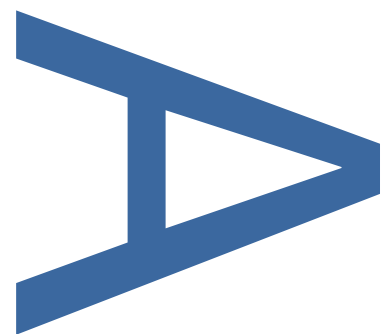
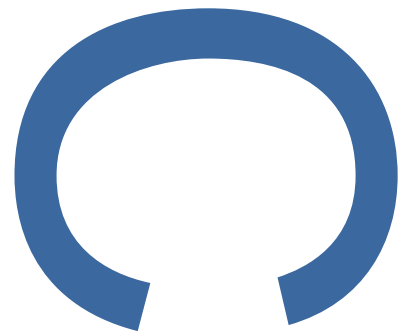


**HAMPTON COURT PALACE,
APARTMENT 35 COURTYARD: AN
ARCHAEOLOGICAL EVALUATION**

SITE CODE: HCP 170

**LOCAL PLANNING AUTHORITY:
LONDON BOROUGH OF RICHMOND**

AUGUST 2018



DOCUMENT VERIFICATION

Site Name

HAMPTON COURT PALACE, APARTMENT 35 COURTYARD

Type of project

AN ARCHAEOLOGICAL EVALUATION

Quality Control

Pre-Construct Archaeology Limited Project Code			K5651
	Name	Signature	Date
Text Prepared by:	J Langthorne		2.8.18
Graphics Prepared by:	M Steel		2.8.18
Graphics Checked by:	M Roughley	M Roughley	3.8.18
Project Manager Sign-off:	H Hawkins	H Hawkins	3.8.18

Revision No.	Date	Checked	Approved

Pre-Construct Archaeology Ltd
Unit 54
Brockley Cross Business Centre
96 Endwell Road
London
SE4 2PD

**HAMPTON COURT PALACE, APARTMENT 35 COURTYARD: AN
ARCHAEOLOGICAL EVALUATION**

Site Code: HCP 170

Central NGR: TQ 15732 68524

Local Planning Authority: LONDON BOROUGH OF RICHMOND-UPON-THAMES

Planning Reference:

Other reference if any: 3910096 (Accession code)

Commissioning Client: HISTORIC ROYAL PALACES

Written/Researched by: JAMES LANGTHORNE
Pre-Construct Archaeology Limited

Project Manager: HELEN HAWKINS (MCIfA)

Contractor: Pre-Construct Archaeology Limited
Unit 54 Brockley Cross Business Centre
96 Endwell Road
Brockley
London SE4 2PD

Tel: 020 7732 3925

Fax: 020 7732 7896

E-mail: hhawkins@pre-construct.com

Web: www.pre-construct.com

© Pre-Construct Archaeology Limited

August 2018

© The material contained herein is and remains the sole property of Pre-Construct Archaeology Limited and is not for publication to third parties without prior consent. Whilst every effort has been made to provide detailed and accurate information, Pre-Construct Archaeology Limited cannot be held responsible for errors or inaccuracies herein contained.

CONTENTS

1	ABSTRACT	3
2	INTRODUCTION	4
3	GEOLOGY AND TOPOGRAPHY	5
4	ARCHAEOLOGICAL AND HISTORICAL BACKGROUND	6
5	ARCHAEOLOGICAL METHODOLOGY	7
6	ARCHAEOLOGICAL SEQUENCE	9
7	INTERPRETATION AND CONCLUSIONS	11
8	ACKNOWLEDGEMENTS	12
9	BIBLIOGRAPHY	12
	APPENDIX 1: PLATES.....	19
	APPENDIX 2: CONTEXT INDEX	22
	APPENDIX 3: SITE MATRIX.....	24
	APPENDIX 4: POTTERY ASSESSMENT.....	25
	APPENDIX 5: CBM ASSESSMENT.....	26
	APPENDIX 6: CLAY TOBACCO PIPE ASSESSMENT	27
	APPENDIX 7: METAL ASSESSMENT.....	28
	APPENDIX 8: OASIS FORM.....	29

FIGURES

Figure 1: Site Location	13
Figure 2: Trench Location	14
Figure 3: Phase plans: Phases 1 and 2	15
Figure 4: Phase Plans: Phases 3 and 4.....	16
Figure 5: Sections	17
Figure 6: Historic Overlay.....	18

1 ABSTRACT

- 1.1 This report details the results of an archaeological evaluation undertaken by Pre-Construct Archaeology Ltd on behalf of Historic Royal Palaces in the courtyard immediately outside Apartment 35, Hampton Court Palace
- 1.2 The archaeological investigation, carried out between 11th and 19th July 2018, consisted of a single trench: Trench 1. The excavation and recording of the trench was conducted in accordance with the standards specified by the Chartered Institute for Archaeologists and following the guidelines issued by Historic England.
- 1.3 The excavation of Trench 1 highlighted several phases of activity dating from the Tudor period onwards, despite the vicissitudes inflicted by several modern intrusions including multiple modern services. These phases of activity were for the most part represented by substantial structures including the stepped brick foundation of a Tudor turret, a severely truncated 17th-18th century stair foundation, a later post-medieval or early modern brick culvert, and a large modern brick and concrete mass that filled the void resulting from the collapse or demolition of that culvert.
- 1.4 No evidence for archaeological remains or deposits that pre-dated the 16th century, such as those belonging to the late medieval moated manor, were encountered during the investigation.
- 1.5 Sand and gravel natural was encountered within boreholes in the base of Trench 1 at heights between 8.10-8.26m OD.

2 INTRODUCTION

- 2.1 An archaeological investigation commissioned by Historic Royal Palaces was undertaken within the courtyard outside Apartment 35, Hampton Court Palace in the London Borough of Richmond-upon-Thames TQ 15732 68524 (Figure 1 and Plate 1), between 11th and 19th July 2018. The boundaries of the site were defined by a courtyard to the east, by Apartment 35 to the south, by an exhibition room and a further extent of the courtyard to the west and by the southern wall of the Colonnade to the north, and it encompassed an area of approximately 12.80 square metres.
- 2.2 The archaeological evaluation consisted of a single trench, Trench 1 (Figure 2), which was situated in the proposed location for a lift that would permit step free access to the upper level of the building to the south of the trench. In addition to the general aims of the project regarding recording, reporting and archiving the character of any archaeological material within the trench there were several specific objectives:
- To record any evidence relating to the construction and foundations of the existing structures.
 - To record any evidence relating to the usage of the area during the 11th – 16th century.
 - To record any evidence relating to the construction and location of the late medieval moat.
 - To record any evidence relating to the construction and location of the 16th century turret.
 - To record any evidence relating to the construction and location of the late 17th/ early 18th century stair.
- 2.3 The Brief for Archaeological Evaluation (Jackson 2018) detailed the methodology by which the archaeological investigation was undertaken. The Brief followed Historic England guidelines (Historic England 2015) and those of the Chartered Institute for Archaeologists (CIFA 2014). The evaluation was supervised by James Langthorne. The site was managed by Helen Hawkins for Pre-Construct Archaeology Limited and monitored by Jane Siddell, Inspector of Ancient Monuments for Historic England.
- 2.4 The palace, grounds, and gardens of Hampton Court Palace form a nationally important archaeological and historical site and is demarcated as a Scheduled Monument (Surrey No. 83).
- 2.5 The site was given the Historic Royal Palaces site code HCP 170. The complete archive comprising written, drawn and photographic records will be deposited in accordance with Historic Royal Palaces standards (Historic Royal Palaces 2015a and 2015b) under the Accession Code 3910096.

3 GEOLOGY AND TOPOGRAPHY

3.1 Geology

3.1.1 The geology on the site comprises the London Clay deposits that form the London Basin sealed beneath Kempton Park floodplain gravels. These gravel terraces are further overlain in parts by alluvium, defined as 'mainly sand, silt and clay'.

3.2 Topography

3.2.1 The general topography of Hampton Court Palace in the vicinity of Trench 1 was level ground at an approximate height of 9.44m OD

3.2.2 The site is a relatively short distance to the north and east of the River Thames.

4 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

4.1 Introduction

4.1.1 Hampton Court Palace, the building and its grounds, are acknowledged as an extensively documented and nationally important archaeological and historical site.

4.1.2 The archaeological and historical background in this section deals with the specific location of the excavation and has been summarized from the Brief for Archaeological Evaluation (Jackson 2018).

4.2 **Late Medieval**

4.2.1 During excavations in the Clock Court, a short distance to the north of Trench 1, the position of the northern retaining wall of a moat was established. It was concluded that the moat formed part of the 15th century moated manor house property owned by Giles Daubeney (1451-1508).

4.2.2 Several structures have also been encountered to the south of Trench 1 within the footprint of Apartment 35. These structures have been attributed to a period pre-dating 1515 and the construction of Cardinal Wolsey's palace and may be associated with agriculture although this has not been currently confirmed.

4.3 **Post-Medieval**

4.3.1 It is known that the location of Trench 1 has been extensively developed during the post-medieval period. A turret was built on the site between c. 1522-1529 and stood until the late 17th or early 18th century. The turret was removed in order to accommodate a new, larger, building that contained a staircase, first identified on a plan of Hampton Court Palace dated to 1710-14.

4.3.2 The staircase, in addition to a number of smaller structures associated with it, were themselves subsequently demolished in 1965, converting the area outside Apartment 35 into the courtyard that has remained extant to the present day.

5 ARCHAEOLOGICAL METHODOLOGY

5.1 The aim of the investigation was to determine, as far as was reasonably possible, the following general objectives:

- To record the presence or absence, date, nature and extent of any archaeological material within the excavation areas.
- To determine the survival, extent and minimum depth below the surface of any archaeological deposits.
- To preserve by record any archaeological material uncovered as part of the project.
- To establish a broad phased plan of any archaeological remains revealed during the evaluation.
- To prepare a fully illustrated report on the results of the archaeological evaluation that is proportionate to the findings and compliant with all relevant regulations, policy, guidance and good practice.
- To archive all documents, material and digital records created as a result of any archaeological investigations (associated with the evaluation) with Historic Royal Palaces.

Further to the general objectives there were the following specific objectives:

- To record any evidence relating to the construction and foundations of the existing structures.
- To record any evidence relating to the usage of the area during the 11th – 16th century.
- To record any evidence relating to the construction and location of the late medieval moat.
- To record any evidence relating to the construction and location of the 16th century turret.
- To record any evidence relating to the construction and location of the late 17th/ early 18th century stair.

5.2 All works were undertaken in accordance with the guidelines set out by Historic England and the Chartered Institute for Archaeologists.

5.3 The works consisted of the excavation of a single trench: Trench 1. The dimensions of Trench 1 were initially defined as 4.77m north-south by 2.05m east-west and were later extended by 1.08m north-south by 1.14m east-west in the north-west corner of the trench and 1.72m north-south by 0.94m east-west in the south-east corner of Trench 1. Trench 1 reached a maximum depth of 1.07m which was extended to 1.49m within a borehole in the base of Trench 1 (Figures 2 and 3).

5.4 The flagstones that capped the central and northern parts of Trench 1 and the modern masonry that occupied the southern part of the trench were broken out by Simpsons Brickwork Conservation Limited after which the trench was handed over to the archaeology team. The trench was excavated, and the deposits and structures revealed were cleaned, using hand tools. When further conventional excavation was no longer possible due to trench constraints, two boreholes were hand augered in the base of Trench 1 to ascertain the potential depth of natural deposits.

5.5 The recording systems adopted during the investigations were fully compatible with those widely used elsewhere in London, that is those developed out of the Department of Urban Archaeology Site Manual, now published by the Museum of London Archaeological Service (MoLAS 1994), and with the PCA Site Manual (Taylor and Brown, 2009). The site archive was organised to be compatible with the depositional standards of Historic Royal Palaces.

5.6 The location of Trench 1 was determined by triangulating from map detail and a temporary benchmark established on the site, at a height of 9.46m OD, extrapolated from the

- registered floor level, 9.44m OD, within the Audio-Visual Room a short distance to the south-east of the trench.
- 5.7 A full photographic record was taken, consisting of a digital photographic archive that was maintained during the course of the archaeological investigation.
- 5.8 The complete archive produced during the evaluation, comprising written, drawn and photographic records, will be deposited with Historic Royal Palaces under the Accession Code 3910096 (Historic Royal Palaces 2015a and 2015b).

6 ARCHAEOLOGICAL SEQUENCE

6.1 Archaeological Phase 1: Natural (Figures 3 and 5)

6.1.1 The earliest deposit recorded during the evaluation was loose, light grey brown sand and gravel seen within Borehole 1 [17], and Borehole 2 [18], in the base of Trench 1. Natural sand and gravel [17]/ [18] was recorded at heights between 8.10m-8.26m OD.

6.1.2 Natural sandy gravel [17]/ [18] was overlain by a layer of fairly loose, dark grey brown slightly clay sandy silt [16]. This interface deposit was encountered at a maximum height of 8.59m OD within a sondage in the northern part of Trench 1.

6.2 Archaeological Phase 2: Tudor (Figures 3 and 5 and Plate 2)

6.2.1 The southern part of Trench 1 was almost entirely occupied by the foundation for the Tudor turret [12] that lay directly beneath modern brickwork and the flagstones and associated bedding layer of the courtyard. Constructed of red Tudor brick and fairly loose, friable light grey brown, slightly gritty lime mortar, principally in a stretcher bond, the foundation was stepped on its northern face. The stepping may indicate that the original construction cut was on the northern side, however later developments had obliterated any indication of the putative construction cut.

6.2.2 Turret foundation [12] extended 2.34m north-south by 2.18m east-west and extended over 0.42m deep. The base of the structure was not seen during the archaeological investigation. It was recorded at a maximum height between 8.82m-9.11m OD.

6.3 Archaeological Phase 3: Post-Medieval 1600-1900 (Figures 4 & 5 and Plates 3 & 4)

6.3.1 Abutting the northeastern aspect of Tudor turret foundation [12] was a north-south orientated foundation [3] built of red brick and fairly firm, light-mid grey brown gritty lime mortar. The bond of the brickwork was unclear due to both the obscuring mortar of the structure itself and the effect of later structure [11]. The masonry ran 2.43m north-south by 0.64m east-west, attained a maximum depth of 0.68m and was encountered at a maximum height of 9.27m OD. It was concluded foundation [3] formed part of the 17th-18th century staircase structure identified on the 1710-14 plan (Figure 6).

6.3.2 Backfilling stair foundation [3] was a series of made ground deposits; fairly loose, light greyish brown sand [15] succeeded by firm mottled reddish brown and light grey sandy silt [14] and finally by fairly loose, mid yellow brown sand [6]. These layers were encountered at heights of 8.77m OD, 8.89m OD and 9.11m OD respectively and red brick and peg tile dating from 1480-1900 was recovered from layers [14] and [15].

6.3.3 Both post-medieval foundation [3] and made ground [6] were severely truncated by construction cut [5] containing masonry culvert [10]. Culvert [10] was constructed of red brick and fairly concreted greyish white cement in alternating courses of half brick headers and whole brick stretchers and appeared to have a heavily truncated irregular cement floor. The culvert was orientated west-north-west by east-south-east and extended 1.03m, it was 0.75m wide and reached a maximum depth of 0.24m. Culvert [10] was recorded at heights between 8.79-8.86m OD. At some point the base of the culvert appears to have been removed, staining the layer below [9] a dark blackish blue colour. Layer [9] was of a similar composition to interface layer [16] and was recorded at a maximum height of 8.61m OD.

6.4 Archaeological Phase 4: Modern (Figures 4 & 5 and Plate 5)

6.4.1 Culvert [10] was backfilled with fairly firm but friable light brown silty sand and rubble [4] and its western extent within Trench 1 appeared to have collapsed or been deliberately demolished creating a void [13] that had been filled with a mixture of modern concrete and masonry [11] which attained at maximum height of 9.25m OD. The installation of concrete and masonry 'plug' [11] and potentially the truncation of culvert [10] was likely to have occurred during building works in the courtyard circa 1965.

6.4.2 A number of services were also seen to cross Trench 1 including a large concrete coated east-west aligned pipe [7] within cut [8] at the northern end of the trench, a north-south orientated electricity cable, a thin copper pipe that was orientated northwest-southeast that ran diagonally across almost the entire expanse of the trench and a lead pipe in the south-

east corner of the trench. The functions of all of the services had been discontinued with the potential exception of pipe [7].

- 6.4.3 With the exception of Tudor turret foundation [12] which lay beneath 2 courses of post-medieval brickwork, dating from 1750-1850, and a further two courses of modern masonry all deposits in Trench 1 were sealed beneath two successive layers of modern made ground [2] and [1]. Layer [2] was composed of a firm but friable mixture of mottled reddish brown and yellow brown sandy silt and rubble encountered at heights between 9.08-9.16m OD. Its successor, made ground [1], consisted of firm to fairly loose mottled mid yellow, reddish brown and mid-dark grey brown sandy silt, sand and brick rubble at heights between 9.29-9.32m OD.
- 6.4.4 Made ground [1] was ultimately capped by the flagstones of the courtyard and its associated bedding layer, which consisted of a mixture of sand and cement.

7 INTERPRETATION AND CONCLUSIONS

7.1 The Brief for Archaeological Evaluation (Jackson 2018), prepared before archaeological work commenced at Hampton Court Palace, highlighted the general and specific objectives and aims for the site. These were;

- To record the presence or absence, date, nature and extent of any archaeological material within the excavation areas.
- To determine the survival, extent and minimum depth below the surface of any archaeological deposits.
- To preserve by record any archaeological material uncovered as part of the project.
- To establish a broad phased plan of any archaeological remains revealed during the evaluation.
- To prepare a fully illustrated report on the results of the archaeological evaluation that is proportionate to the findings and compliant with all relevant regulations, policy, guidance and good practice.
- To archive all documents, material and digital records created as a result of any archaeological investigations (associated with the evaluation) with Historic Royal Palaces.

Further to the general objectives there were the following specific objectives:

- To record any evidence relating to the construction and foundations of the existing structures.
- To record any evidence relating to the usage of the area during the 11th – 16th century.
- To record any evidence relating to the construction and location of the late medieval moat.
- To record any evidence relating to the construction and location of the 16th century turret.
- To record any evidence relating to the construction and location of the late 17th/ early 18th century stair.

7.2 Several phases of activity were evident within Trench 1, notably the substantial masonry stepped foundation of the Tudor turret in the southern part of the trench [12], the severely truncated 17th-18th century stair foundation [3], late post-medieval-early modern brick culvert [10], and the large, modern brick and concrete mass [11] that filled a void resulting from the collapse or demolition of culvert [10].

7.3 The evaluation found no evidence of archaeological remains or deposits that pre-dated the 16th century, including remains relating to the late medieval moat. This was interpreted in part by the extensive redevelopment of the area since the Tudor period; although in the specific case of the moat, given the heights of sand and gravel natural encountered within boreholes in the base of the trench, 8.10-8.26m OD, it seems likely that the moat was situated further to the north.

7.4 The presence of several services including a copper water pipe, an electricity cable and the large concrete coated pipe [7] at the northern end of the trench, in addition to the severe truncation 17th-18th century stair foundation [3] had undergone, and the presence of multiple layers of made ground containing masonry rubble were indicative of extensive modern intrusion within the trench.

8 ACKNOWLEDGEMENTS

- 8.1 Pre-Construct Archaeology Ltd would like to thank Daniel Jackson and Historic Royal Palaces for commissioning the archaeological work.
- 8.2 We also thank Jane Siddell, Inspector of Ancient Monuments, who monitored the site on behalf of Historic England
- 8.3 Thanks also to the staff of Hampton Court Palace, Simpsons Brickwork Conservation Limited and Saltash Construction for their help and assistance on site enabling the archaeological works, and to Mauro Puddu of PCA for his hard work on site.
- 8.4 The author would like to thank Helen Hawkins for project managing and editing this report, Mick Steel for CAD illustrations, Chris Jarrett for his assessment of both the pottery and the clay tobacco pipe, Amparo Valcarcel for her assessment of ceramic building material, Marit Gaimster for her assessment of the metal finds, and John Joyce for logistics.

9 BIBLIOGRAPHY

CIFA, 2014. *Standards and Guidance for Archaeological Field Evaluation*.

GLAAS, 2015. *Guidelines for Archaeological Projects in Greater London*.

Historic Royal Palaces 2015a. *HRP Photography and Video Standards*. Historic Royal Palaces unpublished report.

Historic Royal Palaces 2015b. *Deposition of Archaeological Excavation Archives: Guidelines for Contractors*. Historic Royal Palaces unpublished report.

Jackson, D. 2018. *Brief for Archaeological Evaluation: HCP 170 Hampton Court Palace, Apt 35 Courtyard*. Historic Royal Palaces unpublished report.

Taylor, J. with Brown, G. 2009. *Fieldwork Induction Manual: Operations Manual 1*, Pre-Construct Archaeology Limited.



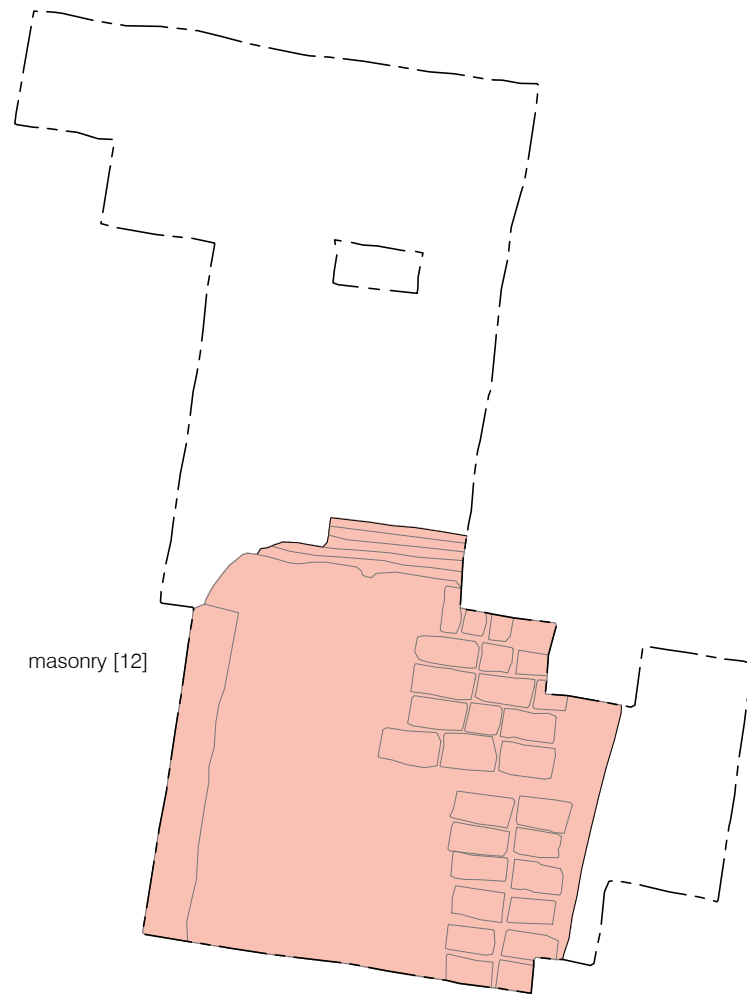
Contains Ordnance Survey data © Crown copyright and database right 2018

© Pre-Construct Archaeology Ltd 2018

02/08/18 MS

Figure 1
Site Location
1:20,000 at A4





© Pre-Construct Archaeology Ltd 2018
03/08/18 MS

Figure 3
Phases 1 and 2
1:40 at A4

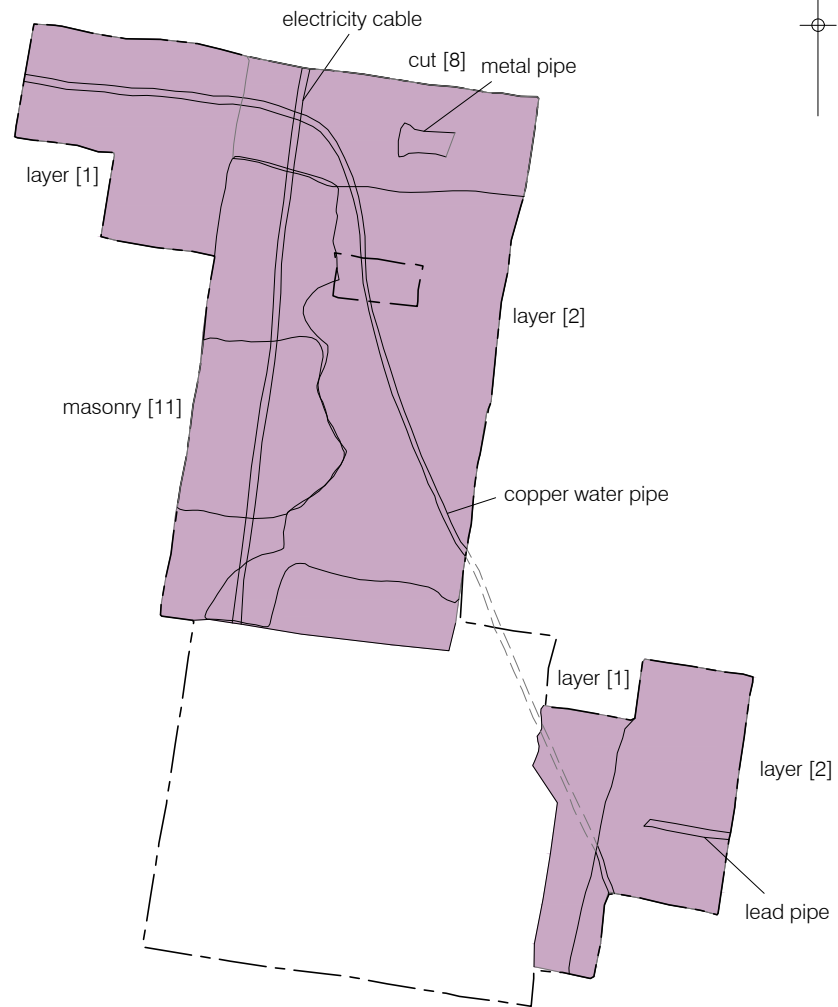
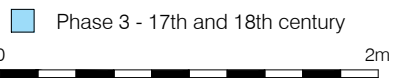
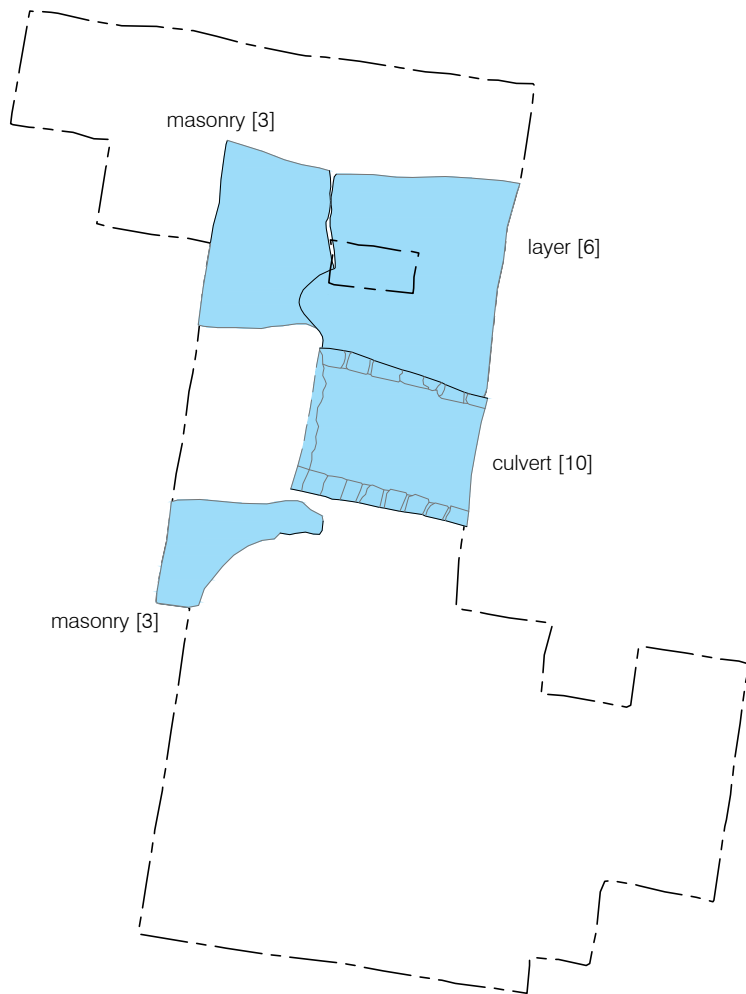
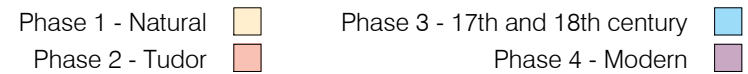
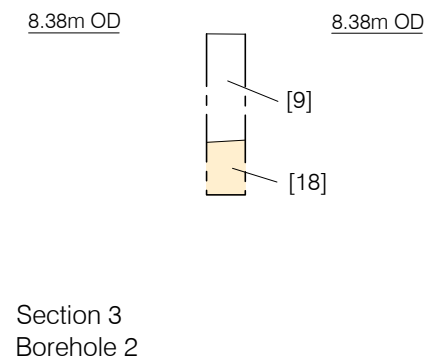
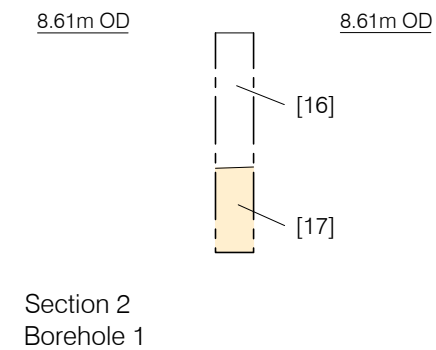
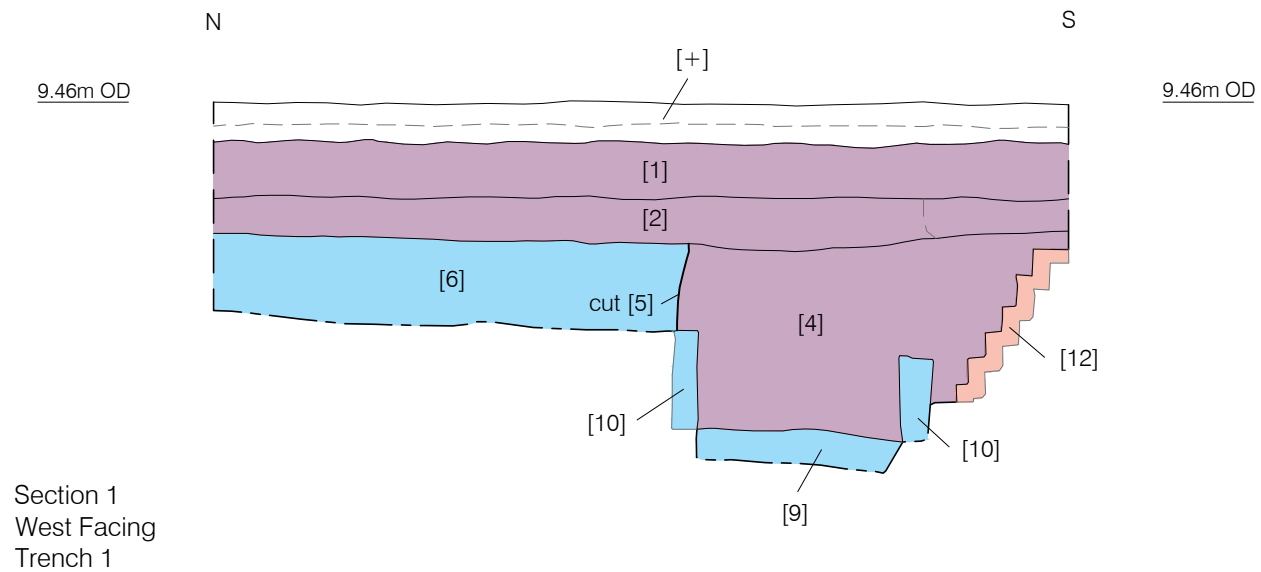


Figure 4
Phases 3 and 4
1:40 at A4





APPENDIX 1: PLATES

Plate 1: South-west facing view of Trench 1.



Plate 2: West facing view of Tudor turret foundation [12] (1m scale).



Plate 3: West facing view of stepped turret foundation [12], stair foundation [3] and modern concrete and brick 'plug' [11] (1m scale).



Plate 4: West facing view of brick culvert [10] (1m scale).



Plate 5: West facing section in Trench 1 (1m scale).

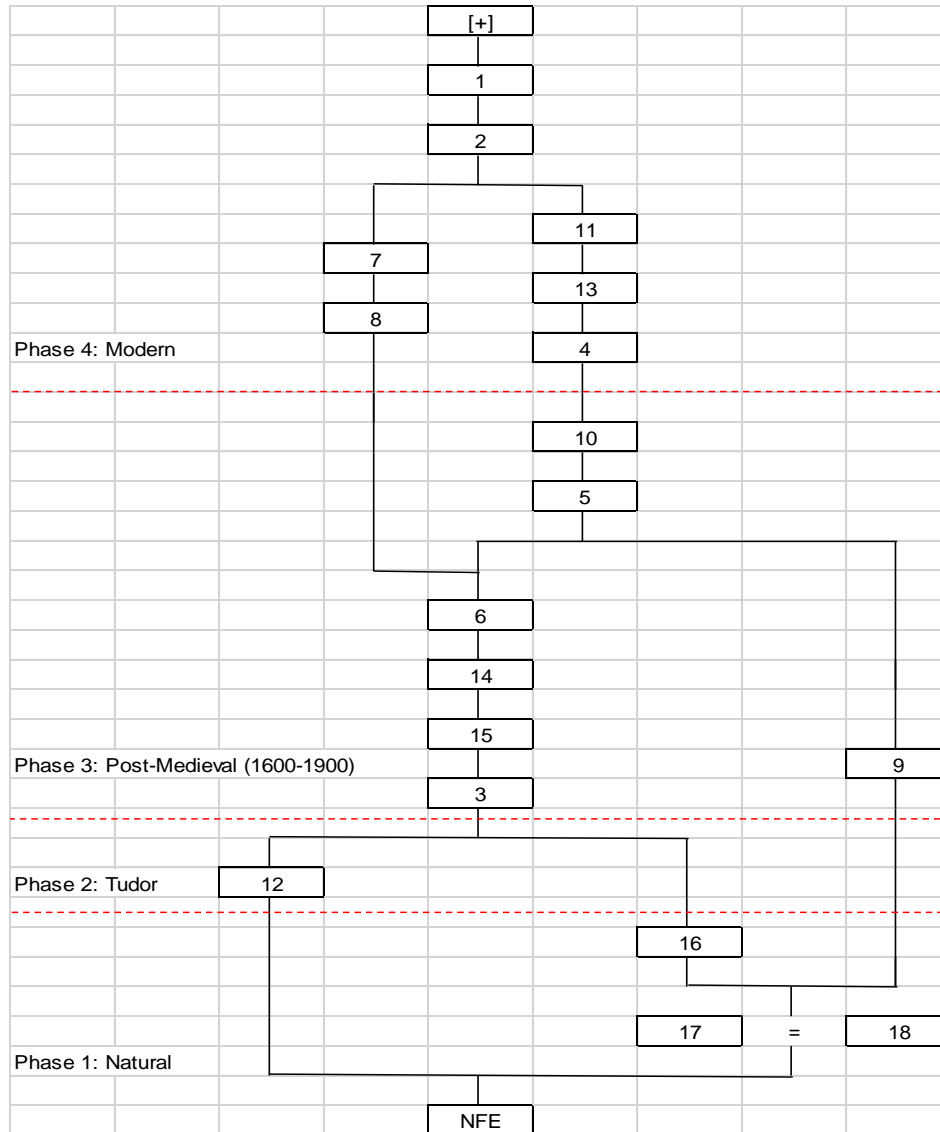


APPENDIX 2: CONTEXT INDEX

Context	Type	Trench	Interpretation	Highest Level (m OD)	Lowest Level (m OD)	Phase
1	Layer	1	Modern made ground	9.32	9.29	4
2	Layer	1	Made ground	9.16	9.08	2
3	Masonry	1	17th/18th century stair foundation	9.27	9.11	3
4	Fill	1	Demolition rubble backfill within culvert [10].	9.11	9.11	4
5	Cut	1	Construction cut for culvert [10]	8.6	8.45	3
6	Layer	1	Sandy deposit	9.11	8.94	3
7	Fill	1	Concrete coated service pipe filling cut [8].	9.14	9.03	4
8	Cut	1	Construction cut for service pipe	9.14	8.91	4
9	Layer	1	Stained sandy silt deposit.	8.61	8.61	3
10	Masonry	1	Culvert	8.86	8.73	3
11	Masonry	1	Modern concrete/brick 'mass' or 'plug' within cut [13]	9.25	9.13	4
12	Masonry	1	Stepped foundation for Tudor turret	9.11	8.82	2
13	Cut	1	Cut/Void resulting from the collapse of culvert [10].	9.23	8.85	4
14	Layer	1	Sandy silt and CBM rubble mixture/made ground.	8.89	8.89	3
15	Layer	1	Sandy deposit	8.77	8.77	3

Context	Type	Trench	Interpretation	Highest Level (m OD)	Lowest Level (m OD)	Phase
16	Layer	1	Potential interface layer onto natural sand	8.59	8.59	1
17	Natural	1	Natural sand and gravel seen in Borehole 1	8.26	8.26	1
18	Natural	1	Natural sand and gravel in Borehole 2.	8.1	8.1	1

APPENDIX 3: SITE MATRIX



APPENDIX 4: POTTERY ASSESSMENT

Chris Jarrett

A single sherd of pottery (20g) was recovered from the archaeological work and consists of the rim of a flower pot made in London area post-medieval redware (PMR), dated 1580–1900 and this was found in context [1]. The flower pot, according to its firing and narrow rounded rim finish, is most likely to date to the 19th-20th century. The sherd is of no significance and besides reflecting horticultural activity, which would be expected within the grounds of Hampton Court Palace, the only potential of the material is to date the context it was recovered from. There are no recommendations for further work on the pottery.

APPENDIX 5: CBM ASSESSMENT

REVIEW OF CERAMIC BUILDING MATERIAL, HAMPTON COURT PALACE, APT. 35 COURTYARD,
 LONDON BOROUGH OF RICHMOND-UPON-THAMES (HCP170)

Amparo Valcarcel

Central National Grid Reference: TQ 15732 68524

BUILDING MATERIALS SPOT DATES

Context	Fabric	Form	Size	Date range of material		Latest dated material		Spot date	Spot date with mortar
0	3032	Post Great fire brick, gently frogged	1	1666	1900	1666	1900	1750-1850	1750-1850
4	2276;3046;3100 WP;2281	Post-medieval peg tiles and sandy red bricks; fine yellow plaster; drain pipe fragments	7	1450	1950	1700	1950	1700-1850	1700-1850
7	UNK	Sanitary ware (unknown)	1	1750	1850	1750	1850	1750-1850	No mortar
14	2276;3046	Post-medieval peg tile and sandy red brick	2	1450	1900	1480	1900	1480-1900	No mortar
15	2276	Post-medieval peg tiles	3	1480	1900	1480	1900	1480-1900	1480-1900

Review

A small assemblage of ceramic building material was collected from the archaeological work. The remains of Tudor date were left in situ and no loose material from these structures was available to be sampled. The CBM report therefore refers to the later material collected from soft features.

The assemblage (14 fragments, 8.02 kg) consists of pieces of fragmentary post-medieval ceramic building material. Bricks are the most commonly represented form. The majority is made of local sandy red fabric 3046. The absence of sunken margins and the presence of sharp arises indicates a 1700-1900 date. Brick from [+], made of purple post Great fire fabric 3032, is gently frogged, suggesting a mid 18th to mid 19th century date.

Flat rectangular peg tiles attached to roofing battens by two nails (as represented by two nail holes), made of fabric 2276, is the only roofing material recovered from the site. A plaster fragment from [4] does not have any paint preserved. Two fragments of drain pipe, probably from the same example were collected from [4]. The piece from [7] appears to be a fragment of Victorian sanitary ware. All of the materials came from phases 3 and 4.

The presence of these bricks, the sanitary item and the drain pipe examples show a phase of construction in the mid of 18th and late 19th century. No further work is recommended.

APPENDIX 6: CLAY TOBACCO PIPE ASSESSMENT

Chris Jarrett

Two fragments of clay tobacco pipe stem were recovered from the archaeological work and these both consist of medium-thick stems with wide bores that are broadly dated to the 17th century. One stem is unstratified and the other was recovered from context [1]. The stems are of no significance and the only potential of the material is to broadly date the context it was recovered from. There are no recommendations for further work on the material.

APPENDIX 7: METAL ASSESSMENT

Märit Gaimster

Two metal finds, both of lead, were retrieved from context [4]; they are listed in the table below. There was no associated pottery from this context indicating a possible date for these objects.

One of the finds consists of a folded length of milled window came. The came has a plain web which might suggest a late medieval date (Knight 1985, 156; Mould 2011, 833). Milled window comes became prolific in the late 16th century, when they were produced on a hand-turned vice producing a characteristic ribbed or reeded web, a feature normally seen also on later window leads (Egan 1998, 51–2). The second object is a thin rectangular fitting formed of rolled lead sheet. At one end is a narrow oval opening, and at the other is a plain closed tongue-shaped finial. The function of this object is not clear, but it may have been part of a handle, threaded onto a central iron component and perhaps for a window.

No further work is recommended for these objects.

References

Egan, G., 1998, *The Medieval Household c.1150 - c.1450*, Medieval finds from Excavations in London 6, London: HMSO.)

Knight, B. 1985. 'Cames', 154–56 in J. N. Hare, Battle Abbey: *The Eastern Range and the Excavations of 1978–80*, HBMCE Archaeol. Rep. 2, London: HMSO

Mould, Q., 2011, 'Lead', 833–34 in W. Rodwell, *St Peter's, Barton-upon-Humber, Lincolnshire: A Parish Church and its Community. Volume 1: History, Archaeology and Architecture Part 2*, Exeter: Oxbow books, Oxford and Oakville.

context	description	pot date	recommendations
4	Lead window came; milled fragment with plain web (Knight's Type D); L 185mm+; flange W 5mm; quarry W 2.5–3mm	n/a	no further work
	Lead sheet fitting; rectangular and hollow with tongue-shaped end; W 15mm; L 110mm; possibly handle	n/a	no further work

HPC170: metal finds

APPENDIX 8: OASIS FORM

OASIS ID: preconst1-323714

Project details

Project name Archaeological Evaluation: Hampton Court Palace, Apartment 35 Courtyard

Short description of the project The excavation of a single trench, Trench 1, in the courtyard of Apartment 35 at Hampton Court Palace highlighted several phases of activity dating from the Tudor period onwards despite the vicissitudes inflicted by several modern intrusions including multiple modern services. These phases of activity were for the most part represented by substantial structures including the stepped brick foundation of a Tudor turret, a severely truncated 17th-18th century stair foundation, a later post-medieval or early modern brick culvert, and a large, modern brick and concrete mass that filled the void resulting from the collapse or demolition of that culvert. No evidence of archaeological remains or deposits that pre-dated the 16th century, such as those belonging to Giles Daubeney's late medieval moated manor, were encountered during the investigation. Sand and gravel natural was encountered within boreholes in the base of Trench 1 at heights between 8.10-8.26m OD.

Project dates Start: 11-07-2018 End: 19-07-2018

Any associated project reference codes HCP 170 - Sitecode

Any associated project reference codes 3910096 - Museum accession ID

Type of project Field evaluation

Site status Scheduled Monument (SM)

Site status (other) Archaeological and Historical Site of National Importance

Current Land use Other 8 - Land dedicated to the display of a monument

Monument type TUDOR TURRET FOUNDATION Medieval

Monument type TUDOR TURRET FOUNDATIO Post Medieval

Monument type STAIR FOUNDATION Post Medieval

Monument type CULVERT Post Medieval

Monument type	SERVICES Modern
Monument type	MADE GROUND Post Medieval
Monument type	MADE GROUND Modern
Monument type	CONCRETE AND MASONRY REINFORCEMENT Modern
Significant Finds	POTTERY Post Medieval
Significant Finds	CLAY TOBACCO PIPE Post Medieval
Significant Finds	CBM Post Medieval
Significant Finds	METAL STRAP Post Medieval
Significant Finds	WINDOW CANE Post Medieval
Methods techniques	& "Targeted Trenches"
Development type	Historic Royal Palace (proposed lift)
Prompt	Scheduled Monument Consent
Position in the planning process	Not known / Not recorded
Project location	
Country	England
Site location	GREATER LONDON RICHMOND UPON THAMES TEDDINGTON AND HAMPTON Apartment 35 Courtyard, Hampton Court Palace
Postcode	KT8 9AU
Study area	12.8 Square metres
Site coordinates	TQ 15732 68524 51.403418358702 -0.336000258937 51 24 12 N 000 20 09 W Point
Height OD / Depth	Min: 8.1m Max: 8.26m

Project creators

Name of Pre-Construct Archaeology Limited
Organisation

Project brief Historic Royal Palaces
originator

Project design Daniel Jackson
originator

Project Helen Hawkins
director/manager

Project supervisor James Langthorne

Type of Historic Royal Palaces
sponsor/funding
body

Name of Historic Royal Palaces
sponsor/funding
body

Project archives

Physical Archive Historic Royal Palaces at Hampton Court
recipient

Physical Archive ID 3910096

Physical Contents "Ceramics","Metal"

Digital Archive Historic Royal Palaces at Hampton Court
recipient

Digital Archive ID 3910096

Digital Contents "none"

Digital Media "Images raster / digital photography"
available

Paper Archive Historic Royal Palaces at Hampton Court
recipient

Paper Archive ID 3910096

Paper Contents "none"

Paper available Media "Context sheet","Matrices","Plan","Report","Section"

Project bibliography 1

Publication type A forthcoming report

Title An Archaeological Evaluation: Hampton Court Palace, Apartment 35 Courtyard

Author(s)/Editor(s) Langthorne, J.

Date 2018

Issuer or publisher Pre-Construct Archaeology Limited

Place of issue or publication London

Description A4 softcover grey literature report.

Entered by James Langthorne (jlangthorne@pre-construct.com)

Entered on 25 July 2018

PCA

PCA CAMBRIDGE

THE GRANARY, RECTORY FARM
BREWERY ROAD, PAMPISFORD
CAMBRIDGESHIRE CB22 3EN
t: 01223 845 522
e: cambridge@pre-construct.com

PCA DURHAM

UNIT 19A, TURSDALE BUSINESS PARK
TURSDALE
DURHAM DH6 5PG
t: 0191 377 1111
e: durham@pre-construct.com

PCA LONDON

UNIT 54, BROCKLEY CROSS BUSINESS CENTRE
96 ENDWELL ROAD, BROCKLEY
LONDON SE4 2PD
t: 020 7732 3925
e: london@pre-construct.com

PCA NEWARK

OFFICE 8, ROEWOOD COURTYARD
WINKBURN, NEWARK
NOTTINGHAMSHIRE NG22 8PG
t: 01636 370410
e: newark@pre-construct.com

PCA NORWICH

QUARRY WORKS, DEREHAM ROAD
HONINGHAM
NORWICH NR9 5AP
T: 01223 845522
e: cambridge@pre-construct.com

PCA WARWICK

UNIT 9, THE MILL, MILL LANE
LITTLE SHREWLEY, WARWICK
WARWICKSHIRE CV35 7HN
t: 01926 485490
e: warwick@pre-construct.com

PCA WINCHESTER

5 RED DEER COURT, ELM ROAD
WINCHESTER
HAMPSHIRE SO22 5LX
t: 01962 849 549
e: winchester@pre-construct.com

