

25 Mandela Way, London Borough of Southwark: Archaeological Mitigation Report

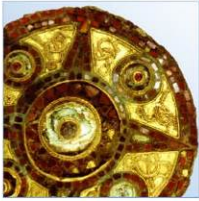
Planning Application: 14/AP/1552

National Grid Reference Number: TQ 33727 78518

AOC Project No: 33638

Site Code: MDL18

February 2018



ARCHAEOLOGY

HERITAGE

CONSERVATION

25 Mandela Way, London Borough of Southwark: Archaeological Mitigation Report

On Behalf of: RPS Group
London Wall Archaeology
London Wall
London
EC2Y 5DN

National Grid Reference (NGR): TQ33721 78518

AOC Project No: 33638

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This document has been prepared in accordance with AOC standard operating procedures.

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Non-Technical Summary

Archaeological investigation was undertaken by AOC Archaeology, in February 2018, as mitigation against the construction of a new laundry building at the site of a former Car Pound at 25, Mandela Way, in the London Borough of Southwark, National Grid Reference (NGR) TQ 33727 78518.

The excavation of a trench 22m by 3.75m at base revealed a sequence of fluvial and alluvial deposits with braided channels that are consistent with the character of Bermondsey Lake, a naturally-formed feature on the south of the River Thames. Peat was encountered, although it was of no great depth and not widespread. The alluvial sequence was overlain by post-medieval garden soils, in turn sealed by a substantial depth of made ground for the 20th century carpark established on site.

The peat was assessed during a programme of geoarchaeological boreholes in 2017. The results are included in this report.

The results of the evaluation will be summarised and published in the annual London Archaeologist Fieldwork round-up and via the Archaeological Data Service (ADS) website under OASIS ID: aocarcha1-306378.

1 Introduction

- 1.1 This document details the results of archaeological mitigation undertaken by AOC Archaeology at 25, Mandela Way, London Borough of Southwark (Figure 1). The site was most recently in use as a Car Pound. The former car pound site is located to the southwest of the junction between Mandela Way and Dunton Road, with the rear of houses fronting Marcia Road to the southwest and an industrial unit to the northeast. The site is centred at National Grid Reference (NGR) TQ 33559 78556 and lies within the known area of Bermondsey Lake.
- 1.2 The archaeological mitigation comprised the excavation of a trench measuring 22m by 3.75m at base (Figure 2).

2 Planning Background

- 2.1 The local planning authority is the London Borough of Southwark. Archaeological Advice is provided by Gillian King, Senior Planner Archaeology.
- 2.2 The development area is located in an LPA designated Class Two Archaeological Priority Area (Bermondsey Lake – APZ 74) and to the immediate north of the LPA designated Archaeological Priority Area (Old Kent Road North – APZ 46).
- 2.3 The main archaeological potential of the site was identified from previous desk-based assessments, relates to (RPS 2013).
- 2.4 A historic environment/archaeological appraisal undertaken by RPS (2013) found that site has the potential to contain either the presence of features and deposits associated with the Roman Road of Watling Street or alluvial deposits associated with Bermondsey Lake which have yielded a number of prehistoric features, artefacts and palaeoenvironmental evidence (Siddell *et al.* 2002).
- 2.5 A Planning application was submitted for the construction of an industrial laundry with storage and warehousing facilities, artisan workshops and a bakery with associated cycle parking and landscaping (Planning Reference 14/AP/1552). Planning permission has been granted, with conditions. Conditions 4 and 21 address the archaeological requirements:

Condition 4

Before any work hereby authorised begins, the applicant shall secure the implementation of a programme of archaeological mitigation works in accordance with a written scheme of investigation, which shall be submitted to and approved in writing by the Local Planning Authority.

Reason

In order that the details of the programme of works for the archaeological mitigation are suitable with regard to the impacts of the proposed development and the nature and extent of archaeological remains on site in accordance with Strategic Policy 12 - Design and Conservation of The Core Strategy 2011, Saved Policy 3.19 Archaeology of the Southwark Plan 2007 and the National Planning Policy Framework 2012.

Condition 21

Within six months of the completion of archaeological site works, an assessment report detailing the proposals for post-excavation works, publication of the site and preparation of the archive shall be submitted to and approved in writing by the Local Planning Authority and that the works detailed in this assessment report shall not be carried out otherwise than in accordance with any such approval given.

Reason

In order that the archaeological interests of the site are secured with regard to the details of the post-excavation works, publication and archiving to ensure the preservation of archaeological remains by record in accordance with Strategic Policy 12 - Design and Conservation of The Core Strategy 2011, Saved Policy 3.19 Archaeology of the Southwark Plan 2007 and the National Planning Policy Framework 2012.

2.6 In advance of the fieldwork, a Written Scheme of Investigation (WSI) was produced by AOC Archaeology (AOC 2018), in response to Condition 4. The detailed WSI was designed in accordance with current best archaeological practice and local and national standards and guidelines:

- Chartered Institute for Archaeologists (2014) Standard and guidance for archaeological excavation
- Chartered Institute for Archaeologists (2014) Standard and guidance for an archaeological watching brief
- Department for Communities and Local Government – National Planning Policy Framework (NPPF) (DCLG 2012).
- Historic England – Management of Archaeological Projects (HE 2015).
- Historic England, 2015, Greater London Archaeology Advisory Service, Guidelines for Archaeological Projects in Greater London
- Historic England, 2015, Piling and Archaeology. Guidelines and Best Practice
- Chartered Institute for Archaeologists – Code of Conduct (CIfA 2014).

3 Geology

3.1 The BGS website (BGS 2018) indicates that the site is located on the Kempton Park Terrace Gravels, overlying London Clay close to the junction with the River Thames alluvial deposits. Archaeological evidence suggests that the alluvium was characterised by the “Bermondsey Lake” which formed within a relict channel of the Thames (Sidell et al, 2002, 9). This “lake” was one of a number of late-Glacial features that may have been up to several kilometres long (east-west) with the Bermondsey Eyot to its north (Sidell op cit, 11).

3.2 The site is currently a car park. The car park lies at around 2.00m AOD.

4 Archaeological and Historical Background

4.1 The archaeological and historical background below is based on RPS Assessment (RPS 2013).

Prehistoric and Roman Periods (c.8,000 BC – AD 410)

4.2 The most significant prehistoric evidence comes from excavations nearby. Excavations at the Bricklayers Arms in 1987 revealed the edge of Bermondsey Eyot and the adjacent lake basin. Flint axes, and a wooden platform were revealed, of Neolithic date. These were overlain by silts and a peat-rich horizon. The platform seems to have been used while the lake was still extant, it was of interlaced timbers, consisting of a mixture of alder, willow and birch with some cut marks still identifiable. 4.3 Several hearths were located adjacent to the platform, associated with much firecracked flint.

- 4.3 The possible western edge of the lake may have been recorded to the north-west of the site, with a possible southern edge recorded at Coopers Road, although the marshy conditions did not appear to be present in another evaluation at 8 Lynton Road (Oxford Archaeology 2011).
- 4.4 The exact alignment of Watling Street (the focus of the Archaeological Priority Area to the south/south-west of the site) is not clear. Where it has been recorded in other parts of Southwark it varies in width from circa 6.0m to 10.0m wide but the alignment in the vicinity of the Old Kent Road has been conjectured – based on both positive and negative archaeological evidence (Cowan et al 55-57).
- 4.5 The recording of an inhumation to the south of the site and the recording of Prehistoric struck flints and Roman ditches and post-holes along with the line of a former water channel suggest that the site may be situated at the edge of the higher ground as it drops down towards the marshy deposits of Bermondsey Lake. Roman quarry pits at the Coopers Road/ Old Kent Road Fire Station site indicates the presence of available raw materials for construction usage.

Early Medieval and Medieval Periods (AD 410 – AD 1536)

- 4.6 There is little evidence for medieval activity within the vicinity of the site, with medieval Southwark lying to the northwest, including Bermondsey Abbey

The Post Medieval (AD 1536 – AD 1900) and Modern (AD 1900 – Present) Periods

- 4.7 Early cartographic evidence shows the vicinity of the site being transformed from “rural” pasture (in the post-medieval period) to industrial good yards. Early maps show the marshy nature of the vicinity of the site with numerous ditches being illustrated on Rocque’s map. The Earls Sluice may also have followed a natural water-course towards the River Thames.
- 4.8 Late 19th century and 20th century Ordnance Survey Maps show the site being used as Goods Yards for the railway, including a station.

5 Aims of Investigation

- 5.1 The aims of the investigation were defined as:
- To establish the presence/absence of archaeological remains within the site.
 - To determine the extent, condition, nature, character, quality and date of any archaeological remains encountered.
 - To record and sample excavate any archaeological remains encountered.
 - To assess the eco-factual and environmental potential of any archaeological features and deposits.
 - To determine the extent of previous truncations of the archaeological deposits.
 - To determine whether pockets of higher archaeology (not shown by SI and geo-archaeological works) do not survive across the pile mat area;
 - To ensure compliance with the proposal to preserve archaeology in-situ as set out in Condition 3 documents
 - To enable the archaeological advisor to Southwark Council to make an informed decision on the status of the condition, and any possible requirement for further work in order to satisfy that condition.
 - To make available to interested parties the results of the investigation.

5.2 The specific aims of investigation were defined as being:

- Determine the nature and extent of any prehistoric activity on the site and to establish the nature and date of this evidence.
- Determine the nature and extent of any Roman activity on the site and to establish the nature and date of this evidence.
- To make public the results of the investigation, subject to any confidentiality restrictions.

6 Methodology

6.1 A written scheme of investigation (WSI) prepared by AOC Archaeology (2018) defined the site procedures for the mitigation. All work was carried out in accordance with current best archaeological practice and local and national standards and guidelines:

- Department for Communities and Local Government – National Planning Policy Framework (NPPF) (DCLG 2012).
- Historic England – Management of Archaeological Projects (HE 2015).
- Chartered Institute for Archaeologists – Standards and Guidance for Archaeological Field Evaluations (CifA 2014a).
- Chartered Institute for Archaeologists – Code of Conduct (CifA 2014b).

6.2 A unique site code for the project (MDL 18) was assigned by LAARC to the project and used as the site identifier. LAARC will be the receiving depository for the archive.

6.3 The evaluation was supervised by Les Capon, AOC Project Manager, and managed by Catherine Edwards, AOC Operations Manager. The site was monitored by Gillian King, Senior Planner Archaeology at Southwark Council (site visit on 7th February 2018) , and by Simon Blatherwick of RPS.

6.4 The 'Contingency areas' identified with the WSI were not excavated due to the negative results of the main trench. This was agreed following telephone conversation between Gillian King, Senior Planner Archaeology at Southwark Council and Simon Blatherwick (RPS Group) after the site visit on 7th February 2018.

7 Results

Mitigation Trench

- 7.1 The excavation comprised a single trench located towards the southeastern end of site, corresponding to the deepest impact of a piled foundation proposal. The trench was oriented southwest-northeast (Figure 2). It measured 25m long and 6.75m wide at the surface, and 22m by 3.75m at base. Fluvial and alluvial sequences were present, sealed by garden soils.

Table of the stratigraphic sequence, centre of trench

Context No	Thickness (m)	Height at top of Deposit (mOD)	Description/Interpretation
1	0.40m	+1.96m	Concrete
2	0.26m	+1.56m	Type 1
3	0.24m	+1.30m	Crush
6	0.60m	+1.06m	Garden soil
7	0.10m	+0.46m	Top alluvial horizon
14 (8)	0.18m	+0.36m	Organic layer (developing into peat)
15	0.40m	+0.25m	Fill of scoured channel [17]
17	0.40m	-0.15m	Base of scoured channel
19	0.08m	+0.25m	Top of early channel
24	0.99m	-0.74m	Base of early scoured channel
11	NFE	-0.06m	Terrace gravel

- 7.2 The lowest deposit in the trench was naturally-lain terrace gravel (11), lying at -0.06m OD at the southwestern end of the trench, with a slightly uneven surface caused by repeated scouring under fluvial conditions. A well-defined channel [24] was cut into the gravel near the centre of the trench, cutting to -0.74mOD. The primary fill of the channel was 0.42m depth of dark grey clayey sand (23) with rounded gravel inclusions up to 60% by volume. This represents a fluvial layer, carrying gravel within flowing water. The upper layers of this sequence are cut away by later scouring, but the fills of this event continue with a layer of stony grey silty sand (21) up to 0.32m deep, whereafter a layer of bluish grey sand and gravel was deposited on its northeastern edge (10). This sequence is probably subject to subtle scouring and variations in water levels, since the fourth deposit was a patchy layer of bluish grey clayey silt (22). The fifth layer in the sequence was grey silty sand, with 50% gravel inclusions (20), with a topmost deposit of pale white sand and gravel (19), lying at +0.25mOD.
- 7.3 There may be evidence for a second early phase channel scoured and filled towards the southwestern end of the trench, where the gravel of the main sequence was overlain by a lens of dark blue silty clay (27) which was very compact and just 0.10m deep. This was overlain by a thin layer of brownish black silt and gravel (26), just 0.06m deep, and then by bluish grey silty clay (25) that typifies alluvial deposition under slow moving water.



Plate 1: Overview of evaluation trench, Looking North

- 7.4 The sequence of fluviially-lain gravel deposits peaked at +0.25mOD and were cut away by a pair of channels oriented approximately northwest-southeast. The southwestern channel [18] measured 0.42m deep, with a gentle, curving edge dropping to a flattish base. A single fill of brown, alluvial sandy silt (16) had no inclusions, and represents deposition in slower moving alluvial conditions. The second channel [17], approximately parallel to the first, was also 0.40m deep, with a concave profile and flat base, and again contained a single fill, of brown sandy silt (15). The filled channels were overlain by further alluvium. In the southwest of the trench, was a layer of black silt and gravel, just 0.06m deep. At the northeast was a layer of bluish green clayey silt (9), sealed by a widespread layer of soft and friable silt (14) and developed into a layer of peat (8), at the northeastern end of the excavations.
- 7.5 This layer of peat (8), lay at +0.31mOD and was just 0.17m deep and was only present for 6m length, within a slight hollow within the alluvial sequence. The peat was overlain by a thin layer of pale bluish yellow silty clay alluvium (7), up to 0.26m deep, lying generally level at +0.59mOD.
- 7.6 The alluvial sequence was overlain by deposits of post-medieval date. The lowest of these was a layer of dark brown organic sandy silt (13), up to 0.22m deep at the southern end of the trench, diminishing in depth to the northeast. This was overlain in the centre of the trench by a spread of soft greenish yellow sand (12) up to 0.14m deep, and in the south by a layer of brown sand (28) and bluish grey silt (29), which may represent disturbed alluvial horizons upcast during reworking of the lower stratigraphy in the post-medieval period. These upcast deposits and the lower garden soil were overlain by dark brown organic sandy silt (6) that contained finds of clay tobacco pipe, porcelain, glass, oystershell, and flowerpot, that was up to 0.66m deep. This represents reworked, improved soil that would be expected in a garden or agricultural context and lay at +1.24mOD at the southeast of the trench, dropping slightly to +1.18mOD at the northeastern end. The cartographic evidence for the site shows that goods yards were present in the late 19th century until the Second World War.
- 7.7 The garden horizon was cut into by a north-south trench measuring 0.90m wide and greater than 0.66m deep [5]. The trench which contained an active storm drain, was backfilled with pea-shingle, Type 1 and redeposited garden soil (4), and relates to the most recent use of the site as a car park. The car park surface was created by the addition of three heavily-compacted layers totalling 1m in depth. A layer of a semi-permeable membrane was laid down over the garden soil, followed by a layer of sandy crush (3) that was 0.22m deep. This was overlain by 0.28m depth of Type 1 (2), followed by 0.40m depth of slightly stony tarmac (1). The tarmac lay at +2.26mOD at the southwestern end of the trench, dropping to +1.84mOD at the northeastern end. This tarmac was notably dense and obdurate.

8 Finds

- 8.1 The finds assemblage consists of Roman and post-Roman pottery, collected from the garden soil (6). The mixed dates of the pottery signifies reworking of deposits above the alluvium in the post-medieval period.

9 Conclusion

- 9.1 The excavated trench has shown that there is an alluvial and fluvial sequence of deposition on the site with evidence for fast and slow-moving currents, and occasional peat formation where conditions allowed. The peat from the site has been dated to the Late Bronze Age and is consistent with peat recorded elsewhere in the Bermondsey Lake. No further analysis of the peat samples has been recommended (see QUEST report attached).

- 9.2 The terrace gravel in the trench lay at -0.06m, and had been scoured away to the northeast, with a wide channel filled with varied layers of gravel-rich sand and silt, which characterises deposition during an active, moderately fast-moving fluvial environment. The gravel sequence was scoured away in several locations, with the ensuing channels filled with silts and clays, which indicate slower moving shallow waters, possibly resulting in a more marshy environment. The trench does not conclusively show whether there were concurrent channels with small islands, or a series of channels superseded each other during centuries of abrasion.
- 9.3 The peat has been recorded elsewhere on site as only an occasional layer and may therefore indicate that peat development was only a sporadic and occasional result of the right conditions before further inundation occurred.
- 9.4 There is a sharp horizon between the uppermost alluvial deposit at +0.46mOD and 0.60m depth of garden soil with a mixture of post-medieval and Roman finds within it. While this sudden, notably flat, level change may be the result of regular, agricultural or gardening activities to a limited horizon, there may be a secondary interpretation. The known history of the site includes development of the land as a railway goods yard in the late 19th century, and there is no evidence for this in the excavations. It is possible that the sudden hiatus in the alluvial sequence reflects a modern event; the removal of all layers representing the goods yard, and the making up of ground thereafter with topsoil, either imported, or upcast during other nearby post-war development.
- 9.5 The trench has shown that the alluvial sequence is sealed by 0.60m depth of the topsoil/ garden soil, itself overlain by 0.9m depth of deposits associated with the laying down of the current car park.

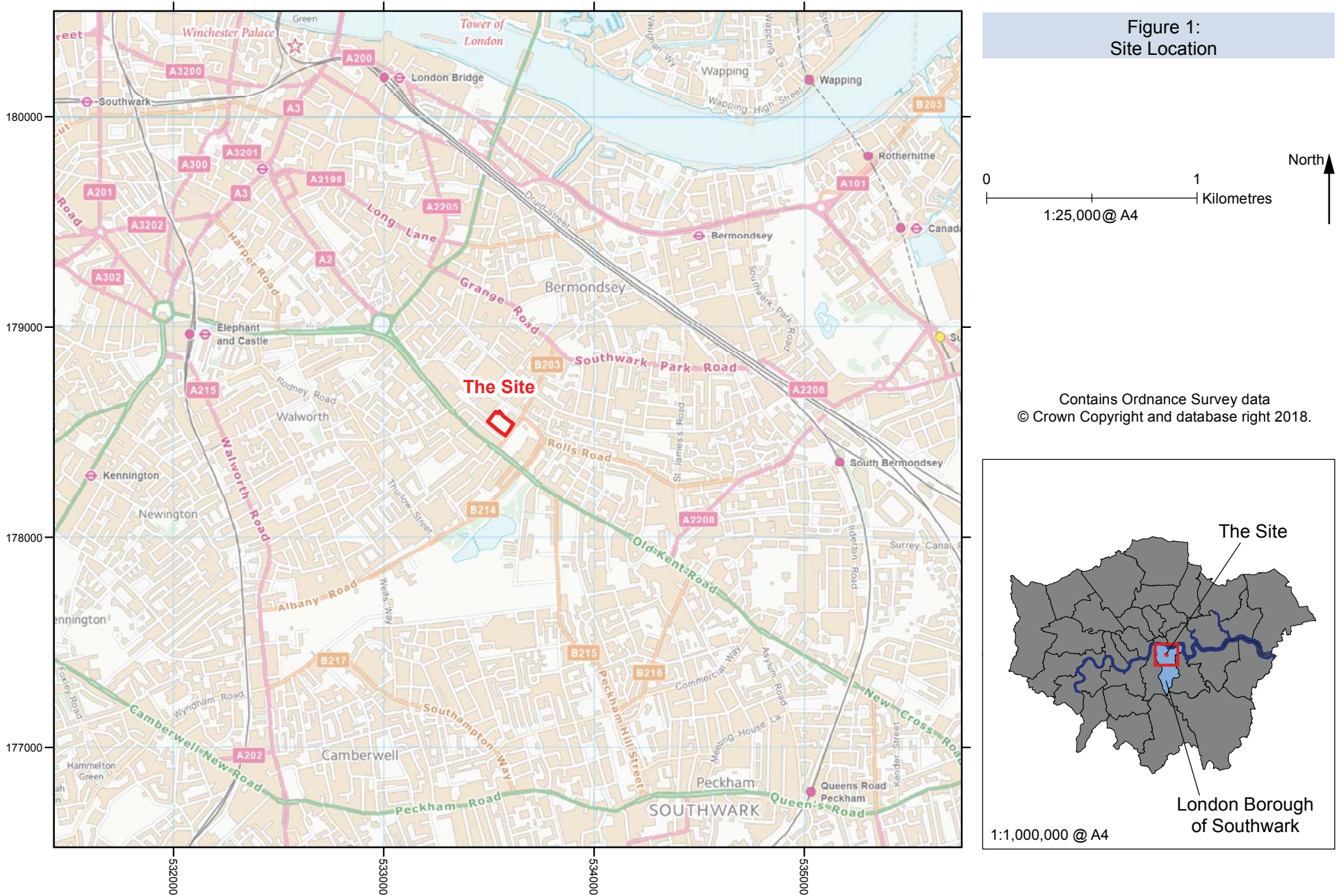
10 Publication and Archive Deposition

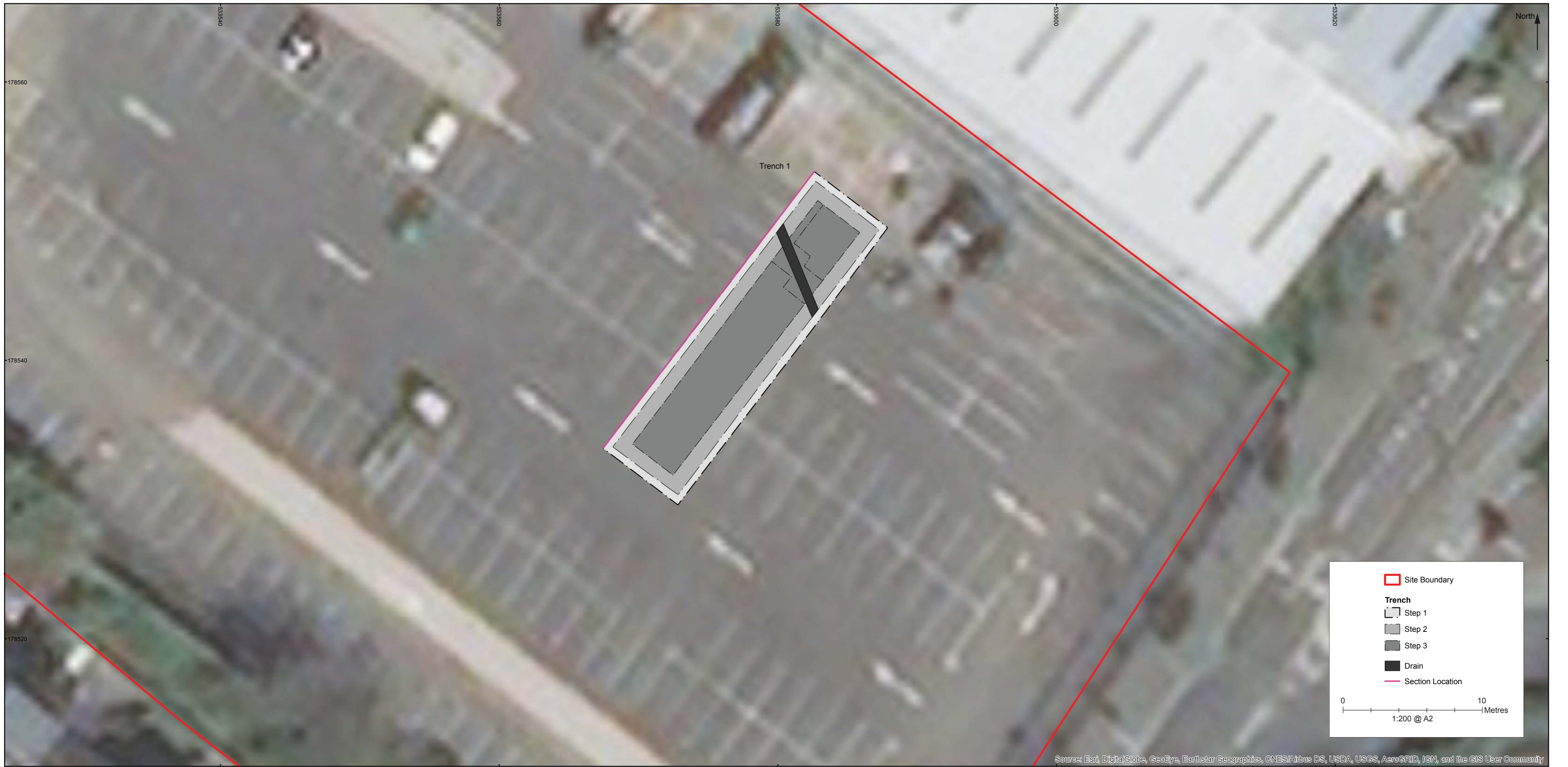
- 10.1 Publication will consist of an entry with the Archaeological Data Service (ADS) website under OASIS ID: aocarcha1-306378 (Appendix C) and an entry in the annual London Archaeologist Field Work round up.
- 10.2 The archive, consisting of paper records, drawings and digital photographs, will be prepared in accordance with guidelines for the preparation of excavation archives for long-term storage (UKIC 1990; and Brown 2011). It will security copied and deposited with the LAARC.

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Section 1

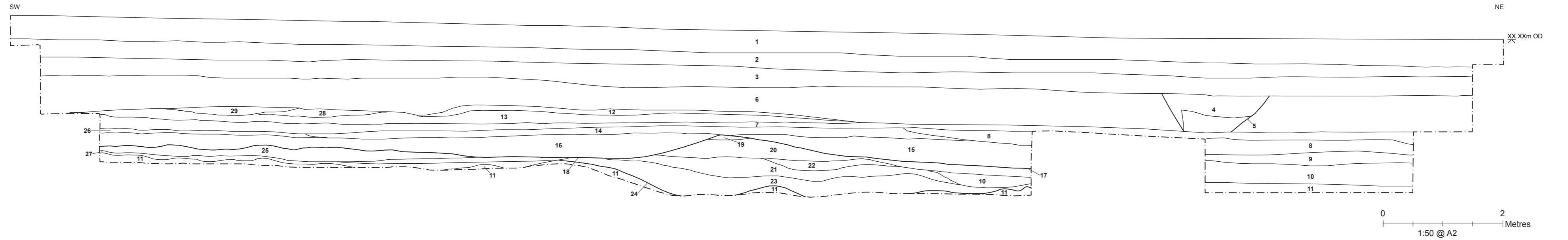


Figure 2: Detailed Trench Location and Section

Appendices

Appendix A – Context Register

Context	Description	Length	Width	Thickness
1	Tarmac	25.00m	6.75m	0.40m
2	Type 1	25.00m	6.75m	0.28m
3	Crush	24.00m	5.75m	0.22m
4	Fill of [5]	7.00m	0.80m	>0.62m
5	Modern drain intrusion	7.00m	0.80m	>0.62m
6	Garden soil	24.00m	6.75m	0.66m
7	Alluvial deposit	24.00m	6.75m	0.20m
8	Peat Deposit	8.00m	3.75m	0.24m
9	Alluvial silt	3.75m	3.00m	0.21m
10	Fluvial layer	3.75m	3.00m	0.50m
11	Terrace gravel	21.00m	3.75m	0.20m
12	Sandy lens	7.70m	3.75m	0.14m
13	Lower garden soil	18.00m	3.75m	0.22m
14	Organic sandy silt	11.30m	3.75m	0.15m
15	Alluvial fill of [17]	5.90m	3.75m	0.40m
16	Alluvial fill of [18]	9.90m	3.75m	0.40m
17	Channel	5.90m	3.75m	0.40m
18	Channel	9.90m	3.75m	0.40m
19	Braided fluvial gravel	3.00m	0.08m	0.08m
20	Gravel deposit	6.50m	3.75m	0.28m
21	Gravel deposit	6.00m	3.75m	0.32m
22	Alluvial lens	2.50m	2.00m	0.20m
23	Base fill of [24]	8.00m	3.00m	0.42m
24	Channel	8.00m	3.00m	0.60m
25	Alluvial deposit	7.30m	3.75m	0.18m
26	Organic silt	4.00m	3.75m	0.06m
27	Fluvial deposit	8.90m	3.75m	0.10m
28	Reworked sandy deposit	2.60m	3.75m	0.12m
29	Alluvial layer	3.75m	2.30m	0.16m

Appendix B – Geoarchaeological Deposit Model Report (Quest)

FORMER CAR POUND, MANDELA WAY, LONDON BOROUGH OF SOUTHWARK

Geoarchaeological Deposit Model and Radiocarbon Dating Report

NGR: TQ 3355 7854

Date: 24th January 2018

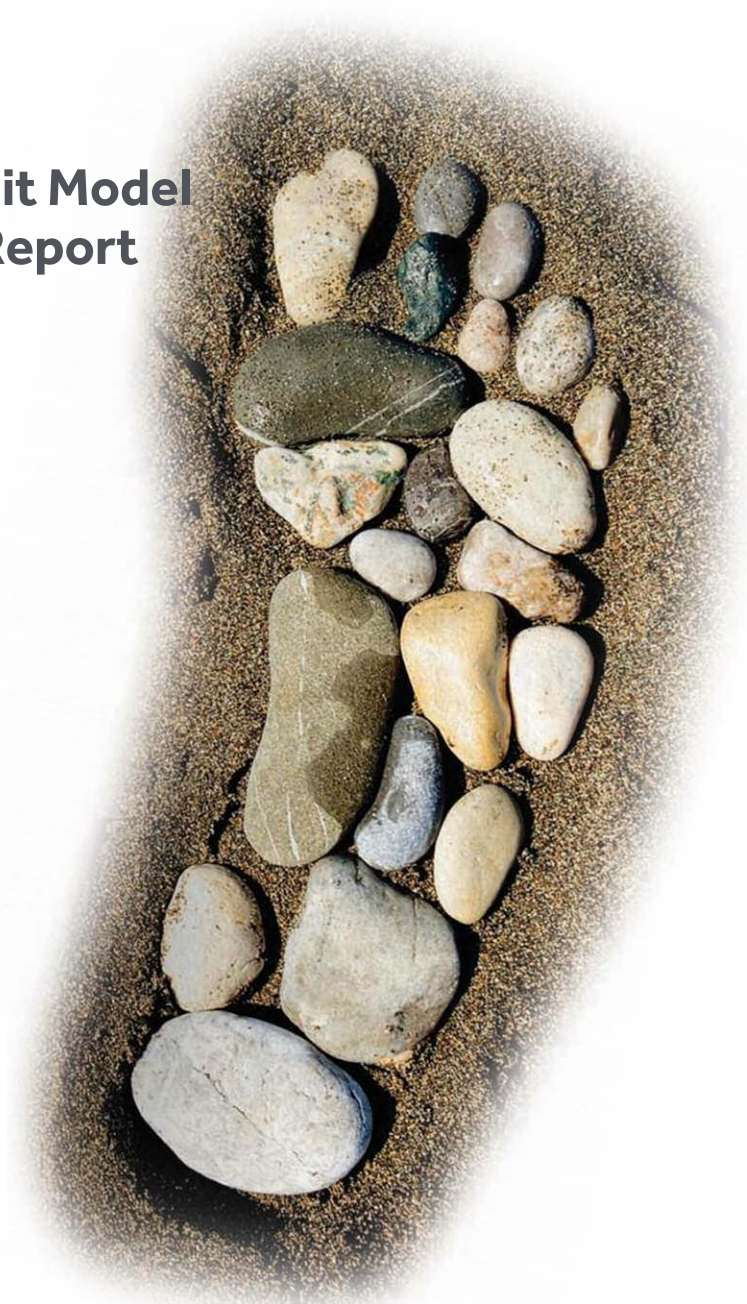
Site Code: MDE17

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1. NON-TECHNICAL SUMMARY

A programme of geoarchaeological fieldwork, deposit modelling and subsequent radiocarbon dating was carried out at the Mandela Way site in order to (1) clarify the nature of the sub-surface stratigraphy, and (2) clarify the nature, depth, extent and date of the peat deposit recorded within two records towards the north of the site. The results of the previous deposit modelling (Young, 2017) indicated that the sediments recorded at the site are similar to those recorded elsewhere in the Lower Thames Valley, particularly those overlying the Gravel towards the floodplain edge.

The surface of the Gravel at the site is recorded at between -0.96 and 0.01m, with the highest Gravel surfaces recorded towards the centre, from where it falls slightly to the north, east and south. The Gravel is overlain in most places by a relatively thin layer of alluvial deposits, between ca. 0.5 and 1.0m in thickness, which in two records towards the north of the site includes a thin layer of peat, recorded between 0.01 and 0.17m OD in MWQBH1, and between 0.02 and 0.12m OD in MWTP5. Although it has the potential to provide information on the environmental history of the site and its environs, the peat horizon recorded at the Mandela Way is thin (<0.16m), and only locally present. A limited programme of radiocarbon dating of the peat in borehole MWQBH1 was therefore carried out, and it was found to be consistent in age (Late Bronze Age; 2795-2995 cal BP) with other peat horizons recorded in this area of Southwark. No further environmental archaeological assessment was therefore recommended.

The elevation of the Gravel recorded at the site indicates that the site does appear to contain the potential for archaeological evidence or remains to be present; however, it is of note that the Gravel surface is not as high as that at the B&Q Depot, Old Kent Road (Bird *et al.*, 1991; Sidell *et al.*, 2002) or Marlborough Grove (MAG93), where flint scatters and hearth deposits were recorded on weathered sand deposits overlying the Kempton Park Gravel at between ca. 0.8 and 1.2m OD.

2. INTRODUCTION

2.1 Site context

This report summarises the findings arising out of the geoarchaeological fieldwork and deposit modelling, and subsequent radiocarbon dating, undertaken by Quaternary Scientific (University of Reading) in connection with the proposed development of land at the Former Car Pound, Mandela Way, London Borough of Southwark (National Grid Reference: centred on TQ 33555 78546; Figures 1 & 2). Quaternary Scientific were commissioned by RPS Planning & Development to undertake the geoarchaeological investigations. The site is located close to the boundary between the floodplain of the estuarine Thames and the higher, drier ground of the gravel terrace, where the British Geological Survey (BGS) (<http://mapapps.bgs.ac.uk/geologyofbritain>) show the superficial geology as the early to middle Devensian Kempton Park Gravel. The BGS shows the underlying geology at the site as the Palaeogene Lambeth Group bedrock, described as 'Clay, Silt and Sand'.

The site is a rectangular plot covering an area of approximately 0.73 hectares, bounded to the south by Marcia Road, to the east by the B203, and to the north and west by industrial units. The site is located within the Archaeological Priority Zone of Bermondsey Lake, as defined by the London Borough of Southwark. The site lies to the west of a large area of lower-lying gravel topography known as Bermondsey Lake (most likely a lake formed within a former channel; Thomas & Rackham, 1996; Sidell *et al.*, 2002). Within this feature at Bramcote Green, ca. 1.5km to the east (Thomas & Rackham, 1996) a sequence of up to 3m of organic-rich alluvial sediments accumulated during the Devensian Late Glacial, followed by a Holocene sequence of clay and peat horizons dated to the Late Mesolithic through to the Late Bronze Age. Within this sequence of clay and peat two phases of trackway construction were identified, the second of these phases dated to the Middle Bronze Age (Thomas & Rackham, 1996). Here, the underlying gravel topography was recorded at between -1.0 and -5.1m OD, the gravel falling from the western area of the site towards the north (-2.2m OD) and east (-5.1m OD) (Thomas & Rackham, 1996).

Bermondsey Lake forms part of the network of Late Devensian/Early Holocene channels and elevated gravel islands that characterises this area of Southwark. The site lies to the southeast of the Bermondsey and Horsleydown eyots, areas of higher, drier ground that were the focus of human activity during the prehistoric period (see below and Cowan *et al.*, 2009). Similar elevations for the gravel surface to those within the area of Bermondsey Lake have been recorded within the Bankside Channel towards the northeast, where the gravel has been recorded as low as -4.55m OD (see Young, 2015).

The results of a recent geoarchaeological borehole survey and deposit modelling exercise for the site (Young, 2017) indicated that the sediments recorded at the site are similar to those recorded elsewhere in the Lower Thames Valley, particularly those overlying the Gravel towards the floodplain edge. The surface of the Gravel at Mandela Way was recorded at between -0.96 and 0.01m, with the highest Gravel surfaces recorded towards the centre of the site, from where it falls slightly to the north, east and south. The undulations in the surface of the Gravel here are consistent with those that would be expected on the floor of the valley during the deposition of the

Gravel, with longitudinal gravel bars and intervening low-water channels. The Gravel at the site was overlain in most places by a relatively thin layer of alluvial deposits, between ca. 0.5 and 1.0m in thickness, which in two records towards the north of the site includes a thin layer of peat, recorded between 0.01 and 0.17m OD in MWQBH1, and between 0.02 and 0.12m OD in MWTP5. Similar peat deposits, dated to the Bronze Age have been recorded ca. 150m to the east at the Bricklayers Arms Railway Yard, Rolls Road (MLO17790).

2.2 Palaeoenvironmental and archaeological significance

Where organic-rich units or peat survive, these have the potential to provide evidence for prehistoric and historic human activity on both the wetland and dryland surfaces adjacent to the site, which should be compared with existing evidence for this area of Southwark. Variations in the height of the gravel surface, and the type, thickness and age of the subsequent Holocene deposits within the vicinity of the site are significant as they represent different environmental conditions that would have existed in a given location. For example: (1) the varying surface of the Gravel may represent the location of pre-Holocene river terraces, former channels and bars; (2) the presence of peat represents former terrestrial or semi-terrestrial land-surfaces, and (3) the various alluvial units represent periods of changing hydrological conditions. Thus by studying the sub-surface stratigraphy across the site in greater detail, it will be possible to build an understanding of the former landscapes and environmental changes that took place across space and time.

Organic-rich sediments (in particular peat) have the potential to provide a detailed reconstruction of past environments on both the wetland and dryland. In particular, they provide the potential to increase knowledge and understanding of the interactions between hydrology, human activity, vegetation succession and climate. Significant vegetation changes include the Mesolithic/Neolithic decline of elm woodland, the Neolithic colonisation and decline of yew woodland; the Late Neolithic/Early Bronze Age growth of elm on Peat, and the general decline of wetland and dryland woodland during the Bronze Age. Such investigations are carried out through the assessment/analysis of palaeoecological remains (e.g. pollen, plant macrofossils & insects) and radiocarbon dating. Finally, areas of high gravel topography, soils and peat represent potential areas that might have been utilised or even occupied by prehistoric people, evidence of which may be preserved in the archaeological (e.g. features and structures) and palaeoenvironmental record (e.g. changes in vegetation composition).

Significantly, within the area of Bermondsey Lake and only ca. 200m to the east at the Bricklayers Arms (Jones, 1991) two Neolithic flint axes, a wooden platform, hearths and horse bones were identified on the margins of the Bermondsey eyot and out in to the adjacent lake basin. In addition, other wooden structures associated with the peat and dated to the Bronze Age have been identified in this area, including ca. 1.5km to the east at Bramcote Green (Thomas & Rackham, 1996). At this site, a sequence of up to 3m of organic-rich alluvial sediments accumulated during the Devensian Late Glacial, followed by a Holocene sequence of clay and peat horizons dated to the Late Mesolithic through to the Late Bronze Age. Within this sequence of clay and peat two phases of trackway construction were identified, the second of these phases dated to the Middle

Bronze Age (Thomas & Rackham, 1996). Here, the underlying gravel topography was recorded at between -1.0 and -5.1m OD, the gravel falling from the western area of the site towards the north (-2.2m OD) and east (-5.1m OD) (Thomas & Rackham, 1996). Around 1km to the southeast at the B&Q Depot, Old Kent Road (Bird *et al.*, 1991; Sidell *et al.*, 2002) flint scatters and hearth deposits were recorded on weathered sand deposits (overlying the Kempton Park Gravel) at between ca. 0.8 and 1.2m OD, whilst at Marlborough Grove (MAG93) an assemblage of possible Mesolithic or Neolithic worked flints was recorded, again on weathered sand overlying the Kempton Park Gravel (Sidell *et al.*, 2002).

The underlying Gravel topography appears to rise to the north and west of the site, forming the edge of the Holocene floodplain. Possible alluvial sediments were recorded to the northwest of the present site at Coopers Road, although these sediments did not appear to be present in evaluation at 8 Lynton Road (Oxford Archaeology, 2011). At the Tate Collection Centre on Mandela Way (Site Code MEW07) four boreholes were drilled across the site and monitored. Boreholes BH1, BH3 and BH4 demonstrated that a large part of the site had been truncated by modern deposits down to the level of the floodplain gravels. This truncation extended to ca. 3m below ground level (bgl) to between -0.3 and 0.7m OD. Only within Borehole BH2 was a unit of alluvium recorded above the floodplain gravels. This deposit consisted of a greyed clay silt, considered to represent a channel marginal or marsh environment. This unit was present at ca. 1.65m bgl at ca. 0.7m OD, and measured 0.45m in thickness. Given the apparent inorganic nature of this deposit and the extent to which it survives, it is considered to be of limited palaeoenvironmental potential. Evidence from archaeological works to the north at 30-32 Dunton Road (Site Code DUN91 and Lynton Road (Oxford Archaeology, 2011) would indicate that the underlying Gravel topography is rising here, forming the edge of the floodplain. The archaeological potential of the site is discussed in more detail in RPS (2017). The elevation of the Gravel recorded at the site (see Young, 2017) indicates that the site does appear to contain the potential for archaeological evidence or remains to be present; however, it is of note that the Gravel surface is not as high as that at the B&Q Depot, Old Kent Road (Bird *et al.*, 1991; Sidell *et al.*, 2002) or Marlborough Grove (MAG93), where flint scatters and hearth deposits were recorded on weathered sand deposits overlying the Kempton Park Gravel at between ca. 0.8 and 1.2m OD.

2.3 Aims and objectives

Although it has the potential to provide information on the environmental history of the site and its environs, the peat horizon recorded during the geoarchaeological investigations at Mandela Way is thin (<0.16m), and only locally present (see Young, 2017). A limited programme of radiocarbon dating of the peat in borehole MWQBH1 was therefore recommended, in order to compare the age of this peat horizon with other organic deposits from this general area. The aims of the geoarchaeological investigations and subsequent radiocarbon dating were therefore: (1) to clarify the nature of the sub-surface stratigraphy, and (2) to clarify the nature, depth, extent and date of the alluvium and peat deposits recorded in the northern area of the site.

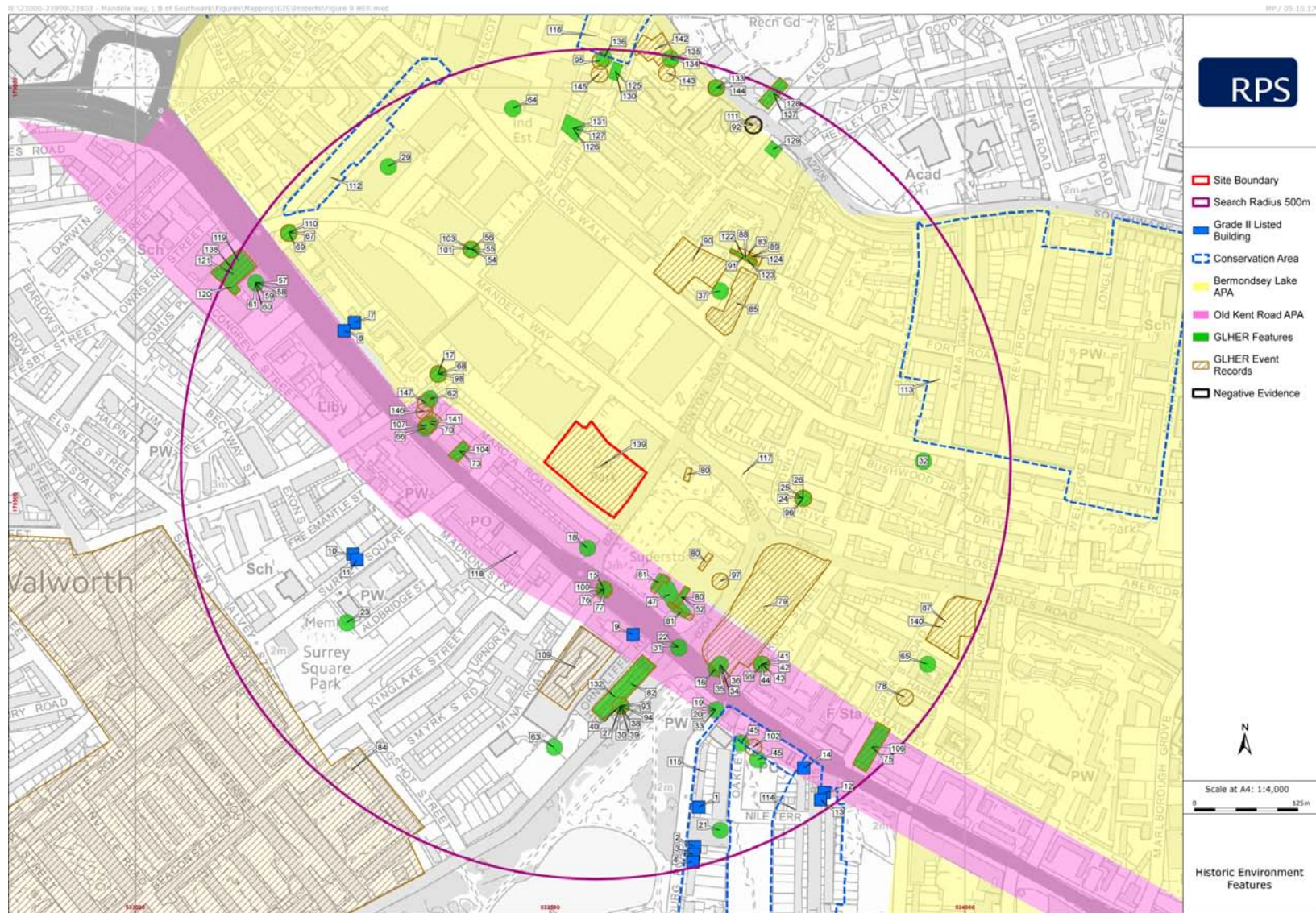


Figure 1: Location of the Former Car Pound, Mandela Way, London Borough of Southwark site, with Greater London Historic Environment data (figure provided by RPS, 2017). Site details shown in Appendix 1.

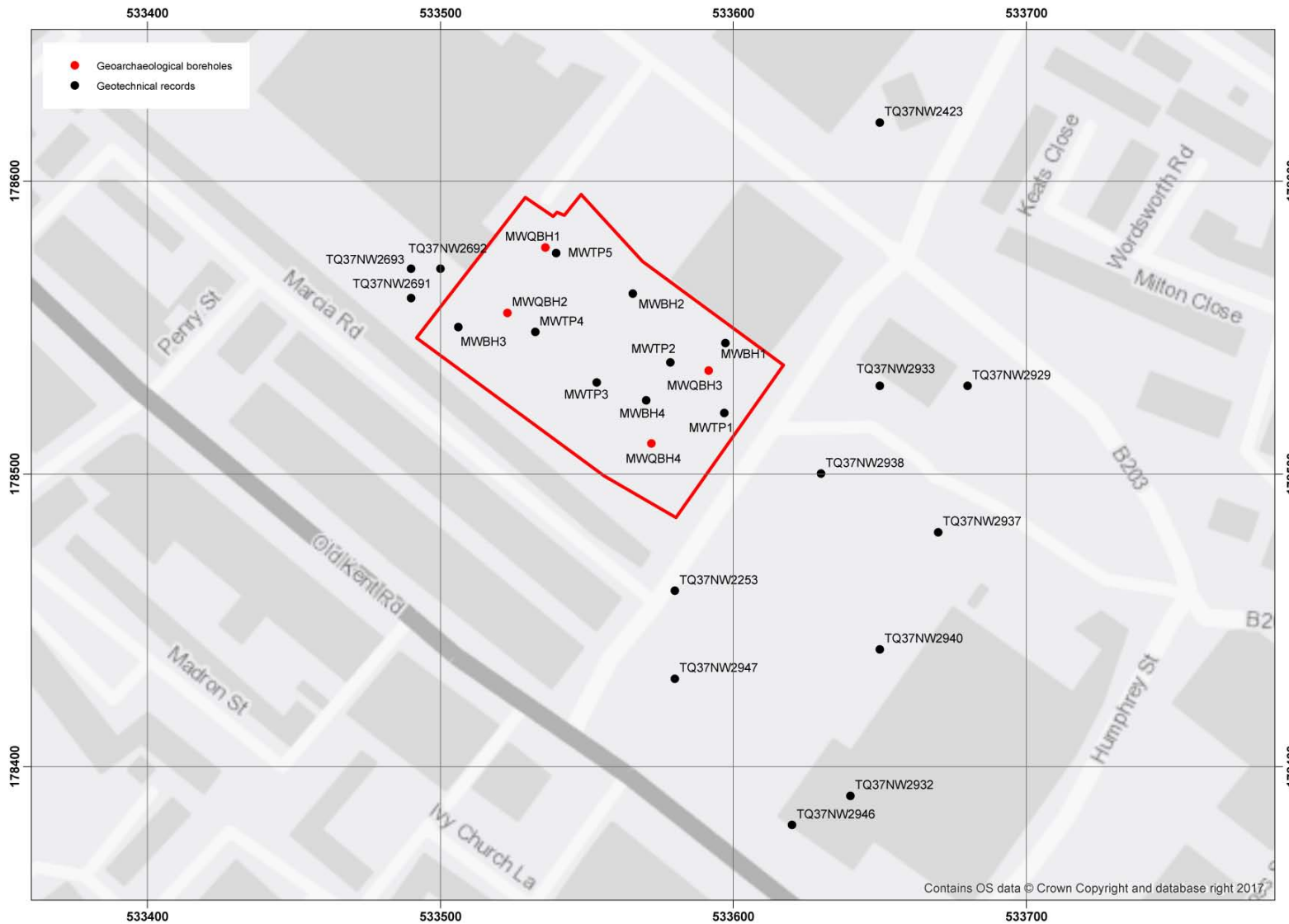


Figure 2: Location of the new geotechnical boreholes (MW-QBH1 to QBH4) at the Former Car Pound, Mandela Way, London Borough of Southwark, and existing geotechnical records from the site and within the wider area (see Table 1).

3. METHODS

3.1 Field investigations

Four geoarchaeological borehole (boreholes MW-QBH1 to MW-QBH4) were put down at the site in December 2017 (Figure 2). The borehole core samples were recovered using an Eijkelkamp window sampler and gouge set using an Atlas Copco TT 2-stroke percussion engine. This coring technique is a suitable method for the recovery of continuous, undisturbed core samples and provides sub-samples suitable for not only sedimentary and microfossil assessment and analysis, but also macrofossil analysis. The borehole locations were obtained using a Leica Differential GPS (see Table 1).

3.2 Lithostratigraphic descriptions

The lithostratigraphy of the core samples was described in the field using standard procedures for recording unconsolidated sediment and organic sediments, noting the physical properties (colour), composition (gravel, sand, clay, silt and organic matter) and inclusions (e.g. artefacts) (Tröels-Smith, 1955). The procedure involved: (1) cleaning the sample using a scalpel; (2) recording the physical properties, most notably colour using a Munsell Soil Colour Chart; (3) recording the composition; gravel (*Grana glareosa*; Gg), fine sand (*Grana arenosa*; Ga), silt (*Argilla granosa*; Ag) and clay (*Argilla steatoides*); (4) recording the degree of peat humification and (5) recording the unit boundaries e.g. sharp or diffuse. The results of the geoarchaeological description of the boreholes are displayed in Tables 2 to 5.

3.3 Deposit modelling

The deposit model, incorporating the present site and a limited number of available boreholes from the wider area, was based on a review of 26 geotechnical and geoarchaeological records, incorporating the four new geoarchaeological boreholes, nine geotechnical logs provided by Core Geotechnics Ltd (2014) and thirteen British Geological Survey (BGS) archive boreholes (<http://mapapps.bgs.ac.uk/geologyofbritain/home.html>) (see Figure 2). Sedimentary units from the boreholes were classified into five groupings: (1) Gravel, (2) Lower Alluvium, (3) Peat, (4) Upper Alluvium and (5) Made Ground. The classified data for groups 1-5 were then input into a database with the RockWorks 16 geological utilities software. Models of surface height were generated for the Gravel (Figure 3), Lower Alluvium (Figure 4), Peat (Figure 5) and Upper Alluvium (Figure 7). Thickness of the Peat (Figure 6), combined Holocene alluvial sequence (Figure 8) and Made Ground (Figure 9) were also modelled (also using a nearest neighbour routine).

Although the boreholes at the present site are well distributed over the area of investigation, the reliability of the models generated using RockWorks is variable for the wider area. In general, reliability improves from outlying areas where the models are largely supported by scattered archival records towards the core area of commissioned boreholes within the site itself. In addition, because of the 'smoothing' effect of the modelling procedure, the modelled levels of stratigraphic contacts may differ slightly from the levels recorded in borehole logs and section drawings. As a consequence of this the modelling procedure has been manually adjusted so that only those areas for which sufficient stratigraphic data is present will be modelled. In order to achieve this, a

maximum distance cut-off filter equivalent to a 50m radius around each record is applied to all deposit models. Finally, it is important to recognise that multiple sets of boreholes are represented, put down at different times and recorded using different descriptive terms and subject to differing technical constraints in terms of recorded detail including the exact levels of the stratigraphic boundaries.

3.4 Radiocarbon dating

A subsample was extracted for radiocarbon dating from the base of the peat in borehole MWQBH1 (0.01 to 0.06m OD). Following wet sieving through a 300µm mesh and a waterlogged plant macrofossil assessment of the sample, a single piece of twig wood (<5 growth rings) was submitted for AMS radiocarbon dating to the BETA Analytic Radiocarbon Dating Facility, Miami, Florida. The results have been calibrated using OxCal v4.2 (Bronk Ramsey, 1995; 2001 and 2007) and the IntCal13 atmospheric curve (Reimer *et al.*, 2013). The results are displayed in Table 6 and Figure 10.

Table 1: Spatial data for the new geoarchaeological boreholes and existing geotechnical records used in the deposit model at the Former Car Pound, Mandela Way, London Borough of Southwark.

Name	Easting	Northing	Elevation
<i>New geoarchaeological boreholes</i>			
MWQBH1	533535.76	178577.30	1.67
MWQBH2	533522.90	178554.98	1.98
MWQBH3	533591.58	178535.28	1.94
MWQBH4	533572.07	178510.31	2.77
<i>Existing geotechnical records (Core Geotechnics Ltd, 2014)</i>			
MWBH1	533597.36	178544.63	1.74
MWBH2	533565.67	178561.54	1.72
MWBH3	533506.08	178550.05	2.58
MWBH4	533570.27	178525.10	2.41
MWTP1	533596.87	178520.83	2.30
MWTP2	533578.48	178538.06	2.02
MWTP3	533553.36	178531.17	2.50
MWTP4	533532.35	178548.41	2.08
MWTP5	533539.57	178575.33	1.72
BGS archive boreholes (http://mapapps.bgs.ac.uk/geologyofbritain)			
TQ37NW2691	533490.00	178560.00	1.60
TQ37NW2692	533500.00	178570.00	1.65
TQ37NW2693	533490.00	178570.00	1.55
TQ37NW2423	533650.00	178620.00	0.85
TQ37NW2933	533650.00	178530.00	1.45
TQ37NW2938	533630.00	178500.00	2.30
TQ37NW2253	533580.00	178460.00	2.50
TQ37NW2947	533580.00	178430.00	2.80
TQ37NW2929	533680.00	178530.00	1.55
TQ37NW2937	533670.00	178480.00	2.40
TQ37NW2940	533650.00	178440.00	2.15
TQ37NW2932	533640.00	178390.00	2.45
TQ37NW2946	533620.00	178380.00	2.65

4. RESULTS, INTERPRETATION & DISCUSSION OF THE LITHOSTRATIGRAPHIC DESCRIPTIONS, DEPOSIT MODELLING & RADIOCARBON DATING

The results of the lithostratigraphic description of boreholes MWQBH1 to MWQBH4 are shown in Tables 2 to 5, with the results of the deposit modelling displayed in Figures 3 to 9. The results of the radiocarbon dating are shown in Table 6 and in Figure 10, an east-west transect of the geoarchaeological boreholes. Figures 3 to 9 are surface elevation and thickness models for each of the main stratigraphic units recorded at the site and in the wider area. The results of the deposit modelling indicate that the number and spread of the logs is sufficient to permit modelling with a reasonable level of certainty across the entire area of site (Figure 2).

The full sequence of sediments recorded in the boreholes comprises:

Made Ground – widely present

Upper Alluvium – recorded towards the north and west of the site

Peat – locally present in the northern area of the site

Lower Alluvium – locally present

Pleistocene Gravel – widely present

4.1 Pleistocene Gravel

Overlying the London Clay/Lambeth Group bedrock at the site was a unit of sandy, in places clayey gravel, reached in all the boreholes that penetrated to sufficient depth, but not recorded in the shallow test pits. On the basis of elevation alone, the age of this unit is uncertain, as it may represent the 'Upper Floodplain' terrace of the Kempton Park Gravel (Gibbard, 1994), deposited during the Early to Middle Devensian (80-30,000 years before present), or the 'Lower Floodplain' terrace of the Late Devensian Shepperton Gravel (15-10,000 years before present).

This unit comprises the sands and gravels of a high-energy braided river system which, while it was active would have been characterised by longitudinal gravel bars and intervening low-water channels in which finer-grained sediments might have been deposited. These deposits would most likely have represented an area of higher, drier ground during the early Holocene, although given their relatively low elevation towards the edge of the terrace, are likely to have been inundated by floodplain sediments during the Middle-Late Holocene.

The surface of the Gravel at Mandela Way (see Figure 3) is recorded at between -0.96 (MWBH1) and 0.01m OD (MWBH4). In geoarchaeological boreholes MWQBH1 to QBH4 it is recorded at -0.23, -0.28, -0.36 and -0.13m OD respectively, although in MWQBH3 Made Ground directly overlies a probably truncated Gravel surface. The highest Gravel surfaces appear to be record towards the centre of the site (0.01 to -0.5m OD), from where it falls slightly to the north, east and south, where it is recorded at between ca. -0.8 and -1.2m OD. The undulations in the surface of the Gravel here are consistent with those that would be expected on the floor of the valley during the deposition of the Gravel, with longitudinal gravel bars and intervening low-water channels as

described above. The deeper Gravel topography and thicker alluvial sequences of Bermondsey Lake lie to the east of the site; here, the Gravel surface has been recorded at between -1.0 and -5.1m OD, the gravel falling from the western area of the Bramcote Green site towards the north (-2.2m OD) and east (-5.1m OD) (Thomas & Rackham, 1996). Similar elevations for the gravel surface have been recorded within the Bankside Channel towards the northeast, where the gravel has been recorded as low as -4.55m OD (see Young, 2015).

4.2 Lower Alluvium

The sandy, silty alluvial deposits recorded towards the base of selected boreholes (MWQBH1, QBH2, QBH4, BH3, BH4 and TP5), resting directly on the Gravel, are described here as the Lower Alluvium. The surface of this unit is recorded at between 0.78 (MWQBH2) and 0.02m OD (TP5) (Figure 4). The deposits of the Lower Alluvium are predominantly silty, tending to become increasingly coarse (sandy) downward in most sequences. The Lower Alluvium is most likely indicative of deposition Late Devensian/Early Holocene, as the main course of the Thames became confined to a single meandering channel. During this period, the surface of the Gravel was progressively buried beneath the sandy and silty flood deposits of the river. At the Mandela Way site, the sand-rich nature of this deposit probably represents fluvial reworking of the underlying Gravel, most likely during the Late Devensian or Early Holocene but perhaps as late as the Middle Holocene.

The often richly-organic nature of the Lower Alluvium elsewhere suggests that this was a period during which the valley floor was occupied by a network of actively shifting channels, with a drainage pattern on the floodplain that was still largely determined by the relief on the surface of the underlying Shepperton Gravel, on which it is more frequently recorded.

4.3 Peat

A thin horizon of Peat was recorded overlying the Lower Alluvium in two records (MWQBH1 and TP5), confined to the northern area of the site. This unit was recorded at between 0.01 to 0.17m OD in MWQBH1, and between 0.02 and 0.12m OD in MWTP5 (see Figures 5 and 6). In MWQBH1 this unit is described as a well humified, silty peat, and the results of the radiocarbon dating (Table 6) indicate that accumulation began here during the Late Bronze Age (2795-2955 cal BP).

Beyond the margins of the site, peat was also identified in boreholes TQ37NW2933 and TQ37NW2253 to the south and east. Significantly, this unit is indicative of a transition towards semi-terrestrial (marshy) conditions, supporting the growth of either saltmarsh, sedge fen/reed swamp and/or wetland woodland communities. Such semi-terrestrial conditions may have represented former land surfaces that might have been utilised by prehistoric communities. Assuming that 1m of peat represents 1000 years of peat formation (a typical figure in fen peatlands), the peat may represent up to about 100 years of accumulation in these conditions.

Within the area of Bermondsey Lake, to the southeast of the present site at Bramcote Green (Thomas & Rackham, 1996) a sequence of up to 3m of organic-rich alluvial sediments accumulated

during the Devensian Late Glacial, followed by a Holocene sequence of clay and peat horizons dated to the Late Mesolithic through to the Late Bronze Age. Within this sequence of clay and peat two phases of trackway construction were identified, the second of these phases dated to the Middle Bronze Age (Thomas & Rackham, 1996). Closer to the present site, peat dated to the Late Bronze Age was recorded at the Bricklayers Arms Railway Yard, Rolls Road (MLO17790), whilst peat has also been recorded within the alluvium at the Bricklayers Arms site off Mandela Way (MLO23477), at Humphrey Street (MLO60029), Willow Walk (MLO63763) and Coopers Road (MLO75374) (see RPS, 2017 and Figure 1). The peat recorded at the Mandela Way site therefore appears to be contemporary with the main period of peat formation in this area.

4.4 Upper Alluvium

The silty clay Upper Alluvium was recorded in selected sequences within the area of the site, generally towards the centre (MWTP3 and TP4) and north (MWQBH1). The surface of the Alluvium (Figure 7) is relatively even, lying at between 0.38 (MWTP4) and 0.77m OD (MWQBH1). The sediments of the Upper Alluvium are indicative of deposition within low energy fluvial and/or semi-aquatic conditions during the Holocene. The high mineral content of the sediments may reflect increased sediment loads resulting from intensification of agricultural land use from the later prehistoric period onward, combined with the effects of rising sea level.

The combined Holocene alluvial sequence, incorporating the Lower Alluvium, Peat and Upper Alluvium, is generally recorded in thicknesses of between ca. 0.5 and 1m across the site (Figure 8).

4.5 Made Ground

Between ca. 1 and 3m of Made Ground caps the sequence across the site, with greater thicknesses generally recorded towards the east (see Figure 9).

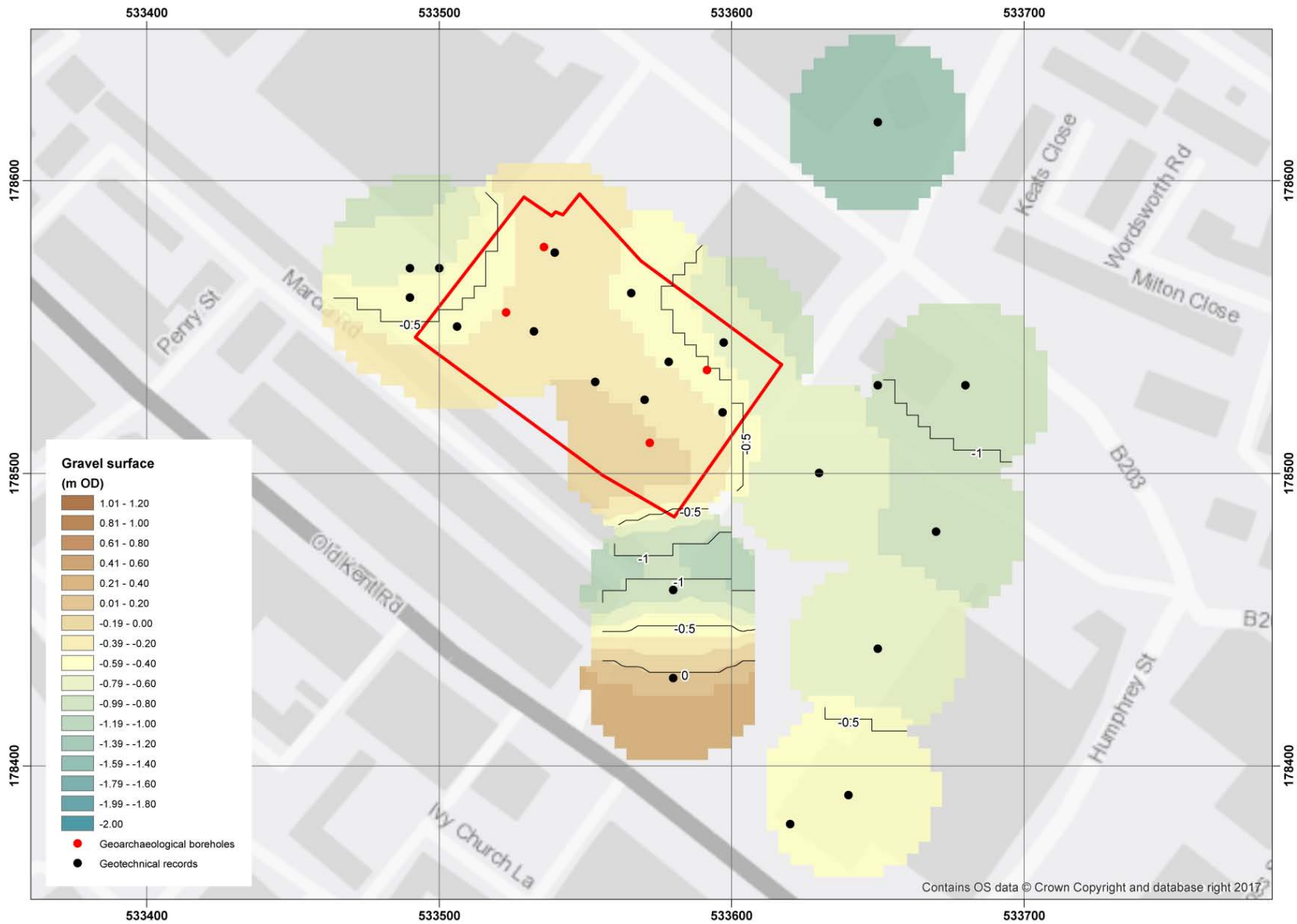


Figure 3: Top of the Gravel (m OD) (site outline in red).

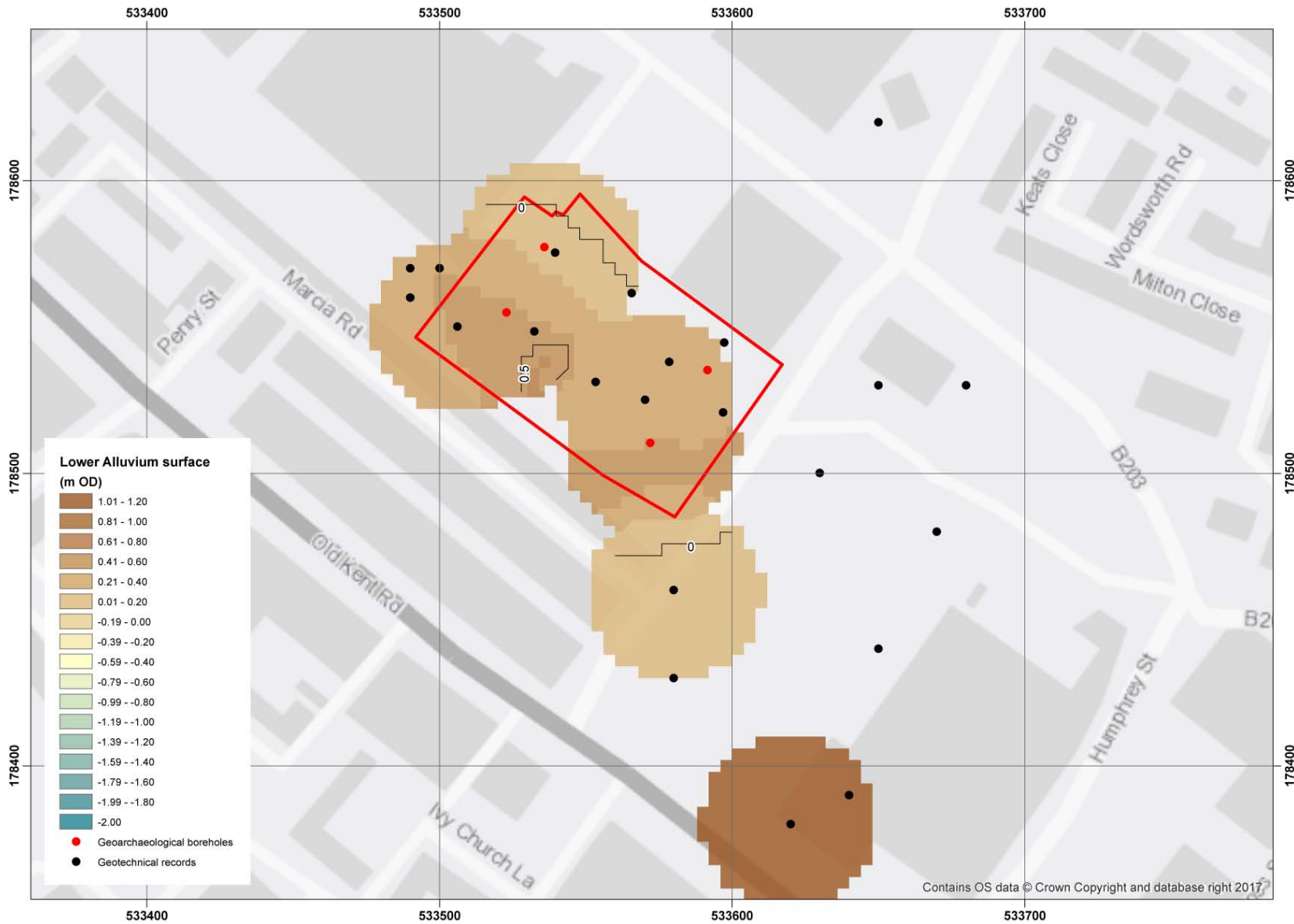


Figure 4: Top of the Lower Alluvium (m OD) (site outline in red).

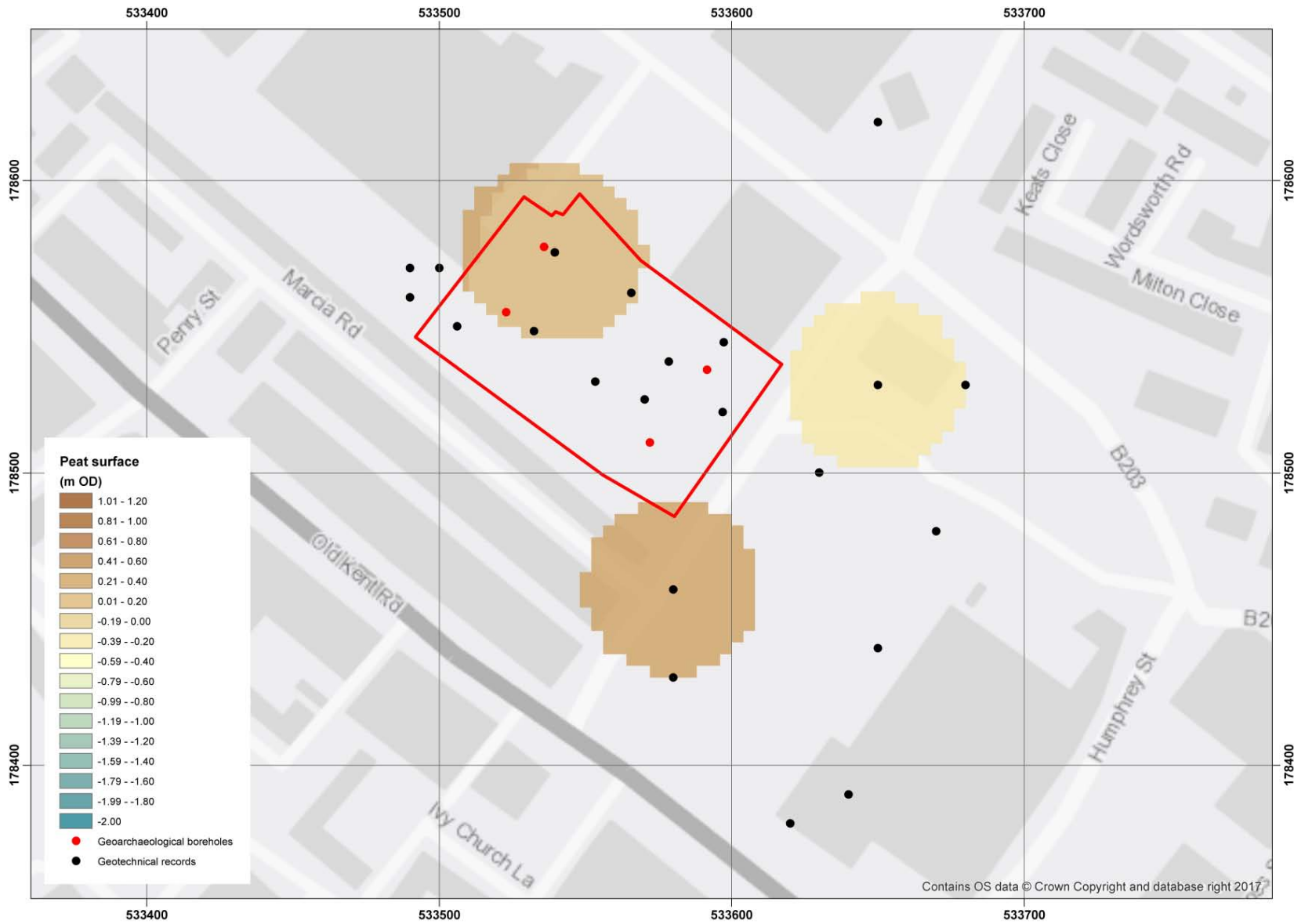


Figure 5: Top of the Peat (m OD) (site outline in red).

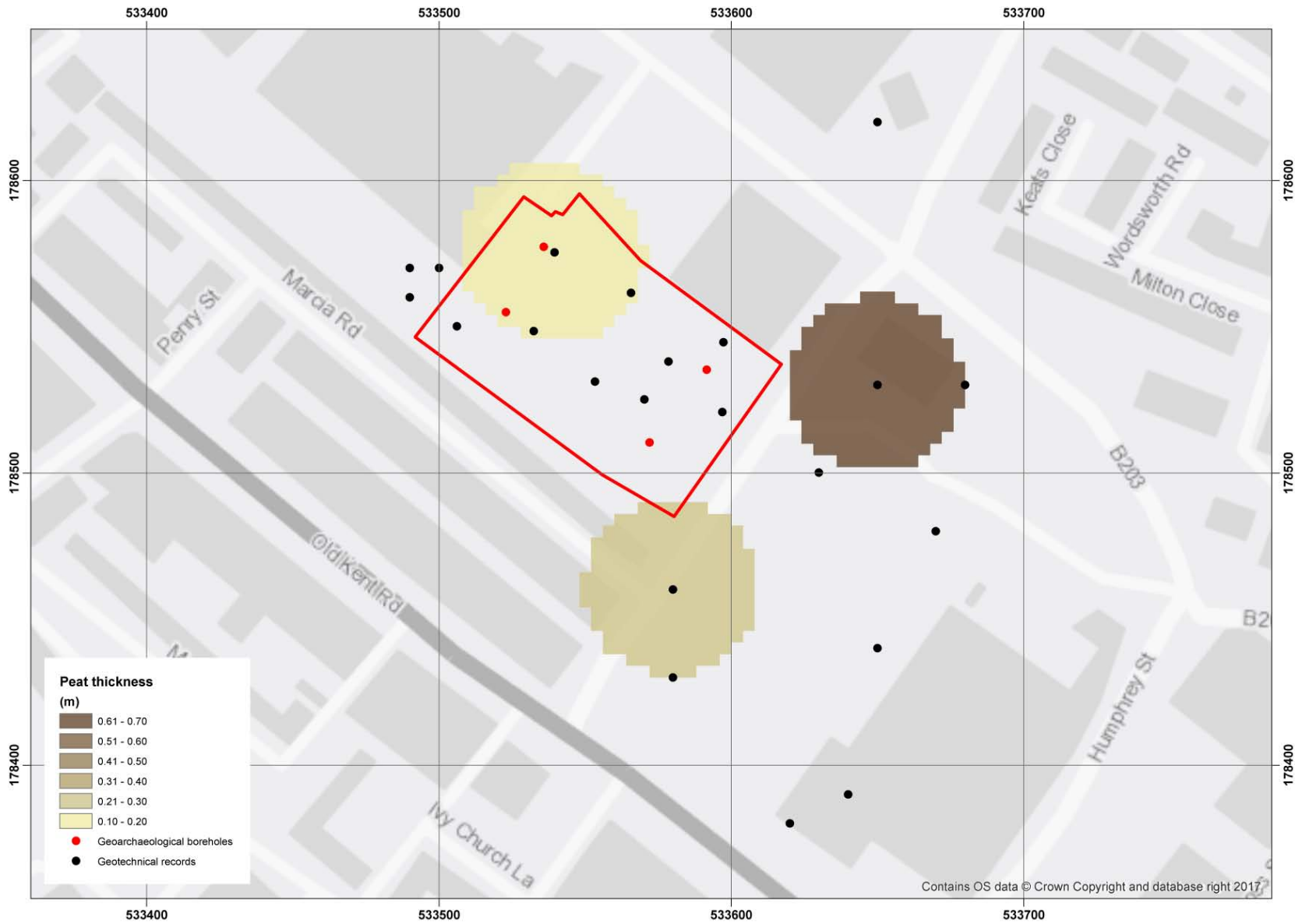


Figure 6: Thickness of the Peat (m) (site outline in red).

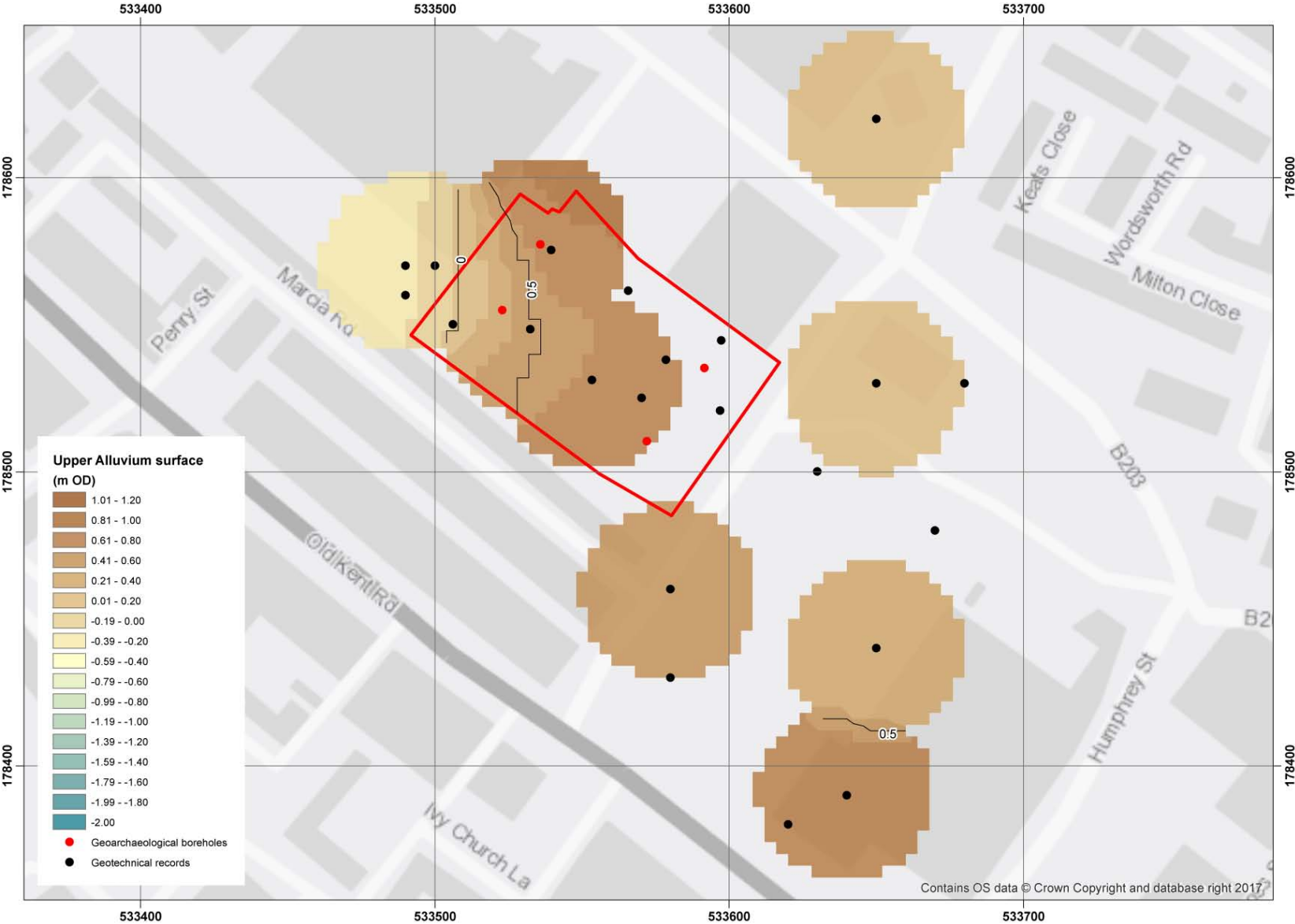


Figure 7: Top of the Upper Alluvium (m) (site outline in red).

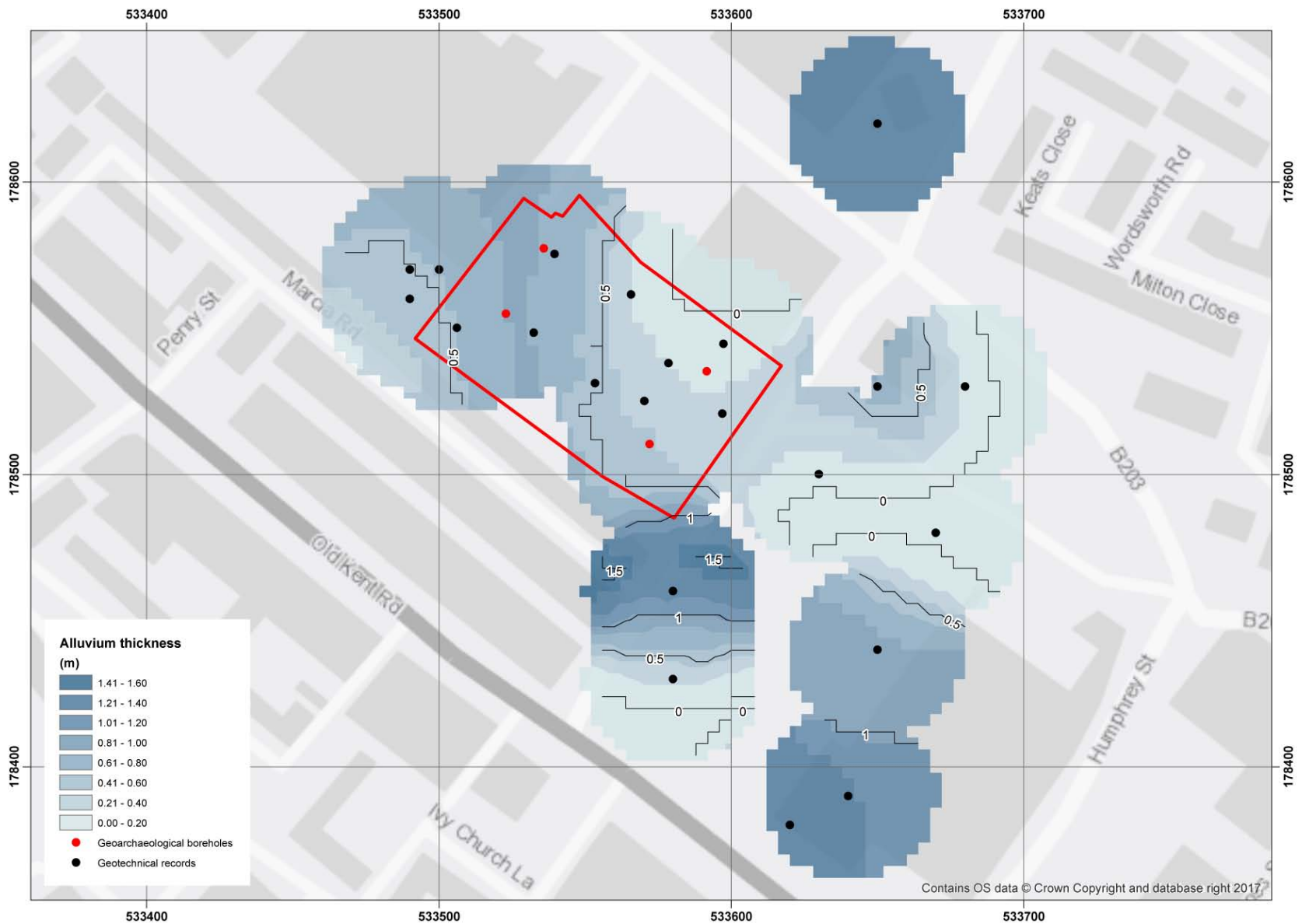


Figure 8: Thickness of the Holocene alluvial sequence (Lower Alluvium, Peat and Upper Alluvium) (m) (site outline in red).

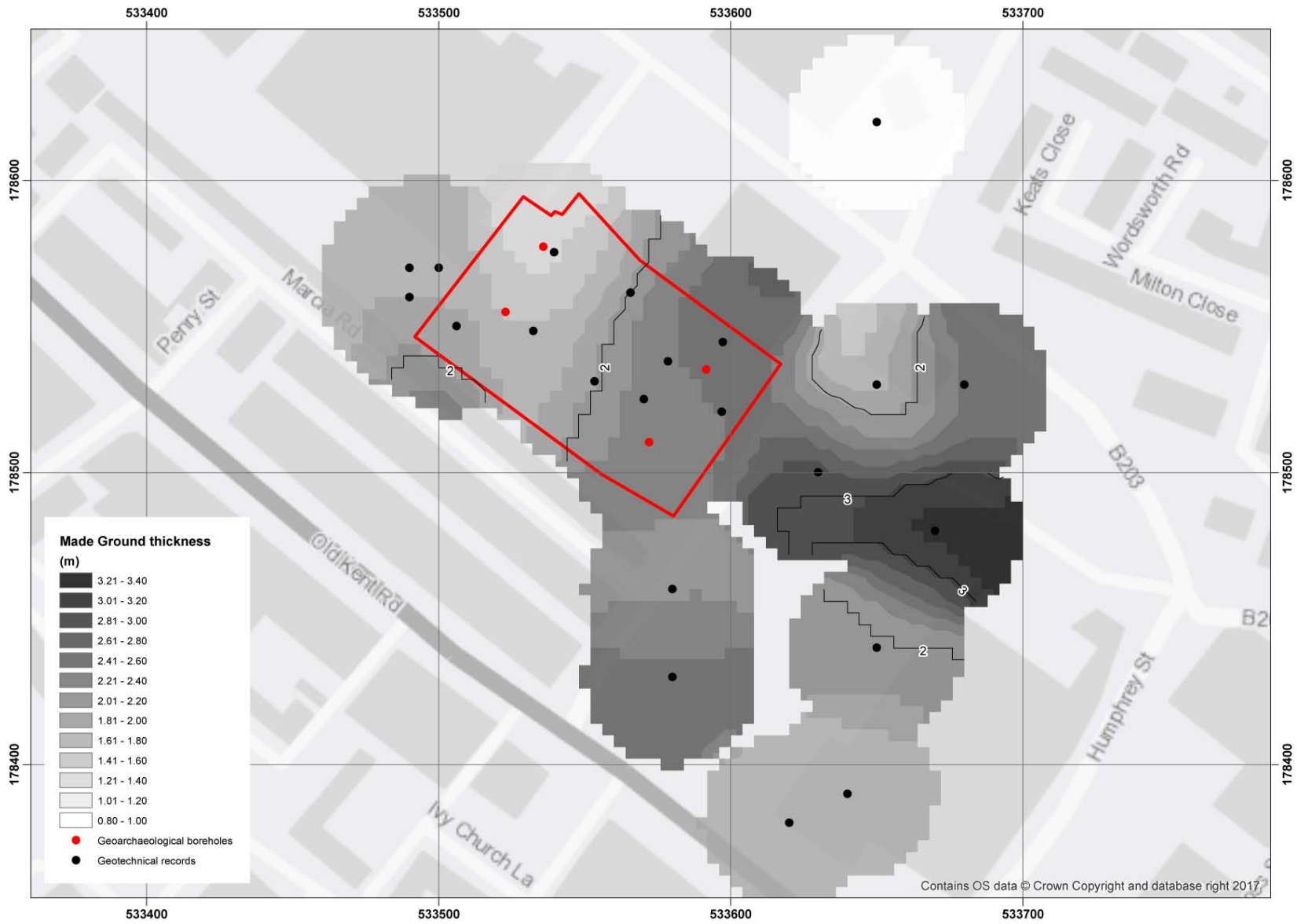


Figure 9: Thickness of Made Ground (m) (site outline in red).

Table 2: Lithostratigraphic description of borehole MWQBH1, Mandela Way, Southwark

Depth (m OD)	Depth (m bgl)	Description	Stratigraphic group
1.67 to 0.77	0.00 to 0.90	Made Ground of tarmac and concrete hardstanding over brick and gravel in brown sandy clay matrix.	MADE GROUND
0.77 to 0.47	0.90 to 1.20	Ag2 Sh1 As1 Ga+; dark grey organic clayey silt with a trace of sand. Diffuse contact in to:	UPPER ALLUVIUM
0.47 to 0.17	1.20 to 1.50	As3 Ag1; blue grey silty clay. Diffuse contact in to:	
0.17 to 0.01	1.50 to 1.66	Sh3 Ag1 Ga+; humo. 4; brown well humified silty peat with a trace of sand. Diffuse contact in to:	PEAT
0.01 to -0.23	1.66 to 1.90	As2 Ag1 Ga1; blue grey sandy silty clay. Diffuse contact in to:	LOWER ALLUVIUM
-0.23 to -0.78	1.90 to 2.45	Gg2 As1 Ga1 Ag+; greenish grey sandy clayey gravel with a trace of silt. Clasts are flint, well-rounded to sub-angular, up to 20mm in diameter. Diffuse contact in to:	PLEISTOCENE GRAVEL
-0.78 to -0.89	2.45 to 2.56	Ga4 Gg+; greenish grey sand with occasional gravel clasts. Sharp contact in to:	
-0.89 to -1.05	2.56 to 2.72	Gg3 Ga1; greenish grey sandy gravel. Clasts are flint, well-rounded to sub-angular, up to 20mm in diameter. Sharp contact in to:	
-1.05 to -1.09	2.72 to 2.76	Ga4; orange sand. Sharp contact in to:	
-1.09 to -1.33	2.76 to 3.00	Ga3 Gg1; greyish orange gravelly sand.	

Table 3: Lithostratigraphic description of borehole MWQBH2, Mandela Way, Southwark

Depth (m OD)	Depth (m bgl)	Description	Stratigraphic group
1.98 to 1.08	0.00 to 0.90	Made Ground of tarmac and concrete hardstanding over brick, gravel and ash in brown silty clay matrix.	MADE GROUND
1.08 to 0.78	0.90 to 1.20	As2 Ag2 Ga+; orangey grey silt and clay with a trace of sand. Diffuse contact in to:	UPPER ALLUVIUM
0.78 to 0.48	1.20 to 1.50	Ga3 Ag1 As+; grey silty sand with a trace of clay. Orange mottling. Diffuse contact in to:	LOWER ALLUVIUM
0.48 to 0.18	1.50 to 1.80	Ag3 As1; grey clayey silt. Orange mottling. Diffuse contact in to:	
0.18 to -0.02	1.80 to 2.00	Ga4; orange sand. Diffuse contact in to:	
-0.02 to -0.28	2.00 to 2.26	Ag2 Ga2; orange sand and silt with some horizontal bedding. Diffuse contact in to:	
-0.28 to -1.02	2.26 to 3.00	Gg3 Ga1; orange sandy gravel. Clasts are flint, well-rounded to sub-angular, up to 245mm in diameter. Manganese/iron staining at 2.35 to 2.45m bgl.	PLEISTOCENE GRAVEL

Table 4: Lithostratigraphic description of borehole MWQBH3, Mandela Way, Southwark

Depth (m OD)	Depth (m bgl)	Description	Stratigraphic group
1.94 to 0.24	0.00 to 1.70	Made Ground of tarmac and concrete hardstanding over brick, gravel and concrete in brown sandy clay matrix.	MADE GROUND

Depth (m OD)	Depth (m bgl)	Description	Stratigraphic group
0.24 to -0.06	1.70 to 2.00	Ag2 Ga1 As1; dark grey clayey sandy silt. Redeposited.	PLEISTOCENE GRAVEL
-0.06 to -0.36	2.00 to 2.30	Brick, gravel and concrete in brown sandy clay matrix.	
-0.36 to -0.62	2.30 to 2.56	Gg3 Ga1; grey sandy gravel. Clasts are flint, well-rounded to sub-angular, up to 30mm in diameter. Sharp contact in to:	
-0.62 to -0.74	2.56 to 2.68	Ga4; orange sand. Sharp contact in to:	
-0.74 to -0.78	2.68 to 2.72	Ag3 Ga1 As+; grey sandy silt with traces of clay. Sharp contact in to:	
-0.78 to -0.82	2.72 to 2.76	Ga4; orange sand. Diffuse contact in to:	
-0.82 to -0.91	2.76 to 2.85	Ag2 Ga2 As+; grey sand and silt with a trace of clay. Sharp contact in to:	
-0.91 to -1.06	2.85 to 3.00	Gg3 Ga1 Ag+; orange sandy gravel with a trace of silt. Clasts are flint, well-rounded to sub-angular, up to 30mm in diameter.	

Table 5: Lithostratigraphic description of borehole MWQBH4, Mandela Way, Southwark

Depth (m OD)	Depth (m bgl)	Description	Stratigraphic group
2.77 to 1.19	0.00 to 1.58	Made Ground of tarmac and concrete hardstanding over brick, gravel and concrete in dark brown sandy, silty clay matrix.	MADE GROUND
1.19 to 1.09	1.58 to 1.68	Redeposited orange sand. Sharp contact in to:	
1.09 to 0.77	1.68 to 2.00	Redeposited dark grey silty clay with brick fragments and ash. Sharp contact in to:	
0.77 to 0.45	2.00 to 2.32	Gravel in brown silty clay matrix. Sharp contact in to:	
0.45 to 0.33	2.32 to 2.44	As2 Ag2; brown silt and clay with orange mottling. Diffuse contact in to:	LOWER ALLUVIUM
0.33 to -0.13	2.44 to 2.90	Ag3 Ga1; brown sandy silt with orange mottling. Sharp contact in to:	
-0.13 to -0.23	2.90 to 3.00	Gg2 Ga2; orange sand and gravel. Clasts are flint, well-rounded to sub-angular, up to 10mm in diameter.	PLEISTOCENE GRAVEL

Table 6: Results of the radiocarbon dating of the sample from borehole MWQBH1, Mandela Way, Southwark

Laboratory code / Method	Material and location	Depth (m OD)	Uncalibrated radiocarbon years before present (yr BP)	Calibrated age BC/AD (BP) (2-sigma, 95.4% probability)	$\delta^{13}C$ (‰)
BETA-484380 / AMS	Twig wood (<5 years old); base of peat	0.01 to 0.06	2780 ± 30	845 to 1005 cal BC (2795 to 2955 cal BP)	-28.6

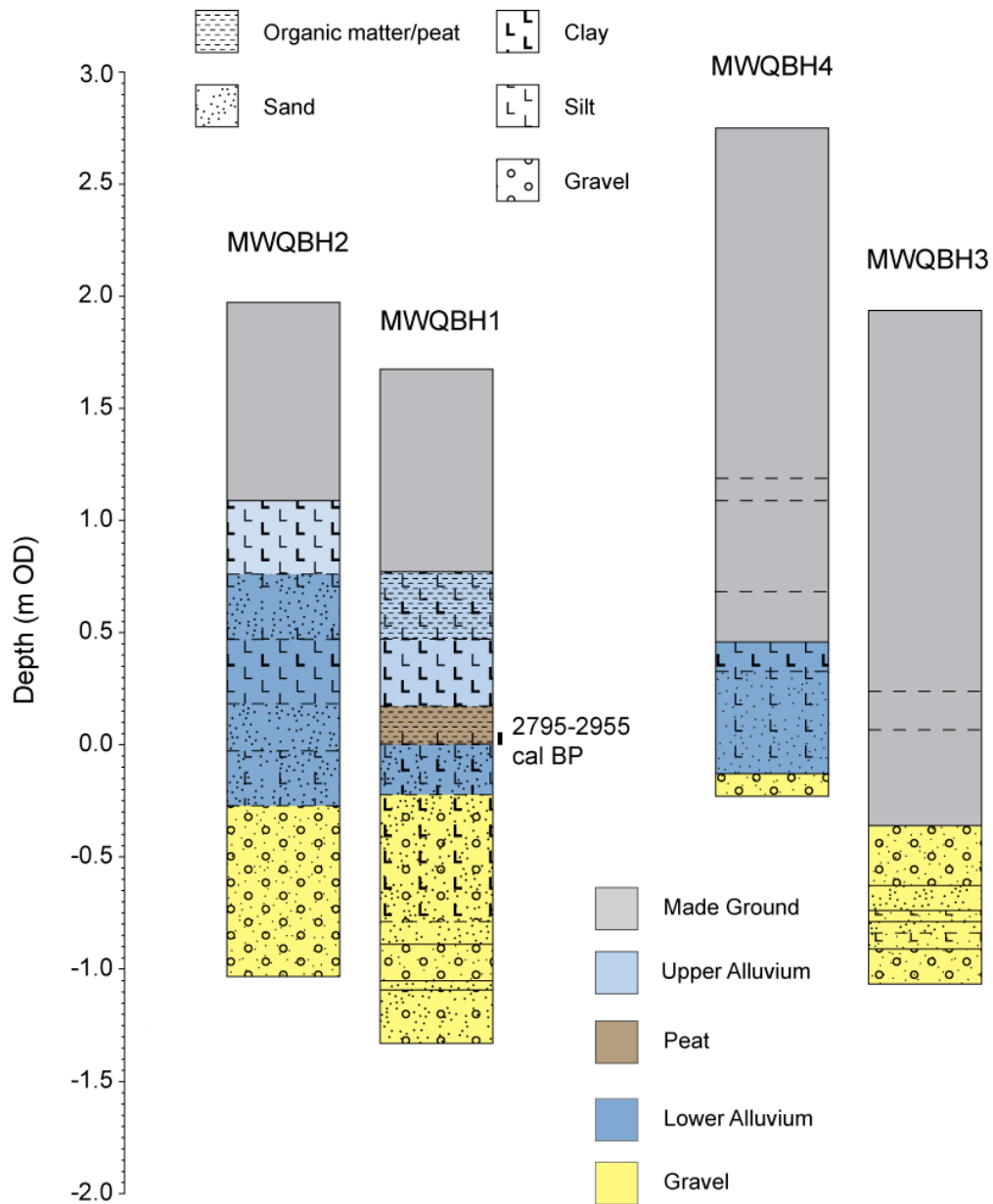


Figure 10: Results of the lithostratigraphic descriptions and radiocarbon dating of boreholes MWQBH1 to MWQBH4 (west-east transect).

5. CONCLUSION

The aim of the geoarchaeological investigations and subsequent radiocarbon dating at the site were: (1) to clarify the nature of the sub-surface stratigraphy, and (2) to clarify the nature, depth, extent and date of the alluvium and peat deposits recorded in the northern area of the site. In order to address these aims, a total of four geoarchaeological boreholes were put down at the site, and the stratigraphic data from existing geotechnical and geoarchaeological boreholes from the site and the wider area used to produce a deposit model of the major depositional units (see Young, 2017). Based on the recommendations made by Young (2017), a radiocarbon date was obtained from the base of the peat in borehole MWQBH1 in order to ascertain its age, in particular in comparison to other peat deposits identified in this general area (see above).

The results of the deposit modelling indicate that the sediments recorded at the site are similar to those recorded elsewhere in the Lower Thames Valley, particularly those overlying the Gravel towards the floodplain edge. The surface of the Gravel at Mandela Way is recorded at between -0.96 and 0.01m, with the highest Gravel surfaces recorded towards the centre of the site, from where it falls slightly to the north, east and south. The undulations in the surface of the Gravel here are consistent with those that would be expected on the floor of the valley during the deposition of the Gravel, with longitudinal gravel bars and intervening low-water channels. The Gravel at the site is overlain in most places by a relatively thin layer of alluvial deposits, between ca. 0.5 and 1.0m in thickness, which in two records towards the north of the site includes a thin layer of peat, recorded between 0.01 and 0.17m OD in MWQBH1, and between 0.02 and 0.12m OD in MWTP5. In MWQBH1 the results of the radiocarbon dating indicate that peat accumulation began here during the Late Bronze Age (2795-2955 cal BP). Peat dated to the Late Bronze Age was recorded at the Bricklayers Arms Railway Yard, Rolls Road (MLO17790), whilst peat has also been recorded within the alluvium at the Bricklayers Arms site off Mandela Way (MLO23477), at Humphrey Street (MLO60029), Willow Walk (MLO63763) and Coopers Road (MLO75374) (see RPS, 2017 and Figure 1). The peat recorded at the Mandela Way site therefore appears to be contemporary with the main period of peat formation in this area.

6. RECOMMENDATIONS

The peat horizon recorded at the Mandela Way site is thin (<0.16m), only locally present, and is of a similar age to other peat horizons in this area of Southwark, including at the Bricklayers Arms Railway Yard (MLO17790). No further environmental archaeological assessment is therefore recommended on this sequence. As stated within Young (2017), the elevation of the Gravel indicates that the site does appear to have the potential for archaeological evidence or remains to be present; however, it is of note that the Gravel surface is not as high as that at the B&Q Depot, Old Kent Road (Bird et al., 1991; Sidell et al., 2002) or Marlborough Grove (MAG93), where flint scatters and hearth deposits were recorded on weathered sand deposits overlying the Kempton Park Gravel at between ca. 0.8 and 1.2m OD.

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8. APPENDIX 1: GLHER DATA

Fig No	MontID	PreRef	Record Type	Name	MonType	Date Range	Period Range	Summary
1	1378465		Listed Building Grade II	29 AND 31, COBOURG ROAD				
2	1378466		Listed Building Grade II	47, COBOURG ROAD				
3	1378467		Listed Building Grade II	HANOVER HOUSE				
4	1378468		Listed Building Grade II	51 AND 53, COBOURG ROAD				
7	1385736		Listed Building Grade II	THE WHITE HOUSE				
8	1385737		Listed Building Grade II	PATH AND STREET RAILINGS, LAMP HOLDER AND GATES TO NUMBER 155				
9	1385738		Listed Building Grade II	FORMER FIRE STATION				
10	1385948		Listed Building Grade II	NUMBERS 20-54 AND ATTACHED RAILINGS				
11	1385949		Listed Building Grade II	RAISED PAVEMENT IN FRONT OF NUMBERS 20-54				
12	1385983		Listed Building Grade II	NUMBERS 1 AND 3 AND ATTACHED RAILINGS				
13	1385984		Listed Building Grade II	WALL WITH GATE POSTS AND GATE, AND GARDEN WALL TO NUMBERS 1 AND 3				
14	1385992		Listed Building Grade II	LORD NELSON PUBLIC HOUSE				
15	MLO10238	0913340000	MON	281-443 OLD KENT ROAD	DITCH, CULTIVATION SOIL	1540 AD to 1900 AD	Post Medieval	POST-MEDIEVAL DITCHES & EVIDENCE OF AGRICULTURAL/HORTICULTURAL ACTIVITY FOUND DURING EXCAVATION BY Department of Greater London Archaeology 1990 SITE CODE HUM80. 19TH CENTURY BUILDINGS ALSO FOUND
16	MLO11472	0902210000	MON	ST THOMAS WATERING PLACE	GATE, SCULPTURE	43 AD to 409 AD	Roman	TWO-FACED HEADS (OF JANUS?) FOUND 17th century POS. TERMINUS OR GATEWAY OF ROMAN BUILDING
17	MLO11509	0902000000	MON	HENDRE RD	GARDEN, CULTIVATION SOIL	1540 AD to 1900 AD	Post Medieval	POST-MEDIEVAL GARDEN SOIL OVER NATURAL CLAY FOUND IN TRIAL EXCAVATION 1978
18	MLO11513	0905380000	MON	279 OLD KENT RD	BURIAL, INFIRMATION	43 AD to 409 AD	Roman	A BURIAL FOUND AT THE JUN COW IN OR ABOUT 1917 (RCHM)
19	MLO13572	0909970000	MON	TABARD ST	ROAD	43 AD to 409 AD	Roman	PART OF ALIGNMENT OF ROMAN ROAD LINKING WATLING ST WITH LONDON BRIDGE
20	MLO14261	0909960000	MON		ROAD	43 AD to 409 AD	Roman	ALIGNMENT OF SUSPECTED ROMAN ROAD LINKING WATLING ST WITH CROSSING POINT OF THAMES OPPOSITE WESTMINSTER
21	MLO15681	0910580000	MON	41 COBOURG RD	ROAD, SURFACE	43 AD to 409 AD	Roman	GRAVEL SECTION THOUGHT TO BE SECTION OF WATLING ST TO WESTMINSTER RO ROAD EXTENSION (090996)
22	MLO15685	0910740000	MON	OLD KENT RD	BRIDGE	1066 AD to 1539 AD	Medieval	SITE OF MEDIEVAL BRIDGE OVER STREAM AT ST THOMAS WATERING. GRAVEL, CHALK BLOCKS & 3 ARCHES EXPOSED IN PIPE TRENCH IN 1934
23	MLO16105	0910700000	MON	SURREY SQ (BEHIND ALL SAINTS CHURCH)	ROAD, SURFACE	43 AD to 409 AD	Roman	
24	MLO17790	0911720000	MON	BRICKLAYERS ARMS RAILWAY YARD ROLLS RD	PEAT, PEAT	2200 BC to 701 BC	Bronze Age	GRAVEL SURFACE THOUGHT TO BE SECTION OF WATLING ST TO WESTMINSTER EXTENSION ROMAN ROAD (090996)
25	MLO17791	0911740000	FS	BRICKLAYERS ARMS RAILWAY YARD ROLLS RD	FINDSPOT, FINDSPOT, FINDSPOT, FINDSPOT, FINDSPOT, FINDSPOT	50000 BC to 42 AD	Prehistoric	EXC BY Department of Greater London Archaeology (Southwark and Lambeth Archaeological Excavation Committee) BLA87 1967 8 FOUND IMPORTANT ENVIRONMENTAL MATERIAL INCLUDING TILBURY IV (LATE BRONZE AGE) PEAT DEPOSITS
26	MLO19953	0911730000	MON	BRICKLAYERS ARMS RAILWAY YARD ROLLS RD	STRUCTURE, STRUCTURE	50000 BC to 42 AD	Prehistoric	EXC BY Department of Greater London Archaeology (SLAE) BLA87 ALSO FOUND PREHISTORIC FLINT FLAKES & TWO NEOLITHIC STONE AXES SEE ALSO 091172 & 091173
27	MLO2061	0913770000	MON	14-38 ALBANY RD	FOOTPATH	43 AD to 409 AD	Roman	EXC BY Department of Greater London Archaeology (Southwark and Lambeth Archaeological Excavation Committee) BLA87 1967 FOUND WELL PRESERVED WOODEN PLATFORM MADE OF INTERLACED BRANCHES
28	MLO23404	0910590000	MON	EAST ST (NORTH OF ALVEY RD)	ROAD, SURFACE	43 AD to 409 AD	Roman	SITE ASSESSMENT BY OAU (SITE CODE ARB90) RECORDED A PATH OF RUBBLE & POTTERY LAID ACROSS MARSHY AREA (SEE ALSO 091270), PROBABLY IN THE MID TO LATE ROMAN PERIOD
29	MLO23477	0911750000	MON	BRICKLAYERS ARMS RAILWAY YARD MANDELA WAY	FLOOD DEPOSIT, FLOOD DEPOSIT, PEAT, PEAT	1000 BC to 701 BC	Late Bronze Age	GRAVEL SURFACE THOUGHT TO BE SECTION OF WATLING ST TO WESTMINSTER RO ROAD EXTENSION (090996)
30	MLO25978	0912700000	MON	14-38 ALBANY RD	MARSH, MARSH, MARSH	50000 BC to 409 AD	Lower Palaeolithic to Roman	TRIAL TRENCHING OVER A LARGE AREA BY Department of Greater London Archaeology (Southwark and Lambeth Archaeological Excavation Committee) SITE CODE MDW 1989 FOUND FLOOD CLAYS OVERLYING NATURAL GRAVELS. PEATS OVERLYING THE CLAYS WERE INTERPRETTED AS THE WESTERN EDGE OF A MARSH OR MERE
31	MLO4212	0902260000	FS	ST THOMAS WATERING PLACE	FINDSPOT, FINDSPOT	43 AD to 409 AD	Roman	SITE ASSESSMENT BY OAU (SITE CODE ARB90) FOUND EVIDENCE OF WATERLOGGED PREHISTORIC TO ROMAN LANDSCAPE. AR FORM REPORTED A SMALL GULLY POSSIBLY IRON AGE, RECUT IN THE ROMAN PERIOD
32	MLO4260	0902820000	MON	ST THOMAS WATERING PLACE	GALLOWES, GALLOWES	1066 AD to 1900 AD	Medieval to 19th Century	EXCAVATION ROUND-UP DESCRIBED FEATURES AS A SMALL DRAINAGE GULLY, WHICH BECAME OVERWHELMED & SILT DEPOSITED OVER A WIDE AREA. DURING THE ROMAN PERIOD ANOTHER SMALL GULLY WHICH BECAME OVERWHELMED & SILT DEPOSITED OVER A WIDE AREA. DURING THE ROMAN PERIOD ANOTHER SMALL GULLY WAS CONSTRUCTED & ITS FAILURE RESULTED IN FURTHER WATERLOGGED LEVELS. SEE 091377 FOR CRUDE PATH WAS Laid ACROSS THE MARSH, PROBABLY MID TO LATE ROMAN PERIOD. BOTH GULLIES & PATH WERE PARALLEL TO THE LINE OF THE EARL'S SLUICE, A NARROW STREAM MARKED ON ROQUE'S MAP OF 1746. REMAINS OF VICTORIAN BUILDINGS DAMAGED BY WORLD WAR 2 BOMBS ALSO FOUND. AR FORM GIVES NATURAL AT 0.09 OD - CLAYS OF STREAM COURSE. SEE ALSO 091381 PU GULLY: 091382 RO GULLY: 091383 FLOOD DEPOSIT. Site archive deposited with Museum of London on 11/11/84
33	MLO5666	0905850000	MON	OLD KENT RD	ROAD	43 AD to 409 AD	Roman	STRYPE REPORTS ROMAN URNS, AMPULLAE ETC IN THE GARDENS ON RIGHT SIDE OF ROAD GOING S'
34	MLO58517	0914340000	MON	281-443 OLD KENT RD SE1 (Undated pits)	PIT			EXECUTION SITE POSSIBLY FROM MEDIEVAL TIMES 'NEW GALLOWES' ERRECTED IN 1556'
35	MLO58518	0914350000	MON	281-443 OLD KENT RD SE1	DITCH, GULLY	43 AD to 409 AD	Roman	SUPPOSED ALIGNMENT OF WATLING ST IN SOUTH/WARK FROM JUNCTION WITH STANE ST
36	MLO58519	0914360000	MON	281-443 OLD KENT RD SE1	DRAIN	1540 AD to 1900 AD	Post Medieval	A WATCHING BRIEF BY Department of Greater London Archaeology BETWEEN 29/10/91 AND 13/11/91 (SITE CODE HUM91). TWO UNDATED PITS FILLED WITH WATER-LAID MATERIALS, NO APPARENT INCLUSIONS. SEE ALSO 091435-36
37	MLO58537	0914430000	MON	DUNTON RD SE1	CULTIVATION SOIL	1540 AD to 1900 AD	Post Medieval	A WATCHING BRIEF BY Department of Greater London Archaeology BETWEEN 29/10/91 AND 13/11/91 (SITE CODE HUM91). ONE DITCH OR GULLY OF POSSIBLE ROMAN DATE
38	MLO58623	0914900000	MON	14-38 ALBANY RD	GULLY, GULLY, GULLY	50000 BC to 42 AD	Prehistoric	A WATCHING BRIEF BY Department of Greater London Archaeology BETWEEN 29/10/91 AND 13/11/91 (SITE CODE HUM 91). A STEEP SLOPED, 7 TO 8M WIDE CUT, CONTAINING MIXED FILLS WITH Post Medieval INCLUSIONS. POSSIBLE STREAM, CHANNEL OR DRAINAGE
39	MLO58627	0914910000	MON	14-38 ALBANY RD	GULLY	43 AD to 409 AD	Roman	AN EXCAVATION BY Department of Greater London Archaeology IN SEPTEMBER 1991 (SITE CODE DUN91), THE NATURAL GRAVELS WERE OVERLAIN BY PLOUGH SOIL DATED TO 16TH OR 17TH CENTURIES EXCEPT IN THE SE END OF THE SITE WHERE WORLD WAR II BOMB DAMAGE TRUNCATED THE UPPER LEVELS OF THE NATURAL DEPOSIT. THE NATURAL TOPOGRAPHY SLOPED SLIGHTLY TO S.
40	MLO58628	0914920000	MON	14-38 ALBANY RD	FLOOD DEPOSIT, FLOOD DEPOSIT	50000 BC to 409 AD	Lower Palaeolithic to Roman	OAU EVALUATION (SITE CODE ARB90) FOUND WATERLOGGED PREHISTORIC TO ROMAN LANDSCAPE. AR FORM REPORTED A SMALL GULLY, POSSIBLY IRON AGE, RECUT IN THE ROMAN PERIOD. EXCAVATION ROUND-UP DESCRIBED FEATURES AS A SMALL DRAINAGE GULLY POSSIBLY IRON AGE, WHICH BECAME OVERWHELMED & SILT DEPOSITED OVER A WIDE AREA. DURING THE ROMAN PERIOD ANOTHER SMALL GULLY WHICH BECAME OVERWHELMED & SILT DEPOSITED OVER A WIDE AREA. DURING THE ROMAN PERIOD ANOTHER SMALL GULLY WAS CONSTRUCTED & ITS FAILURE RESULTED IN FURTHER WATERLOGGED LEVELS. BOTH GULLIES & A ROMAN PATH WERE PARALLEL TO THE LINE OF THE EARL'S SLUICE, A NARROW STREAM MARKED ON ROQUE'S MAP OF 1746. SEE ALSO 091491 RO GULLY: 091492 FLOOD DEPOSITS: 091270 PU MARSH: 091377 RO PATH. Site archive deposited with Museum of London on 11/11/84
								OAU EVALUATION (ARB90) FOUND WATERLOGGED PREHISTORIC TO ROMAN LANDSCAPE. AR FORM REPORTED A SMALL DRAINAGE GULLY, POSSIBLY IRON AGE, WHICH BECAME OVERWHELMED & SILT DEPOSITED OVER A WIDE AREA. DURING THE ROMAN PERIOD ANOTHER SMALL GULLY WHICH BECAME OVERWHELMED & SILT DEPOSITED OVER A WIDE AREA. DURING THE ROMAN PERIOD ANOTHER SMALL GULLY WAS CONSTRUCTED & ITS FAILURE RESULTED IN FURTHER WATERLOGGED LEVELS. BOTH GULLIES & A ROMAN PATH WERE PARALLEL TO THE LINE OF THE EARL'S SLUICE, A NARROW STREAM MARKED ON ROQUE'S MAP OF 1746. SEE ALSO 091270 PU MARSH: 091377 RO PATH: 091490 PU GULLY: 091492 FLOOD DEPOSITS
								OAU EVALUATION (ARB90) FOUND WATERLOGGED PREHISTORIC TO ROMAN LANDSCAPE. AR FORM REPORTED A SMALL DRAINAGE GULLY, POSSIBLY IRON AGE, WHICH BECAME OVERWHELMED & SILT DEPOSITED OVER A WIDE AREA. DURING THE ROMAN PERIOD ANOTHER SMALL GULLY WHICH BECAME OVERWHELMED & SILT DEPOSITED OVER A WIDE AREA. DURING THE ROMAN PERIOD ANOTHER SMALL GULLY WAS CONSTRUCTED & ITS FAILURE RESULTED IN FURTHER WATERLOGGED LEVELS. BOTH GULLIES & A ROMAN PATH WERE PARALLEL TO THE LINE OF THE EARL'S SLUICE, A NARROW STREAM MARKED ON ROQUE'S MAP OF 1746. SEE ALSO 091270 PU MARSH: 091377 RO PATH: 091490 PU GULLY: 091492 FLOOD DEPOSITS
								OAU EVALUATION (ARB90) FOUND WATERLOGGED PREHISTORIC TO ROMAN LANDSCAPE. AR FORM REPORTED A SMALL DRAINAGE GULLY, POSSIBLY IRON AGE, WHICH BECAME OVERWHELMED & SILT DEPOSITED OVER A WIDE AREA. DURING THE ROMAN PERIOD ANOTHER SMALL GULLY WHICH BECAME OVERWHELMED & SILT DEPOSITED OVER A WIDE AREA. DURING THE ROMAN PERIOD ANOTHER SMALL GULLY WAS CONSTRUCTED & ITS FAILURE RESULTED IN FURTHER WATERLOGGED LEVELS. BOTH GULLIES & A ROMAN PATH WERE PARALLEL TO THE LINE OF THE EARL'S SLUICE, A NARROW STREAM MARKED ON ROQUE'S MAP OF 1746. SEE ALSO 091270 PU MARSH: 091377 RO PATH: 091490 PU GULLY: 091492 FLOOD DEPOSITS

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41	ML060028	091623/00/00	FS	HUMPHREY ST	FINDSPOT, FINDSPOT	10000 BC to 2201 BC	Early Mesolithic to Late Neol	Evaluation and subsequent excavation undertaken by P Thompson of Museum of London Archaeology Service, Aug-Nov/93; site code TC093. A number of post-Medieval pits were recorded.
42	ML060029	091624/00/00	MON	HUMPHREY ST	PEAT	500000 BC to 42 AD	Prehistoric	
43	ML060031	091625/00/00	MON	HUMPHREY ST	DITCH	43 AD to 409 AD	Roman	Evaluation by C. Spary-Green for Museum of London Archaeology Service, August 1993; site code HPS 93. A peat horizon suggested that the site lay on the margins of a body of water, subject to periodic flooding. PERIODS RECORDED UNDER SAME SITE CODE: Meso- or neolithic (091623); prehistoric (this entry); Roman (091625); post-med (091626).
44	ML060032	091626/00/00	MON	HUMPHREY ST	BEDDING TRENCH	1540 AD to 1900 AD	Post Medieval	Evaluation by C. Spary-Green for Museum of London Archaeology Service, August 1993; site code HPS 93. Two Roman ditches were found, running roughly parallel to each other, and to Old Kent Road. It was suggested that they may be related to some early route created as a preliminary to the laying out of the first metalled roads in the Flavian period. PERIODS RECORDED UNDER SAME SITE CODE: Meso- or neolithic (091623); prehistoric (091624); Roman (this entry); post-med (091626).
45	ML060223	091677/00/00	MON	360 OLD KENT RD (REAR OF)	FLOOD DEPOSIT			Evaluation by C. Spary-Green for Museum of London Archaeology Service, August 1993; site code HPS 93. Later land use was represented by post-medieval bedding trenches set at right angles to Old Kent Road - these are shown on 18th century maps, though Milne's map of 1800 shows pasture. PERIODS RECORDED UNDER SAME SITE CODE: Meso- or neolithic (091623); prehistoric (091624); Roman (091625); post-med (this entry).
46	ML060223	091677/00/00	MON	360 OLD KENT RD (REAR OF)	FLOOD DEPOSIT			Watching brief over new sewer trench sections by J. Dillon for Southwark Council Development Department, July 1994; site code OKD 94. No activity earlier than 19th century was noted, but waterlain deposits may have represented the south-east edge of the "flood plain" of the Earf's Sluice river. Natural gravel and sand was measured at -0.30m O.D., which is important in relation to the line of Roman Watling Street and its crossing of the Earf's Sluice to the west.
47	ML062921	091739/00/00	MON	OLD KENT RD	FLOOD DEPOSIT	500000 BC to 42 AD	Prehistoric	Watching brief over new sewer trench sections by J. Dillon for Southwark Council Development Department, July 1994; site code OKD 94. No activity earlier than 19th century was noted, but waterlain deposits may have represented the south-east edge of the "flood plain" of the Earf's Sluice river. Natural gravel and sand was measured at -0.30m O.D., which is important in relation to the line of Roman Watling Street and its crossing of the Earf's Sluice to the west.
48	ML062922	091740/00/00	MON	OLD KENT RD	FIELD SYSTEM	43 AD to 409 AD	Roman	Evaluation and subsequent excavation undertaken by P Thompson of Museum of London Archaeology Service, Aug-Nov/93; site code TC093. Numerous ditches were recorded, which probably served as field boundaries and drainage channels. One of these ditches was dated to the early C2 whilst the others were of late C2/C3 date.
49	ML062923	091741/00/00	MON	OLD KENT RD	POST HOLE	43 AD to 409 AD	Roman	Evaluation and subsequent excavation undertaken by P Thompson of Museum of London Archaeology Service, Aug-Nov/93; site code TC093. Two groups of postholes were recorded, which appeared to be of a similar date as the late C2/C3 field ditches.
50	ML062924	091742/00/00	FS	OLD KENT RD	FINDSPOT	500000 BC to 42 AD	Prehistoric	Evaluation and subsequent excavation undertaken by P Thompson of Museum of London Archaeology Service, Aug-Nov/93; site code TC093. A number of residual prehistoric struck flints were recovered from both Roman and post-Medieval contexts, suggesting prehistoric occupation on the eastern side of the site, possibly associated with the recorded water channel (SMR ref: 091743).
51	ML062926	091743/00/00	MON	OLD KENT RD	WATER CHANNEL	500000 BC to 42 AD	Prehistoric	Evaluation and subsequent excavation undertaken by P Thompson of Museum of London Archaeology Service, Aug-Nov/93; site code TC093. An ancient water channel was recorded on the eastern edge of the site, possibly associated with a group of residual struck flints (SMR ref: 091742).
52	ML062927	091744/00/00	MON	OLD KENT RD	DUMP	1540 AD to 1900 AD	Post Medieval	Evaluation and subsequent excavation undertaken by P Thompson of Museum of London Archaeology Service, Aug-Nov/93; site code TC093. Evidence for dumping in the post-Medieval period was recorded.
53	ML062928	091745/00/00	MON	OLD KENT RD	PIT	1540 AD to 1900 AD	Post Medieval	
54	ML063702	091942/00/00	MON	BRICKLAYERS ARMS, PAGES WALK, MANDELA WAY, SE1	PEAT, PEAT	2200 BC to 701 BC	Bronze Age	Excavation by A. Steele for Department of Greater London Archaeology (S&L), 1988; site code MDW88. Peats overlying clays were revealed, which apparently represented the W edge of an early mere or marshy area subject to flooding, drying and vegetation growth according to the level of the Thames. The peat may be a further instance of the Tilbury IV Late Bronze Age peats found elsewhere in N Southwark. In the E part of the site, flood clays and natural strata were cut by 18th and early 19th century intrusions. No further periods recorded under same site code.
55	ML063761	091970/00/00	MON	WILLOW WALKPAGES WALK,	UNASSIGNED	1540 AD to 1900 AD	Post Medieval	Excavation by A. Steele for Department of Greater London Archaeology (S&L), 1987; site code VVW87. 18th to early 19th century intrusions were revealed, cutting floodplains which overlie natural. Periods recorded under same site code: possible late Bronze Age (091971).
56	ML063763	091971/00/00	MON	WILLOW WALKPAGES WALK,	PEAT, PEAT	2200 BC to 701 BC	Bronze Age	Excavation by A. Steele for Department of Greater London Archaeology (S&L), 1987; site code VVW87. Clays were overlaid by peats, possibly of the Bronze Age Tilbury IV period, at the eastern end of the area examined. This was apparently the western edge of a mere or marsh. Periods recorded under same site code: post-medieval (091970).
57	ML067080	092251/00/00	MON	96-120 MASSINGER ST	DITCH	43 AD to 409 AD	Roman	Evaluation undertaken by K Heard for Museum of London Archaeology Service, Dec'94-Jan'95; site code MSG94. Several ditches of Roman date were found. Periods recorded under same site code: Roman (092251-3), medieval (092254), post-medieval (092255).
58	ML067081	092252/00/00	MON	96-120 MASSINGER ST	PIT	43 AD to 409 AD	Roman	Evaluation undertaken by K Heard for Museum of London Archaeology Service, Dec'94-Jan'95; site code MSG94. A pit of Roman date was recorded. Periods recorded under same site code: Roman (092251-3), medieval (092254), post-medieval (092255).
59	ML067082	092253/00/00	MON	96-120 MASSINGER ST	DEPOSIT UNCLASSIFIED	43 AD to 409 AD	Roman	Evaluation undertaken by K Heard for Museum of London Archaeology Service, Dec'94-Jan'95; site code MSG94. Roman features (SMR refs: 092251-2) were sealed by a soil horizon which produced Roman material. Periods recorded under same site code: Roman (092251-3), medieval (092254), post-medieval (092255).
60	ML067083	092254/00/00	MON	96-120 MASSINGER ST	RUBBISH PIT	1066 AD to 1539 AD	Medieval	Evaluation undertaken by K Heard for Museum of London Archaeology Service, Dec'94-Jan'95; site code MSG94. A Roman soil horizon (SMR ref: 092253) was cut by a medieval rubbish pit. Periods recorded under same site code: Roman (092251-3), medieval (092254), post-medieval (092255).
61	ML067084	092255/00/00	MON	96-120 MASSINGER ST	DITCH	1540 AD to 1900 AD	Post Medieval	Evaluation undertaken by K Heard for Museum of London Archaeology Service, Dec'94-Jan'95; site code MSG94. Extensive agricultural trenches dating to the 18th century were located. Periods recorded under same site code: Roman (092251-3), medieval (092254), post-medieval (092255).
62	ML067171	092272/00/00	MON	HENDRE RD	DITCH	43 AD to 409 AD	Roman	Trial excavation by M.G. Dennis for Southwark and Lambeth Archaeological Excavation Committee, 1978; site code HEV78. A Roman ditch and ??? 'Maori handlub' were found. No further periods recorded under this site code.
63	ML072131	092740/00/00	MON		WATER CHANNEL	1540 AD to 1900 AD	Post Medieval	Desktop assessment of Albany Rd undertaken by OAU, 1990. Earf's Sluice is recorded as a water course in use up to 1746. This may have been formed as a remnant of the Roman water system.
64	ML074507	092929/00/0000	MON	GRIMCOTT ST	TANNERY	1540 AD to 1900 AD	Post Medieval	large tannery operating in 1872; site redeveloped as part of factory.
65	ML075374	ML075374	MON	Coopers Road Estate, Southwark	PEAT, CHANNEL	500000 BC to 42 AD	Prehistoric	An Archaeological Evaluation was carried out by Oxford Archaeology at Coopers Road Estate, Southwark, between the 8th and 19th of October 2001. The trenches were located in the open grassed areas between the housing blocks and were excavated down on to the natural. Peat deposits were identified in the northern part of the site, possibly representing the edge of a prehistoric channel or mere. To the south a post-medieval cultivated soil was recorded; both peats and soil were sealed by modern made ground. No significant archaeological deposits were identified, although the possibility remains that isolated features may survive between the trenches.
66	ML076278	ML076278	MON	205-209 OLD KENT ROAD, SE1	MAKEUP LAYER	43 AD to 409 AD	Roman	A post-glacial sedimentary sequence was followed by a Roman soil with Samian and sand-tempered pottery.

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67	ML076463	ML076463	MON	Bricklayers' Arms Estate, Old Kent Road, Southwark.	COBBLED SURFACE, MADE GROUND	1800 AD	18th Century to Unknown	An archaeological evaluation was carried out by PCA at Bricklayers' Arms Estate, Old Kent Road, Southwark sometime in 1998 and before August. This was commissioned by Peabody Trust and the development is by way of landscaping as amenity land. Two trial trenches (2m wide and an area of ten meters long) were dug down to natural geological levels c. 1.20m below the current ground level. The top 0.80m of the sequence in both trenches consisted of modern material interpreted as levelling dumps associated with the entranceway to the 19th century Bricklayers' Arms railway depot and drainage beneath it
68	ML076767	0905190000	MON	HENDRE RD	DITCH	43 AD to 409 AD	Roman	ROMAN DITCH CUT INTO CLAY AT RIGHT ANGLES TO PRESUMED ROUTE OF WATLING ST. FOUND IN TRIAL EXC 1978
69	ML077325	ML077325	MON	Bricklayers' Arms Estate, Old Kent Road, Southwark.	CULTIVATION SOIL	1066 AD to 1900 AD	Medieval to 19th Century	An archaeological evaluation was carried out by PCA at Bricklayers' Arms Estate, Old Kent Road, Southwark sometime in 1998 and before August. This was commissioned by Peabody Trust and the development is by way of landscaping as amenity land. Two trial trenches (2m wide and an area of ten meters long) were dug down to natural geological levels c. 1.20m below the current ground level. The lower part of the sequence showed dumped deposits and soils interpreted as having formed by agricultural activity during the Medieval and Post-Medieval periods
70	ML077729	ML077729	MON	205-209 OLD KENT ROAD, SE1	MAKEUP LAYER	1540 AD to 1900 AD	Post Medieval	The top of the soil was reworked by Post-medieval digging over to get rid 18th century ash and nightsoil, incorporating glass from the Castle Inn. This was succeeded by a sand make-up dump which had 18th century ginger beer bottles in it
71	ML09188	0913160000	MON	281-333 OLD KENT RD	PIT, WALL	1540 AD to 1900 AD	Post Medieval	A NUMBER OF PITS & WALL FOUNDATIONS (19th century ?) FOUND IN UNCOMPLETED SITE EVALUATION BY Department of Greater London Archaeology 1990 (EAR90). UNDATED FEATURES ALSO FOUND (SEE 091317)
72	ML09198	0913170000	MON	281-333 OLD KENT RD	UNASSIGNED			THE EDGES OF LOW GROUND OR NATURAL FEATURES WERE REVEALED TO NORTH & EAST INPARTIALLY COMPLETED SITE EVALUATION BY Department of Greater London Archaeology 1990. SEE 091316 FOR Post Medieval FEATURES ON SITE
73	ML098106	ML098106	MON	Old Kent Road (221-223), SE1	MADE GROUND		Unknown to Modern	A watching brief was carried out by C Pickard on behalf of Pre-Construct Archaeology between 1st April 2004 and the 10th January Modern cut features and made ground were recorded. "the natural gravelly sand was recorded "
74	ML098106	ML098106	MON	Old Kent Road (221-223), SE1	MADE GROUND		Unknown to Modern	A watching brief was carried out by C Pickard on behalf of Pre-Construct Archaeology between 1st April 2004 and the 10th January Modern cut features and made ground were recorded. "the natural gravelly sand was recorded "
75	ML098752	ML098752	MON	Old Kent Road (Nos. 419-423) (undated plough soil)	PLOUGH SOIL			Evaluation work by the Museum of London Archaeology Service during 2007 recorded a substantial plough soil throughout the three trenches excavated. This plough soil had been cut through by 19th and 20th century drainage features, but was in itself undat
76	ML09958	0913320000	MON	281-443 OLD KENT RD	HEARTH, HEARTH, GULLY, GULLY, OCCUPATION SITE, OCCUPATION SITE	4000 BC to 701 BC	Early Neolithic to Late Bronze	FLINTS, POTTERY, DAUB, ANIMAL BONE, HEARTH & GULLY FOUND IN EXCAVATION BY Department of Greater London Archaeology 1990 SITE CODE HUM90
77	ML09959	0913330000	MON	281-443 OLD KENT RD	DITCH	43 AD to 409 AD	Roman	ROMAN DITCHES FOUND DURING EXCAVATION BY Department of Greater London Archaeology 1990 SITE CODE HUM90. SEE091332-4 FOR OTHER FINDS
78	ELO1005		EVT	Coopers Road Estate, Southwark				
79	ELO10572		EVT	Humphrey Street, London, SE1; Archaeological Evaluation				
80	ELO10579		EVT	Old Kent Road, London, SE1; Evaluation				
81	ELO10581		EVT	Old Kent Road, London, SE1; Excavation				
82	ELO10616		EVT	Albany Road (No 14-38), Bermondsey, London: Watching Brief				
83	ELO12352		EVT	Dunton Road (Nos 30-32), Bermondsey, Southwark, SE1 5TJ; Desk Based Assessment				
84	ELO12571		EVT					
85	ELO12648		EVT	Dunton Road, Bermondsey, Southwark: Evaluation				
86	ELO12687		EVT	Grange Road [Alaska Works], Bermondsey, Southwark, SE1: Evaluation				
87	ELO12740		EVT	Cooper's Road, Bermondsey, Southwark, SE1: Desk Based Assessment				
88	ELO12743		EVT	Dunton Road (No 32) [Former Claremont Arms], Bermondsey, Southwark: Historic Building Recording				
89	ELO12744		EVT	Dunton Road (Nos 30-32), Bermondsey, Southwark, SE1 5TJ; Archaeological Evaluation				
90	ELO12751		EVT	Willow Walk, Bermondsey, Southwark, SE1: Desk Based Assessment				
91	ELO13097		EVT	Dunton Road (Nos 30-32), Bermondsey, Southwark, SE1 5TJ; Watching Brief				
92	ELO2590		EVT	105-106 GRANGE RD - SE1				
93	ELO2688		EVT	14-38 ALBANY RD				
94	ELO2691		EVT	Albany Road (No 14-38), Southwark, SE5; Evaluation				
95	ELO2701		EVT	Grange Road [Alaska Works], Bermondsey, Southwark, SE1: Evaluation				
96	ELO2817		EVT	Bricklayers' Arms Railway Depot Site				
97	ELO3211		EVT	281-333 OLD KENT RD				
98	ELO3569		EVT	HENDRE RD				
99	ELO3649		EVT	HUMPHREY ST				
100	ELO3683		EVT	Road Widening Scheme				
101	ELO3982		EVT	Bricklayers' Arms				
102	ELO4207		EVT	360 OLD KENT RD (REAR OF)				
103	ELO4972		EVT	WILLOW WALK/PAGES WALK,				
104	ELO6087		EVT	Old Kent Road (221-223)				
105	ELO6087		EVT	Old Kent Road (221-223)				
106	ELO7698		EVT	Old Kent Road (Nos. 419-423), Southwark: evaluation				
107	ELO807		EVT	205-209 OLD KENT ROAD, SE1				
108	ELO807		EVT	205-209 OLD KENT ROAD, SE1				
109	ELO8597		EVT	Mina Road, [Walworth Academy], Southwark, Archaeological Evaluation				
110	ELO988		EVT	Bricklayers' Arms Estate, Old Kent Road, Southwark.				
111	ML063582	0919050000	NA	105-106 GRANGE RD - SE1	NEGATIVE EVIDENCE			
112			CA	Page's Walk SE1				
113			CA	Thornum Square SE1				
114			CA	Trafalgar Avenue SE15				
115			CA	Cobourg Road SE15				
116			CA	Bermondsey Street SE1				
117	DLO35764	DLO35764	APA	Bermondsey Lake				
118	DLO35767	DLO35767	APA	Old Kent Road				
119	ML0104866	ML0104866	MON	Old Kent Road (Nos. 82-96), Southwark, SE1 (Roman Features)	MAUSOLEUM?; FOUNDATION; DITCH; PIT; CREMATION PIT?; BURIAL PIT?	43 to 409	Roman	A number of Roman features were uncovered during an excavation by the Museum of London Archaeology Service at 82-96 Old Kent Road between August and September 2004.
120	ML0104867	ML0104867	MON	Old Kent Road (Nos. 82-96), Southwark, SE1 (Medieval Agricultural Soil)	CULTIVATION SOIL	1066 to 1539	Medieval	A possible deposit of medieval agricultural soil was found during an excavation by the Museum of London Archaeology Service at 82-96 Old Kent Road between August and September 2004.
121	ML0104868	ML0104868	MON	Old Kent Road (Nos. 82-96), Southwark, SE1 (Post medieval features)	POST HOLE; WELL	1601 to 2050	Post Medieval to Modern	A number of post medieval features were found during an excavation by the Museum of London Archaeology Service at 82-96 Old Kent Road between August and September 2004.
122	ML0104956	ML0104956	MON	Dunton Road (Nos 30-32), Bermondsey, Southwark, SE1 5TJ (Post medieval pits)	QUARRY PIT	1601 to 1700	Post Medieval	Six post medieval quarry pits were discovered during monitoring for foundation trenches at 30-32 Dunton Road by Pre Construct Archaeology in 2012.
123	ML0104957	ML0104957	MON	Dunton Road (Nos 30-32), Bermondsey, Southwark, SE1 5TJ (19th century cellar/soakaway)	WELL?; SOAKAWAY?	1801 to 1850	Post Medieval	A 19th century brick lined cellar or soakaway was discovered during a watching brief at 30-32 Dunton Road in 2012.
124	ML0105006	ML0105006	MON	Dunton Road (Nos 30-32) Bermondsey, Southwark, London SE1 5TJ (Post Medieval quarry pits)	QUARRY PIT	1580 to 1700	Post Medieval	Two post medieval quarry pits were uncovered during excavations by Pre Construct Archaeology at 30-32 Dunton Road during August of 2012.

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125	MLO105007	MLO105007	MON	Grange Road/Curtis Street/Bacon Grove [Alaska Works], Southwark, London SE1 (Medieval post holes, pits)	PIT; POST HOLE	1066 to 1539	Medieval	An excavation by the Department of Greater London Archaeology in 1989 found Medieval pits and post holes.
126	MLO105007	MLO105007	MON	Grange Road/Curtis Street/Bacon Grove [Alaska Works], Southwark, London SE1 (Medieval post holes, pits)	PIT; POST HOLE	1066 to 1539	Medieval	An excavation by the Department of Greater London Archaeology in 1989 found Medieval pits and post holes.
127	MLO105008	MLO105008	MON	Grange Road/Curtis Street/Bacon Grove [Alaska Works], Southwark, London SE1 (17th century cottage garden)	COTTAGE GARDEN?	1601 to 1700	Post Medieval	An excavation by the Department of Greater London Archaeology in 1989 found a series of 17th century agricultural cuts.
128	MLO105009	MLO105009	MON	Grange Road [Bermondsey Spa] Southwark, London SE1 [Post Medieval pits, drain]	RIDGE AND FURROW?; PIT; DRAIN	1701 to 1900	Post Medieval	Excavations at Bermondsey Spa in November 2000 by Birkbeck College revealed Post Medieval features including 17th century agricultural furrows, industrial cuts and 19th century brick drains.
129	MLO108097	MLO108097	MON	Grange Road (Nos 108-110) [Bermondsey Health Centre], Bermondsey, Southwark (site of maternity hostel and Public Health Centre)	MATERNITY HOSPITAL; WELFARE CENTRE; MATERNITY CLINIC; MATERNITY CLINIC; CLINIC	1919 to 1989	Modern	Site of American Red Cross Maternity Hostel, a lying-in hostel established in 1919 by Bermondsey Borough Council with funding from the American Red Cross Society. The Hostel was closed in 1923. Nos 109 and 110 Grange Road became a Maternity and Child Well
130	MLO23839	MLO23839	MON	Grange Road/Curtis Street/Bacon Grove [Alaska Works], Southwark, London SE1 (Roman settlement)	DITCH; CESS PIT; CREMATION PIT?; POST HOLE; STORAGE PIT?; RUBBISH PIT?; FOOTPATH	43 to 300	Roman	An excavation by the Department of Greater London Archaeology at Grange Road during the summer of 1989 found a Roman ditch, as well as pits and postholes.
131	MLO23839	MLO23839	MON	Grange Road/Curtis Street/Bacon Grove [Alaska Works], Southwark, London SE1 (Roman settlement)	DITCH; CESS PIT; CREMATION PIT?; POST HOLE; STORAGE PIT?; RUBBISH PIT?; FOOTPATH	43 to 300	Roman	An excavation by the Department of Greater London Archaeology at Grange Road during the summer of 1989 found a Roman ditch, as well as pits and postholes.
132	MLO71090	MLO71090	MON	Albany Road (No 14-38) Old Kent Road, Bermondsey, Southwark [19th century cellar]	CELLAR	1801 to 1900	Post Medieval	A watching brief by Thames Valley Archaeology Service revealed the cellar of a house that would have fronted Albany Road, and associated garden soil.
133	MLO105185	MLO105185	FS	Grange Road, Bermondsey, Southwark [19th century cupels]		Undated	Unknown	Ten 18th century bone ash cupels were found during excavations in Bermondsey. They have been determined to be mainly for silver cupellation, with copper as the main contaminate. They may be evidence of a nearby mint, though no other evidence in the vicin
134	MLO63993	MLO63993	MON	Grange Road (80-85), Southwark (Roman Pits)	PIT	43 to 409	Roman	Several pits, the largest and earliest measuring over 3m in diameter and surviving to a depth of 0.62m, containing small quantities of abraded Roman domestic pottery.
135	MLO74631	093024/00/000	MON	Grange Road, Southwark (Rubber works)	RUBBER WORKS	1801 to 1900	Post Medieval	
136	MLO74632	093025/00/000	MON	BACON GROVE	FACTORY; TANNERY	1540 to 1900	Post Medieval	
137	ELO12686		EVT	Grange Road/Alscot Road/Keyse Road [Bermondsey Spa], Bermondsey, Southwark, SE1: Evaluation	EVT			Birkbeck College, University of London
138	ELO13386		EVT	Old Kent Road (Nos. 82-96), Southwark, SE1: Excavation	EVT			Museum of London Archaeology Service
139	ELO14217		BL	Mandela Way, Walworth, Southwark: Desk Based Assessment	BL			RPS Planning & Development
140	ELO15009		BL	Cooper's Road and Rolls Road, SE1: watching brief	BL			Museum of London Archaeology
141	ELO16308		EVP	Old Kent Road (Nos 205-209) [The Gin Palace], Walworth, Southwark, SE1: Desk Based Assessment	EVP			Museum of London Archaeology Service
142	ELO3361		EVA	Grange Road (80-85), Southwark, London, SE1: Archaeological Evaluation	EVA			Museum of London Archaeology Service
143	ELO10569		EVA	Grange Road (No 86-87), Southwark, SE1: Evaluation	TRIAL TRENCH			Museum of London Archaeology Service
144	ELO12639		EVP	Grange Road, Bermondsey, Southwark: Scientific Analysis				English Heritage
145	ELO14551		EVT	Bacon Grove [Alaska Works], Grange Road (61), Bermondsey, London, SE1: Archaeological Excavation	EXCAVATION			Museum of London Archaeology Service
146	ELO15282		EVP	Old Kent Road, (Nos.201 - 203), Southwark: Desk Based Assessment	DESK BASED ASSESSMENT			Museum of London Archaeology Service
147	ELO17690		BL2	Old Kent Road (No. 201-301) London Borough of Southwark SE1 Archaeological Intervention				Museum of London Archaeology

9. APPENDIX 2: OASIS

OASIS ID: quaterna1-304604

Project details

Project name Former Car Pound, Mandela Way

Short description of the project A programme of geoarchaeological fieldwork, deposit modelling and radiocarbon dating was carried out at the Mandela Way site in order to clarify the nature, depth, extent and date of the peat deposit recorded within two records towards the north of the site. The surface of the Gravel at the site is recorded at between -0.96 and 0.01m, with the highest Gravel surfaces recorded towards the centre, from where it falls slightly to the north, east and south. The Gravel is overlain in most places by a relatively thin layer of alluvial deposits, between ca. 0.5 and 1.0m in thickness, which in two records towards the north of the site includes a thin layer of peat, recorded between 0.01 and 0.17m OD in MWQBH1, and between 0.02 and 0.12m OD in MWTP5. Although it has the potential to provide information on the environmental history of the site and its environs, the peat horizon recorded at the Mandela Way is thin (<0.16m), and only locally present. A limited programme of radiocarbon dating of the peat in borehole MWQBH1 was therefore carried out, and it was found to be consistent in age (Late Bronze Age; 2795-2995 cal BP) with other peat horizons recorded in this area of Southwark. No further environmental archaeological assessment was therefore recommended. The elevation of the Gravel recorded at the site indicates that the site does appear to contain the potential for archaeological evidence or remains to be present; however, it is of note that the Gravel surface is not as high as that at the B and Q Depot, Old Kent Road (Bird et al., 1991; Sidell et al., 2002) or Marlborough Grove (MAG93), where flint scatters and hearth deposits were recorded on weathered sand deposits overlying the Kempton Park Gravel at between ca. 0.8 and 1.2m OD.

Project dates Start: 01-10-2017 End: 24-01-2018

Previous/future work No / Not known

Any associated project codes MDE17 - Sitecode reference

Type of project Environmental assessment

Significant Finds PEAT Late Bronze Age

Survey techniques Landscape

Project location

Country England

Site location GREATER LONDON SOUTHWARK BERMONDSEY ROTHERHITHE
AND SOUTHWARK Former Car Pound, Mandela Way

Postcode SE1 5SZ

Site coordinates TQ 3355 7854 51.489514194803 -0.07617619586 51 29 22 N 000 04 34 W
Point

Project creators

Name of Quaternary Scientific (QUEST)
Organisation

Project brief RPS
originator

Project design D.S. Young
originator

Project C.R. Batchelor
director/manager

Project supervisor D.S. Young

Type of Developer
sponsor/funding
body

Project archives

Physical Archive No
Exists?

Digital Archive No
Exists?

Paper Archive LAARC
recipient

Paper Contents "Environmental", "Stratigraphic"

Paper Media "Report"
available

Entered by Daniel Young (d.s.young@reading.ac.uk)

Entered on 24 January 2018

Appendix C– OASIS Form

OASIS ID: aocarcha1-306378

Project details

Project name	25 Mandela Way
Short description of the project	Archaeological mitigation will comprise one trench measuring 21m x 2.75m (stepping out to 4m depending on depth excavated) and two Contingency Areas measuring approximately 2.5m x 2.5m, which will be excavated within the limits of the proposed site.
Project dates	Start: 16-01-2018
Any associated project reference codes	33638 - Contracting Unit No.
Type of project	Field evaluation
Project location	
Country	England
Site location	GREATER LONDON SOUTHWARK SOUTHWARK 25 Mandela Way
Postcode	SE1 5XF
Site coordinates	TQ 533550 178540 50.939133969835 0.182955859713 50 56 20 N 000 10 58 E Point
Project creators	
Name of Organisation	AOC Archaeology Group
Project design originator	RPS
Project director/manager	Melissa Melikian



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