ARCHAEOLOGICAL WATCHING BRIEF REPORT:

53 PARCHMENT STREET, WINCHESTER, HAMPSHIRE

NGR: SU 4825 2967
AAL Site Code: WIPS 14
Planning Application: 13/02472/FUL
OASIS Reference Number: allenarc1-180916

Report prepared for Whyte Homes

By
Allen Archaeology Limited
Report Number AAL2014081

August 2014

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Document Control

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Cover image: General shot of the reduced ground level facing north

Executive Summary

- Allen Archaeology Limited was commissioned by Whyte Homes to carry out an archaeological watching brief during groundworks for a residential development at 53 Parchment Street, Winchester, Hampshire.

- The development area is situated in an area of significant archaeological potential, within the historic core of Winchester.

- Monitoring was undertaken during the excavation of geotechnical boreholes and ground reduction across the footprint of the development area. The ground reduction and boreholes revealed that there was at least 1m of post-medieval to early modern made ground across the entire site. A geoarchaeological borehole survey indicated that Pleistocene river terrace gravels lay at c.4m depth, overlain by a thin organic mud and alluvial sediments, and up to 4m of recent made ground.

1.0 Introduction

1.1 Allen Archaeology Limited (hereafter AAL) was commissioned by Whyte Homes to undertake an archaeological watching brief during the groundworks for a residential development at 53 Parchment Street, Winchester, Hampshire as a condition of planning consent.

1.2 The works were undertaken in line with a specification prepared by this company (AAL 2014) and followed the national guidelines set out by the Institute for Archaeologists '*Standard and guidance for archaeological watching briefs'* (IfA 1994, revised 2001 and 2008) and the English Heritage document '*Management of Research Projects in the Historic Environment*' (English Heritage 2006). All relevant English Heritage guidelines on archaeological best practice were also adhered to (http://www.english-heritage.org.uk/professional/advice/advice-by-topic/heritage-science).

1.3 The documentary archive will be submitted to Winchester Museums within twelve months of the completion of the final report, and will be stored under the museum archive code (pending). A copy of the archive listing will be submitted to the Winchester Historic Environment Record.

2.0 Site Location and Description

2.1 The development area is situated in the historic core of the city of Winchester, c.400m north of Winchester Cathedral. The site is currently occupied by a single storey building located to the rear of 53 Parchment Street. The site is centred on NGR SU 4825 2967.

2.2 The bedrock geology of the area consists of Lewes Nodular Chalk Formation with a superficial geology of River Terrace Deposits of sand and gravel (http://mapapps.bgs.ac.uk/geologyofbritain/home.html).

3.0 Planning Background

3.1 Full planning permission has been granted for *'Demolition of existing clinic and redevelopment of site comprising 2no. two bedroom ground floor apartments and 1no. three bedroom first floor apartment with associated cycle and bin stores'* (Planning Application 13/01517/FUL). Permission was granted subject to conditions, including the undertaking of a programme of an archaeological monitoring and recording during groundworks for the scheme.

3.2 The approach adopted is consistent with the guidelines that are set out in the National Planning Policy Framework (NPPF) (Department for Communities and Local Government 2012).

4.0 Archaeological and Historical Background

4.1 The site is situated in an area of significant archaeological potential, in the historic core of Winchester, and just to the south of the line of the northern defences of the Roman and medieval city, broadly following the line of North Walls.

4.2 Two small archaeological investigations have previously been undertaken on the site. A small evaluation trench was investigated in March 2008 adjacent to the existing dwelling. The trench

was excavated to a maximum depth of 0.7m, exposing topsoil over modern demolition material and a rubble deposit interpreted as the backfill of a former cellar (Robinson 2008).

4.3 A subsequent programme of archaeological monitoring was undertaken during geotechnical boreholes, in June 2013. Three boreholes were excavated, indicating modern hard standings and layers of demolition rubble to c.1m depth, overlying a possible alluvium (AAL 2013).

5.0 Methodology

5.1 The programme of geotechnical monitoring facilitated the preparation of a sympathetic foundation design to limit the impact of the development upon the potential archaeological resource, comprising a shallow foundation raft and ring beam with low density piling solution. As mitigation for the impacts of piling two geoarchaeological boreholes were investigated. These works were undertaken by Winchester University on Tuesday 13th May 2014, and their report is included in Appendix 2 of this document.

5.2 The programme of ground reduction was monitored by an experienced field archaeologist in three visits, on Thursday 1st May, Thursday 8th May and Tuesday 13th May 2014. Machine excavation was undertaken using a tracked excavator fitted with a toothless bucket. All exposed plan and section surfaces were inspected for archaeological features and deposits to determine the stratigraphic sequence.

5.3 A full written record of the archaeological deposits was made on standard Allen Archaeology Limited context recording sheets. Each deposit, layer or cut was allocated a unique three digit identifier (context number), and accorded a written description, a summary of these are included in Appendix 1.

5.4 Archaeological features and deposits were drawn in both plan and section at an appropriate scale. A comprehensive record of all drawings was maintained, and the location of every section drawing plotted onto the site master plan and correctly referenced. All archaeological deposits and features were recorded photographically. General site shots were also taken to show the context of the groundworks.

6.0 Results

6.1 The first stage of works comprised three geotechnical boreholes, monitored on Wednesday 26th June 2013. Borehole 1 revealed a hard standing, 100, 0.12m thick and underlying chalk rubble levelling layer, 101, 0.18m thick, which sealed a c.0.7m thick greyish brown silty clay, 102, containing assorted 19th/20th century brick and pottery, slate and stone rubble. A probable grey silt alluvium, 103, was encountered at c.1m depth, extending to 4.5m, and incorporated occasional brick and tile fragments.

6.2 Borehole 2 was hand excavated to 1.2m depth, exposing greyish brown silty clay, 102, containing assorted 19th/20th century brick and pottery, slate and stone rubble, as in Borehole 1. This deposit extended a further 0.1m in the borehole, to 1.3m depth. The alluvium, 103, below this deposit, was identical to Borehole 1, extending to 4.1m.

6.3 Borehole 3 was located west of the existing building. Hard standing, 100, 0.12m thick and underlying chalk rubble levelling layer, 101, 0.18m thick sealed a 0.5m thick layer of greyish brown silty clay, 102, also containing assorted 19th/20th century finds. This again appeared to seal alluvial deposit 103.

6.4 The ground reduction across the footprint of the development area was undertaken in May 2014, following demolition of the existing building. The monitoring revealed a c.0.20m thick silty clay topsoil 104 sealing a c.0.06m thick chalk rubble levelling layer 101. This sealed made ground layer 102 containing frequent modern building debris. Layer 101 was identified within Boreholes 1 and 3, and layer 102 was seen within Boreholes 1, 2 and 3. 104 is likely to be comparable to the topsoil layer recorded during the archaeological evaluation by AC Archaeology (Robinson 2008).

6.5 There were two further geoarchaeological boreholes drilled on the site by Winchester University in May 2014 (Boreholes 4 and 5). Borehole 4 revealed post-medieval made ground down to 3.99m where it overlay Pleistocene Terrace Gravels. Borehole 5 revealed 2.45m of post-medieval made ground which overlay 0.86m of grey flood plain alluvium. This overlay 0.16m of tufa, which overlay 0.12m of organic mud on top of the Pleistocene Terrace Gravels. The depths of made ground recorded in these works was much greater than recorded in the geotechnical boreholes, but it is likely that elements of alluvium 103 were recorded during the geoarchaeological works as a made ground on account of the presence of small quantities of brick and tile.

7.0 Discussion and Conclusions

7.1 The archaeological watching brief encountered no archaeologically significant deposits or features within the ground reduction or geotechnical investigations, indicating at least 1m of post-medieval and later made ground across the site. The geoarchaeological works also identified a limited palaeoenvironmental potential for the site.

8.0 Effectiveness of Methodology

8.1 The watching brief methodology was appropriate to the scale and extent of works at the site. It established that groundworks associated with the new dwelling have had a negligible impact on the archaeological resource of the area.

9.0 Acknowledgements

9.1 Allen Archaeology Limited would like to thank Whyte Homes for this commission and for the cooperation of the groundworkers during the fieldwork.

10.0 References

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Appendix 1: Context Summary List

Context	Type	Description	Interpretation
100	Layer	Concrete, 0.12m thick, seals 101	Hard standing
101	Layer	Compact, light yellow/ brown chalk rubble, up to 0.18m thick. Sealed by 100, seals 102	Levelling layer/dumped deposit
102	Layer	Compact, light grey/brown silty clay with frequent brick, tile, CBM, occasional flint and fragments and flecks of chalk, up to 1.3m thick. Seals 103, sealed by 101, 104	Made ground
103	Layer	Compact grey silt, up to 4m thick	Probable alluvium, but containing fragments of brick and tile
104	Layer	Loose, mid brown/grey silty clay with frequent CBM, brick and tile, 0.2m thick. Seals 102	Topsoil

Appendix 2: Borehole Survey

Client: James Le Chevalier

Report written by: Phil Stastney

May 2014

ARCA report reference: 1314-14

This document reports the results of a geoarchaeological borehole survey of 53 Parchment Street, Winchester, carried out by ARCA on behalf of James Le Chevalier. Fieldwork was carried out on 13 May 2014. Two boreholes were drilled from the ground surface to the base of the Holocene sedimentary sequence.

Pleistocene Terrace gravels were encountered at the base of both boreholes, outcropping at +32.71m OD in ARCA PAR BH1 and at +33.11m OD in ARCA PAR BH2. In ARCA PAR BH1, the gravel was unconformably overlain by 3.99m of Post-Medieval Made Ground. ARCA PAR BH2 revealed a black organic mud overlying the Pleistocene gravel, possibly representing a palaeosol formed on the Terrace gravel which, based on the dates of similar strata elsewhere in central Winchester, may date to the Mesolithic. The organic mud was in turn overlain by tufa, which may be Early - Middle Holocene in date. The tufa was overlain by a thin deposit of colluvium over which was a 0.86m thick unit of grey floodplain alluvium, possibly dating to the Roman period onwards. The sedimentary sequence in ARCA PAR BH2 was capped by 2.45m of Made Ground.

The absence of the humic palaeosol and Holocene alluvial and colluvial strata in ARCA PAR BH1 (and the corresponding increased thickness of Made Ground) appears to be the result of truncation/disturbance in the Post-Medieval period, potentially as a result of small-scale quarrying/gravel extraction.

All strata in ARCA PAR BH1 are of low archaeological and palaeoenvironmental potential. The fine-grained alluvial strata and the humic palaeosol in ARCA PAR BH2 are likely to be of low to moderate palaeoenvironmental potential since assessments of similar strata at other nearby sites in central Winchester have shown generally moderate to poor pollen preservation. The basal humic palaeosol is, however, potentially ^{14}C datable which may contribute to the understanding of the development of the Itchen floodplain during early prehistory.

Background

The site is located at 53 Parchment Street, central Winchester, centred on NGR SU 48250 29670 at an elevation of *c.*37m OD. The site lies approximately 220m north of the High Street, and 360m west of the present River Itchen.

The British Geological Survey (BGS) map the site as lying on rock of the Lewes Nodular Chalk Formation, a Late Cretaceous deposit dating from 93.5-85.8my BP, overlain by Late Pleistocene fluvial gravels of River Terrace 1 (BGS 2014). Although not mapped by the British Geological Survey, Late Holocene (Roman-Post-medieval) Made Ground strata overlie the Holocene alluvium.

ARCA were contacted by the client (James Le Chevalier) to drill two boreholes at the site in order to investigate the Holocene sedimentary sequence at the site. A Written Scheme of Investigation was

produced in response to the client's brief (Stastney 2014) according to which the present works were carried out.

The aims of the project (Stastney 2014) which are addressed in this summary were:

1) To determine the Holocene sedimentary sequence on the site.

2) To assess the archaeological, palaeoenvironmental and geoarchaeological potential of the sedimentary units encountered.

Methodology

Boreholes were drilled using Eijkelkamp gouge augers driven using a Makita electric hammer.

Sediments recovered in the gouge auger heads were cleaned with a trowel, photographed and described on site using standard geological criteria (Tucker 1982, Jones *et al.* 1999, Munsell Color 2000) before being discarded.

Borehole locations were surveyed by ARCA to the Ordnance Survey grid and Ordnance Datum using a Leica RTK GPS (see **Error! Reference source not found.**). Co-ordinates are given in the appendix at the end of this document.

Lithological descriptions and positional data were combined within a RockWorks database (RockWare 2013). The RockWorks package was then used to combine lithological units into higher-level groupings (informal and formal 'formations') and to produce lithological and stratigraphic cross sections (Figure 2 and Figure 3).

The geoarchaeological archive from the site consists of digital records (photographs of the cores, RockWorks database entries and lithological descriptions) which are retained on the University of Winchester server.

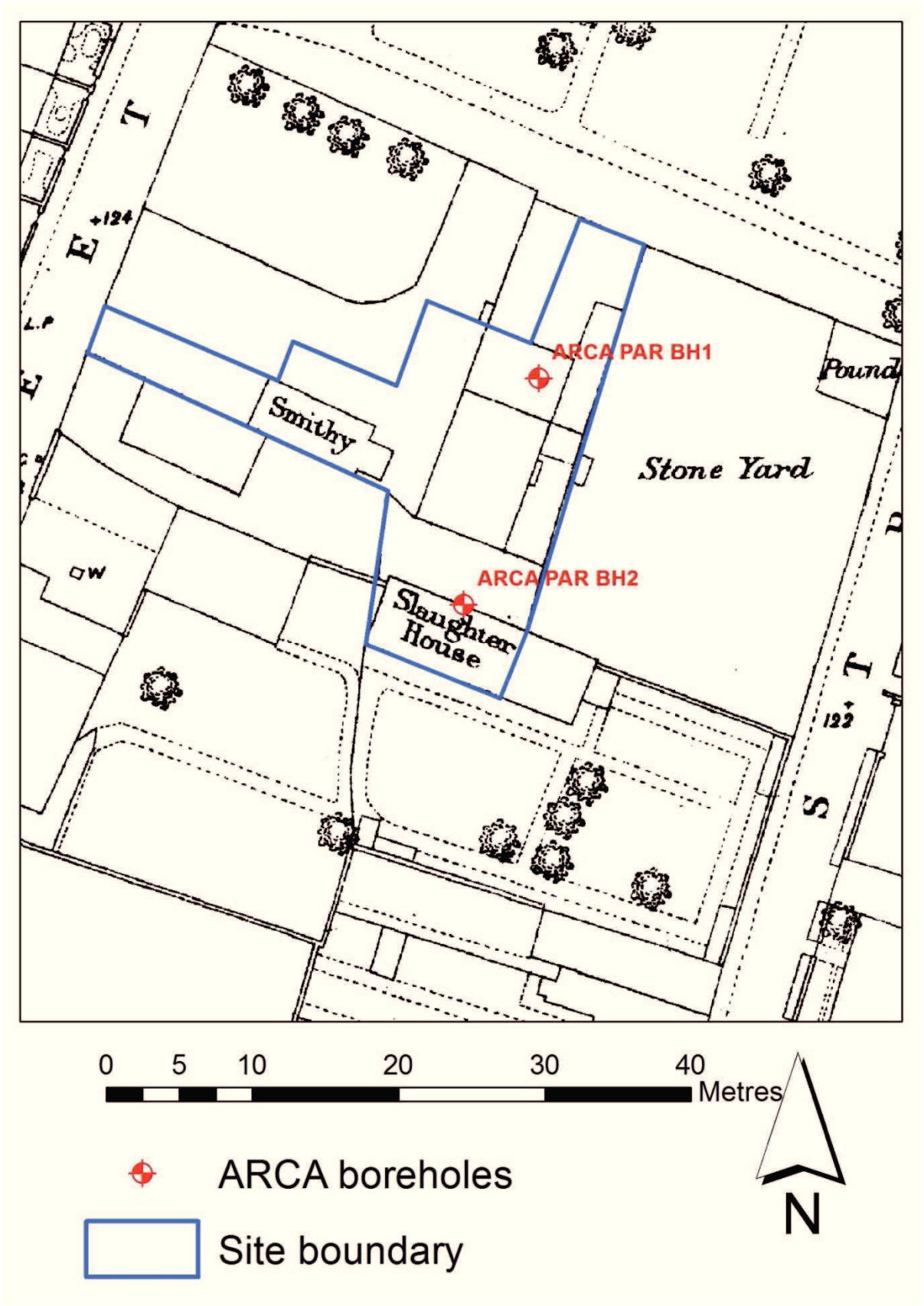

Figure 1: Location of boreholes at 53 Parchment Street, Winchester, plotted against 1st Edition Ordnance Survey town plan of Winchester.

Borehole Stratigraphy

Four major stratigraphic units present at the site were revealed in the borehole stratigraphy: Fluvial gravels, Holocene alluvium, colluvium, and Made Ground. These are reviewed below in chronological order. Full lithological descriptions are given in the appendix at the end of this document.

Gravels of a Late Pleistocene terrace of the River Itchen (probably Terrace 1 *sensu* BGS 1975) outcrop at +32.71m OD in ARCA PAR BH1 and +33.11m OD in ARCA PAR BH2. These strata consist of a clast-supported gravel of sub-angular flint pebbles, and were deposited in a high-energy braided river channel environment during the Late Pleistocene. The gravels were not penetrated by drilling at the site, but are presumed to unconformably overlie bedrock of the Lewes Nodular Chalk Formation. The gravel was unconformably overlain by Made Ground in ARCA PAR BH1, and was overlain by fine-grained Holocene alluvial sediments in ARCA PAR BH2.

Fine grained Holocene alluvial sediments were encountered between +33.11m OD and +34.40m OD in ARCA PAR BH2. Three distinct facies were encountered: a black humified organic mud overlying the gravel, tufa, and grey homogenous silt/clay.

The organic mud stratum may possibly represent a palaeosol (buried soil) which formed on the surface of the Terrace gravels. A similar basal organic layer encountered at Upper Brook Street (Wilkinson and Batchelor 2012) returned an Early Mesolithic date (7970-7680 cal. BC, GU 27838 8775±30 BP).

The organic mud was overlain by 0.18m of tufa, composed of a mass of weak crumbly nodules of calcite. The tufa is likely to date to the Early to Middle Holocene, and was formed during a period of higher water tables at the site by the influx of calcium carbonate-rich waters. Similar strata of paludal tufa have been widely encountered elsewhere in central Winchester in the floodplain of the River Itchen.

The tufa was overlain by a thin (0.14m) layer of brown sandy silt/clay with frequent chalk granules. This deposit is likely to represent colluvium ('hillwash') i.e. material eroded from the higher ground to the west of the site during a period of lower water tables and/or when the course of the Itchen migrated further to the east towards its present course. Erosion leading to the deposition of colluvium is often associated with cultivation and may therefore be associated with human occupation in the vicinity of Winchester from the Iron Age onwards.

The final alluvial facies, a grey homogenous silt/clay, was encountered over the colluvium. The lack of structure/lamination and presence of rootlets throughout this unit is consistent with gradual deposition in a floodplain environment. Small fragments of charcoal and ceramic building material (CBM) throughout this unit suggest that people were active in the local environment during the accretion of the floodplain strata, suggesting accretion may date to the Roman period onwards.

Floodplain strata in ARCA PAR BH2 were conformably overlain by 2.45m of Made Ground identical in character to the deposits in the upper 2.34m of ARCA PAR BH1.

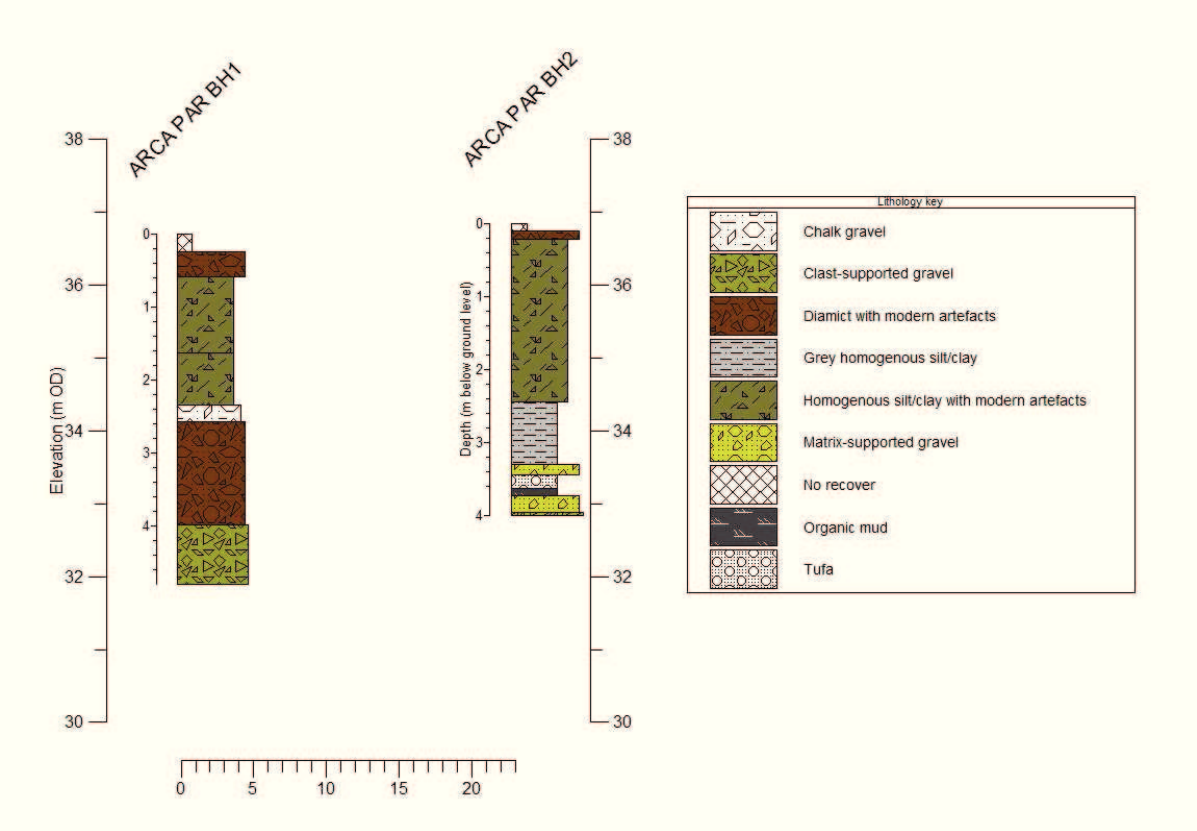

Figure 2: Lithostratigraphy of boreholes at 53 Parchment Street. Vertical exaggeration factor = 5.

The majority of the strata in ARCA PAR BH1 are deposits of Made Ground (see Figure 3). The greater thickness of Made Ground in this borehole (3.99m, compared with 2.45m in ARCA PAR BH2) and the absence of Holocene alluvium and colluvium is almost certainly the result of truncation of the sedimentary sequence in the vicinity of ARCA PAR BH1 during the Post-Medieval period. Given the proximity of a stonemason's yard (shown on the 1st edition Ordnance Survey town plan, Figure 1), this truncation may relate to small-scale quarrying/gravel extraction.

The lower Made Ground strata in ARCA PAR BH1 consist of (from the bottom) 1.42m of matrix-supported flint gravel (possibly reworked material from the Terrace gravel) with brick fragments overlain by 0.23m of chalk gravel.

Made Ground strata in the uppermost ~2.40m in both boreholes are composed of dark grey silt/clay with varying quantities of flint gravel, charcoal, brick, animal bone, oyster shell, glass and modern pottery. These deposits appear to represent the accumulation/dumping of rubble and refuse across the site during the Post-Medieval and Modern periods.

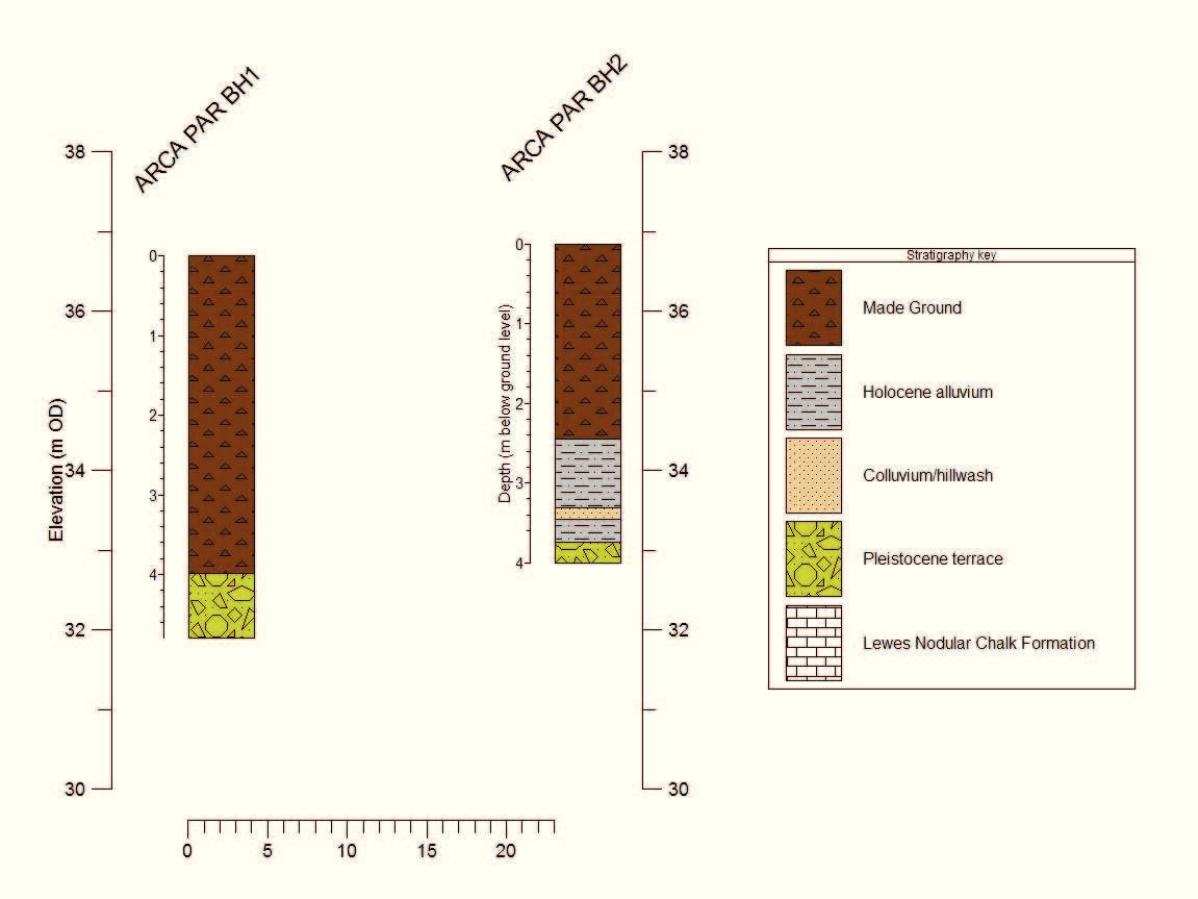

Figure 3: Stratigraphy of boreholes at 53 Parchment Street. Vertical exaggeration factor = 5.

Assessment

The Pleistocene Terrace gravels are of LOW palaeoenvironmental and archaeological potentials.

The organic mud/palaeosol and the grey silt/clay floodplain strata in ARCA PAR BH2 are of MODERATE to LOW palaeoenvironmental potential. Whilst pollen might be preserved in these fine-grained strata, assessments of similar strata nearby in central Winchester have demonstrated generally moderate to poor pollen preservation (Wilkinson and Batchelor 2012). Furthermore, the alluvial strata at the site are very thin compared to other sites nearer to the present River Itchen; given the marginal position of the site on the western edge of the floodplain, accretion may have been episodic and hiatuses in deposition are likely to have occurred.

The basal organic mud in ARCA PAR BH2, however, may potentially be ^{14}C dated, which may contribute towards the understanding of the evolution of the Itchen floodplain at Winchester during prehistory.

Made Ground strata at the site have a LOW palaeoenvironmental potential, since palaeoenvironmental proxies are likely to be variably preserved and of mixed/unknown provenance. The archaeological potential of these strata has been assessed by a watching brief carried out by the archaeological contractor at the site.

Recommendations

No further works are recommended on strata assessed as being of low palaeoenvironmental and archaeological potentials.

AMS ^{14}C dating of the organic mud overlying the Terrace gravels in ARCA PAR BH2 should be considered as this would contribute to the understanding of the early prehistoric development of the floodplain of the River Itchen in the Winchester area. A bulk sample of this stratum has been retained by ARCA in case the decision is taken to carry out ^{14}C dating.

Acknowledgements

ARCA would like to thank James Le Chevalier and Nick Atwell for their help during the course of the project.

Fieldwork was carried out by Phil Stastney, Nick Watson and David Ashby.

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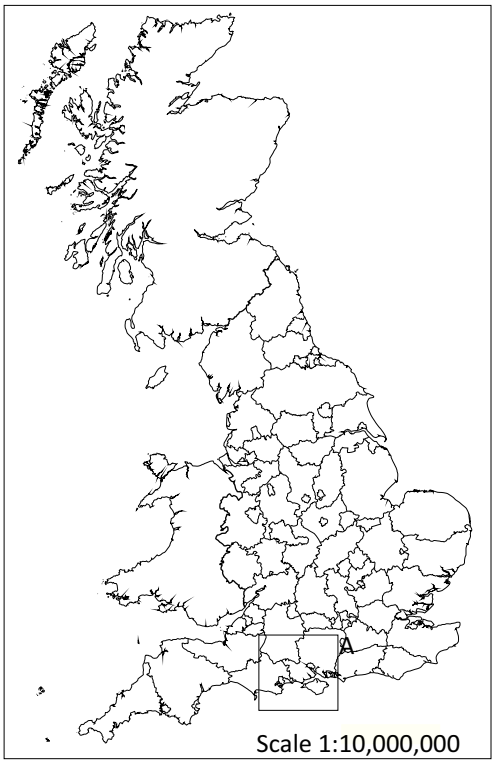
Borehole locations and lithological descriptions

Bore	Easting	Northing	Elevation (m OD)	Total Depth (m)
ARCA PAR BH1	448251.203	129676.394	36.697	4.80
ARCA PAR BH2	448246.095	129660.951	36.846	4.00

Bore	Top	Base	Lithology	Comments
ARCA PAR BH1	0.00	0.23	No recover	VOID
ARCA PAR BH1	0.23	0.58	Diamict with modern artefacts	10 YR 4/2 Dark greyish brown diamict of frequent pebble-sized clasts of brick, flint, glass and modern pottery and frequent granule-sized charcoal in a sandy silt/clay matrix. [Made Ground] Diffuse boundary to:
ARCA PAR BH1	0.58	1.63	Homogenous silt/clay with modern artefacts	10 YR 4/1 Dark grey silt/clay with occasional pebble-sized subangular flint and occasional granules of CBM, slate, chalk, oyster shell and charcoal. [Made Ground] Lower boundary unknown.
ARCA PAR BH1	1.63	2.34	Homogenous silt/clay with modern artefacts	2.5 Y 4/1 Dark grey soft sandy silt/clay with abundant granule-size and occasional pebble-size charcoal fragments, frequent pebble-sized animal bone fragments, occasional oyster shell, angular flint and chalk granules and occasional granule-sized greenish (cess?) mottles. [Made Ground] Grading into:
ARCA PAR BH1	2.34	2.57	Chalk gravel	5 Y 7/1 Light grey putty chalk with frequent subrounded chalk pebbles and occasional charcoal granules and rare pebble-sized charcoal. [Made Ground] Sharp boundary to:
ARCA PAR BH1	2.57	3.99	Diamict with modern artefacts	10 YR 6/4 Light yellowish brown matrix-supported gravel of granule to pebble-sized subangular flint and occasionally chalk in a sandy silt/clay matrix with occasional charcoal and CBM granules and rare pebble-sized red brick fragments (cobble-sized brick fragment at 3.80m). [Made Ground] Lower boundary unknown (probably sharp).
ARCA PAR BH1	3.99	4.80	Clast-supported gravel	10 YR 8/1 White clast-supported gravel of angular to subangular flint pebbles with rare subrounded chalk pebbles. [Pleistocene River Terrace]. END of BH.
ARCA PAR BH2	0.00	0.10	No recover	VOID
ARCA PAR BH2	0.10	0.21	Diamict with modern artefacts	10 YR 4/2 Dark greyish brown diamict of frequent pebble-sized clasts of brick, flint, glass and modern pottery and frequent granule-sized charcoal in a sandy silt/clay matrix. [Made Ground] Diffuse boundary to:

ARCA PAR BH2	0.21	2.45	Homogenous silt/clay with modern artefacts	10 YR 4/1 Dark grey soft silt/clay with occasional pebble-sized subangular flint and occasional granules of CBM, slate, chalk, oyster shell and charcoal. [Made Ground] Lower boundary unknown.
ARCA PAR BH2	2.45	3.31	Grey homogenous silt/clay	2.5 Y 5/1 Grey sandy silt/clay with frequent subangular flint granules, rare charcoal and CBM flecks and occasional rootlets throughout. Faint sulphur odour (as a result of broken down organic matter). [Holocene alluvium with some anthropogenic inclusions] Diffuse boundary to:
ARCA PAR BH2	3.31	3.45	Matrix-supported gravel	7.5 YR 5/8 Strong brown firm slightly sandy silt/clay with frequent chalk granules. [colluvium / hillwash] Lower boundary unknown.
ARCA PAR BH2	3.45	3.63	Tufa	10 YR 5/1 Grey tufa. Crumbly mass of weak granule-pebble sized subrounded tufa nodules. [Holocene alluvium] Diffuse boundary to:
ARCA PAR BH2	3.63	3.74	Organic mud	10 YR 2/1 Black firm totally humified organic silt/clay with occasional coarse sand and rare tufa granules. [Holocene alluvium - possible palaeosol]. Diffuse and irregular (possibly bioturbated?) boundary to:
ARCA PAR BH2	3.74	3.96	Matrix-supported gravel	10 YR 4/4 Dark yellowish brown firm matrix-supported gravel of subangular flint pebbles and granules in a silt/clay matrix. [possible palaeosol over Terrace gravel] Diffuse boundary to:
ARCA PAR BH2	3.96	4.00	Clast-supported gravel	10 YR 8/1 White clast-supported gravel of angular to subangular flint pebbles with rare subrounded chalk pebbles. [Pleistocene River Terrace]. END of BH.



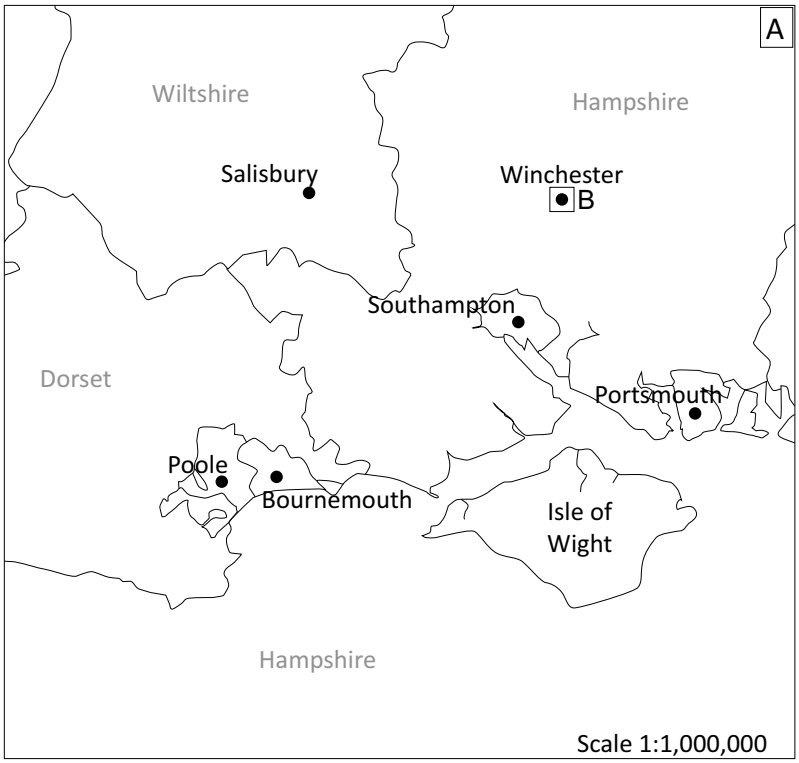
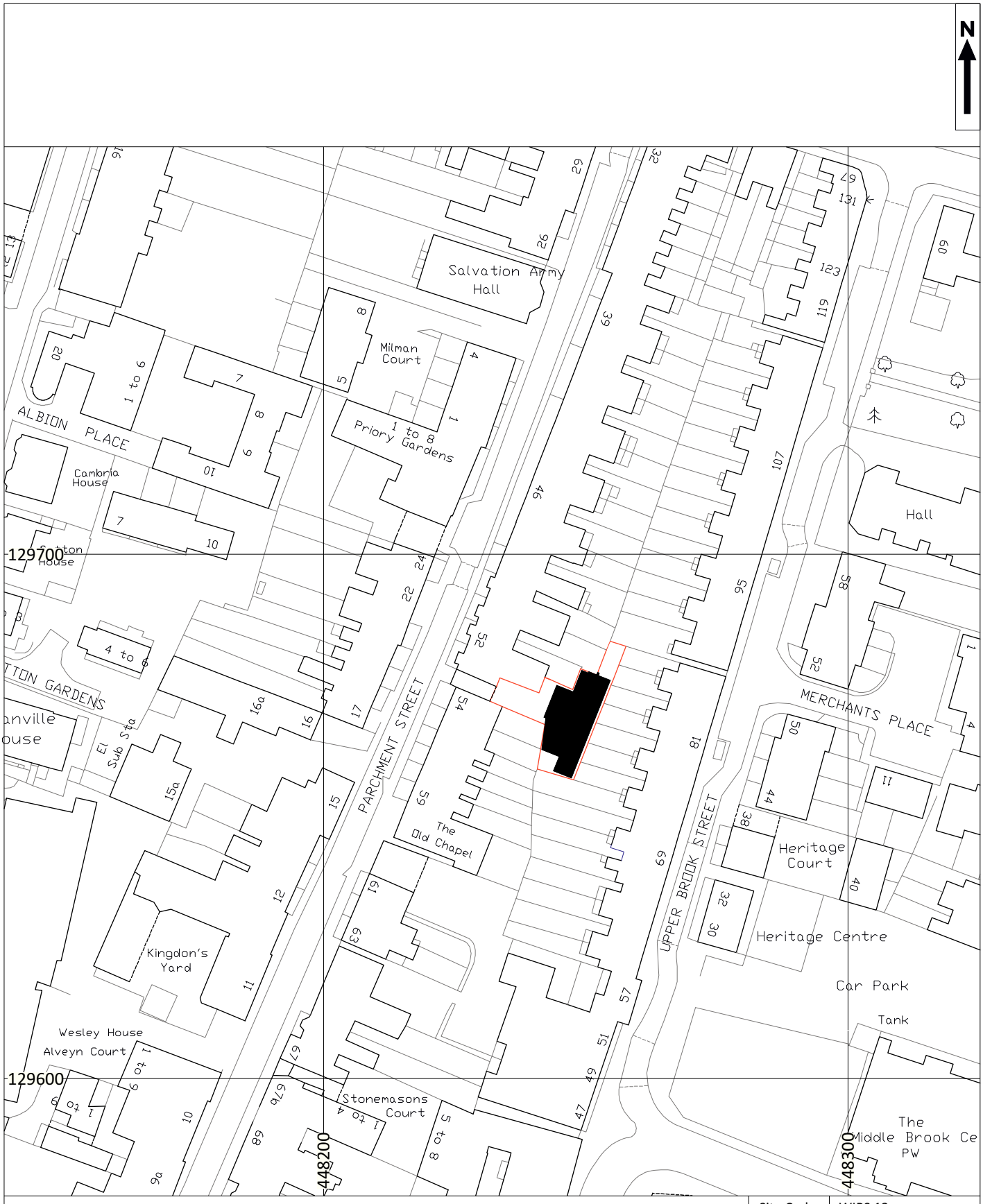


Figure 1: Site location in red

Site Code	WIPS 13
Scales	1:10,000,000 1:1,000,000 1:25,000 @ A4
Drawn by	R Eversheed
Date	01/08/2014

Allenarchaeology
Lincoln
Birmingham
Cambridge
Southampton
www.allenarchaeology.co.uk



0 100m

Scale 1:1,000

Site Code	WIPS 13
Scale	1:1,000 @ A4
Drawn by	Robert Evershed
Date	01/08/14

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Southampton

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Figure 2: Plan showing location of site outlined in red and footprint of new building in black

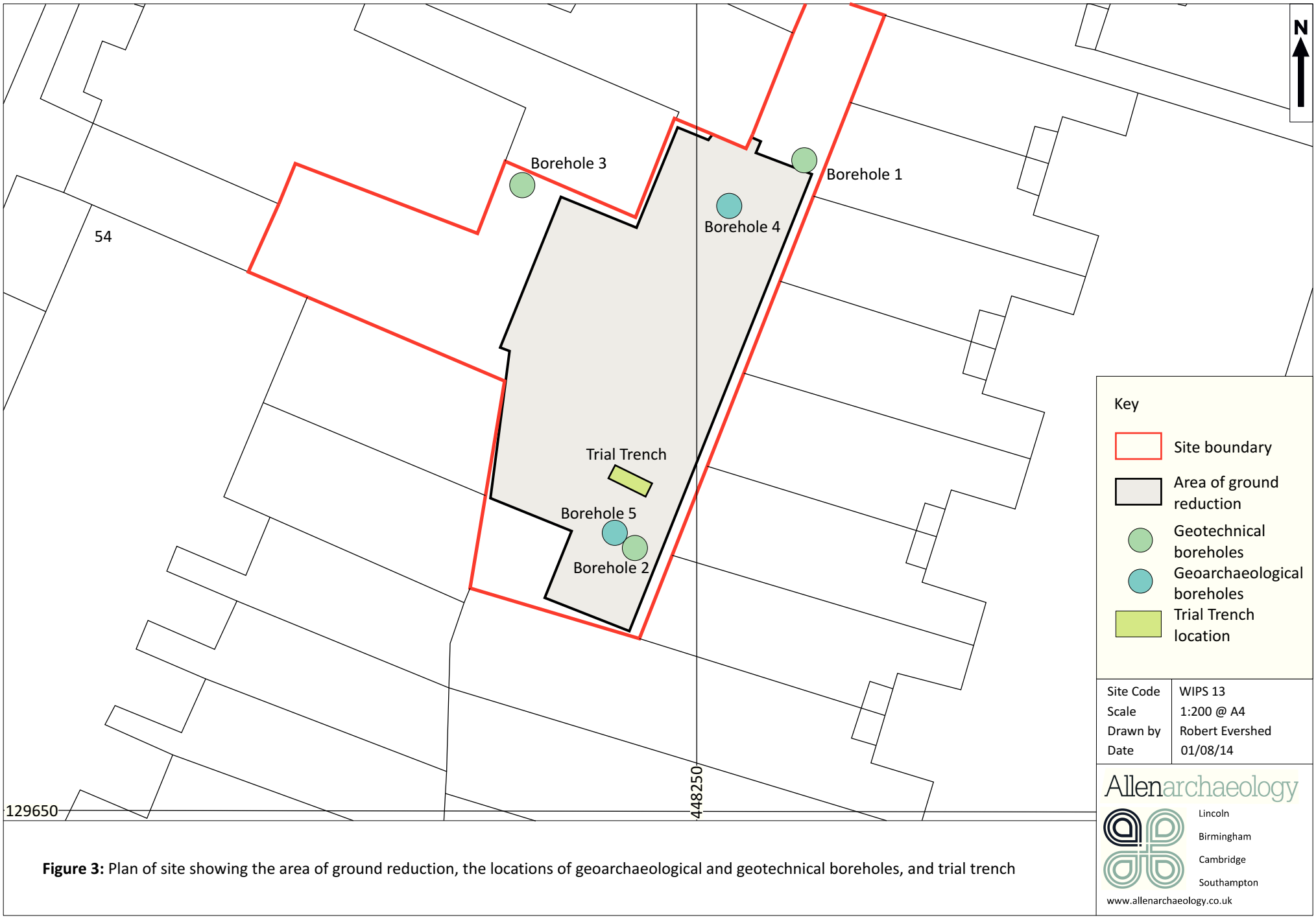
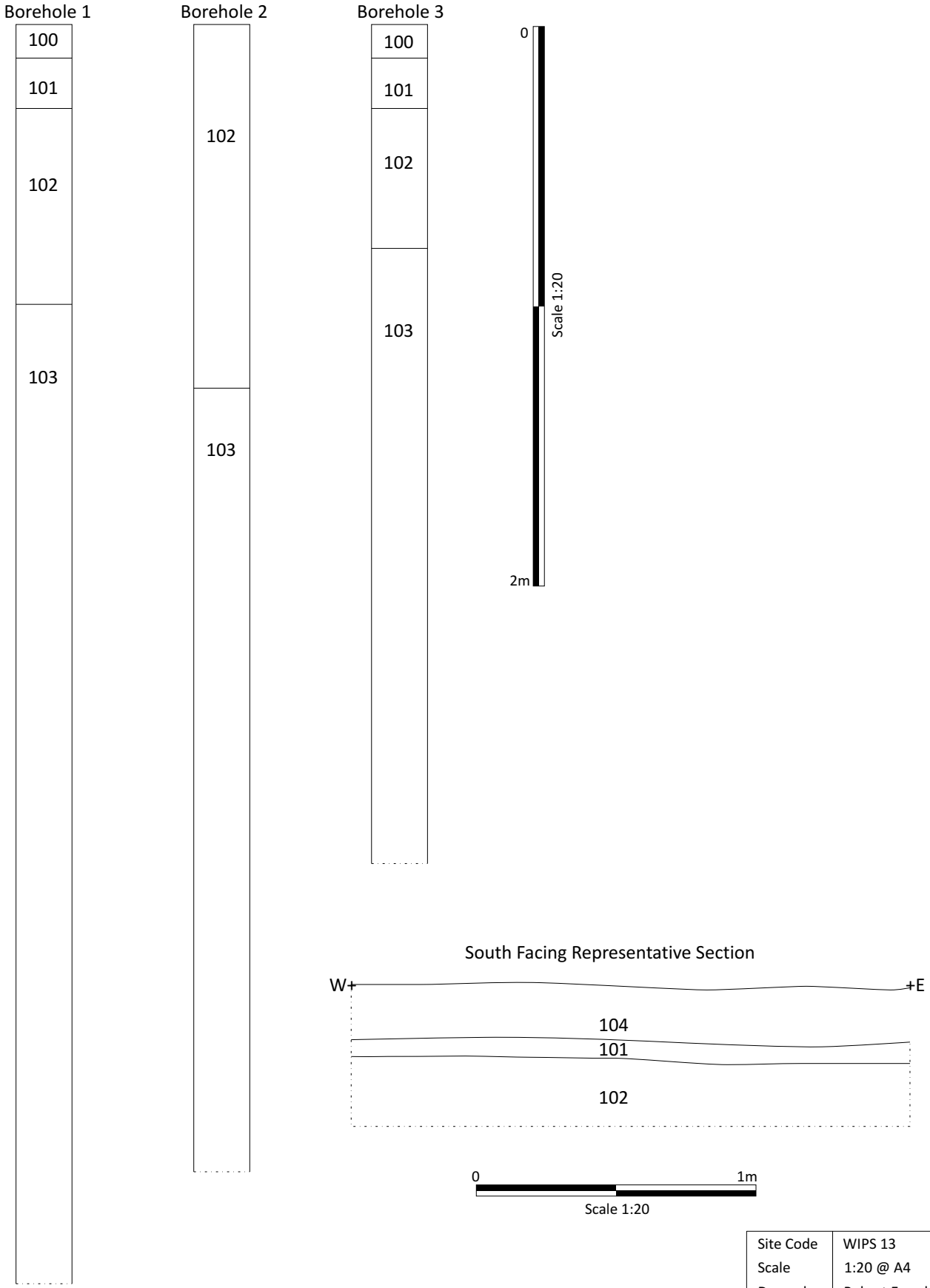


Figure 3: Plan of site showing the area of ground reduction, the locations of geoarchaeological and geotechnical boreholes, and trial trench



Site Code	WIPS 13
Scale	1:20 @ A4
Drawn by	Robert Evershed
Date	01/08/14

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Figure 4: Representative sections of geotechnical boreholes and ground reduction

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