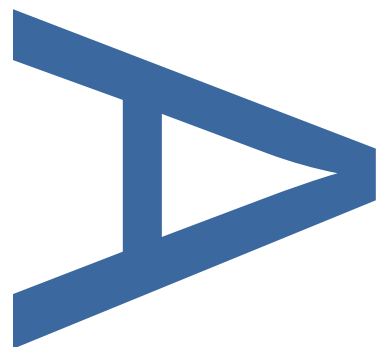
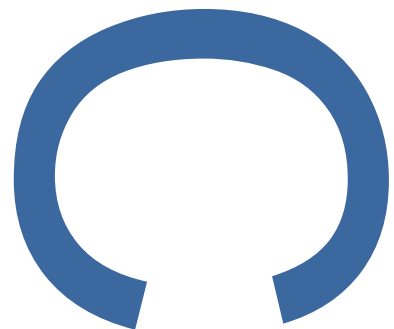


**HAMPTON COURT PALACE,  
HAMPTON COURT WAY, KT8 9AS:  
TROPHY DRIVE BOLLARDS  
INSTALLATION  
AN ARCHAEOLOGICAL WATCHING  
BRIEF**

**SITE CODE: HCP176**

**LOCAL PLANNING AUTHORITY:  
ROYAL BOROUGH OF RICHMOND UPON  
THAMES**

**APRIL 2019**



**DOCUMENT VERIFICATION**

**Site Name**

**Hampton Court Palace, Hampton Court Way, KT8 9AS: Trophy Drive  
Bollards Installation**

**Type of project**

**An Archaeological Watching Brief**

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**Hampton Court Palace, Hampton Court Way, KT8 9AS: Trophy Drive Bollards Installation**

**An Archaeological Watching Brief**

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**Local Planning Authority:** Royal Borough of Richmond upon Thames

**HRP Code:** HCP 176

**Central National Grid Reference:** TQ 15473 68585

**Written by:** Patric Cavanagh  
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April 2019

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**April 2019**

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## **1 INTRODUCTION**

- 1.1 Pre-Construct Archaeology Ltd (PCA), carried out an archaeological watching brief from 11th February to 1st March 2019 in the vicinity of Trophy Gates, the main entrance point leading to Hampton Court Palace. The work consisted the monitoring of ten trenches for the purpose of the installation of bollards. The work was carried out in accordance with a Written Scheme of Investigation (Stevenson 2018).
- 1.2 The archaeological recording was undertaken by Ellen Green and Patric Cavanagh and was project managed by Helen Hawkins, of Pre-Construct Archaeology Limited.
- 1.3 The central National Grid. Reference for the site was TQ 15473 68585
- 1.4 The completed archive comprising written and photographic records and report has the unique site code HCP 176, provided by Historic Royal Palaces.

## **2 GEOLOGY AND TOPOGRAPHY**

### 2.1 Geology

2.1.1 The solid geology of the site is shown by the British Geological Survey as London Clay, overlain by Taplow Gravel Formation.

### 2.2 Topography

2.2.1 The location of Hampton Court Palace lies within a meander of the River Thames. The river Thames lies at a distance of 67.16m to the south of the watching brief area.

## **3 HISTORICAL BACKGROUND**

3.1 The following background is taken from the WSI (Stevenson 2018).

3.1.1 Hampton Court Palace is a Scheduled Monument (No: SM LO 83, HA 1002009). The palace, gardens and grounds form an archaeological and historical site of national importance.

3.1.2 Hampton Court is first mentioned in the Domesday Book of 1086 being in the ownership of one Walter de St Valery.

3.1.3 During Henry VIII's 1530s phase of redevelopment he built the Outer Gate, later known as Trophy Gate, rebuilt circa 1700. During the mid-17th century, the Toye Inn was built outside the Trophy Gate on its south side. It is thought that it was constructed on the request of Oliver Cromwell to house his troops when he was at the palace.

3.1.4 In the late 1730s the former service buildings in the south-west corner of the West Front were given over to grace-and-favour accommodation, becoming known as the Trophy Gate Buildings. Sketches by John Spyers in the late 1770s (Stevenson 2018) illustrate the West Front as a highly domesticated area with palisades delimiting gardens in front of the Trophy Gate Buildings. By the reign of George III, the character of the West Front dramatically changed once again when he increased troop presence at the palace. The grace-and-favour residents had to surrender their accommodation to the cavalry.

3.1.5 Outer Green Court became a muddle of yards, stables, offices and small gardens. To the west, the Toye Inn was demolished circa 1840. The Trophy Gate buildings followed soon afterwards, though it is not certain when they were taken down.

3.1.6 Several archaeological excavations have been undertaken on West Front over the last 30-40 years, progressively enabling a greater understanding of the extent of the archaeological remains in this area. Several investigations have focused on the western extent of the West Front. In March 2009, a watching brief was undertaken during the installation of new pedestrian barriers at the Trophy Gate Drive. The watching brief revealed modern overburden related to the current road surface. Two of the excavated slots revealed foundations for the

inner piers of the Trophy Gate, constructed in 1701. No other archaeological features were observed within the excavated slots.

- 3.1.7 In 2012, a single trench measuring 20m NE-SW, 12.5m NWSE, 0.45m wide and 0.4m deep was excavated across the main access road to the south-east of the Trophy Gate entrance in advance of the installation of new services. The watching brief revealed only modern tarmac and associated levelling.
- 3.1.8 In autumn 2012, a field evaluation was undertaken in advance of the re-landscaping and reconfiguration of Toy Green and the Trophy Gate entrance. The evaluation revealed what was almost certainly the northern wall of The Toye Inn, together with a surviving remnant of an internal brick floor and a possible ancillary building or garden wall, which does not appear to be depicted on any of the surviving cartographic sources. A watching brief was later undertaken in February 2013 during the resurfacing and landscaping works. The watching brief revealed evidence for multiple phases of landscaping, in addition to deposits that are likely to represent earlier surfaces to the west of the Trophy Gate. The bedding layers for these surfaces comprised possible masons' waste, which may have originated from the yards and workshops known to have occupied Outer Green Court in the 16th and 17th centuries. In addition to these surfaces, a brick built cruciform structure was revealed immediately to the west of the Trophy Gate on the same alignment as a NE-SW aligned wall revealed during an earlier watching brief to the south. This element may represent a configuration of the Palace entrance predating the construction of the existing structure in 1701.



## 4 WATCHING BRIEF AIMS AND METHODOLOGY

- 4.1 The site specific aims of the watching brief, as specified in the WSI (Stevenson 2018) were to:
- To record and characterise any evidence of earlier road surfaces or landscaping on Trophy Drive
  - To identify, investigate, record and sample any potential remains associated with the 16<sup>th</sup> century Trophy Gate buildings
  - Record and where possible date any remains of earlier gravel surfaces or garden features associated with the Grace and Favour occupation of the Trophy Gate buildings (18<sup>th</sup> and 19<sup>th</sup> centuries)
- 4.2 The work monitored comprised the excavation of ten trenches for the purpose of installing nine fixed bollards and two rising bollards (Figure 2, Plate 4). A shallow trench to the maximum depth of 500mm for the laying of electrical cables and an inspection chamber was also monitored.
- 4.3 The excavation was carried out by hand and included the use of a jack hammer for the sole purpose of breaking through the tarmac layers and underlying compressed gravels.
- 4.4 Where possible areas of in situ archaeology were investigated and recorded. using methods from the Department of Urban Archaeology Site Manual, now presented in PCA's *Operations Manual 1* (Taylor, 2009).
- 4.5 All archaeological contexts were recorded on *pro-forma* recording sheets.
- 4.6 Digital photographs were taken showing overall locations, and archaeological deposits.
- 4.7 Areas monitored and archaeological features were planned at 1:20 and 1:10 using known locations within the site boundary.
- 4.8 A representative section was drawn at a scale of 1:10 and 1:20, showing archaeological layers.
- 4.9 The site archive was compiled using site code HCP176.

## **5 ARCHAEOLOGICAL PHASING**

- 5.1 The deposits seen during the watching brief have been categorized into archaeological phases 1 – 4.
- 5.2 Phase 1: Natural
- 5.2.1 At the base of Trench T7, a layer of sandy silty clay [15] (Plate 2) was recorded 1.35m below ground level (BGL) and is thought to represent an alluvial deposit.
- 5.3 Phase 2: 17<sup>th</sup> – 18<sup>th</sup> century
- 5.3.1 At the base of Trench T2, a light grey mortared layer [5] with occasional stone fragments was recorded at 0.60m BGL. In Trench T3 a layer of gravel and reddish- brown silt [7] was seen at 0.34m BGL which was very compacted and could possibly be a bedding or an earlier surface. Above layer [7] was a compacted layer of greyish brown silty gravel [6] located at 0.20m BGL. Reigate stone fragments found amongst the gravels were dated between AD1450-1590.
- 5.3.2 In Trench T4 a compacted layer of grey to reddish brown gravel [8] with a thickness of 0.32m was noted at 0.23m BGL, this deposit continued into the limit of excavation.
- 5.3.3 In Trench T7 a compaction of a crushed deposition of red brick and peg tile fragments [14] measuring 0.44m and dated 1700-1900 was revealed at 0.78m BGL. A similar layer [25], measuring 0.45m and located 1m BGL was also recorded in Trench T8.
- 5.3.4 Directly above layer [14] in Trench T7 (Plate 2) a layer of crushed and compacted fragments of Reigate stone [12] was uncovered at 0.80m BGL. Trench T8 deposit [24], and Trench T9 deposit [26] were of the same composition and had similar BGL depths of 0.83m – 0.92m. Stone fragments from layer [24] were dated 1450-1590, similar to fragmentary Reigate stone deposits from layer [6] in Trench T2. The Reigate stone deposits probably represent the remains of an earlier road/surface or surface makeup.
- 5.4 Phase 3: 18<sup>th</sup> – 19<sup>th</sup> century
- 5.4.1 In Trench T2 was a dark brown silty clay deposit [4] of made ground measuring 0.20m thick and located at 0.40m BGL. This layer was dated by clay tobacco pipe (CTP) and peg tile fragments dating to 1660-1680 and 1600-1800 respectively. A mid greyish brown silty deposit [3], was 0.20m thick and located at 0.20m BGL. The layer included rubble CBM fragments, with CTP fragments which dated the layer to around 1680-1710. Construction cut [2] was located 0.22m BGL to 0.32m BGL and related to brickwork [1], recorded as rectangular with a flat base and vertical sides, measuring (E-W) 0.31m x (N-S) 0.12m. x 0.11m (deep). The cut extended beyond the limit of excavation. Brickwork [1] (Plate1), located at 0.20m BGL was

formed of a reddish/yellow colour bricks that measured 170mm x 70mm x 100mm, bonded with hard sandy grey lime mortar dated 1750-1850.

- 5.4.2 Within the northern half of Trench T4 a layer of compact mid grey red brown gravel [8] was seen from a height of 0.23m BGL and continuing below the limit of excavation at 0.56m BGL.
- 5.4.3 At the base of Trench T5 was a layer of a brownish silty clay [17] located at 0.70m (BGL). An identical layer was present in the following T6-T10; layer [16], located at 0.1.35m BGL measuring 0.06m thick, layer [13] located at 0.80m BGL, layer [23] located at 0.10m BGL and measuring 0.65m thick, layer [19], located at 0.09m BGL and measuring 0.47m thick, layer [21] located at 0.10m BGL and measuring 0.40m thick. A fragment of pottery from layer [19] was dated 1550-1800.
- 5.4.4 Trench T6 revealed a large deposit of sandy gravels [10] at 0.10m BGL, measuring 0.55m thick, possibly make-up for an earlier surface. The same deposit was recorded in the following trenches T7-T10; layer [11] located at 0.10m BGL measuring 0.55m thick, layer [18] located at 0.09m BGL measuring 0.47m thick, layer [20] located at 0.10m BGL and measuring 0.40m thick, layer [22] located at 0.10m BGL and measuring 0.65m thick. The above contexts were seen directly below the modern tarmac.
- 5.4.5 **Phase 4 Modern**
- 5.4.6 Within the southern half of Trench 4 (Plate 3) a layer of moderate dark grey brown clay silt [9] was seen to overlay layer [8] (phase 3). Due to the limited depth of excavation (0.23m BGL) this layer was not seen in section and its thickness was not seen. This layer may have developed over the period of years as a natural sediment build-up of garden soil within a depression within the landscape. Inclusions of pottery and CTP dated the layer from 1805-1900 and 1660-1680 respectively.
- 5.4.7 Layer [9] was sealed by a 0.23m thick layer of topsoil.

## **6 RESEARCH OBJECTIVES**

- 6.1 The investigation was intended to address the following site-specific objectives:
- 6.1.1 **To record and characterise any evidence of earlier road surfaces or landscaping on Trophy Drive**
- 6.1.2 The compacted Reigate stone, seen in Trenches [7], [8] and [9] (Plates 2, 3 and 4) may be indicative of an earlier road surface dating from the late 17th century to the start of the 18th century.
- 6.1.3 Trench 2 did show evidence of masonry. However, due to the size of the trench it was difficult to say conclusively if it is part of any structure (Plate1).
- 6.1.4 **To identify, investigate, record and sample any potential remains associated with the 16th century Trophy Gate buildings.**
- 6.1.5 No remains associated with the 16<sup>th</sup> century Trophy Gate buildings were observed. However, Trench T3 probably shows evidence of the demolition works and landscaping carried out circa 1840, from the demolition of the Toye Inn or the Trophy Gate Buildings.
- 6.1.6 **Record and where possible date any remains of earlier gravel surfaces or garden features associated with the Grace and Favour occupation of the Trophy Gate buildings (18th and 19th centuries)**
- 6.1.7 Gravels identified as bedding found in Trench T3 could be related to the Grace-and-Favour occupation of the Trophy Gate buildings of the 18<sup>th</sup> and 19<sup>th</sup> centuries.

## **8 CONCLUSIONS**

- 8.1 The watching brief provided evidence that there was a possible road surface survival dating from the late 17<sup>th</sup> to early 18<sup>th</sup> century in the vicinity of the Trophy Gates. This was seen in Trenches T7 to T9 in the form of a layer of compacted Reigate stone, possibly removed from the earlier Tudor buildings during the extensive renovations carried out by Christopher Wren at the behest of William III from 1689 onwards.
- 8.2 The gravels seen in Trench T3 may be the result of ground raising works probably carried out circa 1840 during the demolition of the Toye Inn and later on, the Trophy Gate Buildings, evidence for which was found during previous excavations carried by Oxford Archaeology. Extensive landscaping carried out post demolition was possibly visible in Trench T4. The small amount of brick work encountered in Trench T2 makes it difficult to ascertain as to whether it is part of a structure.

## **9 ACKNOWLEDGMENTS**

- 9.1 Pre-Construct Archaeology would like to thank Alexandra Stevenson and John Burrey of Historic Royal Palaces and the workers from L W Burrows.
- 9.2 The author would also like to thank Alistair Douglas for his invaluable assistance, Ellen Green, for covering the first part of the watching brief, Project Manager Helen Hawkins, finds Sevinc Duvarci, and specialists Karen Deighton and Chris Jarett, Amparo Valcarcel.

## **10 BIBLIOGRAPHY**

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## 11 PLATES



*Plate 1: Trench T2, shows possible wall remains [1]*



*Plate 2: T7 showing layers, [11] redeposited sandy gravels [13] silty clay, [12] compacted Reigate stone and [14] compacted CBM. Alluvial deposits [15]*





*Plate 3 Trench T4 Looking South West.*



*Plate 4 Trenches T7, T6, T5 looking North*



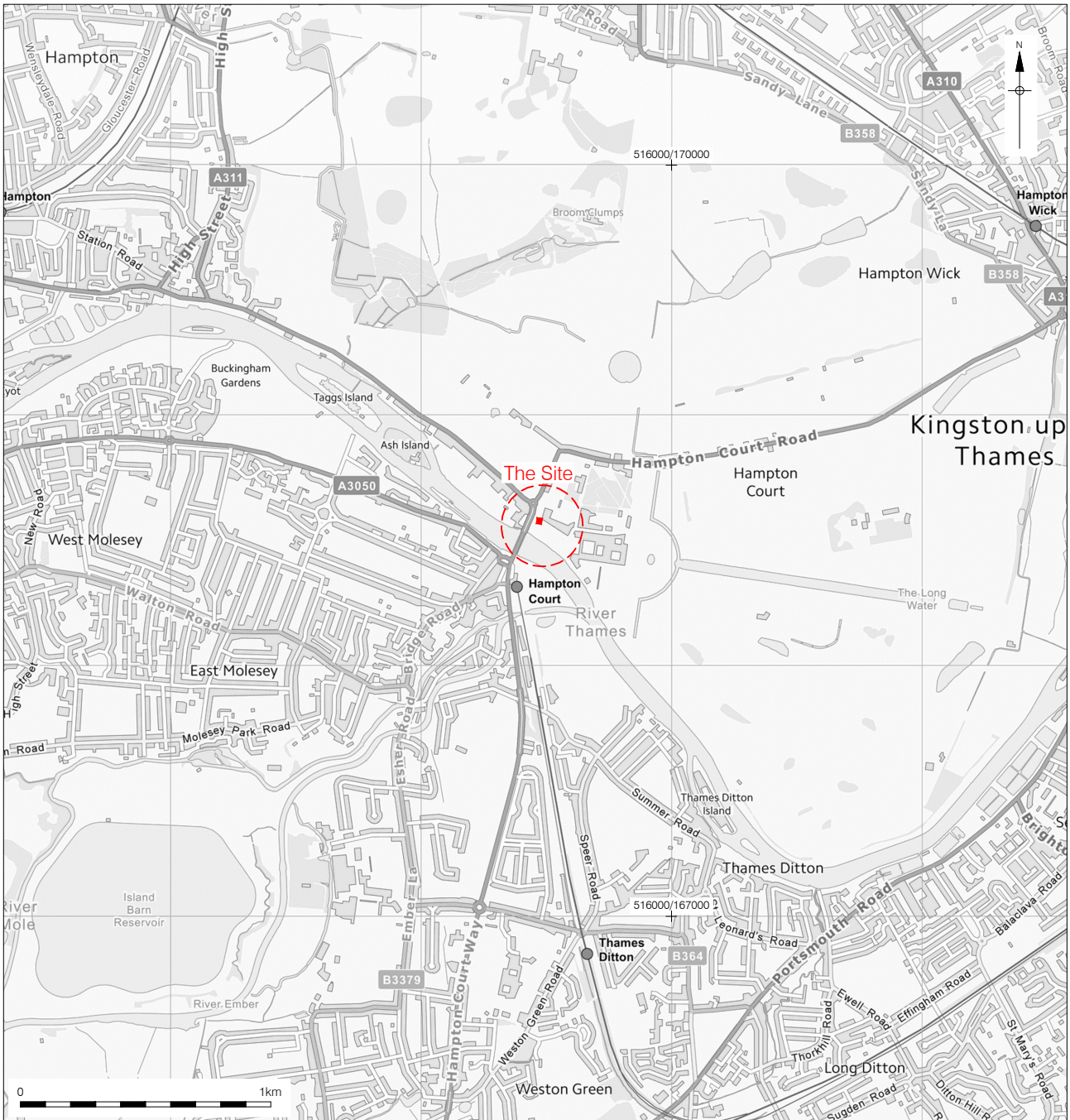
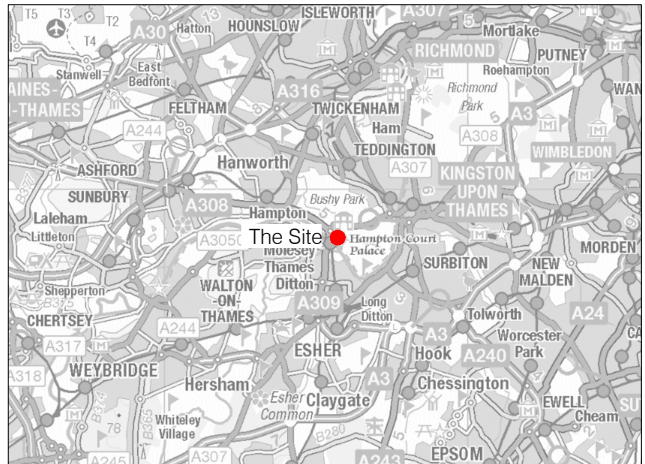


Plate 5 The Trophy Gates, with Toy Green in the background



Plate 6 Trench T4 showing evidence of landscaping







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Figure 2  
Detailed Site Location  
1:400 at A4

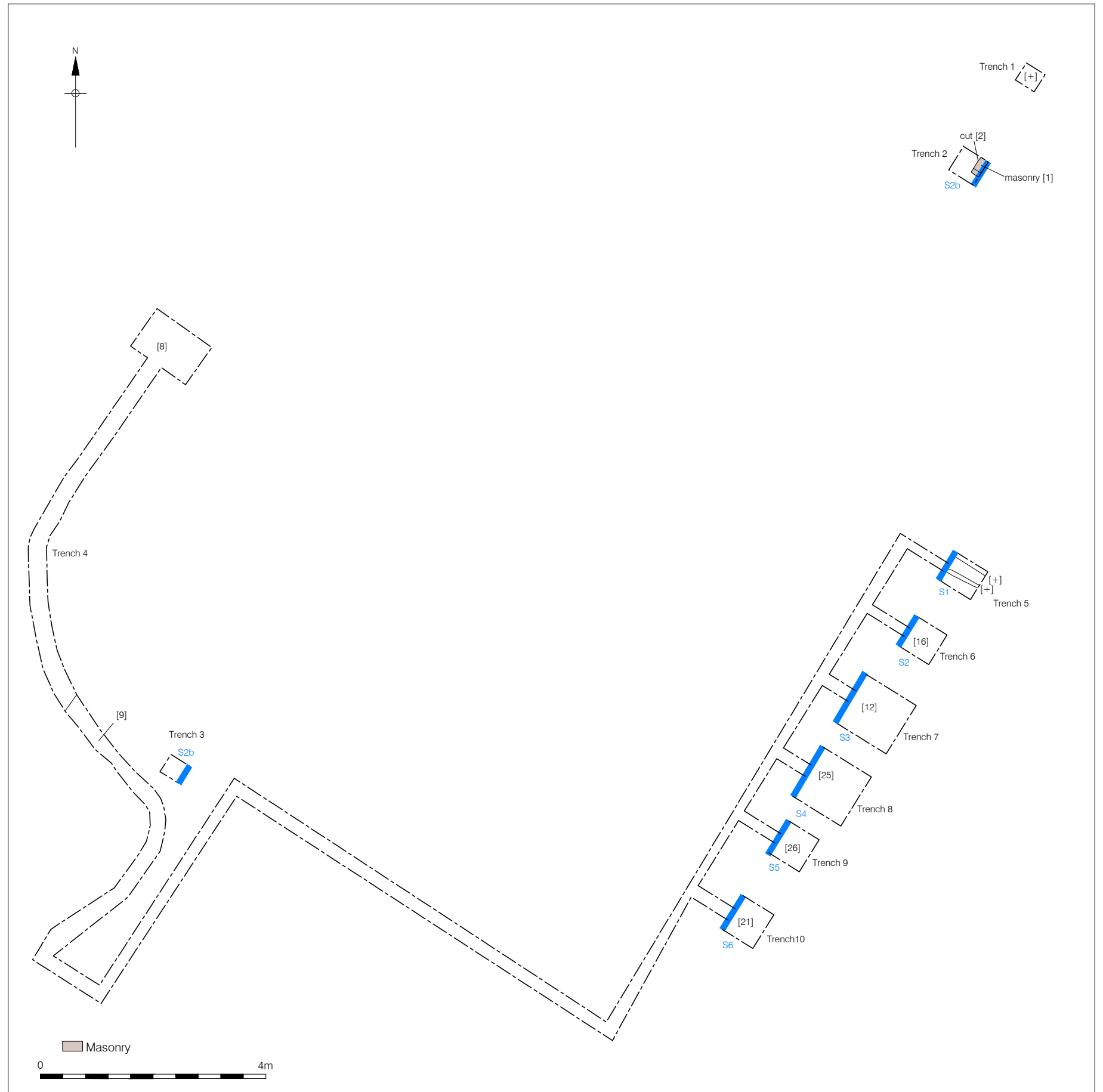
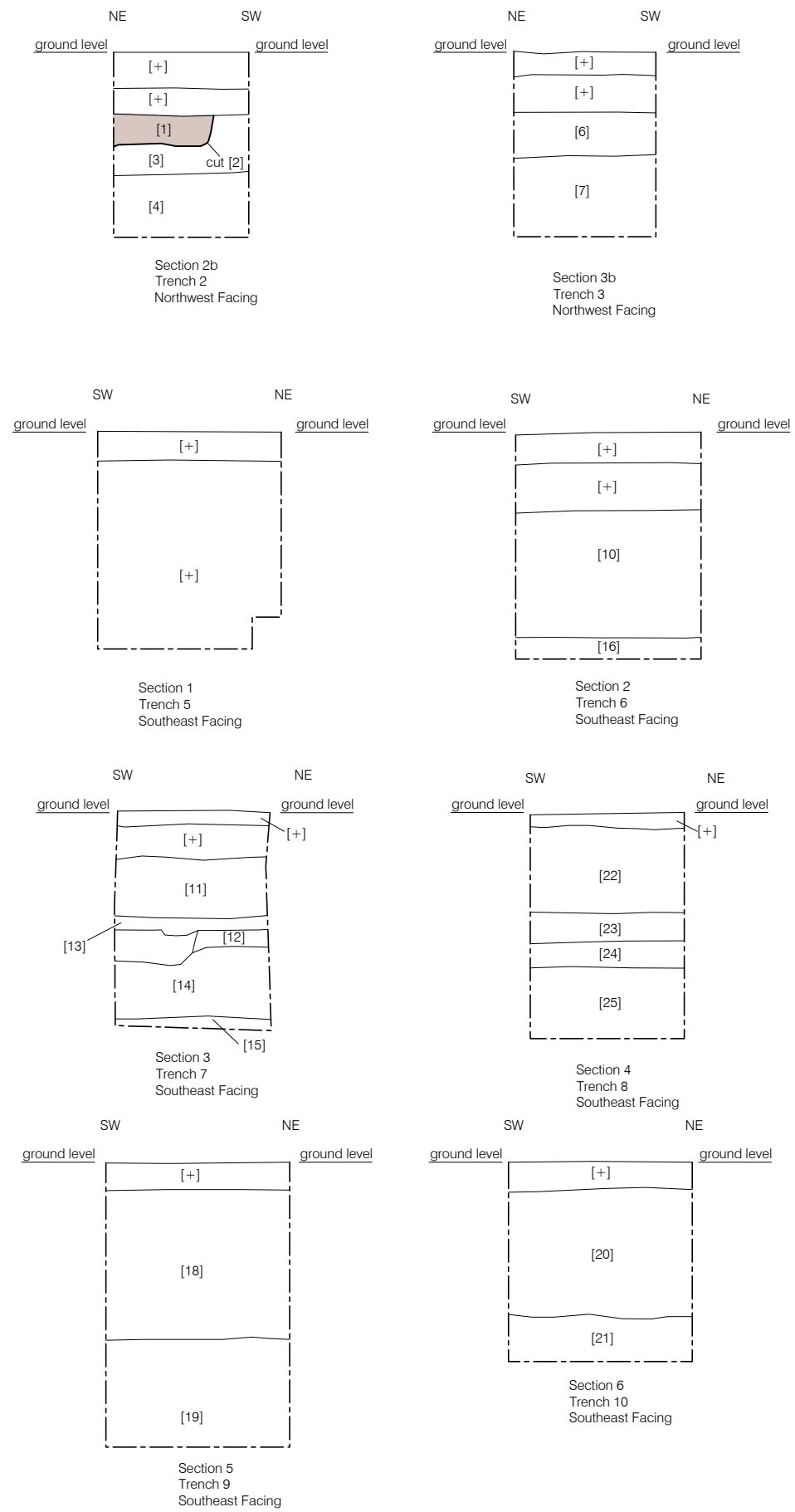
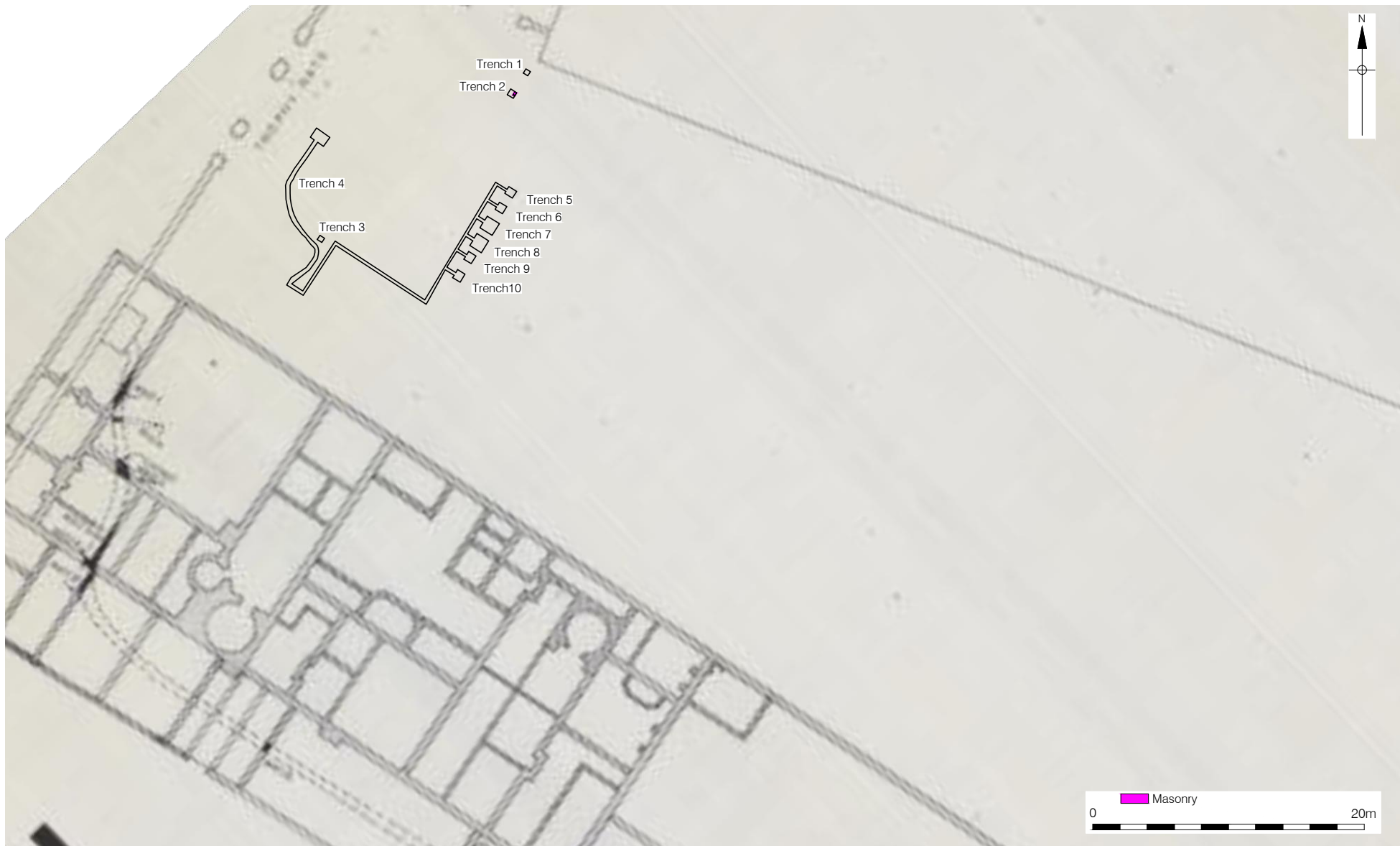


Figure 3  
Trench Plans and Sections  
Plan 1:80 and Sections 1:40 at A3



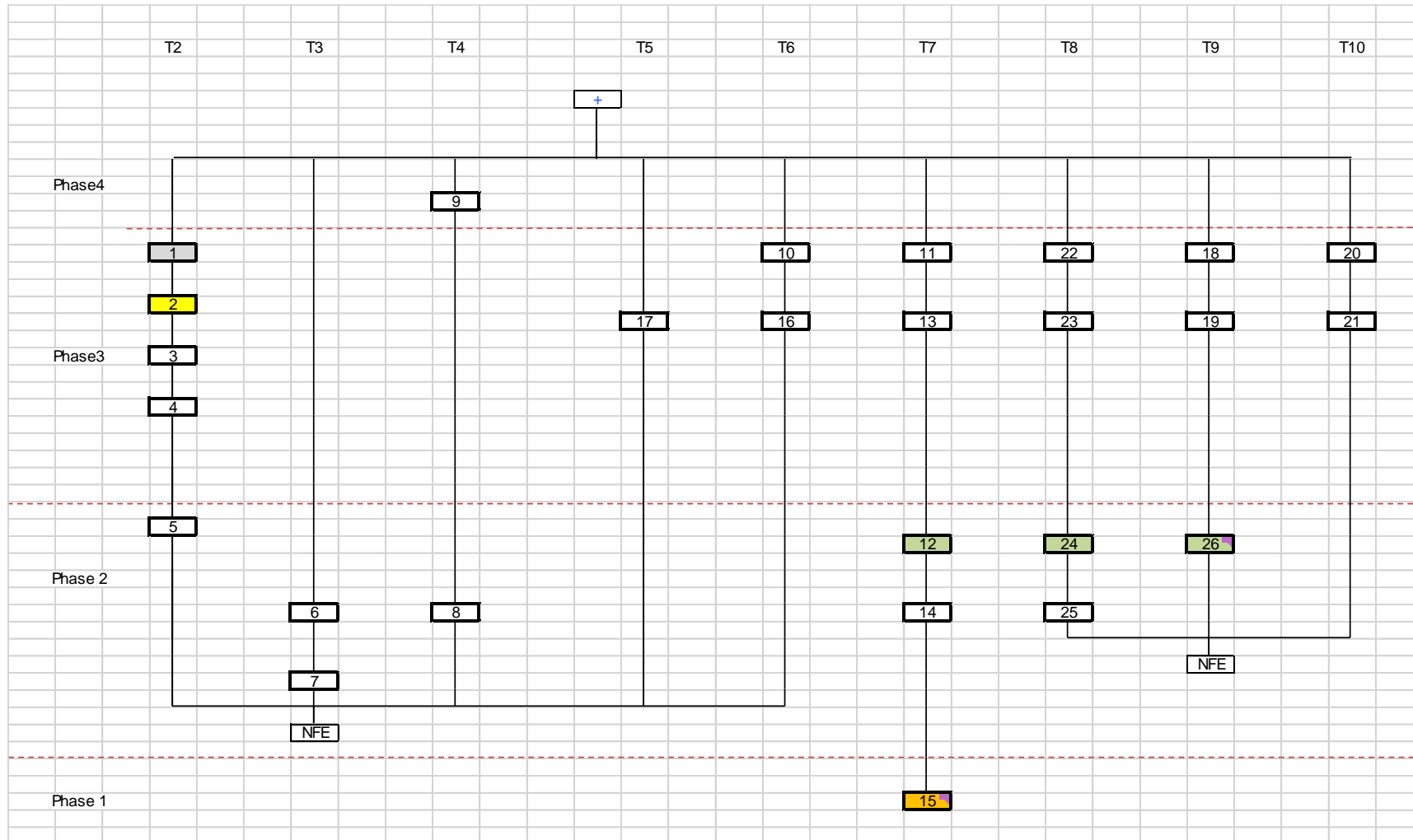
## APPENDIX 1: CONTEXT INDEX

Context	CTX_Type	CTX_equalto	Trench	CTX_ Interpretation	CTX_Category	CTX_Length	CTX_Width	CTX_Depth
1	Masonry		2	19th century brickwork, only a small section was exposed. 0.20m (BLG)	Wall	0.34	0.12	0.1
2	Cut		2	Construction cut for wall [1] 0.22m(BGL) - 0.32m (BGL)	Construction Cut	0.31	0.12	
3	Layer		2	Made ground 0.20m (BGL)	Make-up			0.2
4	Layer		2	Made ground 0.40m (BGL)	Make-up			0.2
5	Layer		2	Mortar surface 0.60m (BGL)	Surface (External)			
6	Layer		3	possible surface for an old path. 0.20 (BGL)	Surface (External)			0.13
7	Layer	8	3	possible bedding for an old path. 0.34 (BGL)	Surface (External)			0.26
8	Layer	7	4	possible bedding for an old path. 0.23(BGL)	Surface (External)			0.32
9	Layer		4	garden soil. 0.23(BGL)	Garden Soil			0.32
10	Layer	11, 18, 20,22	T6	Made ground, make up using redeposited sandy gravels 0.10(BGL)	Levelling			0.55
11	Layer	10,18,20,22	T7	Made ground, make up using redeposited sandy gravels 0.10(BGL)	Levelling			0.55
12	Layer	24, 26	T7	probable early road surface using a deposition of crushed and fragmented Reigate stone 0.80(BGL)	Levelling			0.21
13	Layer	17, 16, 23, 19, 21	T7	deposit of dark grayish brown silt clay. 0.68m(BGL)	Make-up			0.12
14	Layer	25	T7	compacted CBM/brick fragment base for and early road surface. 0.78m(BGL)	Make-up			0.44



Context	CTX_Type	CTX_equalto	Trench	CTX_ Interpretation	CTX_Category	CTX_Length	CTX_Width	CTX_Depth
15	Layer		T7	a layer of sandy silty clay thought to represent an alluvial deposition. 0.1.35m(BGL)	Alluvial			0.06
16	Layer	13,17,23,19,21	T7	dark greyish brown silty clay deposition 0.66m(BGL)	Make-up			0.12
17	Layer	13,16,23,19,21	T5	dark greyish brown silty clay deposition 0.70m(BGL)	Make-up			
18	Layer	10, 11, 20, 22	T9	Made ground, make up using redeposited sandy gravels 0.09m(BGL)	Levelling			0.47
19	Layer	1016, 17, 19, 21, 23	T9	dark greyish brown silty clay deposition 0.09m(BGL)	Make-up			0.34
20	Layer	10, 11, 18, 22	T10	Made ground, make up using redeposited sandy gravels 0.10m(BGL)	Levelling			0.4
21	Layer	13,19,16,17,23	T10	dark greyish brown silty clay deposition 0.50m(BGL)	Make-up			0.15
22	Layer	10, 11, 18, 20	T8	dark greyish brown silty clay deposition 0.10m(BGL)	Levelling			0.65
23	Layer	13, 19, 16, 17	T8	dark greyish brown silty clay deposition 0.65m(BGL)	Make-up			0.16
24	Layer	12, 26	T8	probable early road surface using a deposition of crushed and fragmented Reigate stone 0.83m(BGL)	Levelling			0.16
25	Layer	14	T8	compacted CBM/brick fragment base for and early road surface. 1m(BGL)	Make-up			0.45
26	Layer	12, 24	T9	probable early road surface using a deposition of crushed and fragmented Reigate stone seen at base of trench. 0.95m(BGL)	Levelling			

## APPENDIX 2: MATRIX





### **APPENDIX 3: ANIMAL BONE ASSESSMENT**

Karen Deighton

A small quantity of animal was recovered by hand from three contexts during the course of a watching brief.

The taxa present:

Context [4] A fragment of cattle sized vertebra. The lack of epiphyseal fusion suggests a juvenile animal. A fragment of female cattle innominate (acetabulum) with evidence for chopping

Context [14]: Two fragments of cattle sized rib

Context [16] A sheep/goat proximal metacarpal

Potential and recommendations

The potential of the assemblage is severely limited by its small size therefore no further work is recommended.

## APPENDIX 4: REVIEW OF CERAMIC BUILDING MATERIAL

Amparo Valcarcel.

### BUILDING MATERIALS SPOT DATES

Context	Fabric	Form	Size	Date range of material		Latest dated material		Spot date	Spot date with mortar
1	3032	Post Great fire brick	1	1666	1900	1666	1900	1750-1850	1750-1850
4	2586	Post-medieval peg tile	1	1180	1800	1180	1800	1600-1800	No mortar
6	3107	Reigate stone (rubble)	7	200	1590	200	1590	1450-1590	No mortar
14	2276;3046	Post-medieval peg tile and sandy red brick	10	1450	1900	1480	1900	1700-1900	No mortar
24	3107	Reigate stone (rubble)	4	200	1590	200	1590	1450-1590	No mortar
25	2276	Post-medieval peg tiles	8	1480	1900	1480	1900	1700-1900	No mortar

### Review

A small assemblage of ceramic building material was collected from the archaeological watching brief. The assemblage (31 fragments, 4.84 kg) consists of pieces of fragmentary post-medieval ceramic building material. Bricks are made of two different fabrics: the very sandy red 3046 and the post great fire fabric 3032. Brick from [14] is shallow (46 mm), suggesting its use as a floor, and the absence of sunken margins and the presence of sharp arises indicates a 1700-1900 date. Brick from [1], made of purple post Great fire fabric 3032, is narrow, suggesting a mid18<sup>th</sup> to mid19<sup>th</sup> century date.

Flat rectangular peg tiles attached to roofing battens by two nails (as represented by two nail holes), made of fabrics 2276 and 2586, are the only roofing material recovered from the site. The fine moulded sand indicates a late post-medieval dated. Eleven abraded fragments of Reigate stone were collected from [6] and [24]. Their condition indicates that the material has been dumped.

The presence of these bricks and peg tiles examples show a phase of construction in the mid of 18<sup>th</sup> and late 19<sup>th</sup> century. No further work is recommended.

### Bibliography

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## **APPENDIX 5 ASSESMENT OF THE CLAY TOBACCO PIPES**

Chris Jarrett

### **Introduction**

A small sized assemblage of clay tobacco pipes was recovered from the site (less than one box) and all were collected by hand. The material is not abraded, in a good condition and it therefore appears that the clay tobacco pipes were deposited rapidly under secondary conditions. Clay tobacco pipes occur in three contexts as only small (under 30 fragments) sized groups.

All the clay tobacco pipes (20 fragments, of which none were unstratified) were recorded in a database format and classified by Atkinson and Oswald's (1969) typology (AO). A small number of the bowls have been reclassified according to Higgins (2016). The material was catalogued according to Higgins (2017) and the pipes were coded by decoration and quantified by fragment count. The quality of finish, including the level of burnishing and the degree of milling of the rims (recorded in quarters) has been noted on 17th-century types. The tobacco pipes are discussed by their types and distribution.

### **THE CLAY TOBACCO PIPE TYPES**

The clay tobacco pipe assemblage from the site consists of thirteen bowls and seven stems. The clay tobacco pipe bowl types have a date range of 1660–1710. None of the pipes have makers marks.

1660–1680

All of the 1660–1680 dated bowls were found in context [4], except for one fragmentary bowl found in context [9].

AO13: two heeled angled bowls with a rounded bowl profile made in different moulds. The items have an average finish and show no evidence of milling on the rim.

AO13V: one heeled angled bowl with a pronounced rounded barrel-shaped bowl profile. The items have an average finish and show no evidence of milling on the rim. The bowl has three quarters milling of the rim and an average finish.

AO15: eight spurred, angled rounded bowls, the majority of which (five examples) have three quarters milling of the rim and one example each have either half milling or full milling of the rim. All the bowls have an average quality of burnish, except for one item with a good burnish. Two examples are shorter variants and all of the bowls appear to have been made in different moulds. Eight of the AO15 bowls were found in context [4] and a single example surviving as the stem, spur and lower back of the was found in context [9].

AO18: one heeled bowl with an angled, slightly barrel-shaped profile, with full milling of the rim and an average quality of burnish

1680–1710

AO21: one tall angled bowl with a short, narrow cylindrical heel with a rounded front and a straight back. The bowl is damaged, has no evidence for milling on the rim and has an average burnish. The bowl was found in context [3].

The stems

The seven stems were all found with the 1660–1680 dated bowls and are medium thick with wide bores: six were noted in context [4] and a single example was noted in deposit [9].

## **DISTRIBUTION**

Table 1 shows the distribution of the clay tobacco pipes, the number of fragments, the date range of the latest bowl type (context ED and LD), the types of bowls present, together with a spot date for each context clay tobacco pipes occur in.

	<b>Assemblage</b>	<b>No. of</b>	<b>Context</b>	<b>Context</b>		
<b>Context size</b>		<b>fragments</b>	<b>ED</b>	<b>LD</b>	<b>Bowl types etc</b>	<b>Spot date</b>
3	S	2	1680	1710	x1 AO21	1680–1710
4	S	19	1660	1680	x2 AO13, X1 AO13V, x 7 AO15, 1660–1680 x1 AO18, x6 stems	
9	S	2	1660	1680	x1 AO15, x1 stem	1660–1680

Table 1. HCP 176. Distribution of clay tobacco pipes.

## **SIGNIFICANCE AND POTENTIAL OF THE COLLECTION AND RECOMMENDATIONS FOR FURTHER WORK**

The bowl forms present in the assemblage are typically the types found in Greater London during the period c. 1660–1710. It is interesting that for such a small sized excavation hole that so many pipes were recovered from context [4] and indicates the pipes were recovered from a dump of material. The bowls almost certainly come from a source within Hampton Court, although the items are generally of a poor quality and were therefore most likely to have been smoked by servants working at the royal palace rather than nobility. The pipes do have the potential to date the contexts they were found in and possibly relate to the socio-economic status of their owners. As the assemblage is so small, then there are no recommendations for further work on the pipes.

## **BIBLIOGRAPHY**

Atkinson, D. and Oswald, A., 1969 London clay tobacco pipes. *Journal of British Archaeology Association*, 3rd series, Vol. 32, 171–227.

Higgins, D., 2016, Pipes and Stoppers from the 1665 wreck of *The London*. Society for Clay Pipe Research Annual Conference Paper.

Higgins, D. 2017. *Guidelines for the Recovery and Processing of Clay Tobacco Pipes from Archaeological Projects*. Heritage England unpublished document.

## **APPENDIX 5: POST-ROMAN POTTERY SPOT DATING INDEX**

Chris Jarrett

### **Introduction**

A small assemblage of pottery was recovered from the excavation (six sherds/6 estimated number of vessels (ENV)/135g, of which two sherds/2 ENV/81g was unstratified). The pottery dates solely to the post-medieval period. The assemblage is in a largely good condition, although it is recorded as only sherd material and none of the items have a complete profile. Most of the sherds could be assigned to a form. The stratified pottery appears to have been deposited under tertiary conditions. The material was found in two contexts and as a small sized group (under 30 sherds). The classification of the pottery types is according to the Museum of London Archaeology (2014). The assemblage is discussed as an index.

### **Index**

#### Unstratified

Refined whiteware with under-glaze painted decoration (REFW PNTD), 1805–1900, 1 sherd, 1 ENV, 11g, form: vase or ornamental jug. Body sherd: moulded vertical loop rod handle in the form of a plant stem with a folded strap leaf between the handle and the body. The handle and folded leaf are painted green and the body is painted dark blue, which additionally has small green leaves.

Refined whiteware with under-glaze transfer-printed decoration (TPW), 1780–1900, 1 sherd, 1 ENV, 70g, form: large plate. Base, mid-late 19th century floral design, poor quality

Context [9], spot date: 1805–1900

Creamware (CREA), 1740–1830, 1 sherd, 1 ENV, 1 g, form: plate. Wall sherd, external glaze is missing

Frechen stoneware (FREC), 1550–1700 1 sherd, 1 ENV, 25 g, form: rounded jug. Body sherd

Refined white earthenware (REFW), 1805–1900, 1 sherd, 1 ENV, 1 g, form: unidentified. Base sherd with an illegible impressed stamp

Context [19], spot date: 1550–1800

Surrey-Hampshire border redware (RBOR), 1550–1900, 1 sherd, 1 ENV, 27 g, form: tripod pipkin. Base sherd and the terminal of a foot with internal glaze and external sooting. Tripod pipkins made in Surrey-Hampshire border redware date to the period c. 1550–1800.

### **Significance, potential and recommendations for further work**

The assemblage is of little significance as the pottery occurs as fragmentary material without much meaning. The main potential of the pottery is to date the contexts it was recovered from. There are no recommendations for further work on the pottery.

### **Reference**

Museum of London Archaeology, 2014. Medieval and post-medieval pottery codes. <http://www.mola.org.uk/resources/medieval-and-post-medieval-pottery-codes>.

## APPENDIX 6: OASIS REPORT FORM

OASIS ID: preconst1-347971

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### Project details

Project name Hampton Court Palace: Trophy Drive Bollards Installation An Archaeological Watching Brief

Short description of the project Pre-Construct Archaeology Ltd (PCA), carried out an archaeological watching brief from 11th February to 1st March 2019 in the vicinity of Trophy Gates, the main entrance point leading to Hampton Court Palace. The work consisted the monitoring of ten trenches for the purpose of the installation of bollards. The watching brief provided evidence that there was a possible road surface survival dating from the late 17th to early 18th century in the vicinity of the Trophy Gates. This was seen in Trenches T7 to T9 in the form of a layer of compacted Reigate stone, possibly removed from the earlier Tudor buildings during the extensive renovations carried out by Christopher Wren at the behest of William III from 1689 onwards. The gravels seen in Trench T3 may be the result of ground raising works probably carried out circa 1840 during the demolition of the Toye Inn and later on, the Trophy Gate Buildings, evidence for which was found during previous excavations carried by Oxford Archaeology. Extensive landscaping carried out post demolition was possibly visible in Trench T4. The small amount of brick work encountered in Trench T2 makes it difficult to ascertain as to whether it is part of a structure.

Project dates Start: 11-02-2019 End: 01-03-2019

Previous/future work Yes / Not known

Any associated project reference codes HCP176 - Sitecode

Type of project Recording project



Site status	World Heritage Site
Current Land use	Community Service 2 - Leisure and recreational buildings
Monument type	ROAD Post Medieval
Significant Finds	NONE None
Investigation type	"Watching Brief"
Prompt	Voluntary/self-interest

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#### Project location

Country	England
Site location	GREATER LONDON RICHMOND UPON THAMES TEDDINGTON AND HAMPTON Hampton Court Palace: Trophy Drive Bollards Installation
Postcode	KT8 9AS
Study area	20 Square metres
Site coordinates	TQ 15473 68585 51.404019560837 -0.339702631912 51 24 14 N 000 20 22 W Point
Height OD / Depth	Min: 0m Max: 0m

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#### Project creators

Name	of Pre-Construct Archaeology Limited
Organisation	

Project originator	brief Historic Royal Palaces
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Project design originator Alexandra Stevenson

Project director/manager Helen Hawkins

Project supervisor Patric Cavanagh

Type of sponsor/funding body of Historic Royal Palaces

Name of sponsor/funding body of Historic Royal Palaces

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#### Project archives

Physical Archive recipient Historic Royal Palaces

Physical Archive ID HCP176

Physical Contents "Ceramics"

Digital Archive recipient Historic Royal Palaces

Digital Archive ID HCP176

Digital Contents "none"

Digital Media available "Images raster / digital photography", "Text"

Paper Archive recipient Historic Royal Palaces

Paper Archive ID HCP176

Paper Contents "none"

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

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Project bibliography 1

Publication type Grey literature (unpublished document/manuscript)

Title Hampton Court Palace, Hampton Court Way, KT8 9AS: Trophy Drive  
Bollards Installation An Archaeological Watching Brief

Author(s)/Editor(s) Cavanagh P

Date 2019

Issuer or publisher PCA

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