for the underground cables, have the potential to expose and cut through archaeology of later prehistoric and Romano-British date. Although this should not be viewed as an over-riding constraint to development it is recommended that consultation be carried out with the Environment and Heritage Team of West Sussex County Council as further archaeological work may be required. This work could take the form of the archaeological monitoring of groundworks as they are carried out and be undertaken as a condition of planning consent.

1 Introduction

1.1 This report presents the results of an assessment of the potential archaeological impacts of a proposed solar photovoltaic farm on land (the Site) covering approximately 50 hectares to the west of Shripney in West Sussex, which is centred on NGR SU 9289 0255 (Figure 1).

1.2 The Site consists of two large fields accessed from and divided by a trackway which leads westwards from Shripney Lane towards a reservoir. It is bounded to the south-east by Shripney Lane and elsewhere by hedged field boundaries and drainage ditches which are fed from the Aldingbourne Rife to the west. The Site is located on the West Sussex coastal plain and topographically is located on ground which rises to the north from around 2m AOD close to the southern and western Site boundaries to over 5.5m AOD close to the northern Site boundary. The geology of the site is recorded as the Lewes Nodular, Seaford, Newhaven and Culver Chalk Formations overlain by river terrace deposits of sand, silt and clay (www.bgs.ac.uk).

2 Methodology

2.1 This report has been produced in accordance with guidelines in the *Standard and Guidance for historic environment desk-based assessment* issued by the Institute for Archaeologists (revision 2011).

2.2 The assessment included consultation of readily available archaeological and historical information from documentary, cartographic and aerial photographic sources together with the results of a Site walkover. The major repositories of information comprised:

- the on-line *National Heritage List for England* database for details of designated heritage assets close to the Site. Relevant details are listed in Appendix 1;
- the West Sussex Historic Environment Record (HER) for records of other recorded heritage assets within 1km of the Site. Relevant details are again listed in Appendix 1. The Chichester HER was also consulted but this did not contain any additional relevant records;
- the West Sussex Record Office for historic maps. The consulted maps are listed in Appendix 2;
- the National Monuments Record for historic aerial photographs. The consulted photographs are listed in Appendix 3; and
- the results of a Site walkover.

2.3 Section 3 of this report summarises relevant planning guidance and Section 4 summarises recorded heritage assets close to the Site. These assets are marked on Figure 1. Section 5 details the results of cartographic and aerial photographic research along with a Site walkover and extracts from historic maps are shown in Figures 2-3, an aerial photograph in Figure 4 and site photographs in Figure 5. The proposed works and potential archaeological impacts are summarised in Section 6.

3 Planning Guidance

National Planning Policy Framework

3.1 The most relevant national planning guidance concerning archaeology and other heritage assets is to be found in the National Planning Policy Framework (2012) which sets out planning guidance concerning archaeological remains and other elements of the historic environment.

3.2 Paragraph 128 addresses planning applications, stating that *"local planning authorities should require an applicant to describe the significance of any heritage assets affected, including any contribution made by their setting. The level of detail should be proportionate to the assets importance and no more than is sufficient to understand the potential impact of the proposal on their significance. As a minimum the relevant historic environment record should have been consulted and the heritage assets assessed using appropriate expertise where necessary. Where a site on which development is proposed includes or has the potential to include heritage assets with archaeological interest, local planning authorities should require developers to submit an appropriate desk-based assessment and, where necessary, a field evaluation"*.

3.3 Designated heritage assets are addressed in Paragraph 132 which states that *"when considering the impact of a proposed development on the significance of a designated heritage asset, great weight should be given to the asset's conservation. The more important the asset, the greater the weight should be. Significance can be harmed or lost through alteration or destruction of the heritage asset or development within its setting. As heritage assets are irreplaceable, any harm or loss should require clear and convincing justification. Substantial harm to or loss of a grade II listed building, park or garden should be exceptional. Substantial harm to or loss of designated heritage assets of the highest significance, notably scheduled monuments, protected wreck sites, battlefields, grade I and II* listed buildings, grade I and II* registered parks and gardens and World Heritage Sites, should be wholly exceptional"*.

3.4 Advice on enhancing and conserving the historic environment is also published in the Planning Practice Guidance (2014) which expands on how the historic environment should be treated within the National Planning Policy Framework. This guidance also includes advice on the impact of solar parks on heritage assets and states that *"great care should be taken to ensure heritage assets are conserved in a manner appropriate to their significance, including the impact of proposals on views important to their setting. As the significance of a heritage*

asset derives not only from its physical presence, but also from its setting, careful consideration should be given to the impact of large scale solar farms on such assets. Depending on their scale, design and prominence, a large scale solar farm within the setting of a heritage asset may cause substantial harm to the significance of the asset."

Arun District Local Plan

3.5 Archaeology is protected under Saved Policy Area 17 (Sites of Archaeological Interest) in the Arun District Local Plan. This policy states that:

"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."

Arun District Council Emerging Local Plan

3.6 Archaeology is also mentioned in the Arun Council Emerging Local Plan. Policy DM 30 (Sites of Archaeological Interest) states the following:

There will be a presumption in favour of the preservation of scheduled and other nationally important monuments and archaeological remains. Where proposed developments will have either a direct impact on sites listed in Table 16.1 (i.e. developments requiring Scheduled Monument Consent) or where developments will have an indirect impact on the settings of those sites listed in Table 16.1, or where a site on which development is proposed has the potential to include heritage assets with archaeological interest (having consulted the Historic Environment Record) permission

will only be granted where it can be demonstrated that development will not be harmful to the archaeological interest of these sites.

In all such instances:

1 applicants must arrange for a desk based archaeological assessment of the proposed development site to be undertaken by a suitably qualified person. The archaeological assessment will take the form of a factual review of the known information on historic assets and an appraisal of these assets. This information shall accompany the planning application, and, where not supplied, will be required before any planning application is determined*. Where the Planning Authority has reason to believe, either from the archaeological assessment as above, or from other evidence sources, that significant archaeological remains may exist, further assessment in the form of a field evaluation will be required to be carried out before the planning application is determined. Any field survey undertaken shall be carried out by a professionally qualified archaeological organisation or consultant only. All stages of archaeological fieldwork shall be subject to a Written Scheme of Investigation approved by the local planning authority. No development shall take place on the proposed development site until the applicant, or their agents or successors in title, is in receipt of a Written Scheme of Investigation that has been approved by the Local Planning Authority; **or**

2 A field evaluation as above, which shall include a historic environmental record of the archaeological site without the requirement to undertake a separate desk based archaeological assessment.

3 Preservation in situ of archaeological sites or remnants of such sites, is the preferred option. However, where the assessment, which shall be subject to a Written Scheme of Investigation, shows that the preservation of archaeological 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. Any such programme shall be carried out prior to the commencement of the development.

4 Whenever practicable, opportunities should be taken for the enhancement and interpretation of archaeological remains left in situ. Developers shall record any heritage assets to be lost (wholly or in part) in a manner proportionate to their importance and possible impact, and to make this evidence (and any archive generated) publicly accessible.

Developments shall also be consistent with all other Local Plan Policies.

** Those submitting planning applications are strongly advised however to undertake a desk based archaeological assessment in advance of a planning application being lodged as, depending on the outcome of this assessment, further assessment in the form of a field evaluation may be required (as outlined in (1) above).*

4 Recorded Heritage Assets

Listed Buildings and Conservation Areas

4.1 The Shripney Conservation Area is located approximately 450m to the east (Figure 1, no. 1) and this contains Grade II Listed Buildings (Figure 1, nos. 2-4). In addition the Grade II listed Lidsey House is located approximately 750m to the east (Figure 1, no. 5).

Other recorded heritage assets

4.2 Roman pottery has been found in fieldwalking within the Site (Figure 1, no. 6) and burnt flint and Roman pottery has been found in fieldwalking directly to the north, possibly extending into the Site (Figure 1, no. 7).

4.3 A large archaeological excavation carried out in advance of proposed residential development, and which extended to within approximately 400m of the south-western Site boundary, identified an extensive buried prehistoric and Romano-British landscape with occupation areas and small enclosures set amongst field systems. A late Iron Age burial equipped with pottery vessels, a sword, shield boss and helmet was also discovered (Figure 1, no. 8; TVAS 2012).

4.4 In addition a concentration of Roman pottery at the intersection of two cropmarks which may be part of a field system has been found approximately 550m to the west (Figure 1, no. 9) and early Roman pottery has been found along with other artefacts immediately to the west of the Site (Figure 1, no. 10). Fire-cracked flint has also been found in fieldwalking approximately 500m to the west (Figure 1, nos. 11 and 12).

4.5 A medieval park at Shripney may have extended into the Site (Figure 1, no. 13). In addition the Portsmouth-Arundel Canal is located approximately 50m to the north (Figure 1, no. 14), features relating to Shripney Manor have been excavated approximately 450m to the east (Figure 1, no. 15) and Coiners Cottage approximately 500m to the east has been identified as a historic farmstead (Figure 1, no. 16).

4.6 A World War II decoy site is believed to have been located on the western boundary of the Site (Figure 1, no. 17) and another was located approximately 400m to the north (Figure 1, no. 18). Pillboxes are also recorded approximately 325m to the south (Figure 1, no. 19).

5 Historic Mapping, Aerial Photography & Site Visit

Historic mapping

5.1 The earliest consulted map of the Site was the Ordnance Survey First Series map of 1813 (not illustrated), which shows the presence of a small three-sided building within or close to the footprint of the present day reservoir.

5.2 The earliest consulted detailed map of the Site was the South Bersted tithe map of 1842 (Figure 2). This again shows the same building (1058) close to the western Site boundary which consists of a range of three separate buildings with an open courtyard facing east. The accompanying tithe apportionment records this as a farmyard and buildings and the field to the south (1057) is recorded as Barn Field. The surrounding fields tend to be large and were probably defined by field ditches, which were a consequence of the post medieval and earlier drainage of the coastal plain. The fieldnames in the accompanying tithe apportionment give no indication of any archaeological associations, although field 1052 was under a coppice known as Brumans Coppice and arable field 1056 was known as Rooks Woods, probably denoting the former presence of a woodland.

5.3 By the time of the Ordnance Survey map of 1876 most of the field divisions had been removed in order to create much larger fields (Figure 3). By the Ordnance Survey map of 1898 (not illustrated) the southern range of the farm buildings close to the western Site boundary had been removed and the remaining structures were known as Poplars Barn, a name which is marked on later Ordnance Survey maps dating up to 1947.

Aerial photography

5.4 Aerial photographs dating to between 1946 and 1999 in collections held by the NMR were also accessed. A photograph taken in 1951 (Figure 4) shows that the remaining field divisions had been removed to create the two large fields which exist today. Poplars Barn was still in existence on a photograph taken in 1989 and has since been replaced by a reservoir. There was no clear evidence for the survival of the World War II decoy site, which the HER records near Poplars Barn, on any of the consulted photographs.

Site Visit

5.5 Both fields were under arable cultivation at the time of the Site walkover and no earthworks suggestive of buried archaeological features were observed. Site photographs are shown in Figure 5.

6 Proposed Works and Potential Archaeological Impacts

Proposed groundworks

6.1 The mounting system for the arrays will consist of one or two poles piled into the ground to a depth of between 1.5 - 2m every 5m along the length of each array. The diameter of the poles will be approximately 150 x 80mm.

6.2 Cables will take the electricity from the arrays along the mounting system and above ground level. At the end of the arrays the cables will then be placed in trenches approximately 0.45m wide and 1.5m deep terminating at central inverter buildings.

6.3 The primary substation foundations will measure approximately 10m x 10m with a depth of approximately 2.5m. The foundations for the central inverters will be approximately 13m x 3m with a depth of approximately 1.5m. A security fence around the Site will also be required.

Potential Archaeological Impacts

6.4 Given the flat nature of the Site and the distances from the nearest Listed Buildings and the Shripney Conservation Area, there will be no impact on the settings and therefore the significance of any nearby designated heritage assets through the construction and operation of the solar photovoltaic farm.

6.5 However, archaeological fieldwork directly to the south-west of the Site has identified the presence of an extensive prehistoric and Romano-British landscape with occupation areas and small enclosures set amongst field systems, together with a high-status Iron Age burial. Given the proximity of these archaeological remains and the discovery of Roman pottery within and close to the Site it is possible that this archaeological landscape continued into the Site and that elements of this landscape may still survive as a buried archaeological resource.

Recommendation

6.6 The proposed groundworks, notably the narrow trenches required for the underground cables, have the potential to expose and cut through archaeology of later prehistoric and Romano-British date. Although this should not be viewed as an over-riding constraint to development it is recommended that consultation be carried out with the Environment and Heritage Team of West Sussex County Council as further archaeological work may be required.

This work could take the form of the archaeological monitoring of groundworks as they are carried out and be undertaken as a condition of planning consent.

7 References

- HER West Sussex Historic Environment Record, Gloucestershire County Council.
- TVAS 2012 An Archaeological Evaluation for Berkeley Homes (Southern) Limited. Thames Valley Archaeological Services.

Appendix 1: The Known Relevant Heritage Resource within 1km (from the West Sussex HER)

Figure 1 no.	Date	HER no.	Description
<i>Designated heritage assets</i>			
1			Shripney Conservation Area.
2		DWS921 MWS2367	Grade II listed Shripney Manor House which has late 17 th or early 18 th century origins.
3		DWS674 DWS675	Grade II listed Rambler Cottage which was built in 1699 and a Grade II listed cottage to the north-west which is of 18 th century origin.
4		DWS1310 DWS1425	Grade II listed Shripney House, which is of 18 th century or earlier origin and the adjacent Grade II listed Studio Barn, which was built in the 18 th century.
5		DWS681	Grade II listed Lidsey House which is of 17 th century origin.
<i>Other recorded heritage assets</i>			
6	Romano-British	MWS2385	A scatter of Roman pottery found on the surface of a ploughed field in 1974.
7	Romano-British	MWS5683	A heavy scatter of burnt flint, a few oyster shells and Roman pottery found on the surface of a ploughed field.
8	Prehistoric-Romano-British	MWS7987	A large archaeological trial trench evaluation revealed ditched field systems dating mostly from the late Bronze Age, a middle Bronze Age cremation urn, four probable Bronze Age burnt mounds, parallel ditched trackways, pits and postholes dating from the late Bronze Age to the late Iron Age, an early Romano-British settlement, traces of an 18th century barn, post medieval field boundaries and a World War II anti-tank trap.
9	Romano-British	MWS2391	A concentration of Roman pottery was noted north-east of Babsham Farm in 1975. The site seems to coincide with the intersection of two cropmarks, part of a more extensive probable field system. Finds were otherwise found spread over a large area.
10	Romano-British	MWS2201	An area of crop and soilmarks north of North Bersted with concentrations of dark soil and burnt flints at three locations. Excavations at one of these revealed a flint 'floor' at a depth of about 0.3m with considerable amounts of charcoal but no direct dating evidence. Finds included pottery (including samian ware), animal bones, glass fragments, a bronze brooch, iron slag, and a socketed iron point.
11	Modern	MWS6971	Some modern ceramics and small quantities of fire-cracked flint noted on the field surface during a site walkover.
12	Modern	MWS6974	Fire-cracked flint found in all areas of a field as well as some modern ceramics.
13	Medieval	MWS2390	A medieval park at Shripney, owned by the Archbishop of Canterbury, is documented in 1328.
14	Post medieval	MWS5754	The Portsmouth-Arundel Canal. A barge canal was originally projected to run from the Arun at Ford to Salterns in Chichester Harbour, with a branch from Hunston to Chichester. The western section from Salterns to Chichester was finally cut as a ship canal.

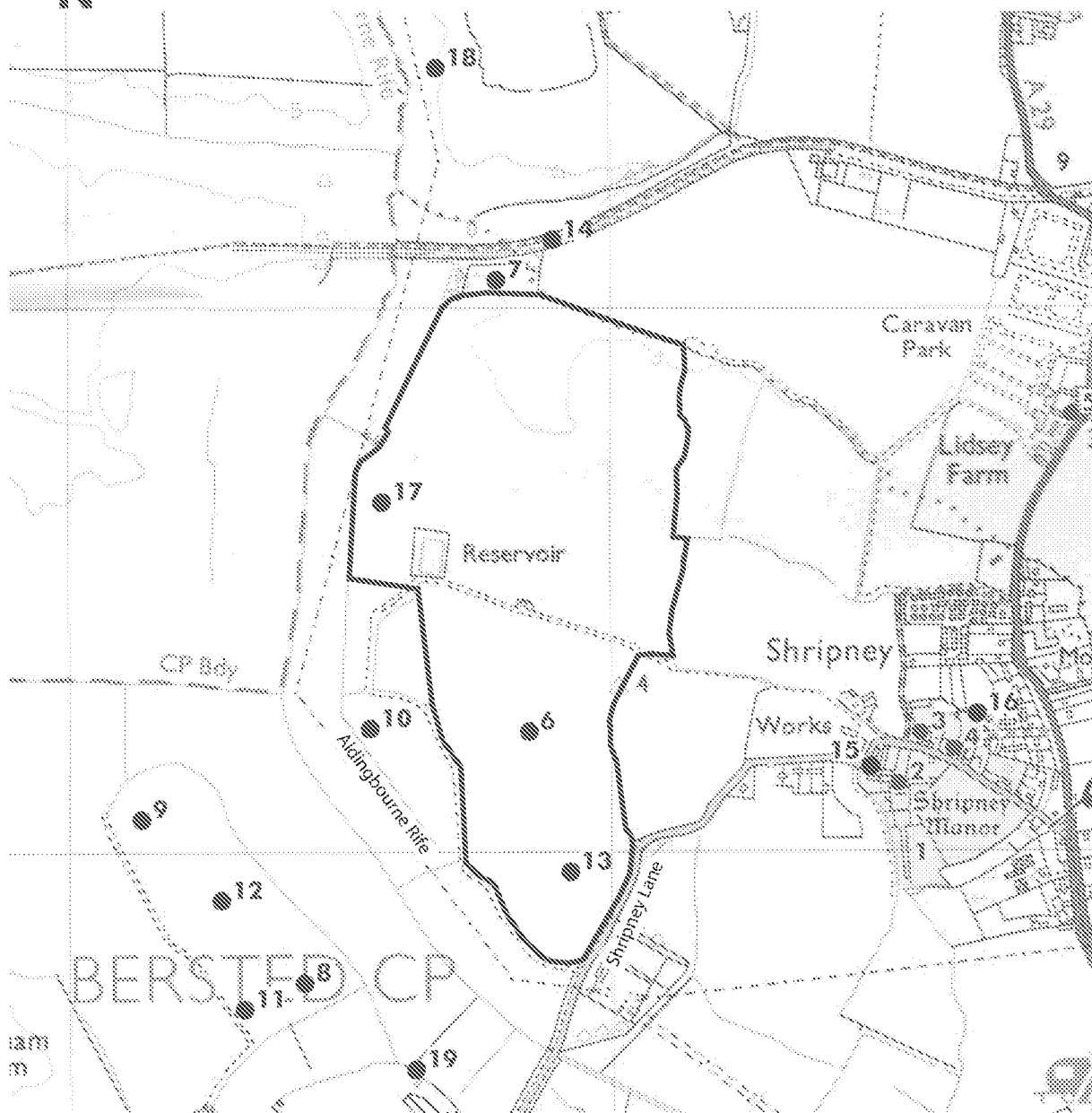
15	Post medieval	MWS6757	An archaeological excavation revealed the north wall of a 19th century farm building and a cut of unknown extent probably representing a brickearth quarry (or possibly part of a moat relating to Shripney Manor).
16	Post medieval	MWS9849	Coiners Cottage, Bersted, has been identified as a Historic Farmstead through the 'Historic Farmsteads and Landscape Character in West Sussex' Project. The cottage is an 18th century L-Plan regular courtyard farmstead with a detached farmhouse set side on to the yard.
17	Modern	MWS7135	Site of a World War II night decoy site at Poplars Barn which, in 1932, consisted of a couple of buildings. On a 1947 aerial photograph there seem to have been more buildings on the barn site, and what looks very much like a short airstrip, running northwards from the barn to the canal. The barn, barnyard and barnyard buildings have been demolished to make way for a small reservoir
18	Modern	MWS8272	Temporary 'Starfish' diversionary fire decoy site set up in June 1942.
19	Modern	MWS5195	World War II pill boxes.

Appendix 2: Consulted historic maps (from the West Sussex Record Office)

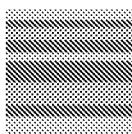
1842	South Bersted tithe map
1844	Plan of the manor of Shripney, the property of Thomas Brittain Vacher
1876	Ordnance Survey
1898	Ordnance Survey
1912	Ordnance Survey
1940	Ordnance Survey
1947	Ordnance Survey

Appendix 3: Consulted aerial photographs (from the National Monuments Record)

21.9.1946	RAF/CPE/UK/1751
1.3.1950	RAF/541/446
5.4.1951	RAF/58/611
11.4.1951	RAF/540/456
17.4.1951	RAF/540/458
18.4.1951	RAF/540/460
14.5.1959	RAF/58/2860
4.11.1960	RAF/543/1105
5.11.1960	RAF/543/1107
26.2.1963	MAL/63567
27.2.1963	MAL/63569
12.3.1965	MAL/65008
1.4.1965	MAL/65021
21.11.1966	MAL/66072
15.5.1973	OS/73179
30.7.1984	ADA/220
6.3.1989	OS/89026
16.6.1999	OS/99576



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Site boundary



Conservation area



Listed buildings



HER entries

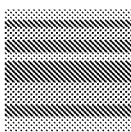
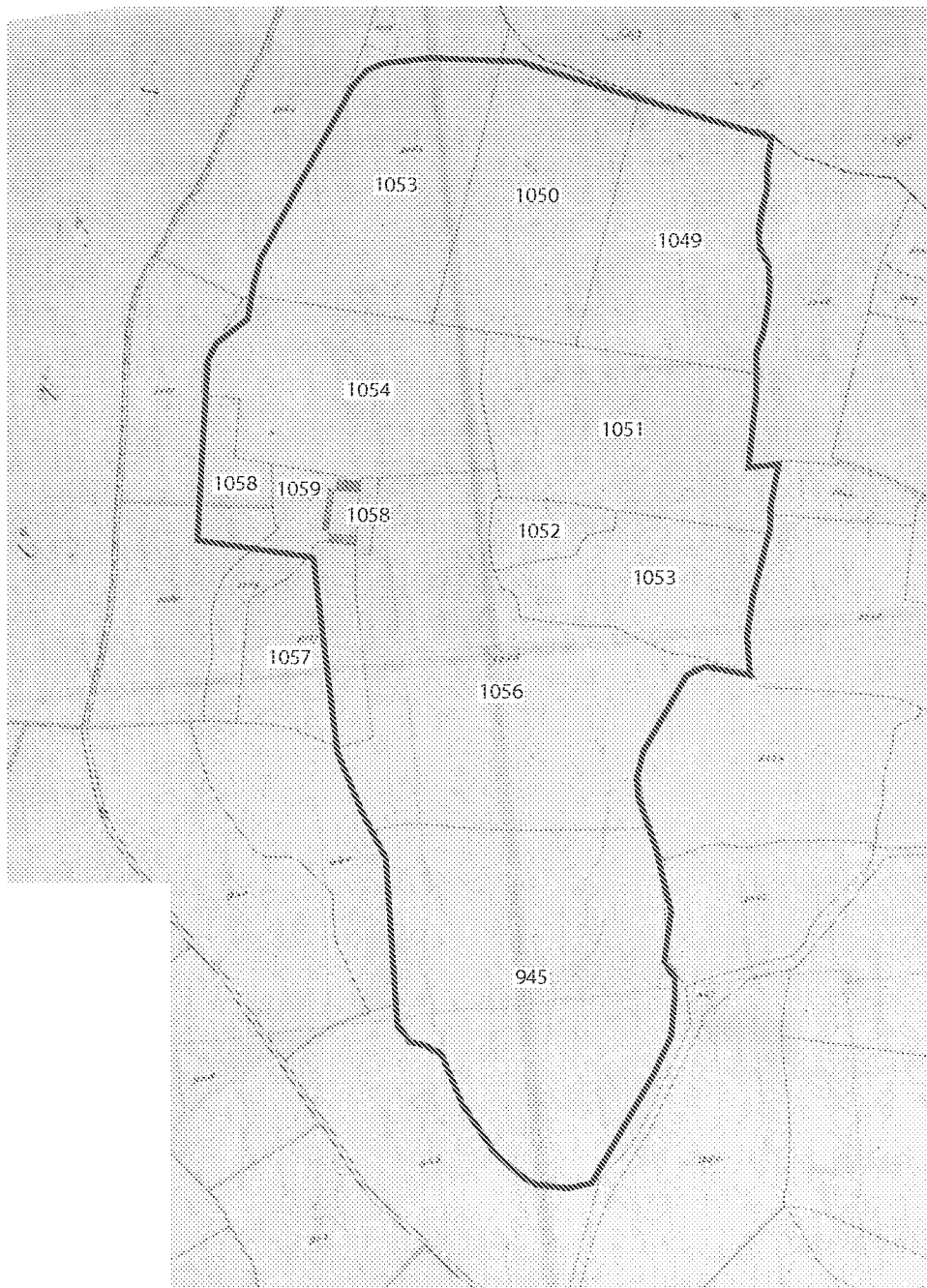
PROJECT

**Land to the west of Shripney,
West Sussex**

FIG

**Figure 1: Recorded heritage
assets (from the West Sussex HER)**

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Site boundary

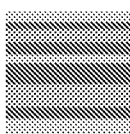
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**Land to the west of Shripney,
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FIGURE

**Figure 2: Extract from the South
Bersted tithe map of 1842**

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Site boundary

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**Land to the west of Shripney,
West Sussex**

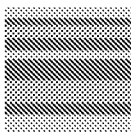
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**Figure 3: Extract from the
Ordnance Survey map of 1876**

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Reproduced from an aerial photograph held by the National Monuments Record, English Heritage.
RAF/540/458. Library no. 1151. Frame no. 4512. Taken 17th April 1951



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Site boundary

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TITLE

**Figure 4: Extract from an aerial
photograph of 1951**

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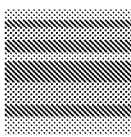
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Plate 1: View looking south-west from trackway



Plate 2: View looking north-east from trackway



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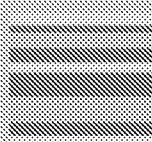
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**Land to the west of Shripney,
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FILE

Figure 5: Site photographs

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