G PARK,
NORTH WOOLWICH ROAD,
LONDON BOROUGH OF NEWHAM,
E16 9AN

AN ARCHAEOLOGICAL EVALUATION

SITE CODE: NOW18

JANUARY 2019

PRE-CONSTRUCT ARCHAEOLOGY

DOCUMENT VERIFICATION

G PARK, NORTH WOOLWICH ROAD, LONDON BOROUGH OF NEWHAM E16 9AN

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

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LONDON BOROUGH OF NEWHAM, E16 9AN.
AN ARCHAEOLOGICAL EVALUATION

Site Code:	**NOW18**
Central NGR:	**TQ 40225 80066**
Local Planning Authority:	**LONDON BOROUGH OF NEWHAM**
Planning Reference:	**N/A**
Commissioning Client:	**COLLINS DEMOLITION**
Written/Researched by:	**JOE BROOKS** **Pre-Construct Archaeology Limited**
Project Manager:	**ZBIGNIEW POZORSKI** **Pre-Construct Archaeology Limited**

Contractor:	**Pre-Construct Archaeology Limited** **Unit 54 Brockley Cross Business Centre** **96 Endwell Road** **Brockley** **London SE4 2PD**
Tel:	**020 7732 3925**
Fax:	**020 7732 7896**
E-mail:	**zpozorski@pre-construct.com**
Web:	**www.pre-construct.com**

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CONTENTS

1 ABSTRACT

1.1 This report details the results of an archaeological evaluation undertaken by Pre-Construct Archaeology Ltd at G Park Site, North Woolwich Road, London Borough of Newham, E16 9AN. The site is located within industrial area in the London Docklands and was associated with the Peruvian guano industry from the late 19th century onwards. The Peruvian Wharf buildings on the site have since been demolished. The site is centred at National Grid Reference TQ 40225 80066.

1.2 It is proposed to construct a multi-storey logistics and distribution centre on the site. The evaluation was undertaken as part of proposed series of enabling works concerning remediation/below ground level obstruction, removal, archaeological investigations/evaluations and associated development (LB Newham Planning Ref. 18/02183/FUL).

1.3 Six evaluation trenches were excavated, including one additional trench to the five originally proposed. The earliest deposit encountered was gravel overlain by alternating layers of alluvium and peat. Levels recorded indicated that the gravel deposits sloped downwards towards the south. This topography indicates the presence of a channel or a depression on the site of which only the possible north/north-western bank were discovered.

1.4 A fragment of Alder trunk, with possible tool marks, was recovered from a peat horizon located in the centre of the site (Trench 2). No other archaeological remains dating from before the 19th-century were discovered.

1.5 Several pits dating to the 19th-century were recorded. In one pit a basket containing a barrel – possibly functioning as a water filter for a pump – was discovered.

1.6 The current ground surface of the site was formed by modern layers of demolition material.

1.7 The evaluation works were undertaken between 18th December 2018 and 15th January 2019 and was supervised by Joe Brooks of Pre-Construct Archaeology.

1.8 The complete archive will be deposited with the appropriate local depository under site code NOW18.

2 INTRODUCTION

2.1 An archaeological evaluation was carried out at G Park Site, North Woolwich Road, London Borough of Newham, E16 9AN, by Pre-Construct Archaeology Ltd (PCA) in advance of redevelopment for a multi-storey logistics and distribution centre.

2.2 The site is located in the west part of Silvertown, London and sits between the Thames and Royal Victoria Dock (Figure 1). The site, which is centred at National Grid Reference TQ 40225 80066 and is roughly rectangular in shape, is bounded to the north-east by North Woolwich Road; to the north-west by an industrial building; to the south-west by vacant land adjacent to the Thames; and by a Tate and Lyle refinery to the south-east (Figure 2).

2.3 The evaluation works were carried out between 18th December 2018 and 15th January 2019.

2.4 The evaluation was undertaken as part of proposed series of enabling works concerning remediation/below ground level obstruction, removal, archaeological investigations/evaluations and associated development (LB Newham Planning Ref. 18/02183/FUL).

2.5 The Archaeological Advisor to the London Borough of Newham, Adam Single of Historic England Greater London Archaeology Advisory Service (GLAAS), has indicated a requirement for archaeological evaluation fieldwork in order to establish the nature and extent of any archaeological remains existing on the site.

2.6 The proposed methodology was detailed in a site-specific Written Scheme of Investigation (CgMs 2018). Six evaluation trenches were excavated across the evaluation area, located in the north-eastern part of the site.

2.7 The investigation was conducted by Pre-Construct Archaeology Limited under the supervision of the author, and the project management of Zbigniew Pozorski. The archaeological work was commissioned by Collins Demolition.

2.8 The site archive was identified using the unique site code NOW18. The completed archive comprising written, drawn and photographic records will, upon completion of the project, be deposited with the appropriate local repository under that code.

2.9 All works were undertaken in accordance with the following documents:

- *Written Scheme of Investigation for Archaeological Evaluation: G Park London Docklands North Woolwich Road Silvertown London E16* (CgMs Heritage 2018)
- Historic England Greater London Archaeology Advisory Service: *Standards for Archaeological Work* (HE GLAAS 2015);
- *Management of Research Projects in the Historic Environment* (MoRPHE) (HE 2016)
- *Standard and guidance for an archaeological evaluation* (Chartered Institute for Archaeologists (CIfA) 2014).

- Taylor, J & Brown, G. 2009, updated 2018, *Fieldwork Induction Manual: Operations Manual*, Pre-Construct Archaeology Limited.

3 PLANNING BACKGROUND AND OBJECTIVES

3.1 In terms of designated heritage assets as defined above in the NPPF, no World Heritage Sites, Scheduled Monuments, Historic Battlefield or Wreck Designations lie within, or in close proximity to the study site.

3.2 In terms of relevant local designations, the study site lies within the Royal Docks Archaeological Priority Area (APA) as designated by the London Borough of Newham. This APA comprises a Tier 3 designation, defined as a landscape zone where the GLHER has indicated a potential for archaeological discoveries, influenced by geological, land use and topographical factors. For the Royal Docks APA, the latter is particularly relevant; it is defined by the former Thames marshes, with prehistoric archaeological and paleoenvironmental potential, together with dockyard uses (north of the study site) during the nineteenth and twentieth centuries.

3.3 The planning permission was given for a series of enabling works concerning remediation/below ground level obstruction, removal, archaeological investigations/evaluations and associated development (LB Newham Planning Ref. 18/02183/FUL) ahead of the redevelopment of the site and construction of a multi-storey logistics and distribution centre on the site. The condition (3) attached to the decision reads as follows:

> 3. Archaeology
>
> Development shall take place according to the submitted archaeological written scheme of investigation (WSI) titled WRITTEN SCHEME OF INVESTIGATION FOR ARCHAEOLOGICAL EVALUATION G Park London Docklands North Woolwich Road Silvertown London E16 dated November 2018 prepared by CgMs Consulting. For land that is included within the WSI, no development shall take place other than in accordance with the agreed WSI, and the programme and methodology of site evaluation and the nomination of a competent person(s) or organisation to undertake the agreed works.
>
> If heritage assets of archaeological interest are identified by stage 1 then for those parts of the site which have archaeological interest a stage 2 WSI shall be submitted to and approved by the local planning authority in writing. For land that is included within the stage 2 WSI, no development shall take place other than in accordance with the agreed stage 2 WSI which shall include:
>
> A. The statement of significance and research objectives, the programme and methodology of site investigation and recording and the nomination of a competent person(s) or organisation to undertake the agreed works.

B. The programme for post-investigation assessment and subsequent analysis, publication & dissemination and deposition of resulting material. this part of the condition shall not be discharged until these elements have been fulfilled in accordance with the programme set out in the stage 2 WSI.

Written schemes of investigation will need to be prepared and implemented by a suitably qualified professionally accredited archaeological practice in accordance with Historic England's Guidelines for Archaeological Projects in Greater London.

Reason: In the interests of conservation of archaeological interests. It is necessary for this condition to prevent commencement of the development until the requirements have been met to ensure that archaeological interests are protected through the construction phase.

3.4 The archaeological investigation was undertaken in accordance with the requirements for trial trenching issued by Historic England Greater London Archaeology Advisory Service (GLAAS).

3.5 The work was designed within the Written Scheme of Investigation prepared by CgMs Heritage, part of RPS Group Plc (CgMs 2018) which was approved by the archaeological adviser to the London Borough of Newham, Adam Single of GLAAS.

3.6 **Evaluation Objectives**

3.6.1 The Written Scheme of Investigation (CgMs, 2018) described a number of evaluation objectives which are reproduced below:

- How the site's topography has influenced past activity and settlement;
- To advance our knowledge of the archaeology of the region through the application of appropriate scientific dating techniques;
- To understand the impact of development since the nineteenth century;
- To provide sufficient information to devise a methodology for further archaeological mitigation (if necessary).

4 GEOLOGICAL AND TOPOGRAPHICAL BACKGROUND

4.1 The solid geology of the study site is shown by the Institute of Geological Sciences (IGS 1979) as London Clay deposits forming the London Basin. Overlying the London Clay is a series of gravel terraces deposited during periods of glacial and inter-glacial conditions (Bridgland 1996).

4.2 Geoarchaeological investigations on the site, involving boreholes and test pits revealed a sequence of made ground, upper alluvium, peat, sparse lower alluvium and Shepperton River Gravels (Hydrock 2018).

4.3 Modern ground level at the site is level at between *c.* 1.5-2.5m OD. The boreholes indicated that the gravels are present at -2.5m OD to -4.0m OD and drop to at least -5.om OD to the south, towards the river Thames. In addition, a east-west drop between -2.90m OD and -4.30m OD in the gravels' levels was observed in the north/central part of the site (QUEST 2016).

5 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

5.1 The following information has been reproduced from a Desk Based Assessment researched and compiled by CgMs Heritage (CgMs Heritage 2016).

5.2 **Prehistoric: Palaeolithic**

5.2.1 No finds or features of Palaeolithic date have been recorded within the 750m study area search radius.

5.2.2 The presence of early prehistoric material within a site can be notoriously difficult to predict and is typically dependent upon an appropriate underlying geology sequence, i.e. terrace gravels, which are likely to survive at depth below the site. While the alluvial deposits present at the site are considered too late in date to be likely to contain Palaeolithic material, the potential presence of residual flintwork artefacts cannot be discounted at depth within any gravel present.

5.3 **Prehistoric: Mesolithic, Neolithic, Bronze Age and Iron Age**

5.3.1 From around 4000 BC the mobile hunter-gathering economy of the Mesolithic gradually gave way to a more settled agriculture-based subsistence. The pace of woodland clearance to create arable and pasture-based agricultural land varied regionally and locally, depending on a wide variety of climatic, topographic, social and other factors. The trend was one of a slow, but gradually increasing pace of forest clearance.

5.3.2 By the 1st millennium, i.e. 1000 BC, the landscape was probably a mix of extensive tracts of open farmland, punctuated by earthwork burial and ceremonial monuments from distant generations, with settlements, ritual areas and defended locations reflecting an increasingly hierarchical society.

5.3.3 Geoarchaeological monitoring of site investigation works within the site revealed a Holocene sequence of made ground, upper alluvium, possibly redeposited peat, sparse lower alluvium, and Shepperton River Gravels. The gravels are present at -2.5 to 4.0m AOD and drop to at least -5.0m AOD to the south, towards the river Thames. Geoarchaeological borehole survey on the site confirmed no further geoarchaeological interest and also indicated the dropping gravel profile from east to west in the north/central part of the site (QUEST 2016).

5.3.4 Evaluation at Barnwood Court to the northeast of the study site revealed a sequence of Middle Holocene peat and organic silt/clay formations. Following a fall in sea levels in the early Neolithic, peat formed across the area into the Bronze Age, with vegetation dominated by oak and lime woodland.

5.3.5 Archaeological evaluation work at Dock Road, West Silvertown, to the northwest of the study site, revealed a sequence of alluvial deposits of late Neolithic or Early Bronze Age date, indicative of mud flats and marshland with a nearby tidal creek or channel. Subsequently deposited alluvial clays overlay the floodplain.

5.3.6 Archaeological excavation work at Fort Street, Silvertown, to the northeast of the study site, revealed a Late Neolithic trackway, located at the base of the peat deposits, in the north-western area of the excavated area, at a height of -1.07m AOD. The trackway comprised a single alignment of overlapping planks, with posts, of alder and ash, with indications that the trackway was lined with brushwood and Roundwood. Bronze Age pottery was recovered from the upper surface of the peat and at the level of the trackway, together with worked flint found associated with the trackway.

5.3.7 On the opposite side of the Thames on the Greenwich Peninsular, archaeological work identified peat deposits dated to the Middle Neolithic, overlain by alluvium.

5.3.8 Prehistoric artefactual evidence within the study area search radius has included a fragment of pottery of Neolithic, Bronze Age or Iron Age date, derived from the Thames at Silvertown to the southeast of the site.

5.3.9 The study site can be considered likely to have a paleoenvironmental potential for the prehistoric periods.

5.3.10 The archaeological potential of the study site for the prehistoric periods can however be considered to be more limited. In spite of the identification of the prehistoric trackway at Fort Street to the northeast, the available evidence for the site demonstrates that the high gravels and sands upon which the trackway was situated, are not present at the study site. Geotechnical investigations immediately north and east of the site, have indicated that the top of the gravels are level at between c.-1.8m to -4m OD, which is lower than the height of the trackway found at Fort Street. Geoarchaeological monitoring of site investigation works has indicated heights of the gravel of -2.5 to -4.0m OD, with a further drop to at least -5.0m OD to the south (QUEST 2016).

5.4 **Roman**

5.4.1 No finds or features of Roman date have been identified within the 750m study area search radius.

5.4.2 A geoarchaeological borehole drilled at the former Alcan Works, south of North Woolwich Road to the southeast of the study site, revealed inorganic estuarine alluvium with no peat. Sediments were dated to the Roman and post Roman periods.

5.5 **Anglo-Saxon & Medieval**

5.5.1 The estuarine environment established in the area of the study site around 500 BC predominated until the twelfth century AD when the land was reclaimed through a process of embankment and drainage known as 'inning' to form a marsh pasture (VCH 1976).

5.5.2 Archaeological evaluation work at Dock Road, West Silvertown, to the northwest of the study site, revealed that the later alluvial clays underwent weathering and possible soil formation, 'in the early historic period or later'. Of three timber stakes present in the upper clay deposits, one was dated to 990-1220 AD.

5.5.3 Artefactual evidence within the study area search radius has included part of a cooking pot of eleventh-twelfth century date from the Thames at Silvertown to the southeast of the site.

5.6 **Post Medieval and Modern**

5.6.1 Mid to later 18th and early 19th century maps show the site to lie within the Plaistow Levels.

5.6.2 The West Ham Tithe Map of 1852 and the accompanying Award show the site to lie in an area of pasture.

5.6.3 The First Edition Ordnance Survey of 1867 shows the site to remain undeveloped save for the construction of a Paraffin Oil Stores building through the centre, on a southwest-northeast axis.

5.6.4 The Second Edition Ordnance Survey of 1895 shows the study site fully developed. The Peruvian Guano Works are shown to the west and north; the former oil stores buildings remain within the centre, with additional industrial development to the west and northeast, with railway lines running along the north-western boundary.

5.6.5 The eastern end of the site comprises open land with the Primrose Hall building in the far corner. The Third Edition Ordnance Survey 1916 shows further industrial development within the centre of the study site. No significant change within the study site is shown on the Revised Ordnance Survey of 1935.

5.6.6 The 1939 GOAD Insurance Plan shows the site in more detail, with the AngloContinental Guano Works across the western and northern parts of the site, with the northern part of the Tate and Lyle Sugar Refinery running through the centre of the site, with ancillary buildings towards the eastern boundary and the recreation ground towards the eastern corner.

5.6.7 The 1952 Ordnance Survey shows the clearance of buildings within the northern part of the site, the redevelopment of buildings within the eastern boundary, and the construction of a building on the former recreation ground to the east. The eastern end of the Primrose Hall building remains within the site boundary.

5.6.8 The 1957 GOAD Insurance Plan shows the redevelopment of the former guano works within the western and northern parts of the site, with a single large warehouse structure. Further buildings have been added along the eastern site boundary.

5.6.9 The 1963 Ordnance Survey shows no significant change within the study site since the 1957 GOAD survey; only a section of Primrose Hall now remains within the eastern boundary.

5.6.10 The 1981-4 Ordnance Survey shows the removal of the railway lines along the north-western boundary. The industrial buildings are shown as remaining at the site, however all of the buildings formerly occupying the site have subsequently been demolished.

6 METHODOLOGY

6.1 Five trenches were set out using a dGPS. Trench 6 was set out by hand using 30m tapes. Two mechanical excavators – one weighing 22-tonnes the other 30-tonnes – fitted with toothless buckets removed the modern overburden to reveal the archaeological deposits under the supervision of an attendant archaeologist. All trenches were hand cleaned where possible and were planned using dGPS; sections were recorded at 1:10.

6.2 The excavation was monitored by an unexploded ordnance (UXO) specialist from 1st Line Defence Ltd due to potential of the site to contain WWII explosives.

6.3 All six trenches measured 17.20m x 17.20m at ground surface level, and stepped in to 10m x 10m at base, with four steps to a maximum depth of 4.8m. A slot was then machine excavated in the centre of the trench in order to asses alluvium and peat thickness and reach deposits of gravel.

6.4 Trench 3 was abandoned due to high levels of hydrocarbon contamination encountered at *c.* 1.20m below ground level (BGL). To compensate for this loss additional (to five trenches originally proposed) Trench 6 was excavated.

6.5 Large volumes of water encountered at around 2.4m BGL in Trench 5 prevented the excavation of any further steps. From this level a test pit measuring 3m x 3m was excavated by the 30-tonne machine in order to record earlier horizons. Likewise, in Trench 6 ground water could not be pumped fast enough to allow steps to be excavated beyond 2.4m BGL so a slot was excavated to assess deeper deposits.

7 ARCHAEOLOGICAL SEQUENCE

7.1 The following section describes the archaeological contexts recorded during the evaluation by phase.

7.2 **Phase 1: Natural**

7.2.1 The earliest deposits recorded on site were natural greyish brown sandy gravels [39]/ [31]/[45] forming the basal layers of Trenches 1, 5 and 6. The level at which natural gravel deposits were encountered is tabulated below:

Trench	Level of natural gravel (m OD)
1	-3.47
2	c. -3.50
5	-2.89
6	-3.84

7.3 The Pleistocene topography was inferred from levels taken at the top of gravel deposits. Levels recorded suggest that water had scoured terrace gravels in an east-west trajectory forming a steeply sided channel or depression of which only the north/north-western bank was identified during the evaluation.

7.4 In Trenches 1 and 6 gravel deposits were sealed by layers of mid bluish grey alluvial clay [38]/[44]. Layer [44], which extended across the whole trench, was 2.30m thick and continued to a maximum level of -1.54m OD. Layer [38] was only 0.40m thick and consequently was recorded at a much lower maximum level of -3.07m OD.

7.5 Sealing alluvium layer [38] was a 0.80m thick horizon of brown peat [37], recorded at a topmost level of -2.27m OD, which extended across the entire width of Trench 1. Above deposit [37] was a relatively thin 0.60m thick layer of alluvial clay [36] recorded at a highest level of -1.67m OD. This was capped with a 0.80m thick deposit of dark brown peat [35] containing frequent large branches and narrow tree trunks that extended to a upmost level of -0.84m OD.

7.6 In Trench 4 the basal layer was formed from a deposit of mid bluish grey alluvial clay [19] was recorded at a maximum level of -1.12m OD. Upon reaching deposit [19], the trench was rapidly inundated with ground water preventing any further excavation, so the thickness of deposit [19] could not be established.

7.7 In Trench 2 a 2.20m thick layer of dark reddish brown peat [15] was recorded at maximum level of -0.38m OD. The peat contained numerous branches and small trunks identified as Alder (Alnus glutinosa) (Phil Austin per comms). Possible tool marks were identified on one such timber which was recovered for further analysis.

7.8 A similar deposit of dark reddish brown peat [18] was encountered in Trench 4 at a highest level of -0.84m OD. This deposit also contained frequent branches and narrow tree trunks.

7.9 Deposits of dark reddish brown peat were also recorded in Trench 5 [30] at a maximum level of -1.07m OD and in Trench 6 [43] at -0.24m OD.

7.10 Within all of the trenches the peat deposits were capped with a further layer of mid bluish grey alluvium [34]/[3]/[17]/[29]/[42]. The dimensions and maximum levels of these deposits is described in the table below:

Trench	Context	Thickness (m)	Max level (m OD)
1	34	1.40	0.53
2	3	0.82	0.28
3			
4	17	1.49	0.65
5	29	1.04	0.56
6	34	0.40	0.16

7.11 Another dark reddish brown peat deposit [2] was recorded sealing the upper alluvium [3] deposit in Trench 2. This peat layer [2], which extended across the entire trench was 0.15m thick and was recorded at a maximum level of 0.56m OD.

7.12 **Phase 2: 19th Century**

7.12.1 In the western part of Trench 1, a rectangular pit [33] with vertical sides measuring 3m north-south by 1.80m east-west, with a depth of 1.14m was recorded cutting through the natural alluvium [34] from a maximum level of 0.30m OD. The rectangular pit [33], which had a flat base, was backfilled with soft dark reddish-brown sandy silt [32] containing occasional flecks of CBM and flint pebbles. The pit [33] probably represents a cess or rubbish disposal pit dating to the 19th or early 20th-century.

7.12.2 In Trench 1 the upper alluvium [2] was sealed by a 0.64m thick deposit of compacted dark greyish brown made ground [1] containing sand, gravel, metal fragments and occasional CBM including a stamped fire-resistant Buckley brick (Valcarcel, this report). Several sherds of 19th-century pottery, including a fragment of refined whiteware and the bases of a rounded bowl and

a medium-sized cylindrical jar, were also recovered from the made ground [1] (Jarrett, this report).

7.12.3 Driven through the made ground [1] was a line of eight timber piles [4]/[5]/[6]/[7]/[8]/[9]/[10]/[11] each measuring over 3.00m in length by 0.30m^2. The piles traversed in a north-south alignment across the south western part of Trench 1 (see Plate 1).

7.12.4 In the western corner of Trench 2 was a rectangular pit [14] cut from a level of 1.11m OD measuring c.2.00m north-south by 1.30m east-west with a maximum depth of 1.10m. The base of the pit [14] was concave apart from in the north-west corner where a 0.30m deep circular cut had been made to accommodate a wicker basket containing a small barrel (see Plate 2; Section 2). The basket measured 0.65m high and was 0.50m wide at the top tapering to 0.35m at the base. Placed inside the basket was a barrel measuring 0.50m high by 0.30m wide. The barrel [13], which was constructed from wooden staves that were 20mm thick, and the rest of the pit was backfilled with loose mid greyish brown clayey silt [12] containing occasional angular pebbles, rusted iron fragments, several pieces of worked timber and a sherd of undecorated bone china tea cup dating to the late 19th or early 20th-century (Jarret, this report), (Gaimster, this report).

7.12.5 In Trench 4 the alluvial clay [17] was overlain with a 0.55m thick layer of dark reddish brown made ground [20], recorded at a maximum height of 1.22m OD, that extended across the entire area of the trench. This was capped by a further made ground deposit [16] composed of demolition rubble that was recorded at a maximum level of 1.86 m OD.

7.12.6 A 17m wide by 10m long concrete foundation [28] with four associated timber piles [24]/[25]/[26]/[27] was recorded in Trench 5 at a maximum level of 1.65m OD.

7.12.7 In Trench 6 the alluvial clay [43] was sealed by a 1.00m thick layer of compacted reddish brown made ground [41] formed of demolition rubble was recorded at an upmost level of 1.65m OD.

7.13 **Phase 3: late 20th century**

7.13.1 The alluvial clay layer [34] in Trench 1 was capped with a 1.60m thick 20th century made ground deposit [+] which formed the current ground surface at a level of 2.10m OD.

7.13.2 In Trench 2 the 19th century made ground [1] was sealed by a 0.60m thick deposit of demolition material [+] which was capped with a 0.40m thick layer of crushed concrete which formed the current ground surface at 2.07m OD.

7.13.3 A 0.30m thick layer of crushed concrete [+] sealed the 19th century made ground [16] in Trench 4 forming the current ground level at 2.17m OD.

7.13.4 A large linear cut [22] spanning the entire width of Trench 5 and measuring 10m wide by 1.09m deep was recorded cutting from a maximum level of 1.65m OD. The cut [22] was filled with crushed concrete [21] that formed the current ground surface at 2.19m OD.

7.13.5 The earlier deposits in Trench 6 were sealed by a 0.78m thick layer of crushed concrete [40] forming the current ground level at 1.95m OD.

7.13.6 A group of nine modern base-metal coins from England, France, Spain and the United States – as well as a piastre coin from Egypt – was recovered from the crushed concrete layer [+] which sealed the entire site forming the current ground surface (Gaimster, this report).

8 CONCLUSIONS

8.1 Terrace gravels representing the Shepperton formation were recorded in three of the six trenches, all of which were located in the northern part of the site. Levels taken on the top of gravel deposits, suggest that the natural topography of the northern part of the site slopes steeply downwards from the north to the south. This steeply sloping topography could have been created by a transient channel of the braided, high-energy antecedent of the Thames that traversed east-west or east to south-west across the site during the late Pleistocene (Figure 2). The possible channel may have been also highly affected by tidal waters and the result of this was a multi-layer deposition of alluvium and peat revaled during the evaluation.

8.2 Alternating horizons of alluvial clay and peat observed in Trenches 1, 2, 4, 5 and 6 represent dynamic environmental conditions resulting from climatic changes during the Holocene. Investigations at other sites in the lower Thames have led to the development of models of sedimentation and ecological reconstruction which can be referenced when discussing deposit typologies.

8.3 Deposits of alluvial clay [38]/[19]/[44] sealing the terrace gravels are attributed to estuarine conditions that occurred when former dry land was inundated by low energy tidal waters during periods of sea level rise in the early-mid Holocene (Stafford *et al* 2012).

8.4 Peat deposits [35]/[15]/[18]/[30]/[43] that overlay the alluvial clay represent alder carr wetland – a relatively drier environment than the estuarine salt marsh. Alder carr wetland developed when ground surfaces emerged at or above the flooding level as the rate of sea level rise decreased during the mid-Holocene, broadly within the Neolithic and Bronze Age (Siddell *et al*, 2000), (Stafford et al, 2012).

8.5 Roughly around the 2nd millennium BC, an ingress of tidal waters caused by an increase in the rate of sea level rise, resulted in the burial of organic peat deposits by fine sediments and the re-establishment of a more open estuarine salt marsh environment which persisted into the historic period. The upper alluvial clay deposits [34]/[3]/[17]/[17]/[29]/[42] probably represent this environment.

8.6 A possible local variation in environmental conditions was identified in Trench 1 where a higher frequency of alluvial and peat banding was recorded.

8.7 The presence of a layer of peaty silty clay [2] capping the upper alluvial in Trench 2 suggests an increase in vegetation caused by conditions becoming drier. Maps of the 18th and early 19th century depict numerous ditches in the vicinity of the site and it can be inferred that the area was partially drained for pasture (CgMs 2016).

8.8 The transition from pasture to industrial land use in the mid-19th-century was characterised by layers of remediation material identified in all the trenches. In Trench 2 a row of timber piles and a pit containing a small barrel inside a basket, which may have been used as a water filter for a pump, and a possible cess pit in Trench 1, represent industrial development of the site throughout the 19th and early 20th century. Concrete footings observed in Trench 1, 3 and 5 probably relate to later phases of industrial development in the 20th-century.

8.9 Development from the 19th century onwards had a limited impact on earlier deposits as intrusions, such as foundation structures and pits dating to this period did not extend below the upper alluvial horizon.

8.10 Although ground contamination and waterlogging affected the excavation of the evaluation trenches, a sufficient and comprehensive data was obtained to form these conclusions. An additional trench was excavated to compensate for the loss, and deep sondages carried out within the trenches contributed greatly to the results.

8.11 The results of the evaluation confirmed deposit model on the site known from the earlier geotechnical and geoarchaeological investigations. Those works and the current project confirmed no further potential for paleoenvironmental and geoarchaeological evidence on the site which could contribute to the understanding of the local environment. Therefore, it is deemed no further geoarchaeological work is required.

8.12 No heritage assets of archaeological interest were identified during the trial trenching. With an exception of scarse remains of the 19th century and later activity, the site appears to contain only environmental evidence of past landscape in the lower Thames. It is unlikely that further archaeological intervention would retrieve any artefactual evidence.

8.13 A scheme of archaeological evaluation has been undertaken in accordance with CGMS's Written Scheme of Investigation for Archaeological Evaluation (dated November 2018), and therefore in accordance with planning permission 18/02183/FUL. These works have uncovered no heritage assets of archaeological interest, and as such, there is no requirement for further evaluation or monitoring to be undertaken on site nor for a 'Phase 2' further written scheme of investigation to be submitted for approval. It is therefore considered that the requirements of Condition 3 of the relevant planning permission have been fully satisfied, therefore a stage 2 investigation is not recommended.

9 ACKNOWLEDMENTS

9.1 Pre-Construct Archaeology would like to thank Steve Craddock of Collins Demolition for commissioning the work. We also thank Mr Richard von Kalinowski-Meager of CgMs Heritage, part of RPS Group Plc, for his input and advice to the project.

9.2 PCA also thank Mr Adam Single of Historic England Greater London Archaeology Advisory Service for his advice.

9.3 The author would also like to thank Steve Gretton and his team from Collins Demolition for all of their help on the site, Zbigniew Pozorski for his project management and editing this report, and Mick Steel for the illustrations

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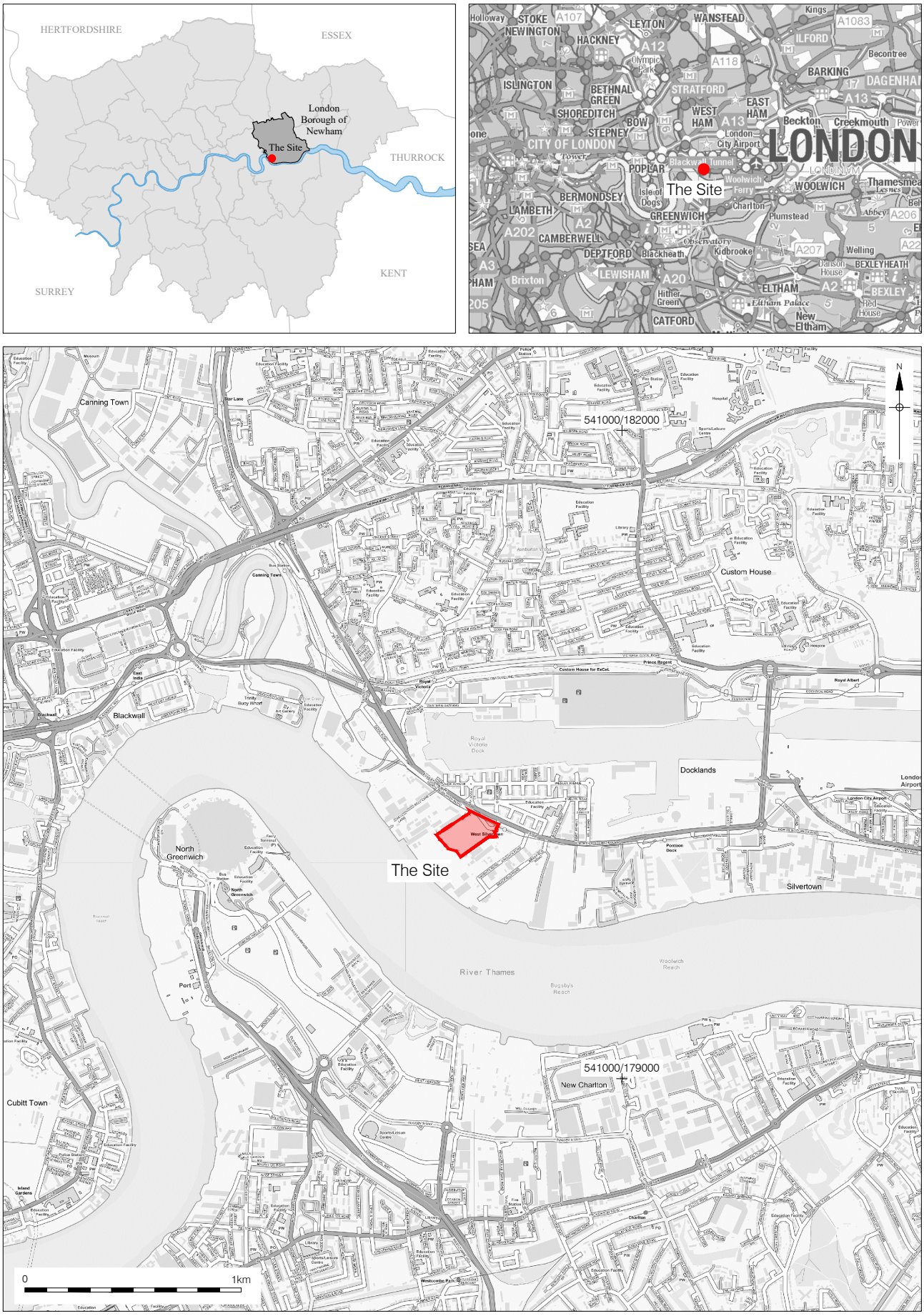
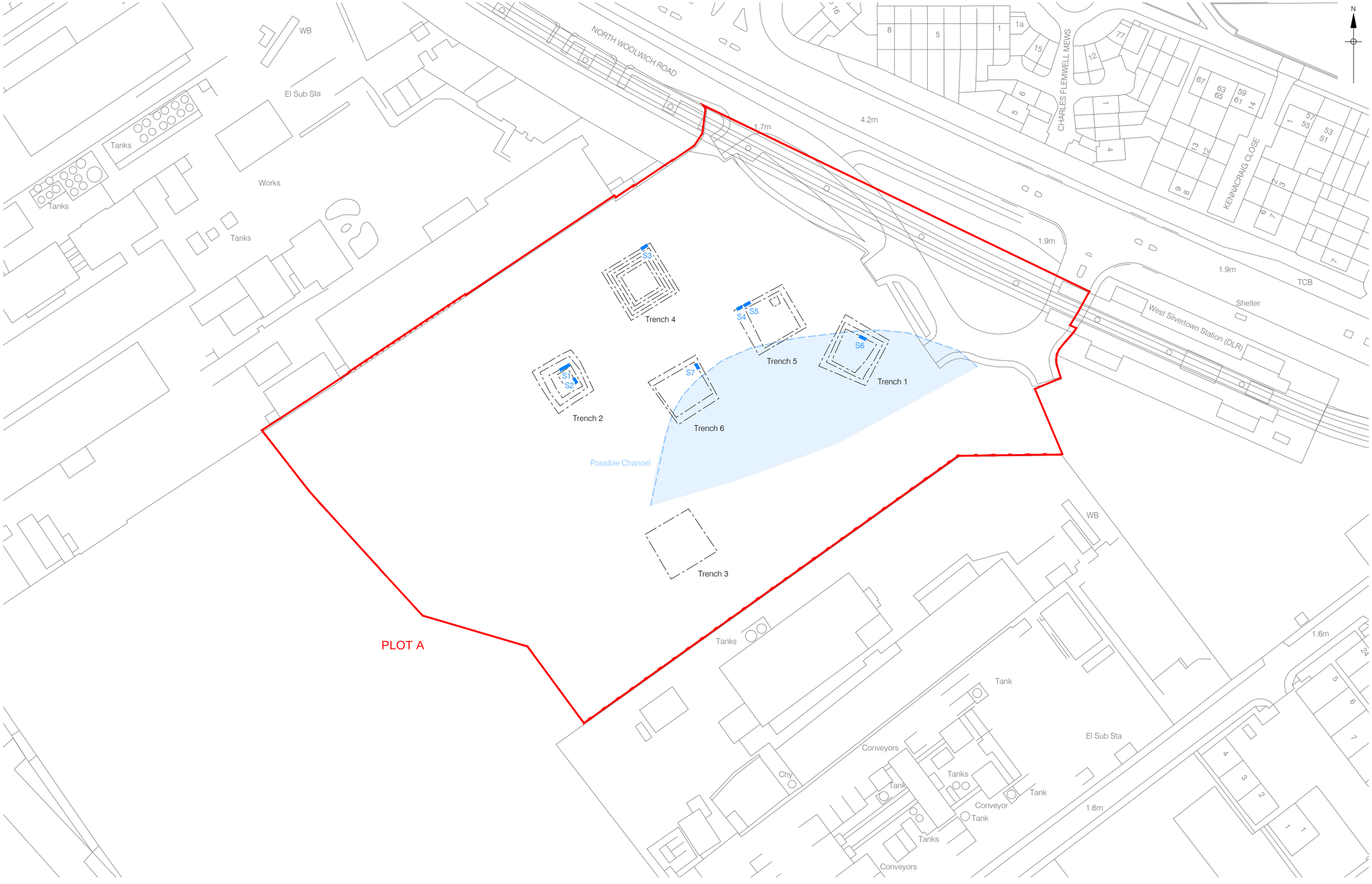


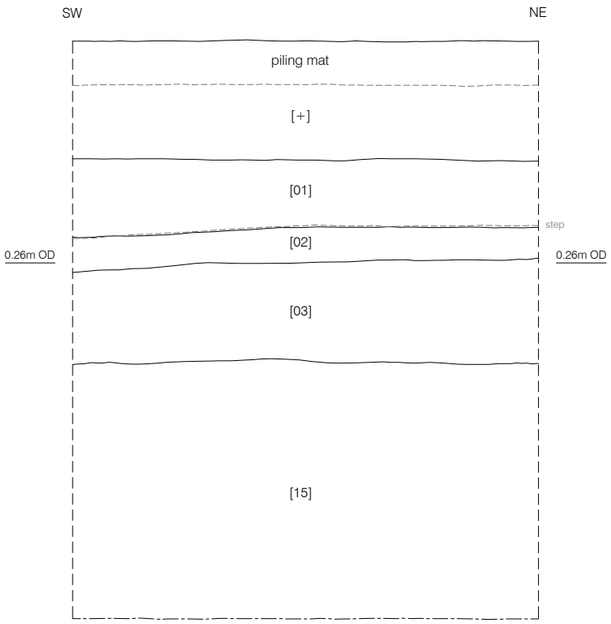
23/01/19 MS

Figure 1
Site Location
1:800,000, 1:250,000, 1:25,000 at A4

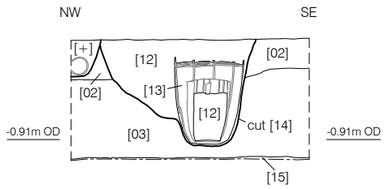


24/01/19 MS

Figure 2
Detailed Site Location
1:1,250 at A3



Section 1
Southeast Facing
Trench 2



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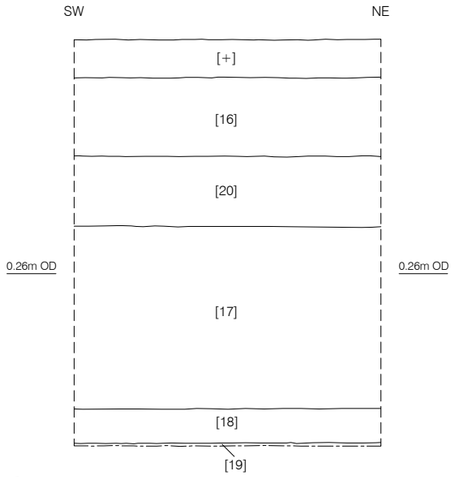
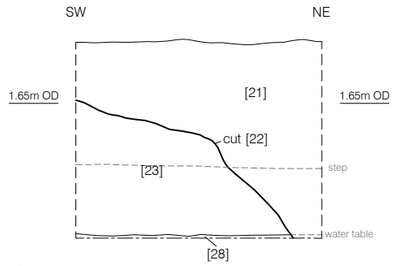
Southwest Facing
Trench 2



Section 3
Southeast Facing
Trench 4



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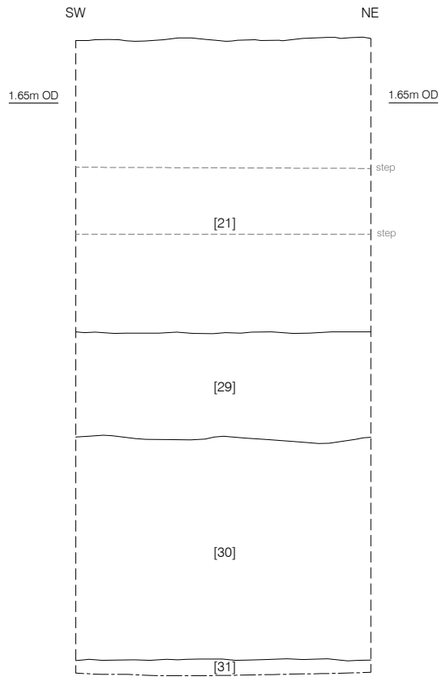
Trench 5



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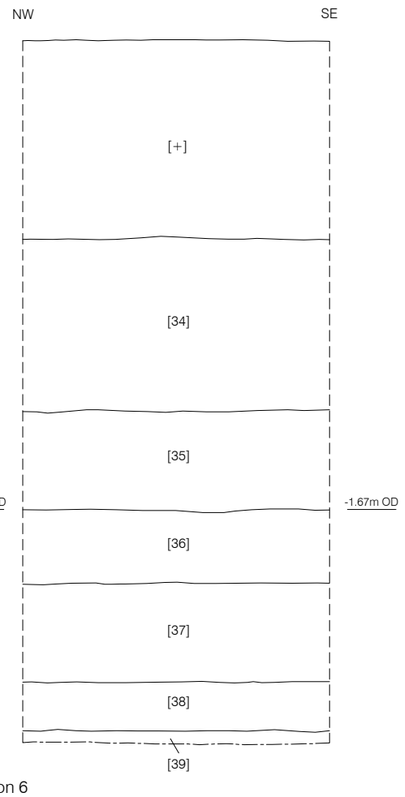
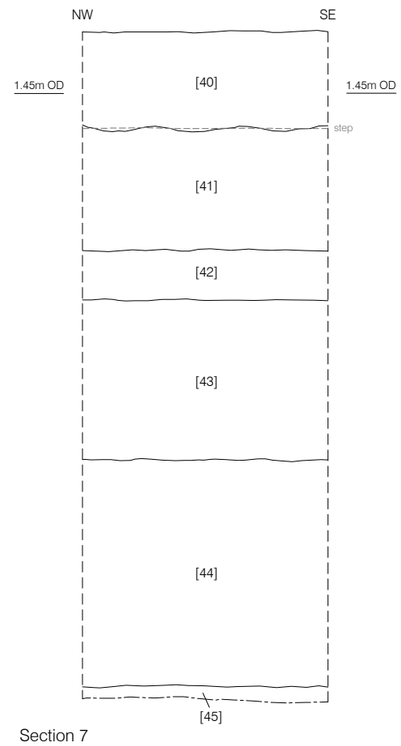
Trench 5



Section 6
Southwest Facing
Trench 1



Section 7
Southwest Facing
Trench 6

0 2m

25/01/19 MS

Figure 3
Sections
1:50 at A3

PLATES

Plate 1: North west facing photograph of Trench 2 (scale: 1m)

Plate 2: North east facing photograph of Trench 2 (scale: 1m)

Plate 3: North facing photograph of Trench 4 (scale: 1m)

Plate 4: South east facing photograph of Trench 5

Plate 5: North facing photograph of Trench 1 (scale: 1m)

Plate 6: North facing photograph of Trench 6 under excavation

APPENDIX 1: CERAMIC BUILDING MATERIAL

Amparo Valcarcel

BUILDING MATERIALS SPOT DATES

Context	Fabric	Form	Size	Date range of material		Latest dated material		Spot date	Spot date with mortar
0	3209	Stamped brick alkaline brick	1	1886	1940	1886	1940	1886-1940	No mortar
1	3209	Stamped brick alkaline brick	1	1886	1940	1886	1940	1886-1940	No mortar
12	3035	Yellow stock brick	1	1770	1940	1770	1940	1850-1940	1850-1940

Introduction and Aims

Threw brick samples were retained from watching brief at the site G Park, North Woolwich Rd, Docklands (NOW18). Brick from [12] is made of yellow stock fabric 3035 and preserved a grey hard concrete dated from middle 19th to mid20th century.

Fragments from [1] and [12] preserved a stamped: ADAMANTINE TRADEMARK. HBH. G DAVIDSON & CO. These bricks were manufactured in Flintshire and are known as Buckley bricks. The fire-resistant quality of Buckley brick was high for demanded for lining and supporting boilers, designed to sustain very high temperatures. Their size (226mm x 111mm x73mm) and shape (sharp arises) coupled with machine made bricks manufactured between 1886 and 1940.

The ceramic building material collected from NOW18 showed a phase of modern redevelopment in the area. No further work is recommended.

APPENDIX 2: METAL AND WOODEN OBJECTS

Märit Gaimster

Ten metal objects and three wooden pieces were retrieved from the excavations; they are listed in the table below.

The majority of finds were unstratified and include a group of nine modern base-metal coins from England, France Spain and the United States – as well as a piastre coin from Egypt. The group is pertinent to the character of the site. Besides the coins there is also a fragment of a copper-alloy mount or decoration in flat-cast openwork. The origins of this object are impossible to say, although an x-ray may provide further detail that could help identification.

Three pieces of wood came from context [12]. They include the fragment of a cask or barrel stave; the other two pieces are not possible to identify further.

Having been recorded, no further work is recommended for these finds. It may be useful to x-ray or photograph the openwork copper-alloy mount for archival purposes; however, once site work is finished all finds may be discarded.

Context	Description	Pot date	Recommendations
+	Five pence coins; two heavily corroded; dated 1991 and 2005	n/a	
	Ten pence coin 1996	n/a	
	Pound coin 1994	n/a	
	Ten francs 1991	n/a	
	Twenty-five pesetas, Juan Carlos I 1975	n/a	
	USA quarter dollar ?1999	n/a	
	USA ten cents 1986	n/a	
	Egyptian piastre coin; 20th century	n/a	
	Copper-alloy flat-cast openwork mount/decoration; 15 x 28mm fragment only	n/a	x-ray
12	Wooden ?object; short piece of round-section wood with one end worked to blunt point; diam. 32mm; L 80mm+	Late 19th/20th centuries	discard
	Wood; length of D-section piece, sawn at both ends; W 70mm+; L 95mm; maximum thickness 35mm	Late 19th/20th centuries	discard
	Wooden cask or barrel; fragment of thin stave only; W 65mm+; L 150mm+	Late 19th/20th centuries	?further identify

APPENDIX 3: POTTERY

Chris Jarrett

A total of tree sherds (110g) of pottery was recovered from the archaeologic work and was found in two contexts. Al of the pottery dates to the 19th century, if not later. Context [1] produced in refined whiteware (REFW), dated 1805–1900+, the bases of a rounded bowl (27g) and a medium-sized cylindrical jar (82g), which was probably used for the retail of a preserve. The latter has a blue stained surface. Both vessels recovered from context [1] date more so to the late 19th century or possibly later. Context [12] produced a single sherd of undecorated bone china (BONE), dated 1794 onwards, and survives as the rim of a tea cup. This vessel probably dates to the late 19th or 20th century.

The pottery occurs in a small quantity and it is recorded as typical pottery types that would be expected to be recovered from late 19th-early 20th century dated deposits in London. Additionally, as the material has little meaning, it therefore has no significance. The only potential of the pottery is to date the contexts it was recovered from. There are no recommendations for further work on the pottery, which can be discarded at the archive stage of the project.

APPENDIX 4: CONTEXT INDEX

Context	CTX_Type	Trench	CTX_Interpretation	CTX_Category	CTX_Length	CTX_Width	CTX_Depth	CTX_Levels_high	CTX_Levels_low	Phase
1	Layer	2	19th century made ground	Make-up	17	17	0.64	1.01		NOW18-PH2
2	Layer	2	Peat	Natural	17	17	0.15	0.56		NOW18-PH1
3	Natural	2	Alluvial clay	Alluvial	17	17	0.82	0.28		NOW18-PH1
4	Timber	2	Timber pile	Post	0.3	0.3	3	1.01	0.46	NOW18-PH2
5	Timber	2	Timber pile	Post	0.3	0.3	3	1.01	0.46	NOW18-PH2
6	Timber	2	Timber pile	Post	0.3	0.3	3	1.01	0.46	NOW18-PH2
7	Timber	2	Timber pile	Post	0.3	0.3	3	1.01	0.46	NOW18-PH2
8	Timber	2	Timber pile	Post	0.3	0.3	3	1.01	0.46	NOW18-PH2
9	Timber	2	Timber pile	Post	0.3	0.3	3	1.01	0.46	NOW18-PH2
10	Timber	2	Timber pile	Post	0.3	0.3	3	1.01	0.46	NOW18-PH2
11	Timber	2	Timber pile	Post	0.3	0.3	3	1.01	0.46	NOW18-PH2

12	Fill	2	Backfill of pit containing water filter	Backfill	2	1.3	1.1	0.56		NOW18-PH2
13	Timber	2	Small barrel within basket. 19th century	Barrel	0.5	0.5	0.65	1.11		NOW18-PH2
14	Cut	2	Pit containing water filter	Pit	2	1.3	1.1	1.11	-0.85	NOW18-PH2
15	Natural	2	Peat	Natural	17	17	2.2	-0.38		NOW18-PH1
16	Layer	4	Made ground	Make-up	17	17	0.64	1.86	0.65	NOW18-PH2
17	Natural	4	Alluvial clay	Alluvial	17	17	1.49	0.65	-0.84	NOW18-PH1
18	Natural	4	Peat	Natural	17	17	0.28	-0.84	-1.12	NOW18-PH1
19	Natural	4	Alluvial clay	Alluvial	17	17	0.1	-1.12		NOW18-PH1

20	Layer	4	19th century made ground	Make-up	17	17	0.57	1.22	0.65	NOW18-PH2
21	Fill	5	Modern crushed concrete	Backfill	17	17	2.41	2.15		NOW18-PH3
22	Cut	5	Modern cut. Probably for removal of foundation	Robber Cut	10	17	1.09	1.65		NOW18-PH3
23	Layer	5	Demolition rubble	Demolition	7	17	1	1.65		NOW18-PH2
24	Timber	5	Pile	Post	0.54	0.54	0.2	0.56		NOW18-PH2
25	Timber	5	Pile	Post	0.54	0.54	0.2	0.56		NOW18-PH2
26	Timber	5	Pile	Post	0.82	0.7	0.2	0.56		NOW18-PH2
27	Timber	5	Pile	Post	0.68	0.72	0.2	0.56		NOW18-PH2

28	Layer		Concrete foundation	Foundation	17	2.5	0.2	0.56		NOW18-PH3
29	Natural	5	Alluvial clay	Natural	2.6	2.4	0.51	0.56	-1.07	NOW18-PH1
30	Natural	5	Peat	Natural	2.6	2.4	1.82	-1.07	-2.89	NOW18-PH1
31	Layer	5	Natural terrace gravels	Natural	2.6	2.4	0.1	-2.89		NOW18-PH1
32	Fill		Backfill of 19th century pit	Backfill	3	1.8	1.14	0.3		NOW18-PH2
33	Cut	1	19th century pit	Pit	3	1.8	1.14	0.3	-0.84	NOW18-PH2
34	Natural	1	Alluvial clay	Alluvial	17	17	1.4	0.53	-0.87	NOW18-PH1
35	Natural	1	Peat	Natural	16	16	0.8	-0.87	-1.67	NOW18-PH1
36	Natural	1	Alluvial clay	Alluvial	12.6	12.6	0.6	-1.67	-2.27	NOW18-PH1
37	Natural	1	Peat	Natural	3	3	0.8	-2.27	-3.07	NOW18-PH1
38	Natural	1	Alluvial clay	Alluvial	3	3	0.3	-3.07	-3.47	NOW18-PH1

39	Natural	1	Terrace gravel	Natural	3	3		-3.47		NOW18-PH1
40	Layer	6	20th century made ground	Make-up	17	17	0.79	1.95	1.16	NOW18-PH3
41	Layer	6	Demolition rubble	Make-up	17	17	1	1.16	0.16	NOW18-PH2
42	Natural	6	Alluvial clay	Natural	17	17	0.4	0.16	-0.24	NOW18-PH1
43	Natural	6	Marsh surface	Natural	2	2	1.3	-0.24	-1.54	NOW18-PH1
44	Natural	6	Alluvial clay	Natural	2	2	2.3	-1.54	-3.84	NOW18-PH1
45	Natural	6	Terrace gravel	Natural	2	2		-3.84		NOW18-PH1

APPENDIX 5: OASIS FORM

OASIS ID: preconst-340897

Project details

Project name	G Park, North Woolwich Road, LB newham
Short description of the project	Evaluation
Project dates	Start: 18-12-2018 End: 15-01-2019
Previous/future work	No / No
Any associated project reference codes	NOW18 - Sitecode
Type of project	Field evaluation
Site status	Local Authority Designated Archaeological Area
Current Land use	Industry and Commerce 1 - Industrial
Monument type	N/A None
Monument type	N/A None
Significant Finds	N/A None
Significant Finds	N/A None
Methods & techniques	"Targeted Trenches"
Development type	Urban commercial (e.g. offices, shops, banks, etc.)
Prompt	National Planning Policy Framework - NPPF
Position in the planning process	Pre-application

Project location

Country	England
Site location	GREATER LONDON NEWHAM CANNING TOWN G Park, North Woolwich Road, E16 9AN
Postcode	E16 9AN
Study area	2 Hectares
Site coordinates	TQ 40225 80066 51.501608546155 0.020522775779 51 30 05 N 000 01 13 E Point
Lat/Long Datum	Unknown
Height OD / Depth	Min: 1.5m Max: 2.5m

Project creators

Name of Organisation	Pre-Construct Archaeology Limited
Project brief originator	Greater London Archaeological Advisory Service
Project design originator	Richard Meager
Project director/manager	Zbigniew Pozorski
Project supervisor	Joe Brooks
Type of sponsor/funding body	Developer
Name of sponsor/funding body	Collins Demolition

Project archives

Physical Archive recipient	LAARC
Physical Contents	"Ceramics","Environmental","Metal","Wood"
Digital Archive recipient	LAARC
Digital Contents	"Ceramics"
Digital Media available	"Database","Survey","Text"
Paper Archive recipient	LAARC
Paper Contents	"Ceramics","Environmental"
Paper Media available	"Context sheet","Drawing","Plan","Report","Survey","Unpublished Text"

Entered by	Zbigniew pozorskP (zpozorski@pre-construct.com)
Entered on	25 January 2019

P C A

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

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

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

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

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

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

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