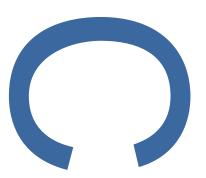
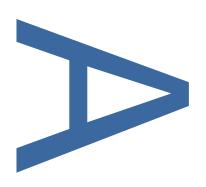


Elizabeth House, 39 York Road, Waterloo



An Archaeological Evaluation



Planning reference 19/01477/EIAFUL

Local planning authority London Borough of Lambeth

PCA report no. R14666 Site Code EHW21

PCA project no K6943 Date Sept 2021

PRE-CONSTRUCT ARCHAEOLOGY LIMITED

www.pre-construct.com

Project Information					
Site name	Elizabeth House, 39 York Road, Waterloo				
Project type	An Archaeological Evaluation				
Site address	Elizabeth House, 39 York Road, Waterloo, London Borough of Lambeth, SE1 7NQ				
NGR	TQ 3087 7993				
Local planning authority	London Borough of Lambeth				
Planning reference	19/01477/EIAFUL				
Commissioning client	HB Reavis				
Project dates	31 August – 7 September 2021				
Archive site code	EHW21				

PCA Information							
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CONTENTS

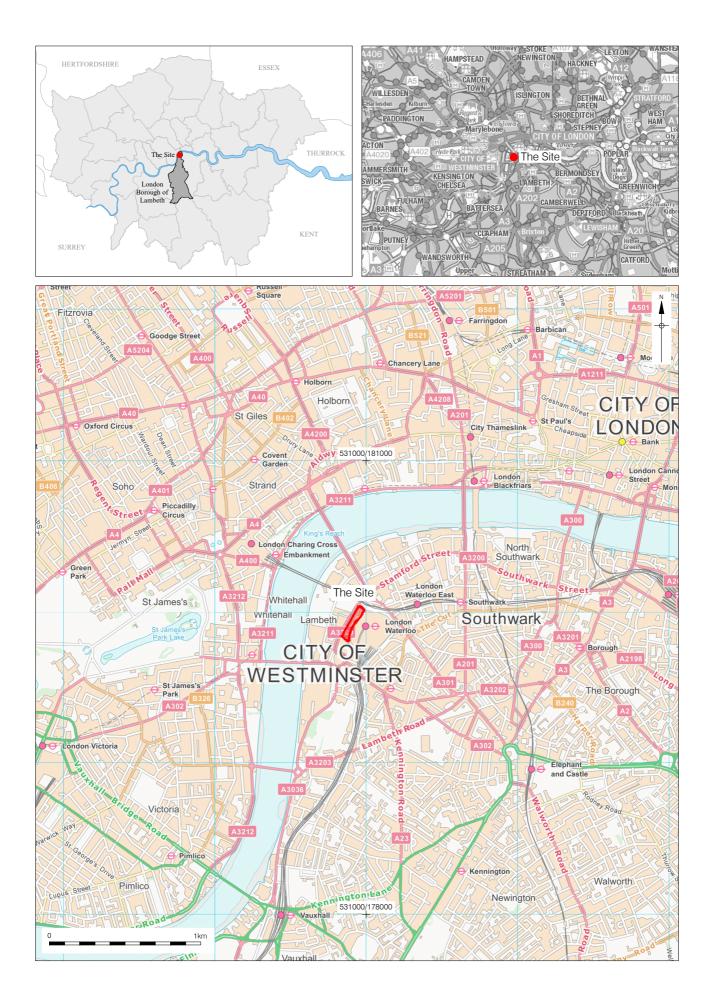
1	ABSTRACT	4
2	INTRODUCTION	5
3	GEOLOGY AND TOPOGRAPHY	8
4	ARCHAEOLOGICAL AND HISTORICAL BACKGROUND	9
5	METHODOLOGY	16
6	ARCHAEOLOGICAL SEQUENCE	18
7	DISCUSSION AND CONCLUSIONS	26
8	ACKNOWLEDGEMENTS	27
9	BIBLIOGRAPHY	28
APF	PENDIX 1: CONTEXT INDEX	29
APF	PENDIX 2: SITE MATRIX	30
APF	PENDIX 3: BUILDING MATERIAL ASSESSMENT	31
APF	PENDIX 4: OASIS FORM	32
	ILLUSTRATIONS	
Figu	ure 1: Site location	6
_	ure 2: Detailed site location	
_	ure 3: Trench 1 Plan and Section	
_	ure 4: Trench 2 Plan and Section	
Figu	ure 5: Trench 3 Plan and Section	25

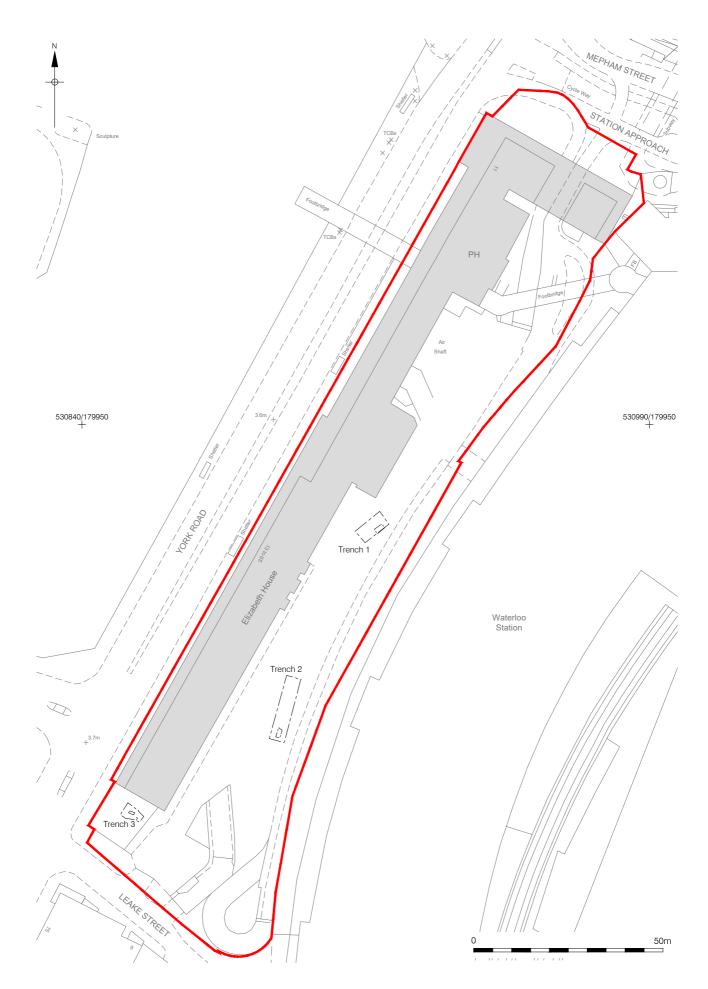
1 ABSTRACT

- 1.1 This report details the results of an archaeological evaluation undertaken by Pre-Construct Archaeology Limited (PCA) at Elizabeth House, 39 York Road, Waterloo, London Borough of Lambeth. The work was undertaken from 31st August to 7th September 2021 and was commissioned by HB Reavis in order to fulfil an archaeological condition attached to the planning permission. The site was centred at National Grid Reference TQ 3087 7993.
- 1.2 A total of three trenches were excavated during the evaluation in order to determine if any archaeological deposits or features survived on the site, and if so, to determine their extent and nature.
- 1.3 The evaluation recorded evidence of a 19th century cellar. Two post-medieval features were identified in total, which were probably services associated with the property. Several layers of made ground were identified within the most easterly trenches, which probably formed during 20th-century levelling and development of the site.

2 INTRODUCTION

- 2.1 Between 31st August and 7th September 2021 Pre-Construct Archaeology Ltd (PCA) carried out an archaeological evaluation on land at Elizabeth House, 39 York Road, Waterloo, SE1 7NQ in the London Borough of Lambeth. The work had been commissioned by HB Reavis, to fulfil an archaeological condition attached to the planning permission (Application Ref: 19/01477/EIAFUL) for the demolition of Elizabeth House and the construction of an office led mixed-use development. Elizabeth House occupied the western half of the site, with the land to the rear open. The new development will occupy the entirety of the site, rather than just the footprint of Elizabeth House, and will consist of a number of basement levels.
- 2.2 The site is approximately 1.99ha in size and is centred at National Grid Reference TQ 3087 8993.
- 2.3 A total of three trenches were excavated as part of the archaeological evaluation, which were located to provide good spatial coverage of the site.
- 2.4 The work was conducted by PCA under the supervision of Kathy Davidson and James Langthorne and the project was managed by Helen Hawkins. It was monitored on behalf of the London Borough of Lambeth by Mark Stevenson of the Greater London Archaeological Advisory Service (GLAAS).
- 2.5 The current buildings are not listed on the Statutory List of Buildings of Special Architectural or Historic Interest. The study site is not located in a Conservation Area of Archaeological Priority Area (APA), as defined by the London Borough of Lambeth. However, the site lies immediately to the north and east of the North Lambeth APA, which has been designated due to settlement and activity from the prehistoric period until the post-medieval period; the site also lies adjacent to the South Bank Conservation Area.
- 2.6 The completed archive comprising written, drawn and photographic records will be deposited with the Museum of London Archaeological Archive (LAA) identified by the unique site code EHW21.





3 GEOLOGY AND TOPOGRAPHY

3.1 The following backgrounds are taken from the desk-based assessment (PCA 2018).

3.2 Geology

- 3.2.1 The British Geological Survey shows that a superficial deposit of Alluvium composed of clay, sand, silt, and peat underlies the study area. This deposit formed up to 2 million years ago in the Quaternary Period in local environmental dominated by river (BGS 2018).
- 3.2.2 The bedrock geology is comprised of London Clay Formation. This sedimentary deposit formed approximately 48-56 million years ago in the Paleogene Period in a local environment previously dominated by deep seas (BGS 2018).
- 3.2.3 Geotechnical investigations have previously been conducted on the site by Concept Site Investigations, consisting of boreholes and trial pits. The results from these investigations suggested that the ground has been heavily truncated to the north and west, with limited to moderate survival of archaeological sequences to the south and moderate survival to the east. The boreholes and test pits located between the rear of Elizabeth House and Waterloo Station (BH53, BH57, BH58, BH60, PO1, MWO1D, TP76, and TP78) all recorded a sequence of alluvium overlying river gravels, which in turn sealed the London Clay Formation. The alluvium was encountered between 1.26m OD and -0.71m OD and had likely been horizontally truncated in some places. With the exception of BH55, which recorded 8.5m of modern made ground overlying the London Clay, river gravels were seen to overlay the London Clay in all boreholes. Although horizontally truncated in some places, the gravel appeared to rise to the north and south, with its lowest untruncated points in the centre of the site; untruncated, it was encountered between -0.49m OD and -1.88m OD.

3.3 Topography

- 3.3.1 The site was centred on National Grid Reference TQ 3087 7993 on a sub-rectangular plot of land. It was bound by Mepham Street to the north, York Street to the west, Leake Street to the south, and Waterloo Station to the east. The site, which covered c. 1.99 hectares, was occupied by Elizabeth House with a car park to the rear. The site sloped down gently to the south, from 6.8m OD to Mepham Street to 3.7m OD on Leake Street. Although this slope was relatively flat along the York Road frontage, the land to the rear of the building was undulated.
- 3.3.2 The site lay approximately 300m to the east of the River Thames. Historically the site was located in marshland known as Lambeth Marsh. Throughout the post-medieval period the land was reclaimed and drainage ditches were constructed across the marsh; historic map regression shows that there were previously a number of drainage ditches running across the site.

4 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

4.1 Unless referenced otherwise, the following archaeological background is taken from the deskbased assessment for the site (PCA 2018).

4.2 Prehistoric

- 4.2.1 From the start of the Holocene period, relative sea level began rising rapidly as a result of glacial retreat. Consequently, during the prehistoric period the Thames had a braided bed form, resulting in a landscape dominated by a series of small sand islands or eyots, bisected by a number of tributary streams of the Thames. The low-lying land in the north of the borough, within which the study site is located, was once part of the river's ancient floodplain.
- 4.2.2 The changing climate allowed for the development of woodland, which was later subject to deforestation; it is likely that this was the precursor to the introduction of farming, with the opening of the landscape providing room for better hunting, pasture, arable fields, and settlements. The removal of woodland would have transformed Lambeth into a relatively open landscape, although it was likely interspersed with intermittent woodland on the higher ground to the south, with some arable fields and pastures (probably river margins in the summer).
- 4.2.3 By the Mesolithic period, the favoured locations for temporary campsites and hunting grounds appear to have been along the Thames and in tributary valleys, with a particular emphasis on floodplain edges, high points within the valley, and areas adjacent to the main channel. These river valleys and their floodplains were favoured by hunter-gatherers for settlement and resource procurement, offering a wide diversity of habitats and food resources; it is also possible that waterborne transport may have been important for both hunting and mobility.
- 4.2.4 Archaeological investigations conducted at Addington Street between 1990 and 2004 have revealed evidence of Mesolithic to Bronze Age occupation located upon an eyot. The majority of finds from this site, however, date to the Neolithic period. Hundreds of Neolithic flint tools and waste flakes were found during excavation, including blades for cutting meat or shaping wood/bone, scrapers for cleaning and preparing skins, as well as arrowheads for hunting (Gower 2003). Further evidence for settlement came from postholes marking the spots where buildings were erected, as well as burnt flint from cooking hearths, animal bones, and carbonised cereal grain. The eyot upon which this settlement was located was flooded in the Late Bronze Age and was sealed by alluvial deposits.
- 4.2.5 To the south of Addington Street, at Finck Street, unspecified evidence of prehistoric activity on a high sand island was documented. Prehistoric activity has been recorded at a number of other sites to the south of the study area. Primarily concentrated around the junction of Upper Marsh, Lower Marsh, and Westminster Bridge Road, burnt flint and flint waste flakes were found in the basal fill of a Roman ditch, while flint tools, waste flakes, pottery, and a Neolithic arrowhead have been recorded in waterlain sand deposits.
- 4.2.6 A large quantity of finds from the prehistoric period have been discovered along the foreshore or within the River Thames. Many of those recorded in the GLHER were recovered during the

- construction of County Hall, *c.* 130m to the west of the site. These finds, ranging in date from Mesolithic to the Iron Age, including an antler implement, hoes and adzes, flint axes, a halberd, and spearheads.
- 4.2.7 Peat has been recorded on sites to the north of the site, at Tension Way and the Waterloo Bridge Roundabout; the peat there is thought to date to the Bronze Age and marked a recession of water from the area. As the sea level changed again, alluvial layers first an organic clay, then a cleaner more homogeneous blue clay were deposited. The deposition of alluvium across the foreshore would have slowly subsumed the eyot and braided channels in later prehistory.

4.3 Roman

- 4.3.1 During the Roman period, the focus of activity was on *Londinium*, over 1.5km to the north-east of the study site, on the north side of the Thames. However, there has been suggestion that during the Roman period a road passed through Lambeth and led to a bridge across the Thames, stemming from interpretations that there was a Lambeth-Westminster crossing of the Thames taken from the writings of Dio Cassius on the invasion of Britain in 43 AD. While there is little evidence to support this theory, if true, would change the current understanding of the invasion of Britain, since the crossing at Lambeth would pre-date that at London Bridge.
- 4.3.2 The majority of Roman remains recorded within the study area are limited to residual finds, primarily coins, from along the Thames foreshore and near County Hall. A Roman boat was found in 1910 during excavations for the concrete raft on which County Hall is built. Parts of the timbers were destroyed before their presence was recognized, but what was left of the boat was carefully lifted, treated with preservative and deposited in the London Museum. At the time she was thought to have been a Roman galley, and from the evidence of three coins found in her was dated at about 300 AD.
- 4.3.3 The only evidence of Roman activity within the study area was an unclassified deposit on a high sand island recorded at Finck Street, c. 250m to the south of the study site. Other evidence of Roman activity lies just outside of the study area, possibly indicating a continuation in occupation of Lower Marsh through from the prehistoric period. This includes ditches found at 126-156 Westminster Bridge Road, as well as a bone hairpin and other Roman material found on Westminster Bridge Road.

4.4 Early Medieval

- 4.4.1 Lambeth is thought to derive its name from the Saxon *Lambehythe*, signifiying either a harbour or quay from which lambs were shipped, or a loam or muddy harbour (Godfrey 1951). It is possible that there was a suitable dry area within the marsh for a river crossing, where sheep, and other livestock and goods could be ferried across the Thames to *Lundenwic*, the Saxon settlement occupying the area of present day Aldwych and Covent Garden. However, there has been no physical evidence yet for the crossing.
- 4.4.2 Lambeth is first mentioned in 1041, when the Anglo-Saxon Chronicle records the death of King

Harthacnut while attending a wedding feast in Lambeth. He is said to have died as he stood drinking, falling down to the earth with a tremendous struggle. Upon his death, Edward the Confessor became king, and was crowned in 1042. He gave the manor of Lambeth to his sister Goda, who first built a church, dedicated to St. Mary, in 1062.

4.4.3 There is little evidence of early medieval activity within the vicinity of the site, with the site likely marshland at this point. Radiocarbon analysis of the marsh deposits at the site of the Millennium Wheel, c. 270m west of the study site, has dated them from 620 AD to 1260 AD. Other finds from the early medieval period are residual and have primarily been found along the Thames; these include two scramasaxes, a glass bead, the blade of a spearhead and javelin head, and an iron axe.

4.5 Medieval

- 4.5.1 Goda still held the Manor of Lambeth and the church of St. Mary by the Domesday Survey of 1086. At this time, the land was primarily agricultural, and sparsely populated. The early Norman kings granted the church of St. Mary to the See of Rochester; the church was also included with the manor in the exchange made between the Prior, Covent and Bishop of Rochester and the Archbishop of Canterbury in 1197, which resulted in the Archbishop of Canterbury holding the Manor of Lambeth and the construction of Lambeth Palace.
- 4.5.2 At some point during the late Saxon/early Norman period, Lambeth Marsh was drained and turned into fields (Gower 2003). Although the first attempts at land reclamation date to the 14th century, the land periodically flooded into the post-medieval period, with little development prior to the 17th century. Given that the area was inclined to flood, a number of embankment and drainage ditches were constructed. A causeway bound by two ditches on either side, known as the 'Great Dyke' or 'Narrow Walls', extended north-south through the marsh, with modern Belvedere Street following its approximate route. Excavations at Jubilee Gardens, *c.* 160m west of the study site, revealed a north-south running ditch believed to be the western ditch of the Great Dyke. This measured at least 4m wide and over 1.3m deep and was revetted on the western side by small wooden stakes; the full extent of the ditch was not observed as it extended beyond the eastern limit of excavation.
- 4.5.3 There is limited evidence for medieval occupation in the vicinity of the study site, with only a late medieval/Tudor chalk building fronting Upper Marsh recorded in the GLHER. The study site and much of the surrounding land was open and used for agricultural purposes, with plough and cultivation soils recorded to the south of the site along Westminster Bridge Road, at Lambeth Palace Kitchen Gardens, and Upper Marsh; several medieval pits have been uncovered at Lower Marsh. During the construction of County Hall, a medieval iron cleaver with scroll terminal to handle was recovered; this is likely residual in nature.

4.6 Post-Medieval

4.6.1 The Braun and Hogenburg Map of 1560 shows the study site located within open undeveloped land. Lambeth Marsh is labelled and is depicted as a few houses lining a road. To the south, Lambeth Palace is visible, as is part of Lambeth Water; roads are seen dissecting the fields,

and there are river crossings at Lambeth Marsh and Lambeth Palace.

- 4.6.2 Although development can be seen along the riverside in Morgan's 1682 Map of London, the study site and the majority of the surrounding area are labelled as 'The Marsh'. The marshland is divided by intersecting watercourses, providing drainage for the marsh; one of these ditches has been recorded c. 160m to the east of the study site, while another water channel was recorded at County Hall. Land reclamation during the post-medieval period allowed industry to develop along the bank of the River Thames. A number of wharves are visible on Morgan's 1682 Map of London; these were primarily timber yards, although the Coadestones factory and two post mills are also recorded in the study area. At this time access across the river was primarily conducted by boat, with two docks and river stairs (later known as the King's Arms Stairs) located to the west of the study site.
- 4.6.3 A post-medieval plough soil was recorded during archaeological investigations at 100–108 Lower Marsh, c. 300m south-east of the site. A light brownish-grey silt sand, it was observed at the same height as the natural and contained pottery dating between 1580–1700. A single sherd of medieval pottery, dating from 1270–1500, was also recovered; it is possible that this indicated earlier activity on the site. Lambeth was still sparsely populated, with small buildings dotting a landscape dominated by fields. Further development along Lambeth Marsh had taken place; some of these houses, albeit with 19th and 20th century alterations, are still standing today. with a new street, labelled Vine Street, extending from Narrow Wall to an unnamed road (now Cornwall Road). Buildings are visible along both sides of Vine Street, which cuts through the northern part of the study site, and there is further development along Narrow Wall. Archaeological investigations along Belvedere Road, which roughly follows the alignment of Narrow Wall, have revealed a mid-late 18th century timber well with associated pump and a joist and plank floor. A glass works was located along the bank of the Thames, though it is recorded as having closed in 1712.
- 4.6.4 Although more detail is shown on 7 Map of London, there is little change from Stow's 1720 Plan of London. One of the major differences, however, was the construction of Westminster Bridge. Although marked on Rocque's map, Westminster Bridge did not open until 1750, having been constructed to relieve the demand on road and river transport. There has been some development along Vine Street, with more buildings depicted and a small building located near the centre of the study site; however, the site is still primarily agricultural land.
- 4.6.5 Richard Horwood's 1792-99 Plan of London shows the steady development of the area, with buildings slowly beginning to encroach upon Lambeth Marsh. Westminster Bridge Road is shown on the map, cutting through Lambeth Marsh and leading to the junction of what is now St. George's Circus. The study site is still primarily undeveloped land, although further timber yards have opened on the eastern side of Narrow Wall. On Thomas Milne's 1800 Plan of London showing land use, parts of the study site are still shown as open land marked as 'g' meaning they were used as 'Marked Garden Ground'. Much of the surrounding open land is also noted as Market Garden Ground, although more buildings are seen than on Horwood's 1792–99 Plan of London.

- 4.6.6 It wasn't until the 19th century, after the construction of Waterloo Bridge in 1817 and Blackfriars Bridge, that the site and surrounding area were developed. The proposed route of Waterloo Bridge and Waterloo Road can be seen on Richard Horwood's 1819 Plan of London, although the site remains the same. However, Greenwood's 1830 Map of London shows the former marshland covered by roads and buildings. York Road is shown joining Bridge Street and Waterloo Road, running parallel to Belvedere Road, while the study site is occupied by a variety of unnamed buildings. To the south of the study site, at the corner of York Road and Addington Street was the Lying in Hospital. It had been founded in the late 18th century by Dr John Leake, who was concerned with the welfare of women and the frequently fatal conditions in which childbirth took place in urban slums; first opened in 1767, by 1828 the old building had been demolished and the new building on York Road was open. The majority of the buildings on Greenwood's map are not labelled, although the larger streets display names. Consecrated in 1824, the churchyard was laid out as a garden in 1877. Other development included the Lion Brewery, which was built between 1836-37 along the bank of the Thames, c. 320m to the north-west of the study site; the brewery was damaged by fire in 1931 and demolished in 1949.
- 4.6.7 Waterloo Station first opened in 1848. Constructed upon arches over marshy ground to the east of the site, it originally had six tracks and four platforms; however, this was increased in width in 1860, 1864, 1878, and 1910-22, until the station had twenty-one platforms. The 1878 Ordnance Survey Map shows Waterloo Station surrounded by urban development. To the west of Waterloo Station was a turntable and cab stand, bound by Griffin Street, York Road, and Vine Street. This area was partly encompassed by the study site, which also extended south past Griffin Road to York Street (now Leake Street) and north of Vine Street. The houses fronting Griffin Street and York Street are shown with lightwells, indicating that the properties were basemented. The expansion of Waterloo to the west is shown in the 1899 Goad Fire Insurance Plan, which shows an embankment for reserve carriages, cab yard, and offices for London and South-West Railways occupying the study site. Vine Street no longer extends east of York Road, having been replaced by the expansion of Waterloo Station. The study site looks much the same on the 1894 Ordnance Survey Map, although Cross Street, to the north-east of the study site, has been renamed Mepham Street. The Waterloo and City Line, which was opened in 1898, was constructed as a cut and cover tunnel, the second deepest railway tunnel in London; the Waterloo and City Line crosses the northern part of the site, falling largely within the footprint of Elizabeth House.

4.7 Modern

4.7.1 The study site was still occupied by features associated with Waterloo Station by the time of the 1914 Ordnance Survey. An office building was located in the north-eastern part of the site, while various rail lines are seen through the centre of the site. To the south were the remains of houses fronting Griffin Street; the majority of the street had been truncated by yet further expansion of Waterloo Station. During WWI, a block of government offices to the north-east of the study site was transformed into a huge military hospital; this building is now the Franklin-Wilkins Building, part of King's College London's Waterloo Campus. A concrete pillbox was

also constructed in Bridge Street at this time.

- 4.7.2 County Hall was built by the London County Council between 1906 and 1920 on former wharves; many residual prehistoric and Roman finds were recovered during this time. In the early 1930s, two 19th century houses on York Road were demolished to provide nurses' accommodation adjacent to the General Lying-In Hospital. The hospital became part of St. Thomas' Hospital in 1946. The Northern Line, which runs below part of the site, opened at Waterloo in 1926.
- 4.7.3 During WWII, the centre of the study site was struck by a V1 flying rocket, as can be seen on the London County Council Bomb Damage Map of 1939–41. The majority of buildings located on the site were destroyed, with those to the north damaged beyond repair. Lambeth was badly bombed during the war, and it was decided that the large expanse of damaged and derelict property on the waterfront would be used for the Festival of Britain in 1951. The majority of the structures for the festival were temporary, with Royal Festival Hall the only permanent structure. Development of the South Bank Centre occurred in the 1960s, and comprises The Haywood Gallery, the Queen Elizabeth Hall, the Purcell Room, the shared foyer between them, and the integral walkway connecting the buildings to Royal Festival Hall.
- 4.7.4 The 1953 Ordnance Survey Map shows the site much the same as the 1913–14 Ordnance Survey Map, although many of the buildings on the western side of York Road have been cleared. To the south of the study site, York Street has been renamed Leake Street. The buildings on the study site were demolished in the 1950s, as can be seen on the 1963 Ordnance Survey; only two small building fronting York Road near its junction with Leake Street remain.
- 4.7.5 The present building on site, Elizabeth House, was erected in 1964 and 1965; it is first visible on the 1975 Ordnance Survey Map. The construction of Elizabeth House involved the excavation for double level basement parking below the eight and eleven storey buildings, while a single level basement was excavated under the tower block. During the construction of the Waterloo International Terminal in the 1990s, an air shaft to the Bakerloo Line was constructed in the north of the site.

4.8 Undated

4.8.1 The two undated entries on the GLHER relate to alluvial deposits from which no finds were recovered. These deposits likely relate to the subsuming of the eyot and braided river system that was present during the prehistoric period.

4.9 Previous Site Investigations

4.9.1 In 2007, an archaeological evaluation was undertaken at Elizabeth House by Archaeology South-East in accordance with the requirements of condition 5 pursuant to planning permission (Ref: 91/1064/16181). A single test pit, measuring 3m by 3m, was excavated on the site, near the junction of York Road and Leake Street. A mid yellowish grey sandy silt layer with occasional pebbles and flecks of charcoal was thought to represent an alluvial deposit; this layer was encountered at 1.4m OD. Sealing this deposit was a thick layer of dark grey sandy

silt containing moderate amounts of ceramic building material, oyster shell and occasional pottery. This deposit is thought to represent the land reclamation during the 18th and 19th centuries. A basement of late 19th or 20th century date had truncated the majority of the earlier remains; the floor of this basement was recorded at a height of 0.91m OD. Services were encountered below the floor, and excavation halted at 0.6m OD, c. 2.80m below ground level (Hart 2007).

4.9.2 A watching brief conducted by PCA in 2011 monitored the results of geotechnical investigations conducted on the site, although not all of the test pits and bore holes were archaeologically supervised. No archaeological remains were observed in the trenches that were monitored (Pullen 2011).

5 METHODOLOGY

- 5.1 The evaluation was undertaken in accordance with the Written Scheme of Investigation (PCA 2021) which proposed the excavation of three evaluation trenches to be carried out in the car park areas to the east and south of the site, where the least amount of truncation was suggested by the results of the geotechnical investigations. Trench locations were heavily constrained by live services present on the site. All three trenches were to be stepped once at 1.2m depth to allow safe access to 2.4m below ground level in order to establish if marsh deposits or later remains survived.
- 5.2 The proposed dimensions of the three trenches were as follows:

Trench No.	Measurement at top (m)	Measurement at base (m)
1	12.4 x 4.2	10 x 1.8
2	17.4 x 4.2	15 x 1.8
3	8.4 x 4.2	6 x 1.8

- 5.3 Prior to the excavation the trench location was CAT (cable avoidance tool) scanned by a trained individual. The trenches were located to avoid known services within the open car park area.
- 5.4 The tarmac car park surface was broken out using a mechanical digger fitted with a breaker. Following this initial breaking out the digger used a toothless ditching bucket to reduce the ground in spits no greater than 100mm, under constant archaeological supervision. Where services were encountered, they were avoided and left undisturbed, resulting in the deposits below live services being left *in situ*.
- 5.5 When archaeological features were encountered machine excavation was halted to allow for these features to be examined using hand tools and then recorded before machining was allowed to continue.
- 5.6 Due to encountering widespread reinforced concrete below the carpark surface both Trenches 1 and 2 were reduced in size to allow smaller test pits in the areas where the concrete could be broken out. Trench 3 reached the desired depth of 2.4m, however stepping of the trench was not possible due to very loose demolition backfill in the section, which would have made stepping unsafe. The depth was however achieved through a sondage, which was backfilled immediately following recording.
- 5.7 The dimensions of the three completed trenches were as follows:

Trench No.	Length (m)	Width (m)	Depth (BGL)
1	2.3	1.61	2
2	2.5	1	1.5

Trench No.	Length (m)	Width (m)	Depth (BGL)	
3	5	4.2	2.4	

5.8 All trenches, archaeological features and section locations were recorded using a Geomax GPS system. This system was also used to establish OD heights of each archaeological deposit and features. A representative section of each trench was drawn at a scale of 1:10.

6 ARCHAEOLOGICAL SEQUENCE

- 6.1 Phase 1: Post-Medieval to Modern
- 6.1.1 The earliest deposit encountered in Trench 3 was a compact chalk surface [16], which was observed within a test pit. The deposit was bonded with mid grey mortar, contained fragments of CBM dating 1850-1930 and was recorded at a height of 2.39m OD.
- 6.1.2 The earliest deposit encountered in Trench 1 during the archaeological evaluation was a concrete pile [4]. It measured 2.3m by 1.61m and was recorded at a height of 1.63m OD. The full extent of the pile was not observed due to limitations of the trench.
- 6.1.3 Within Trench 1 the concrete pile [4] was overlain with a layer of fairly loose mid greyish brown sandy silt [3], measuring 0.25m in thickness. This layer contained occasional small sub-angular stones and small fragments of CBM and was recorded at a height of 2.33m OD. Sealing layer [3] was a layer of moderately firm mid brown redeposited alluvium [2], which contained occasional sub-angular stones, brick, plastic pipe and a railway sleeper. This layer measured 1.5m in thickness and was recorded at a height of 3.38m OD. Sealing layer [2] was a layer of compact mid reddish brown sandy silt, which contained frequent sub-angular stones. This layer measured 0.18m in thickness and was recorded at a height of 3.48m OD. It is probable that these layers represent made ground associated with the construction of the carpark.
- 6.1.4 The earliest deposit encountered in Trench 2 was a moderately compact dark greyish brown sandy silt [6]. This layer contained occasional fragments of CBM and was recorded at a height of 1.88m OD. Excavation of this layer yielded pottery dated to the 19th century. Sealing layer [6] was a layer of loose mid yellowish brown sandy silt [5], measuring 0.6m in thickness. It is probable that these layers relate to the 20th century development of the site when it was converted into a carpark.
- 6.1.5 In Trench 3 a dark greyish brown concrete surface [18] was observed at the base of a sondage and was recorded at a height of 1.14m OD. This surface likely represents a cellar floor.
- 6.1.6 The chalk surface [16] was directly cut by a construction cut [14]. It measured 1.7m in length, however its width and depth were unable to be recorded to the limits of excavation. The cut [14] was filled by wall [8], which measured 2.3m in length and 0.23m in width, surviving to a depth of 1m. The wall consisted of yellow and red unfrogged bricks measuring 70 mm by 110mm by 230 mm and were bound by a mid grey mortar. The bricks were dated to 1875 to 1925. This wall represented an external wall of a cellar.
- 6.1.7 Abutting the wall [8] was a layer of moderately firm mid brown sandy silt [15], which measured 0.1m in thickness. This layer contained occasional CBM fragments and was recorded at a height of 2.49m OD. Sitting above this layer was a lead pipe [17], which measured 1.7m in length, 0.05m in width and 0.05m in depth. The pipe ran parallel to the cellar wall [8], external to the property and was probably a domestic service pipe serving the building. Overlying the pipe [17] was a layer of moderately firm mid greyish brown sandy clay [13], which measured 0.32m in thickness. This layer contained occasional chalk fragments and mortar patches and

- was recorded at a height of 2.82m OD. Sealing layer [13] was a layer of moderately compact dark brown sandy silt [9], which measured 0.15m in thickness. This layer contained occasional CBM fragments and mortar and was recorded at a height of 2.99m OD.
- 6.1.8 Cutting layer [9] was an irregular shaped construction cut [12] for a ceramic drain. It measured 0.42m in length and 0.3m in width, surviving to a depth of 0.7m in depth. The feature possessed vertical sides and a concave base. Filling the feature was a moderately firm light to mid grey mix of gravelly concrete and silty sand with occasional wood fragments, brick and ceramic drain fragments. The feature survived at a maximum height of 2.98m OD.
- 6.1.9 The cellar, lined by brick wall [8], was backfilled with a layer of loose light greyish brown silty sand [7], measuring 2.2m in thickness. This layer contained frequent demolition rubble including bricks, wall fragments, power cables and plastic tubing. This layer was probably a result of the post-World War II demolition of the study area.
- 6.1.10 Sealing Trenches 1 and 2 were asphalt car park surface. Trench 3 was sealed by concrete.



Plate 1. West facing section, Trench 1 (looking east).



Plate 2. West facing section, Trench 2, (looking east, 1m scale).



Plate 3. North facing section, in Trench 3, showing cellar wall [8], parallel running lead pipe [17] and chalk surface [16] observed in test pit (looking south)



Plate 4. Sondage completed in Trench 3 through demolition layer [7], showing concrete surface [18] (looking east).



Plate 5. Cellar wall [8] (looking east, 1m scale).

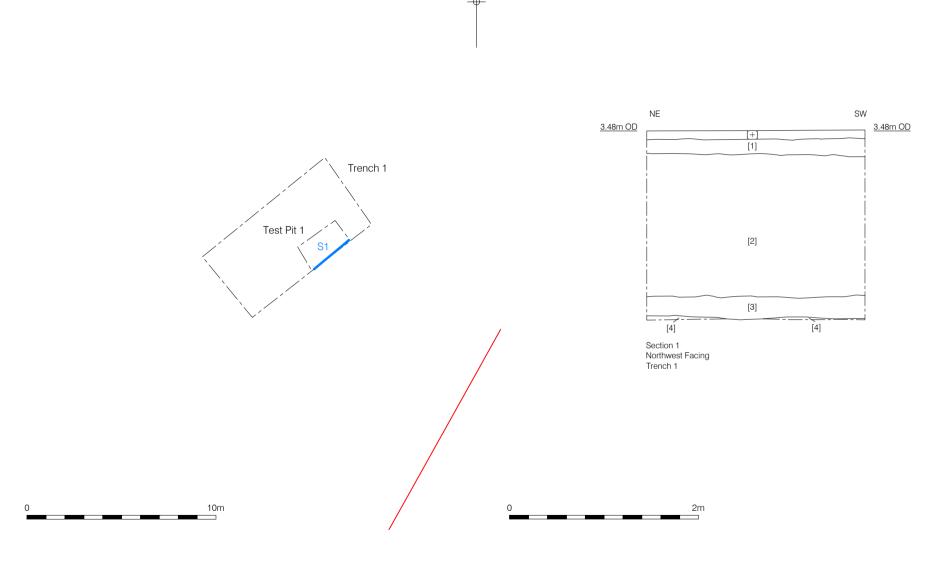


Figure 3 Trench 1, Plan and Section Plan at 1:200 and Section at 1:40 at A4

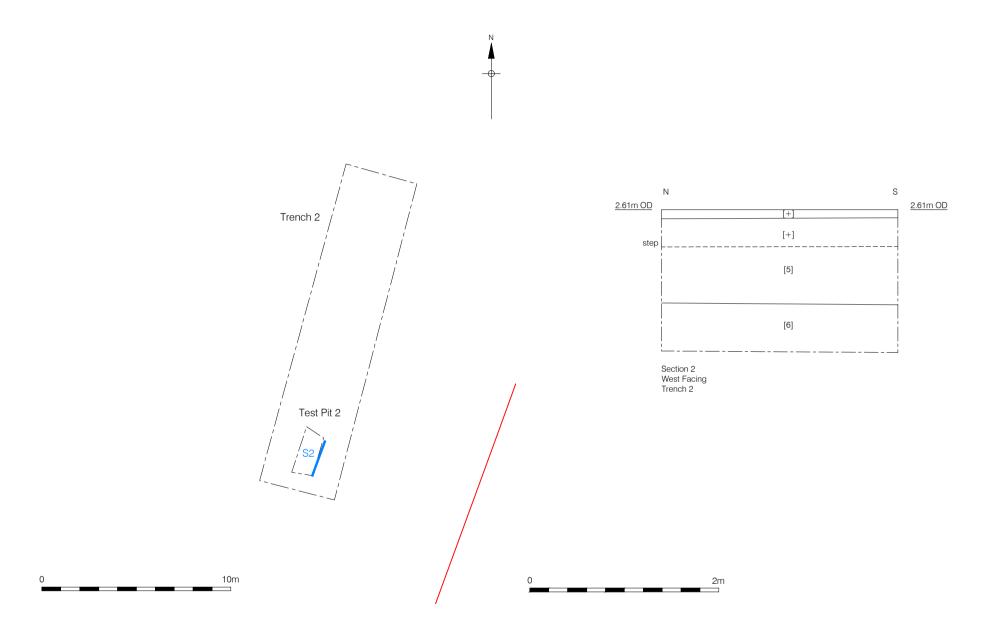
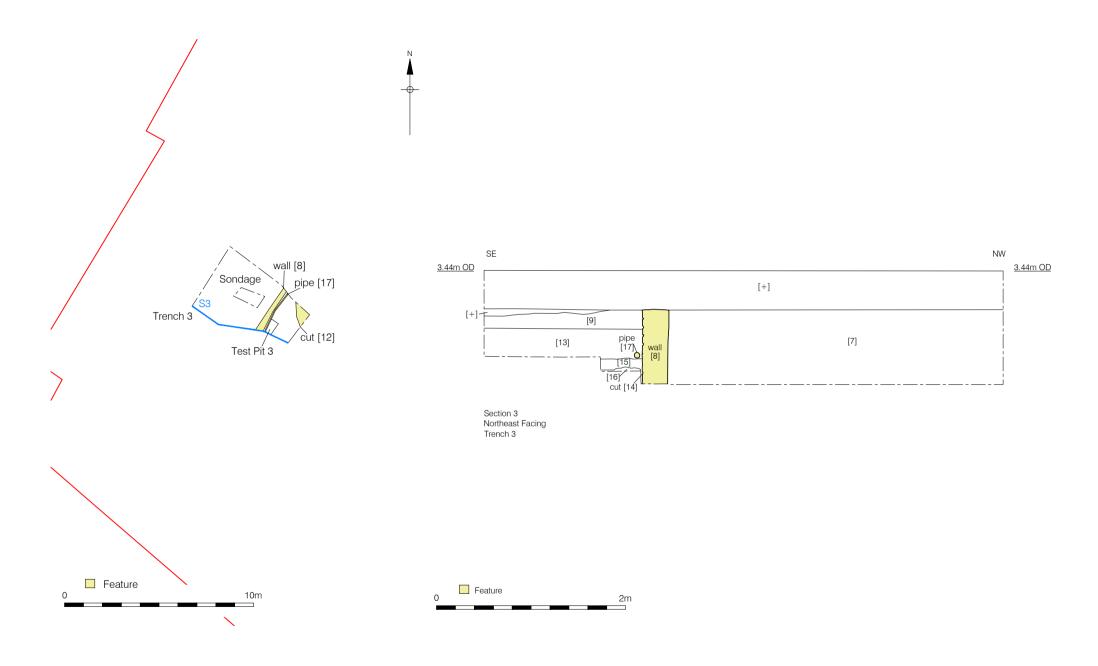


Figure 4
Trench 2, Plan and Section
Plan at 1:200 and Section at 1:40 at A4



7 DISCUSSION AND CONCLUSIONS

7.1 Research Objectives

7.1.1 The project specific research questions that were set out in the Written Scheme of Investigation compiled by PCA (2021) are addressed as follows, based on the results of the evaluation:

What evidence is there for prehistoric material on site?

7.1.2 No evidence for prehistoric material was found during the evaluation.

What evidence is there for Roman occupation of the site?

7.1.3 No evidence for prehistoric material was found during the evaluation.

What evidence is there for the Saxon/early medieval and post-medieval period on the site? Is there any evidence for land reclamation during those periods or for buildings of post-medieval date?

- 7.1.4 Evidence for late post-medieval activity at the site was identified in Trench 3 in the form of a backfilled cellar and services associated with the property. This is most likely related to the 19th century properties that can be seen on historical maps fronting on to York Road. This backfill is most probably representative of the post-World War II demolition of the area, following heavy bombing.
- 7.1.5 Undated layers of made ground recorded in Trenches 1 and 2 could suggest land reclamation during the post-medieval period, however these layers are more likely to be modern.

Assess the impact from previous development stages on the archaeological horizon.

- 7.1.6 Several layers of made ground were identified in Trenches 1 and 2, which may represent levelling layers associated with the construction of Elizabeth House and its car park in the 20th century. These layers are representative of the redevelopment of the area and suggest that the site was heavily truncated horizontally during this period of construction along the eastern side of the site which is currently occupied by the car park.
- 7.1.7 The demolition backfill and cellar masonry identified in Trench 3 suggest potential for earlier archaeological deposits to remain intact at a greater depth within this south-western of the site. This was the area identified in the geotechnical investigations as being the least disturbed as well, although some disturbance was still noted.

Conclusions

- 7.1.8 The evaluation recorded several layers of made ground, most likely dating to the late post-medieval and modern period, in different forms in all three trenches. It is probable that these layers are associated with 20th century development of the site and construction of Elizabeth House and are representative of land reclamation and levelling in the area.
- 7.1.9 Evidence for a 19th century cellar was recorded in Trench 3 along with two post-medieval features, both of which were likely to be services associated with the aforementioned 19th century building.

7.2 Archiving

- 7.2.1 Upon approval of this report by GLAAS and with confirmation that the work is complete, the paper archive will be deposited with the London Archaeological Archive under the unique site code EHW21 and the finds archive will be discarded.
- 7.2.2 The results of the site investigation will be published by PCA as a summary in the annual 'round-up' of *London Archaeologist*.

8 ACKNOWLEDGEMENTS

- 8.1 Pre-Construct Archaeology Ltd would like to thank HB Reavis for commissioning the work and Mark Stevenson of GLAAS for monitoring the site on behalf of the London Borough of Lambeth.
- 8.2 The author would like to thank Helen Hawkins for her project management, Mark Roughley for the illustrations and John Joyce for logistics.

9 **BIBLIOGRAPHY**

Arup Geotechnica, I 2011, Elizabeth house Geotechnical Interpretive Report

British Geological Survey (BGSa) Geology of Britain Viewer https://www.bgs.ac.uk/discoveringGeology/geologyOfBritain/viewer.html [accessed 09 September 2021].

Museum of London, 2002, A Research Framework for London Archaeology 2002

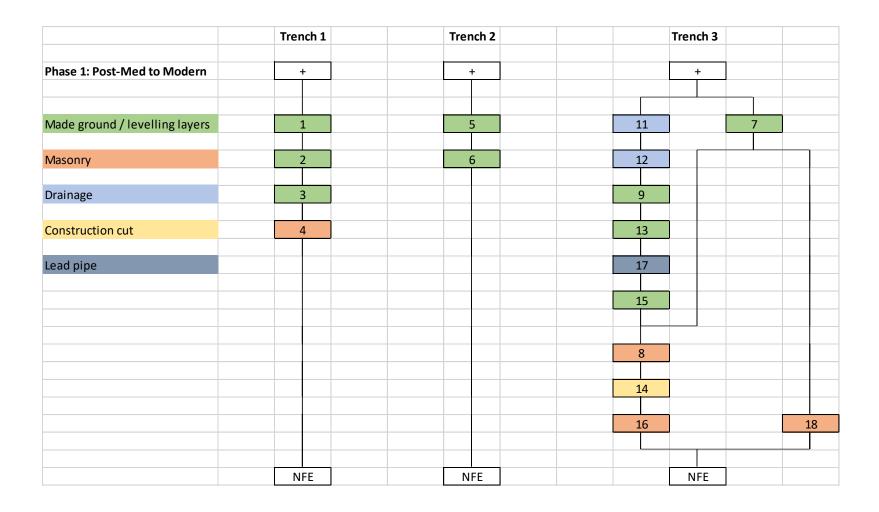
PCA, 2018, Elizabeth House, Waterloo: Desk Based Assessment

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

APPENDIX 1: CONTEXT INDEX

Context	Туре	Fill of	Phase	Period	Trench	Description	Length	Width	Depth/Thickness	Levels High	Levels Low
1	Layer		1	Post-med to modern	1	Made ground	2.3m	1.61m	0.18m	3.48m OD	
2	Layer		1	Post-med to modern	1	Redeposited alluvium	2.3m	1.61m	1.5m	3.38m OD	
3	Layer		1	Post-med to modern	1	Made ground	2.3m	1.61m	0.25m	2.33m OD	
4	Masonry		1	Post-med to modern	1	Concrete pile	2.3m	1.61m	0.05m (min)	1.63m OD	
5	Layer		1	Post-med to modern	2	Made ground	2.5m	1m	0.6m	2.48m OD	
6	Layer		1	Post-med to modern	2	Made ground	2.5m	1m	0.5m (min)	1.88m OD	
7	Fill		1	Post-med to modern	3	Demolition backfill	3.4m	3m	2.2m	3.04m OD	
8	Masonry	14	1	Post-med to modern	3	Cellar wall	2.3m	0.23m	1m (min)	3.02m OD	
9	Layer		1	Post-med to modern	3	Made ground	1.7m	1.45m	0.15m	2.99m OD	
10	Void										
11	Fill	12	1	Post-med to modern	3	Fill of drain	0.42m	0.3m	0.7m	2.98m OD	
12	Cut		1	Post-med to modern	3	Cut of drain	0.42m	0.3m	0.7m	2.98m OD	2.28m OD
13	Layer		1	Post-med to modern	3	Made ground	1.7m	1.45m	0.32m	2.82m OD	
14	Cut		1	Post-med to modern	3	Construction cut of wall [8]	1.7m			2.34m OD	
15	Layer		1	Post-med to modern	3	Made ground	1.7m	1.32m	0.10m	2.49m OD	
16	Masonry		1	Undated	3	Chalk surface	0.5m	0.4m		2.39m OD	
17	Deposit		1	Post-med to modern	3	Lead pipe	1.7m	0.05m	0.05m	2.57m OD	
18	Masonry		1	Post-med to modern	3	Cellar surface	1m	0.5m		1.14m OD	

APPENDIX 2: SITE MATRIX



APPENDIX 3: BUILDING MATERIAL ASSESSMENT

Amparo Valcarcel, September 2021

The ceramic building material (5 fragments, 5.31kg) recovered from the three contexts is represented by late post-medieval and modern material. Context [8] and [11] had preserved two brick machine bricks made of fabric 3035, the examples are thick, and with sharp arises; brick from [8] is frogged. Both bricks could be dated at the end of the 19th century or beginning of the 20th century. The material represented the late post-medieval/modern occupation of the area since the 19th century onwards. No further work is recommended.

Distribution

Context	CBM_Fabric	Form	Quantity	Date range of material	Latest dated material	Spot date
8	3035	Frogged yellow stock brick	1	1770-1940	1770-1940	1875-1925
11	3035	Yellow stock brick	1	1770-1940	1770-1940	1875-1925
16	3101PM	Cemented mortar	3			1850-1930

APPENDIX 4: OASIS FORM

OASIS ID: preconst1-430181

Project details

Project name Elizabeth House, Waterloo

Short description of

the project

A total of three trenches were excavated during the evaluation in order to determine if any archaeological deposits or features survived on the site, and if so, to determine their extent and nature. The evaluation recorded evidence of a 19th century building cellar. Two post-medieval features were identified in total, which were probably services associated with the property. Several layers of made ground layers were identified within the most easterly trenches, which probably formed during 20th-century levelling and

development of the site.

Project dates Start: 31-08-2021 End: 07-09-2021

Previous/future

work

Yes / Not known

Any associated project reference

codes

EHW21 - Sitecode

Type of project Field evaluation

Monument type WALL Post Medieval

Monument type DRAIN Post Medieval

Monument type LEAD PIPE Post Medieval

Significant Finds NONE None

Methods & techniques

"Targeted Trenches"

Development type Urban commercial (e.g. offices, shops, banks, etc.)

Prompt Planning condition

Position in the planning process

After full determination (eg. As a condition)

Project location

Country England

Site location GREATER LONDON LAMBETH LAMBETH Elizabeth House, 39 York Road,

Waterloo

Postcode SE1 7NQ

Study area 1.99 Hectares

Site coordinates TQ 3087 8993 51.592510349749 -0.110523532219 51 35 33 N 000 06 37 W

Point

Project creators

Name of Organisation

PCA

Project brief originator HB Reavis

Project design originator

PCA

Project

Helen Hawkins

director/manager

Project supervisor Kathy Davidson

Project archives

Physical Archive recipient

LAA

EHW21

Physical Archive ID
Physical Contents

"Ceramics","other"

Digital Archive

LAA

recipient

Digital Archive ID EHW21

Digital Contents "Survey"

Digital Media

"Database", "Images raster / digital

available

photography", "Spreadsheets", "Survey", "Text"

Paper Archive recipient

LAA

Paper Contents

"Stratigraphic"

Paper Media available

"Context sheet","Correspondence","Diary"

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