

Saltbox, Bognor Regis, West Sussex

Centred at NGR 493805 101638

**Written Scheme of Investigation for
Archaeological Evaluation**

Site Code: SAB18

ASE Project no: 180796

Planning ref: BE/102/17/OUT

October 2018

Prepared by Paul Mason

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Saltbox, Bognor Regis, West Sussex

Centred at NGR 493805 101638

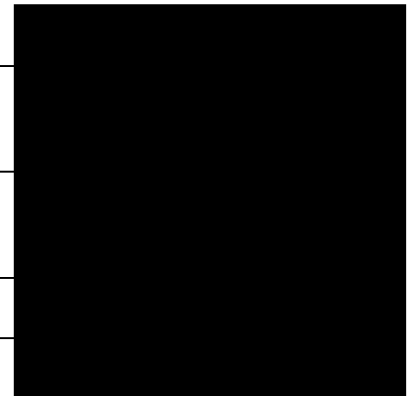
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Prepared by:	Paul Mason	Project Manager
Reviewed and approved by:	Darryl Palmer	Project Manager
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1.0 Introduction

- 1.1 Archaeology South-East (ASE), the contracting division of The Centre for Applied Archaeology at the Institute of Archaeology, University College London, have been commissioned by Terence O'Rourke Ltd to produce a Written Scheme of Investigation for archaeological evaluation of the Saltbox site, Bognor Regis, West Sussex (Figs. 1-3). The site is centred at National Grid Reference (NGR) 493805 101638.
- 1.2 The site (c.11ha) is currently a single arable field. It is bounded by farmland to the north, a caravan park and field to the south, the A29 Shripney Road to the east and the course of the Aldingbourne Rife to the west (Fig. 2).
- 1.3 A Heritage Statement produced by Terence O'Rourke determined that, 'any archaeology that is still present on site is considered to be of low/medium value and of potentially local/regional interest in light of the known archaeological record in the immediate vicinity' (Terence O'Rourke 2017).
- 1.4 An outline planning application for hybrid development of the site has been approved by Arun District Council subject to conditions (BE/102/17/OUT; Fig.3). The archaeological condition (14) is as follows:
 - 14 No development shall take place, other than works of site survey and investigation, until the applicant has secured the implementation of a programme of archaeological work in accordance with a written scheme of investigation which has been submitted by the applicant and approved by the local planning authority.

Reason: The site is of archaeological significance in accordance with Policy GEN 7 of the Arun District Local Plan. It is considered necessary for this to be a pre-commencement condition because archaeology can only be investigated before construction commences. It is considered necessary for this to be a pre-commencement condition because archaeology can only be investigated before construction commences.
- 1.5 This document is a Written Scheme of Investigation (WSI) for the initial archaeological evaluation of the site comprising trial trenching with geoarchaeological test pitting (Figs. 2-3). It has been submitted to Terence O'Rourke for onward submission to Arun District Council for approval prior to the commencement of fieldwork. It has been prepared with reference to the relevant *Standards and Guidance* of the Chartered Institute for Archaeologists (CIfA) and the *Sussex Archaeological Standards (2017)*. All work will be carried out in accordance with these documents.
- 1.6 In the event that archaeological remains are found during the course of the evaluation, further evaluation and/or archaeological mitigation may be required. Any such work would be subject to a separate Written Scheme of Investigation.

2.0 Geological and Archaeological Background

- 2.1 The following background information has been paraphrased from the Heritage Statement (Terence O'Rourke 2013) supplemented with the results of recent work undertaken by ASE to the immediate east of the site at Oldlands Farm (ASE 2015).
- 2.2 The site area is located on bedrock geology of White Chalk overlain with Brickearth (BGS 2018). Localised deposits of alluvium may be anticipated within the former channel of the Aldingbourne Rife to the immediate west of the site, and these may extend into the site itself.
- 2.3 The site area lies within an Archaeological Notification Area (ANA) as designated by West Sussex County Council HER in 2013 as being a 'very sensitive area for archaeology'. The designation extends beyond the site to North Bersted in the west and to include Oldlands Farm to the east and was drawn up to account for a multi-period archaeological zone including Mesolithic flint working and possible occupation; Neolithic pottery; a Bronze Age Beaker settlement dating to the Early Bronze Age; a Middle Bronze Age cremation with other contemporary burnt mounds; settlement evidence from Late Bronze Age to Roman-British periods, including an Iron Age warrior grave and World War Two features including pillboxes, a gun emplacement and a tank trap (Terence O' Rourke 2017).
- 2.4 There are two recorded HER sites within the application site boundary; an undated archway revealed during works in the 1920s in the north east corner of the site and the former site of Lower Barn outbuilding in the extreme southern periphery. Four findspots are recorded to the north of the application site on the southern edge of Shripney; the earliest is that of a Mesolithic tranchet axe. Iron Age and Roman pottery and a collection of medieval pottery were found during investigation south of Shripney in 1924 in the garden of Parsons grocers shop (Terence O' Rourke 2017).
- 2.5 Recent excavations undertaken by ASE at Oldlands Farm, c. 250m east of the site revealed evidence of activity dating from the Mesolithic to the post-medieval periods (ASE 2015, Margetts forthcoming).
- 2.6 The earliest evidence for activity at the Oldlands Farm site dated to the Mesolithic and/or Early Neolithic periods. This comprised residual finds of flintwork indicating a very light background scatter attesting to transient activity.
- 2.7 The first phase of activity represented by archaeological features comprised a group of four large and deep pits, dated to the Late Neolithic/Early Bronze Age periods. These were orientated on a

roughly north-west to south-east alignment. Occasional sherds of Grooved Ware and contemporary flintwork were recovered from the features fill deposits as well as clearly intrusive material perhaps introduced by rooting or the plough. In addition one of the pits incorporated a fragmentary red deer antler, possibly a pick.

- 2.8 The Mid-Late Bronze Age archaeology was dominated by the fragmentary remains of a coaxial field system bounded by double ditched stock-proof hedges, or narrow droves or tracks around field edges. As well as fields the system also incorporated up to three, small, rectilinear enclosures, which occasionally included placed deposits. A large waterhole existed within the corner of one of the fields as did a small cremation cemetery, further to the north and east. A second period of activity related to settlement, comprising roundhouses and four-post structures, as well of evidence of cooking and other activities. A new co-axial field system was laid out in the north of the excavation area and there was evidence for the elaboration of a pre-existing enclosure. As well as settlement and land division, evidence of funerary related activity was also encountered.
- 2.9 Middle Iron Age – Early Roman activity largely comprised drainage ditches and occasional pits. Early Roman activity (probably of 1st century AD date), included ditches relating to a field system as well as a small, presumably circular, enclosure that extended beyond the limit of excavation.
- 2.10 Later Roman activity (late 2nd- early 4th century) was restricted to contemporary material within dis-use deposits of the earlier field system as well as a portion of a rectangular or square ditched enclosure that directly overlay and replaced the 'circular' early Roman example described above.
- 2.11 Medieval activity was poorly and broadly dated but comprised strip-fields and evidence of cultivation as well as a quarry pit and animal burials. Although the field system is currently attributed to this phase it may have had earlier, possibly Later Roman, origins. It would have stayed in use until Parliamentary Enclosure of the area.
- 2.12 Post-medieval activity was largely restricted to the canalisation of a possible watercourse and associated land-drainage. Ditches of the medieval or earlier field system would have been decommissioned during Parliamentary Enclosure of the area.

3.0 Research aims and objectives

3.1 The general aims of the evaluation are:

- To establish the presence or absence of archaeological/geoarchaeological remains and deposits within the site
- To determine the survival, extent and minimum depth below modern ground level of any such remains
- To determine the nature and significance of any archaeological deposits
- To enable the Archaeological Advisor to Arun District Council to make an informed decision as to the requirement for any further archaeological work at the site

3.2 The site-specific aims are:

- To understand the spatial and vertical distribution of Quaternary sediments across the site
- To characterise these sediments in terms of age, depositional environment, and palaeoenvironmental potential.
- To establish the presence or potential for human activity or environmental impact within the sediments
- To establish whether alluvial deposits associated with the Aldingbourne Rife extend into the site
- To establish whether archaeological remains associated with the multi-period site to the east at Oldlands Farm extend into the site

3.3 The site also has the potential to address a number of more specific research questions drawn from the South-East Research Framework:

- Colonisation and occupation issues in the Mesolithic period
- The evolution of settlement in the middle Bronze Age and Iron Age
- To what extent and in what ways can past landscapes and their components (prehistoric onwards) be understood in the present landscape?
- Landscape and environment in the Roman period
- An understanding of the multifaceted landscape

- 3.4 In addition, the site presents the opportunity to establish how the geoarchaeological potential of the site can address regional, national and international research agendas.

4.0 Methodology

- 4.1 Forty-one 30m x 2m trenches and five 50m x 2m trenches will be excavated as depicted on Figures 2-3. Geoarchaeological test pits will be excavated in 15 trenches, with provision for a further five pits to be located at the discretion of geoarchaeologist pending the results of the initial array.
- 4.2 The trenches will be accurately located by means of a Digital Global Positioning System (DGPS) and DGPS Total Station (Leica 1205 R100 Total Station, Leica System 1200 GPS or similar).
- 4.3 The trench locations will be scanned prior to excavation using a Cable Avoidance Tool (CAT) operated by accredited ASE personnel.
- 4.4 Trenches will be mechanically excavated using a toothless ditching bucket under archaeological supervision. Machine excavation will continue to the top of archaeological deposits or the surface of geological drift deposits, whichever is uppermost. Machine excavation will proceed with caution and in spits of no more than 200mm depth.
- 4.5 Spoil heaps and trench bases will be scanned with a metal detector as will the spoil derived from excavated features.
- 4.6 In the event that flint scatters are encountered during ground reduction, excavation shall cease immediately and the extent of the scatter will be defined by hand cleaning of the area. In addition, a 1m-wide sondage will be excavated to confirm the depth and nature of the scatter and a representative sample of flint will be collected for assessment. Once confirmed, the depth and position of the scatter will be recorded in three dimensions and a written and photographic record will be made. The majority of the scatter shall then be left in situ pending mitigation or preservation in situ.
- 4.7 Once the LPA Archaeological Officer has authorised it trenches will be backfilled and compacted upon completion but no formal reinstatement (e.g. re-turfing, re-seeding, etc.) will be undertaken.
- 4.8 Should human remains be discovered on the site the client and LPA Archaeological Officer will be informed immediately. All statutory provisions will be followed.

- 4.9 The provisions of the Treasure Act of 1996 (amended 2003) will be observed. Should finds of precious metals such as gold and silver and other finds as defined under the Act be made, they will be reported to the client, the LPA Archaeological Officer and the appropriate coroner's office.

Geoarchaeological test pits

- 4.10 Fifteen test pits will be excavated through the bases of open trenches to provide a grid across the site, with a further five being held in reserve for targeted placement (Figs. 2 and 3). The test pits will be monitored by a suitably qualified geoarchaeologist to ascertain the presence of archaeological remains and deposits with palaeoenvironmental potential and to record and sample as appropriate, subject to health and safety considerations.
- 4.11 The test pits will be excavated using a suitable mechanical excavator through deposits in spits of no more than 0.25m to the base of the deposit unless significant in situ archaeological deposits are encountered at a higher level. The excavator will be fitted with a smooth grading bucket and care will be taken that archaeological deposits, if encountered, are not damaged due to over machining.
- 4.12 The geoarchaeologist will record the lithology of the sediments and take samples, if possible/as appropriate. The lithology within the test pit will be recorded using the Troels-Smith (1955) system of recording unconsolidated sediments. The scheme breaks down a sediment sample into four main components and allows the inclusion of extra components that are also present, but that are not dominant. Key physical properties of the sediment layers are also identified according to darkness (Da), stratification (St), elasticity (El), dryness of the sediment (Dr) and the sharpness of the upper sediment boundary (UB). The logs will also be supplemented by digital photography where appropriate

5.0 Excavation and Recording Techniques

- 5.1 Excavation strategy will be in accordance with *ClfA Standards and Guidance* and the *Sussex Archaeological Standards (2017)*. Archaeological deposits/features will be cleaned, recorded and excavated sufficiently to characterise their nature.
- 5.2 All archaeological features and deposits will be recorded using the standard context record sheets used by Archaeology South-East.
- 5.3 Archaeological structures, features and deposits exposed or excavated will be planned in relation to the trench and the trench planned onto a copy of the Ordnance Survey map not smaller than 1:2500 scale.

Sections of each trench, or representative sections where uniform deposits are encountered, will be properly drawn and recorded.

- 5.4 Archaeological deposits/features will be cleaned and recorded. Particular care will be taken not to damage any areas containing significant remains which might merit preservation in situ. Such evidence would normally include deep or complex stratification, settlement evidence and structures. The Local Planning Authority and archaeological advisor will be informed immediately if remains likely to be of national significance are encountered. Such areas will be protected and not left open to the weather, or other forms of deterioration.
- 5.5 Environmental samples will be processed and assessed in accordance with *IfA Standards and Guidance*. If deposits suitable for environmental sampling are encountered (such as dated excavated contexts of buried soils, well-sealed slowly silting features, sealed hearths, sealed features containing evident carbonised remains, peats, water-logged or cess deposits), bulk soil samples (40 litres or 100% of smaller features) will be taken for environmental analysis. Bulk samples will target recovery of plant remains (charcoal and macrobotanicals), fish, bird, small mammal and amphibian bone, and small artefacts. Specialist samples may also be taken from dry or waterlogged contexts. Such samples will target recovery of pollen (using monolith tins), molluscs, foraminifera, parasites and insects. Larger samples (80-100 litres) will be extracted wholesale from deposits rich in marine molluscs and large mammal bones. As a general rule waterlogged wood specimens will be recorded in detail in their original location. In all instances deposits with clear intrusive material shall be avoided.
- 5.6 Reasonable access to the site is to be arranged for representatives of the Local Planning Authority who may wish to make site inspections to ensure that the archaeological investigations are progressing satisfactorily and in accordance with the WSI. Notice of the proposed start date for fieldwork will be sent in writing to the LPA Archaeological Officer before the commencement of works. Any changes to this timetable for fieldwork will be communicated as soon as possible.
- 6.0 Processing and identification of material recovered from excavation**
- 6.1 All pottery, bone and worked flint recovered from the excavations will be washed and marked with an appropriate code to identify the site and context (ASE 2007). Most ceramic and other building material and burnt flint will be identified, counted, weighed and discarded. Samples will be retained as appropriate. Finds will be bagged in polythene bags according to type and context.

- 6.2 The lithic and ceramic finds will be identified by specialists within Archaeology South-East, and preliminary identification of faunal remains may be undertaken if the nature of the deposits justifies such study. All finds in an unstable condition will be stabilised using passive conservation techniques where appropriate before being deposited with the receiving museum.
- 6.3 Bulk samples will be processed using tank flotation unless considered detrimental to the samples or recovery rate (such as for waterlogged samples). Waterlogged samples will be wet sieved through nested sieves and stored in wet, cool conditions or dried if considered an appropriate form of conservation for the remains. If waterlogged wood specimens are removed they will be cleaned, photographed and a thin section sample will be taken for identification. Specimens will either be stored in wet cool conditions or dried if considered appropriate for the material.
- 6.4 Samples taken from geoarchaeological contexts will not be processed at this stage. Recommendations for further work (which may include assessment and analysis of samples) will be included in the evaluation report.

7.0 Post-Excavation Analysis, Reporting and Archive

- 7.1 This will follow the requirements of *ClfA Standards and Guidance* and the *Sussex Archaeological Standards* (2017).
- 7.2 Within four weeks of completion of the evaluation fieldwork (or longer in case of complex sites as agreed with the Archaeological Officer) a report will be submitted to the client for internal review and onward submission to the LPA archaeological advisor. The project details will be added to the OASIS database and a copy of the form appended to the report. Copies of the approved report are to be provided to:
- the Developer
 - the LPA Archaeological Officer
 - the Local Planning Authority
 - the West Sussex HER
 - the Local Archaeological Society
- 7.3 Report format - The evaluation report will include as a minimum:
- An Abstract summarising the scope and results of the archaeological/geoarchaeological evaluation.
 - An introduction including:
 - the location of the site with a National Grid Reference for the centre sufficient to locate the site to 1m accuracy,

- an account of the background and circumstances of the work;
 - a description of the development proposals, planning history and planning reference together with the archaeological condition (where appropriate);
 - the nature of potential impacts arising from the proposals;
 - the scope and date of the fieldwork, the personnel involved and who commissioned it;
- An account of the archaeological background of the development site including:
 - geology, soils and topography;
 - any known existing disturbances on the site;
 - background archaeological potential of the site.
 - summary of any previous phases of archaeological investigation at the development site;
- 7.4 The methodology employed during the evaluation must be detailed in the report. Any aims and objectives will be included as will any further objectives identified during the course of the evaluation. Constraints on the evaluation will also be described.
- 7.5 The report will include a quantification of the project archive contents, their state and future location.
- 7.6 The results of the evaluation field work will be described trench by trench. This description must include for each trench:
- the dimensions of the trench;
 - the nature and depth of overburden soils encountered;
 - description of all archaeological features and finds encountered in each trench, their dimensions, states of preservation and interpretation;
 - a description of the geological subsoil encountered in each trench;
 - heights related to Ordnance Datum for a sufficient number of features and deposits. Where the trench results are complex a table showing the dimensions and heights of features and deposits will be included for each trench.
 - for complex stratigraphy a Harris Matrix diagram.
- 7.7 The finds recovered during the course of the evaluation will be described, quantified and assessed by artefact type within the evaluation report. The report will also provide an indication of the potential of each category of artefact for further analysis and research. For each category of artefact, the report will describe the method of processing, any sub-sampling, conservation and assessment undertaken. Where appropriate local reference collections will be referred to for descriptive and analytical consistency. Any implications

- for future archive, conservation or discard of the artefacts will also be set out.
- 7.8 The report will include a table showing, per trench, the contexts, classes and quantity of artefacts recovered, together with their date and interpretation.
- 7.9 The evaluation report will include an assessment of the environmental potential of the site. Details will be provided of any environmental sampling undertaken in connection with the fieldwork and the results of any processing and assessment of the samples. The report will describe the method of processing, any sub-sampling and assessment. Any potential for future analysis of the samples or environmental remains recovered from the evaluation will be described. Implications for future archive, conservation or discard of environmental samples or remains will be detailed.
- 7.10 The report will include, as appropriate, tables summarising environmental samples taken, together with the results of processing and assessment.
- 7.11 Any results from the application of archaeological scientific techniques e.g. specialist dating will be included in the evaluation report.
- 7.12 An interpretation of the archaeology/geoarchaeology of the site will be provided, including its location, extent, date, condition, significance and importance. This will be a synthesis of the stratigraphic, finds and environmental results of the investigation and will include, even if no archaeology is identified as present on the site, description of areas of disturbance, non-archaeological deposits and changes in geological subsoil where appropriate. This section of the report will be supported by a phased interpretative plan of the site, clearly showing the major areas and periods of archaeological activity.
- 7.13 The conclusion will summarise the method, results, interpretation and impact assessment.
- 7.14 The evaluation report will include comments on the effectiveness of the methodology employed and the confidence of the results and interpretation.
- 7.15 Figures / illustrations – The report will include sufficient illustrations to support descriptions and interpretations within the report text. Figures are to be fully cross-referenced within the document text. As a minimum the evaluation report will include the following figures:

- a site location plan tied into the Ordnance Survey at 1:1250. The plan will also include at least two National Grid points to 1m accuracy and show the site boundary;
- trench location plans at an appropriate scale showing the layout of archaeological features, coloured by phases or period. The plan will show the location of all trenches and features. A copy of the plan will be overlain on the proposed development plan where this is known. Where possible, projection of archaeological features outside of the trench areas will be included on the plan. This plan will also include two National Grid points;
- plans of the features revealed in each of the trenches at a larger scale e.g. 1:20 or 1:50; such plans are to also illustrate areas of disturbance, change in subsoil and location of sections; The location of significant finds and samples taken will also be indicated;
- relevant section drawings and trench soil profiles as appropriate;
- illustrations and/or photographs of significant finds.

7.16 All report illustrations will be fully captioned and scale drawings must include a bar scale. Standard archaeological drawing conventions must be used. Plan and section illustrations must include the numbers of all contexts illustrated. North must be included on all plans and will be consistent. Sections must indicate the orientation of the section and the Ordnance Datum height of the section datum.

7.17 Black & White or Colour photographs will be included to illustrate key archaeological features, trenches and site operations. All photographs will be appropriately captioned.

8.0 Project Management

8.1 This project will be managed by Paul Mason (Fieldwork) and Jim Stevenson (Post-Excavation).

9.0 Health and Safety

9.1 Health and Safety must take priority over archaeological requirements. It is essential that all projects be carried out in accordance with safe working practices and under a defined Health and Safety Policy. A Risk Assessment for the project will be prepared prior to the commencement of work and all relevant health and safety regulations will be adhered to.

10.0 Preparation and deposition of the finds and archive

- 10.1 The site archive will be assembled in accordance with the guidelines set out in English Heritage's Management of Research Projects in the Historic Environment (MoRPHE) and in accordance with the guidelines published in *Guidelines for the Preparation of Excavation Archives for Long-term Storage* (United Kingdom Institute for Conservation, 1990) and *Standards in the Museum Care of Archaeological Collections* (Museums and Galleries Commission, 1992).
- 10.2 With the consent of the landowner the archive will be deposited with the local museum. Prior to deposition, the primary and finds records from the site will reside at ASE's Portslade offices.

11.0 Insurance

- 11.1 Archaeology South-East is insured against claims for: employer's liability to the value of £50,000,000 each and every loss, any one occurrence; primary public/products liability to the value of £50,000,000 any one occurrence and in the aggregate for products liability, with an extension for no-fault compensation up to £15,000,000 in the aggregate; professional indemnity to the value of £15,000,000 any one occurrence and in the aggregate.

References

Archaeology South-East 2007 *Post-Excavation Manual 1: Finds and Environmental Deposition and Processing Guidelines*

Archaeology South-East 2015 *A Post-excavation Assessment Report and Updated Project Design Report: Land at Oldlands Farm, Bognor Regis, West Sussex*

ClfA 2014 *Standard and Guidance for the collection, documentation, conservation and research of archaeological materials*

English Heritage 2011 *Environmental Archaeology: A guide to the theory and practice of methods, from sampling and recovery to post-excavation*

Historic England 2015 *Management of Research Projects in the Historic Environment*

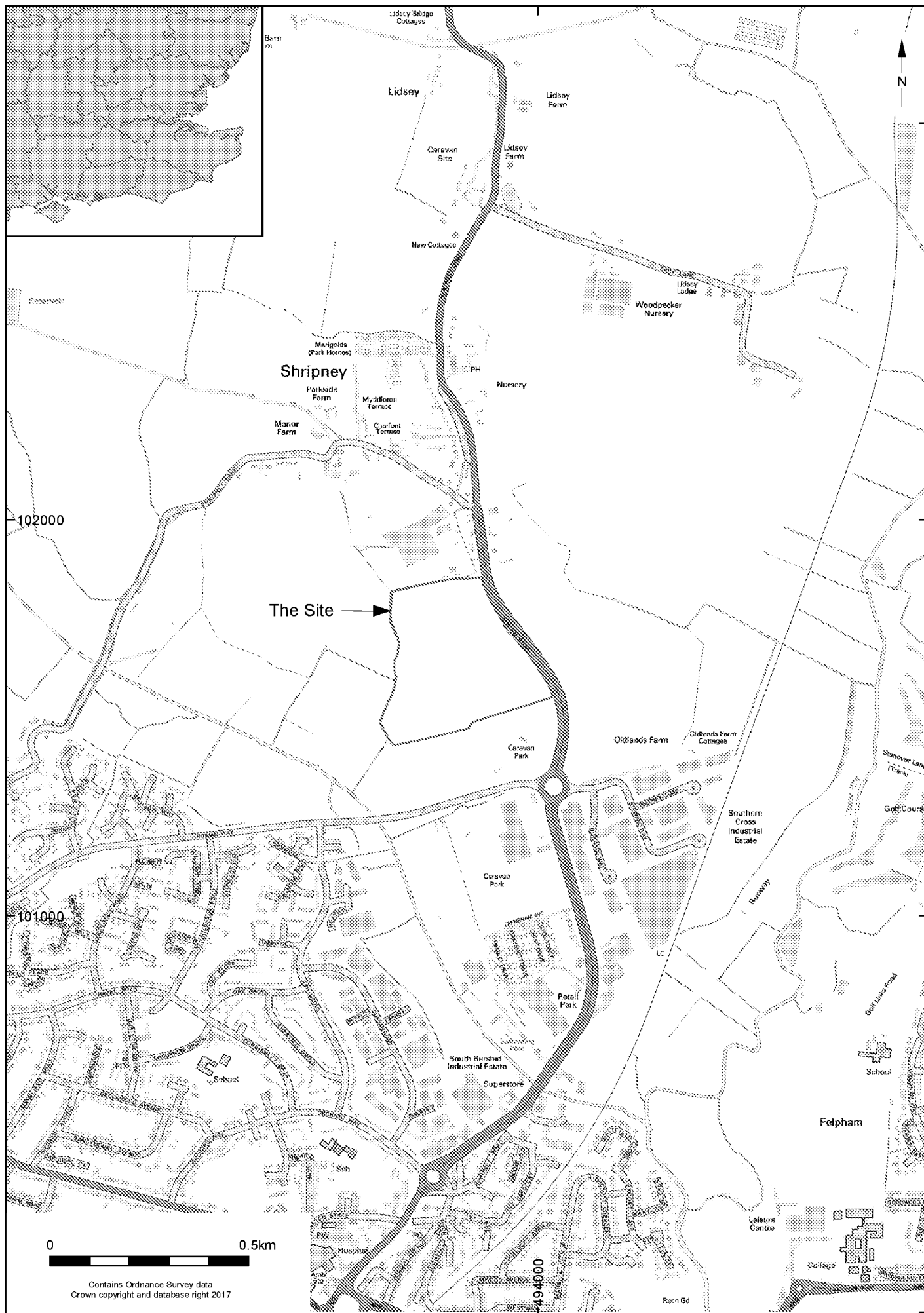
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Society of Museum Archaeologists 1993, *Selection, Retention and Dispersal of Archaeological Collections, Guidelines for use in England, Wales and Northern Ireland*, (1st ed.)

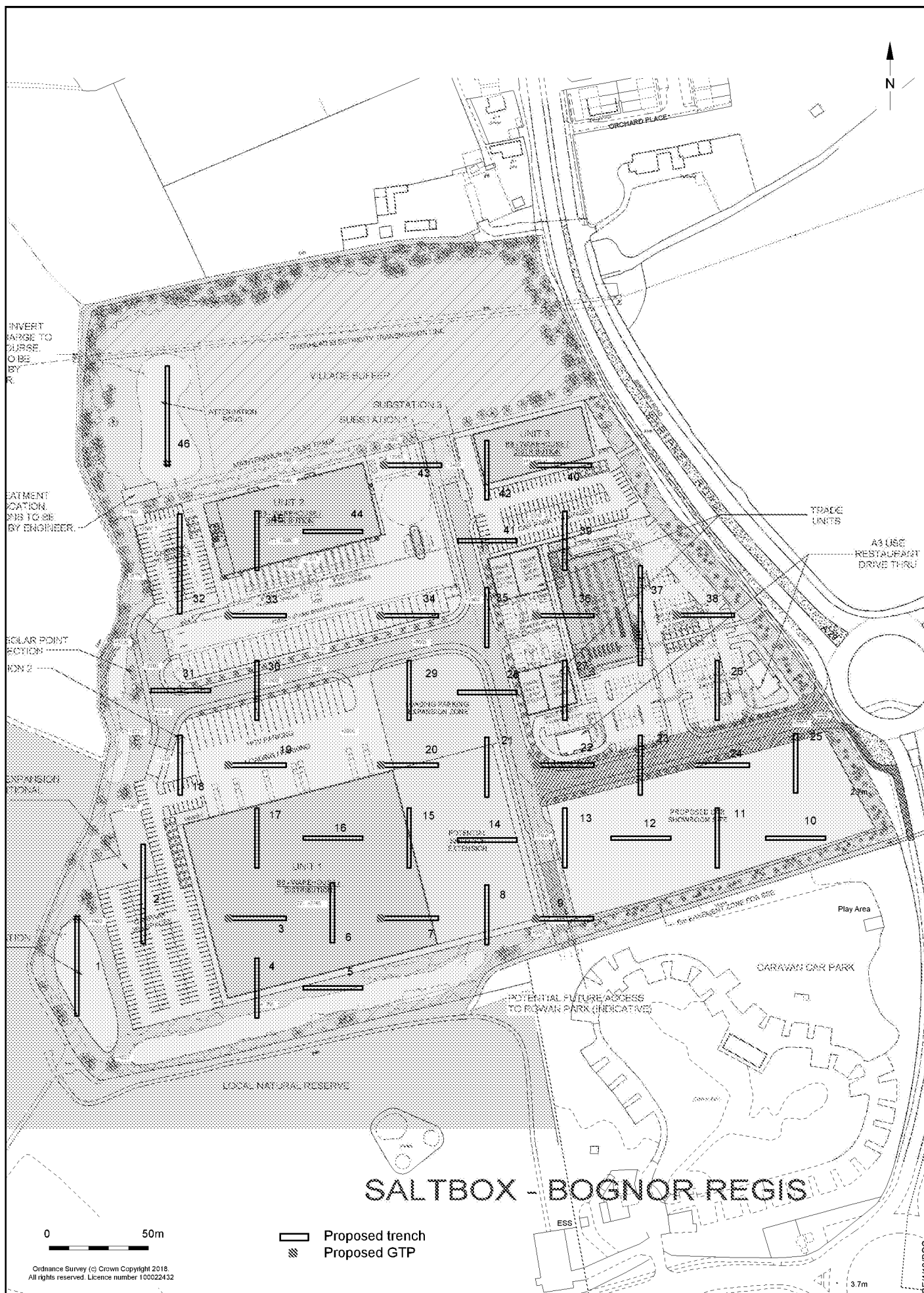
Terence O'Rourke 2017 *Saltbox Site, Bognor Regis: Heritage Statement*

WSCC, ESCC & CDC 2015, *Sussex Archaeological Standards*

Archaeology South East
15th October 2018



© Archaeology South-East		Saltbox, Bognor Regis	Fig. 1
Project Ref: 180796	Oct 2018	Site location	
Report Ref:	Drawn by: JLR		



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Project Ref: 180796

Oct 2018

Report Ref:

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Proposed trench location overlying proposed development

Fig. 3