

**Archaeological Watching Brief Report
Petworth Real Tennis Club, Estate Yard
Petworth House, Petworth, GU28 0DU**

NGR: 497510 121713

ASE Project No: 170582

Site Code: TPP17

ASE Report No: 2017351

OASIS id: archaeol6-292083



By Steve Price

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NGR: 497510 121713

Planning Ref: SDNP/15/05134/FUL

**ASE Project No: 170582
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Abstract

Archaeology South-East carried out an archaeological watching brief at Petworth Real Tennis Club during July 2017. The fieldwork was commissioned by The National Trust.

The ground works consisted of the excavation of drainage and ground beam trenches. Five trenches were monitored. The stratigraphic sequence on site consisted of imported topsoil overlying various made ground deposits. These deposits sealed a buried subsoil, which overlay natural geology. The site exhibited evidence of previous truncation, which may have been due to the demolition of previously existing buildings and subsequent levelling.

The watching brief uncovered the remains of an undated and truncated stone wall footing, and a brick-built footing probably dating from the 1870s, and shown on the Ordnance Survey map of 1897. No other archaeological finds, features or deposits were identified.

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1.0 INTRODUCTION

1.1 Site Background

1.1.1 Archaeology South-East was commissioned by the National Trust (NT), to undertake archaeological monitoring during groundworks associated with the development of the Petworth House Real Tennis Club, Estate Yard, Petworth House, Petworth, GU28 0DU (NGR 497510 121713; Figure 1). The scheme comprised an extension to the western end of the current building, covering an area of approximately 150m².

1.2 Geology and Topography

1.2.1 The underlying solid geology consists of sandstone of the Lower Greensand Group (Eastbourne Member) in the south and Wealden Group mudstones and siltstones (Weald Clay Formation) in the north. A narrow band of Atherfield Clay Formation mudstone runs between the two (BGS 2017).

1.3 Aims and Objectives

1.3.1 The broad aims of the investigation are:

- To determine the presence or absence of archaeological remains and deposits with the potential to preserve palaeoenvironmental remains within the excavated areas
- To record and assess the character, extent, preservation, significance, date and quality of any remains and deposits;
- To assess how they might be affected by the proposed scheme
- To establish the extent to which previous groundworks and/or other processes have affected archaeological deposits at the site
- To assess what options, if any, should be considered for mitigation following completion of the initial watching brief

1.3.2 Specific aims of the investigation include:

- This excavation presents a rare opportunity to gain further information on the nature of the historic land use and archaeological potential of in this area of Petworth Park

1.4 Scope of Report

1.4.1 This report presents the results of the archaeological watching brief undertaken by ASE during July 2017. The fieldwork was undertaken by Simon Stevens (Senior Archaeologist) and by Steve Price (Archaeologist). The fieldwork was managed by Neil Griffin and Paul Mason (Project Managers), the post excavation work by Jim Stevenson and Dan Swift (Post-Excavation Managers).

2.0 ARCHAEOLOGICAL BACKGROUND

2.1 The following background is derived from the NT Brief (Dommett 2017), with due acknowledgement.

2.2 *Prehistoric to Saxon*

2.2.1 Although no prehistoric or Romano-British sites have been identified within the study area, excavations within Petworth Park (Archaeology South-East 2013; Chris Butler Archaeological Services 2015; Archaeology South-East 2015) have yielded small quantities of Prehistoric worked flint and Prehistoric and Romano-British pottery, suggesting some level of activity in this general area during those periods.

2.3 *Medieval*

2.3.1 The earliest allusion to Petworth comes from the Domesday Survey of 1086, referred to as Peteorde, an independent manor rated at around 1000 acres and possessing a church, mill, meadow and wood. In 1102 the manor, as part of the lordship of Arundel, was forfeited to Henry I and after his death passed to his wife Queen Adeliza. She bestowed the Honor of Arundel, and the manor of Petworth with it, upon her brother Josceline who took the Percy family name as a condition of his marriage to Agnes de Percy in 1151. The Honor remained under the Percy family ownership from this time until the 16th century.

2.4 *Post-medieval*

2.4.1 From the original 'Conyger' or Coney Park, which appears to have occupied the area of Lawn Hill and the western portion of the current Pleasure Grounds, the park has undergone a number of episodes of expansion.

2.4.2 The study area was likely the site of the Kitchen Garden adjoining the House from around 1710, but it was only in c. 1763 that it was formally incorporated into the park. Prior to c. 1710 the study area lay to the south of the road known as West Street or the 'Court Ditch Lane', a continuation of the east-west section of Church Street which ran through what is now the private garden immediately south of the current House. This was lined with domestic dwellings with gardens and fields beyond, and it is possible that remains relating to this earlier medieval and post-medieval occupation may survive within the study area.

2.4.3 By 1785 the study area lay within the park, with buildings of unknown function located immediately to the south and east. These may have been replacements for the buildings on Snow Hill (Kennels, Dovecote, Malthouse, Carter's Stables etc.) which were demolished by 'Capability' Brown 1751-1763.

2.4.4 The Petworth tithe map of 1841 shows these buildings had been removed by this time, and instead the study area lay directly adjacent to the northern end of a large range of outbuildings oriented north-south. The tennis court was built in 1872 (Petworth Real Tennis 2017).

- 2.4.5 From 1897 onwards the study area lay adjacent to/within the building footprint of the Real Tennis Courts, and also including two other smaller structures (west and south-west of the Real Tennis Courts) which were removed c.1912.

3.0 ARCHAEOLOGICAL METHODOLOGY

3.1 Fieldwork Methodology

- 3.1.1 The groundworks consisted of mechanical ground reduction, and the excavation of trenches for ground beams and drainage. In all, five trenches of varying lengths and depths were monitored. All work and recording was undertaken in line with the *Sussex Archaeological Standards* (ESCC / WSCC, 2015).
- 3.1.2 Ground works were undertaken by the contractor using a 3 tonne, 360° mechanical excavator equipped with a toothless bucket. Care was taken that archaeological deposits, if encountered, were not damaged due to over machining.
- 3.1.3 Archaeological features were recorded according to standard ASE practice. Section drawings were made at a scale of 1:10 on plastic draughting film. Features and deposits were described on standard pro-forma recording sheets used by ASE.

3.2 Fieldwork Constraints

- 3.2.1 There were no fieldwork constraints encountered on site.

3.3 The Site Archive

3.3.1 The written and drawn archive will be deposited with the National Trust Regional Archaeologist at the Wisley Hub. The site archive is currently held at the offices of ASE and will be deposited at the Wisley Hub in due course. The contents of the archive are tabulated below (Table 1).

Context sheets	12
Section sheets	1
Plans sheets	0
Colour photographs	0
B&W photos	0
Digital photos	112
Context register	2
Drawing register	1
Watching brief forms	7
Trench Record forms	0

Table 1: Quantification of site paper archive

Bulk finds (quantity e.g. 1 bag, 1 box, 0.5 box 0.5 of a box)	0
Registered finds (number of)	0
Flots and environmental remains from bulk samples	0
Palaeoenvironmental specialists sample samples (e.g. columns, prepared slides)	0
Waterlogged wood	0
Wet sieved environmental remains from bulk samples	0

Table 2: Quantification of artefact and environmental samples

4.0 RESULTS

4.1 Monitoring of Ground Reduction (12/07/17 and 14/07/17)

Context	Type	Interpretation	Deposit Thickness m
[101]	Deposit	Topsoil	0.23
[102]	Deposit	Made ground	0.50 - 0.76
[103]	Masonry	Wall Footing	0.82
[104]	Layer	Hardstanding	Not excavated

Table 3: List of recorded contexts - ground reduction

4.1.1 A maximum of 990mm of material was removed within the footprint of the new building. The stratigraphic sequence was straightforward and consisted of a thin layer of mid-brown silty clay topsoil, context [001], which overlay a deposit of orangey brown silty made ground which contained modern debris including brick rubble, timber and tin cans, context [102]. In the eastern part of the site this overlay a deposit of crushed brick and mortar of unknown extent, context [004], interpreted as an area of hardstanding, which was encountered 900mm below the current ground surface but was not disturbed.

4.1.2 At the western end of the site, the topsoil directly overlay the brick-built foundations of a wall foundation, masonry [103], which formed a north to south continuation of the west wall of the surviving tennis court building. This is undoubtedly the foundation of a wall shown on the Ordnance Survey map of 1897 (not illustrated in this report), probably dating from the construction of the tennis courts in the 1870s.

4.1.3 The wall consisted of frogged red bricks typically measuring 230mm by 110mm by 60mm, bonded with strong grey mortar, forming a 510mm wide, 310mm deep foundation consisting of four courses of bricks, laid on a 510mm thick mortar bed which extended 110mm from the exposed eastern face of the brickwork.

4.2 Trenches 1,2 (drainage), 3 and 5 (ground beams) – monitored 25, 27, 28 & 31/07/17

4.2.1 Depths of the following trenches are given from the top of the reduced ground surface.

4.2.2 Trench 1 was oriented north-south, measured 13.10m long, 0.60m wide and 0.60-0.80m deep. Trench 2 was oriented northwest-southeast, measured 3.50m long, 0.90m wide and 0.85m deep. Trench 3 was oriented north-south, measured 13.70m long, 0.75m wide and 0.60m deep. Trench 5 was oriented east-west, measured 2.70m long, 1.10m wide and 0.54m deep.

4.2.3 The same stratigraphy was observed in trenches 1 and 2. The natural geology [005] consisted of mid yellow-orange clay, with patches of light yellow medium sand, becoming more prevalent to the south. It was overlain by a buried subsoil horizon [004], consisting of light greyish-brown silty clay with occasional angular stone inclusions. It measured 0.15-0.26m thick. This was

overlain by made ground [003], consisting of mid greyish-brown fine clayey silt, frogged bricks, brick rubble large angular concrete pieces, plastic, crushed stones and crushed CBM. It measured 0.31-0.45m thick. It was overlain by another made ground layer [002], which consisted of light brownish-yellow medium sand, with moderate brick rubble, concrete pieces, occasional broken tile and CBM. This layer had been truncated with the removal of the topsoil, and measured 0.12m thick.

- 4.2.4 The stratigraphy observed in trench 3 consisted of [003] measuring 0.45m thick, overlain by truncated [002] measuring 0.15m thick. In trench 5, [004] was excavated to 0.11m thick, overlain by [003] measuring 0.31m thick, and truncated [002] measuring 0.12m thick.

Trench	Context	Type	Interpretation	Deposit Thickness m
1, 2, 3, 5	[002]	Deposit	Made ground	0.12
1, 2, 3, 5	[003]	Deposit	Made ground	0.31-0.45
1, 2, 5	[004]	Layer	Buried soil	0.15-0.26
1, 2	[005]	Layer	Natural	-

Table 4: List of recorded contexts in multiple blank trenches

4.3 Trench 4 – monitored 27, 28 and 31/07/17

- 4.3.1 Trench 4 was excavated against the western limit of excavation, and here the topsoil [001] was still intact. The depth given for this trench is therefore from the top of the topsoil. Trench 4 measured 25m long, 1.10m wide and 1.31-1.42m deep.
- 4.3.2 The stratigraphy observed in trench 4 was slightly different to that described for trenches 1, 2, 3 and 5. For the first 6.09m from the north end of the trench, it consisted of natural [005], overlain by buried subsoil [004] measuring 0.15-0.26m thick, overlain by made ground [003] measuring 0.43m thick. Layer [003] was overlain by another made ground layer [006]. This consisted of light greenish-yellow medium sand and brick rubble, and measured 0.19-0.21m thick. It was overlain by imported topsoil [001], consisting of dark greyish-brown sandy silt, with inclusions of moderate angular and sub-angular stones, occasional angular flint and sub-rounded pebbles. It measured 0.46-0.56m thick.
- 4.3.3 The made ground deposit [006] was visible for 6.09m from the north end of trench 4, before petering out. For the next 7.91m, the stratigraphic sequence consisted of: natural [005]; overlain by buried subsoil [004] measuring 0.22-0.26m thick; overlain by made ground [003] measuring 0.47-0.59m thick; overlain by topsoil [001] measuring 0.48-0.56m thick.
- 4.3.4 At 11.79m from the north end of trench 4, the fragmentary remains of a wall footing [007] were visible in the east facing section, apparently cut through [004] (although there was no visible wall cut) and buried by [003]. It measured 0.93m wide and 0.35m high. It had been previously truncated, and consisted of random coursing of stone blocks of varying sizes (measurements taken were 250mm x 190mm x 110mm, 300mm x 260mm x 150mm and 400mm x

350mm x 70mm). They were bonded by an off white/ grey limestone mortar with frequent crushed stone inclusions. The footing was capped by light brownish-yellow, coarse sandstone mortar with moderate crushed stone inclusions. No associated finds were recovered.

- 4.3.5 At around 14m from the north end of trench 4, the stratigraphic sequence changed again. The natural [005] was overlain by buried subsoil [004] measuring 0.15 thick. This was overlain by a made ground deposit [008], consisting of dark orange-brown clayey silt, mottled with moderate patches of mid-orange. It contained inclusions of moderate crushed CBM, mortar patches, occasional angular flints and charcoal flecks. It measured 0.27-0.34m thick. It was overlain by made ground deposit [003], measuring 0.31-0.38m thick; this was overlain by topsoil [001] measuring 0.48m. This stratigraphic sequence continued to the south end of the trench.

Context	Type	Interpretation	Max. Length m	Max. Width m	Deposit Thickness m
[001]	Layer	Topsoil	-	-	0.46-0.56
[003]	Deposit	Made ground	-	-	0.31-0.59
[004]	Layer	Buried soil	-	-	0.15-0.26
[005]	Layer	Natural	-	-	-
[006]	Deposit	Made ground	6.09	-	0.19-0.21
[007]	Masonry	Wall footing	-	0.93	0.35
[008]	Deposit	Made ground	-	-	0.27-0.34

Table 5: Trench 4 list of recorded contexts

5.0 THE FINDS

5.1 Summary by Isa Benedetti-Whitton

5.1.1 A single brick sample was collected during the watching brief at Petworth Park. It was washed, air dried, quantified by count and weight and bagged by material and context. It was packed and stored following ClfA guidelines (2014).

5.2 The Ceramic Building Material by Isa Benedetti-Whitton

5.2.1 A single nearly complete brick was recovered from one context, [103]. It was made of a lumpy-looking and in places overfired fabric that was similar to London fabrics 3032 and 3038, the former a post-fire brick that incorporates household refuse as temper and the latter an early modern machine compressed fabric.

5.2.2 This brick is likely to date no earlier than the mid-19th century, but is most probably later. The brick was frogged and sharply formed and in several places a coarse sandy lime mortar was still adhering. Due to the lack of any archaeological potential it has been discarded.

6.0 DISCUSSION AND CONCLUSIONS

6.1 Overview of stratigraphic sequence

- 6.1.1 The stratigraphic sequence on site consisted of imported topsoil overlying various made ground deposits, which were overlying a buried subsoil horizon and an area of hardstanding of unknown extent. The subsoil was overlying natural clay geology. The sequence was generally the same in trenches 1, 2, 3 and 5, although the sequence observed within trench 4 differed in parts.
- 6.1.2 A truncated and fragmented wall footing [007] consisting of random sized stone blocks was visible in the east facing section of trench 4. No associated finds were recovered. The feature remains undated.
- 6.1.3 The only datable feature was the brick-built wall foundation forming the demolished continuation of the west wall of the tennis court building. This is of 19th century date and is of limited archaeological significance.

6.2 Deposit survival and existing impacts

- 6.2.1 The site had clearly been truncated previously. The bricks, brick rubble and CBM present in some of the made ground layers suggested that previously existing buildings perhaps associated with the tennis club had been demolished, and the ground re-levelled incorporating some of the demolition rubble, overlain with imported topsoil. The presence of the remains of the demolished brick wall lends credence to this theory.
- 6.2.2 The survival of the subsoil layer [004] suggested that any archaeological features cut into the natural geology [005] would still be intact. Therefore, it can be concluded that the site has good potential for archaeological remains.

6.3 Consideration of research aims

- 6.3.1 The general research aims, with regard to determining the presence or absence of archaeological remains, assessing the character of remains, recording their extent and preservation were met, although the fragmentary remains of the single encountered feature, a stone wall footing, remain undated by associated finds. Any further research should perhaps be focussed on the date and function of the wall footing in relation to the historic property.
- 6.3.2 It was clear that previous groundworks/demolition have caused quite extensive truncation to the site, although an apparently intact subsoil horizon survived.

BIBLIOGRAPHY

ASE 2013. *Festival of British Archaeology 2013 Community Excavation, Petworth House, Petworth, West Sussex*, Unpub. ASE client report no. 2013224-6157

ASE 2015. *The 'Big Dig' 2015 Community Excavation, Petworth House, Petworth, West Sussex*, Unpub client report report 2015323-7636

ASE 2017. *Petworth Park, Petworth, West Sussex – Written Scheme of Investigation for an Archaeological Watching Brief*. Unpub. ASE document

BGS 2017. British Geological Survey, Geology of Britain Viewer, accessed 17.07.2017
<http://mapapps.bgs.ac.uk/geologyofbritain/home.html>

CBAS 2014. Petworth Park Archaeology Project Festival of British Archaeology Community Dig. Unpub. Chris Butler Archaeological Services client report

CIfA 2014. *Standard and Guidance for the Collection, Documentation, Conservation and Research of Archaeological Materials*

Dommett, T., 2017. *Petworth Park, Petworth, West Sussex, Brief for archaeological watching brief at Petworth Park*. National Trust project outline brief.

ESCC / WSCC, 2015 *Sussex Archaeological Standards*

Petworth Real Tennis 2017. <http://petworthrealtennis.com/history/history-of-the-court/>
accessed 17.07.2017

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HER Summary

Site code	TPP17				
Project code	170582				
Planning reference	SDNP/15/05134/FUL				
Site address	Petworth Real Tennis Club, Estate Yard, Petworth House, Petworth, GU28 0DU				
District/Borough	Chichester				
NGR (12 figures)	497510 121713				
Geology	Lower Greensand Group (Eastbourne Member) in the south and Wealden Group mudstones and siltstones (Weald Clay Formation) in the north.				
Fieldwork type			WB		
Date of fieldwork	12 th – 31 st July 2017				
Sponsor/client	National Trust				
Project manager	Neil Griffin, Paul Mason				
Project supervisor	Steve Price				
Period summary					
				Post-Medieval	
Project summary	<p><i>Archaeology South-East carried out an archaeological watching brief at Petworth Real Tennis Club between 12th and 31st July 2017. The fieldwork was commissioned by The National Trust.</i></p> <p><i>The ground works consisted of the excavation of drainage and ground beam trenches. Five trenches were monitored. The stratigraphic sequence on site consisted of imported topsoil overlying various made ground deposits. These deposits were overlying a buried subsoil layer, which overlay the natural geology. The site exhibited evidence of previous truncation, which may have been due to the demolition of previously existing buildings and subsequent levelling.</i></p> <p><i>The watching brief uncovered the remains of an undated and truncated wall footing and a brick-built footing probably dating from the 1870s, and shown on the Ordnance Survey map of 1897. No other archaeological finds, features or deposits were identified.</i></p>				

OASIS Form

archaeol6-292083

Project details

Project name	An Archaeological Watching Brief at Petworth Real Tennis Club, Estate Yard, Petworth House, Petworth, GU28 0DU
Short description of the project	Archaeology South-East carried out an archaeological watching brief at Petworth Real Tennis Club between 12th and 31st July 2017. The fieldwork was commissioned by The National Trust. The ground works consisted of the excavation of drainage and ground beam trenches. Five trenches were monitored. The stratigraphic sequence on site consisted of imported topsoil overlying various made ground deposits. These deposits were overlying a buried subsoil layer, which overlay the natural geology. The site exhibited evidence of previous truncation, which may have been due to the demolition of previously existing buildings and subsequent levelling. The watching brief uncovered the remains of an undated and truncated wall footing and a brick-built footing probably dating from the 1870s, and shown on the Ordnance Survey map of 1897. No other archaeological finds, features or deposits were identified.
Project dates	Start: 12-07-2017 End: 31-07-2017
Previous/future work	No / Not known
Any associated project reference codes	170582 - Contracting Unit No.
Any associated project reference codes	TPP 17 - Sitecode
Type of project	Recording project
Site status	National Trust land
Current Land use	Vacant Land 1 - Vacant land previously developed
Monument type	WALL Uncertain
Monument type	WALL Post Medieval
Significant Finds	NONE None
Investigation type	"Watching Brief"
Prompt	Direction from Local Planning Authority - PPS

Project location

Country	England
Site location	WEST SUSSEX CHICHESTER PETWORTH Petworth Real Tennis Club, Estate Yard, Petworth House, Petworth, GU28 0DU
Postcode	GU28 0DU
Study area	150 Square metres
Site coordinates	SU 497510 121713 50.906314183878 -1.292341715149 50 54 22 N 001 17 32 W Point

Project creators

Name of Organisation	Archaeology South East
Project brief originator	Archaeology South East
Project design originator	National Trust

Project director/manager Neil Griffin/ Paul Mason
Project supervisor Steve Price
Type of sponsor/funding body Client

Project archives

Physical Archive Exists? No
Physical Archive recipient National Trust
Physical Contents "other"
Digital Archive recipient National Trust
Digital Contents "other"
Digital Media available "Images raster / digital photography"
Paper Archive recipient National Trust
Paper Contents "other"
Paper Media available "Context sheet", "Drawing", "Matrices", "Photograph", "Plan", "Report", "Section"

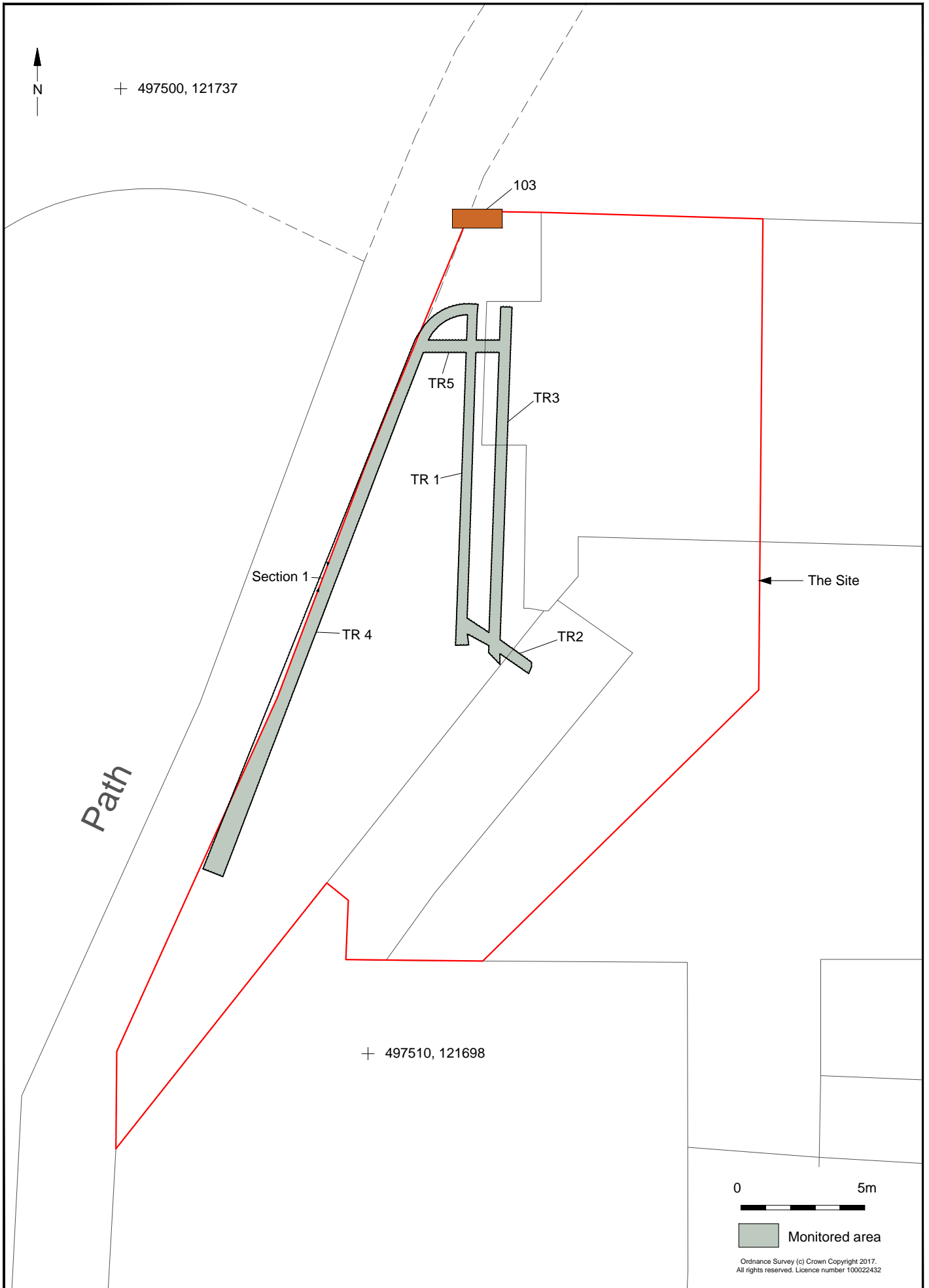
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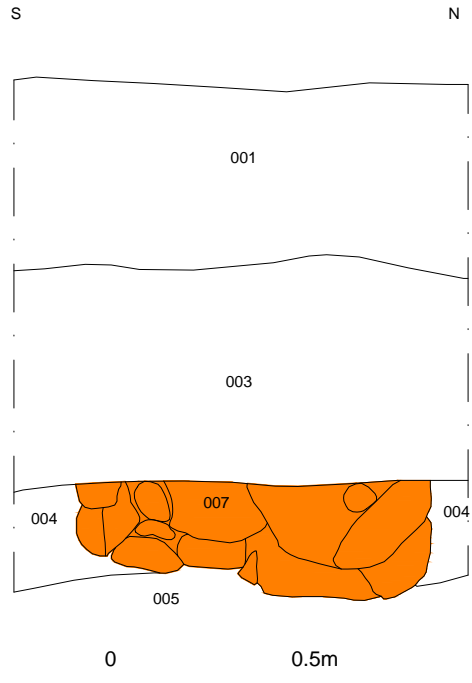
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Project Ref: 170582	August 2017	Site location		
Report Ref: WSI	Drawn by: AR			



© Archaeology South-East		Petworth House, Real Tennis Courts, Petworth, West Sussex	Fig. 2
Project Ref: 170582	August 2017	Site Location	
Report Ref: 2017351	Drawn by: AR		

Section 1



007, looking north west

© Archaeology South-East		Petworth House, Real Tennis Courts, Petworth, West Sussex	Fig. 3
Project Ref: 170582	August 2017	Trench 4, section and photograph	
Report Ref: 2017351	Drawn by: AR		

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