AN ARCHAEOLOGICAL WATCHING BRIEF AT AREA 3, PHASE 2B, EDWIN STREET, CANNING TOWN, NEWHAM, E16 1PZ

LONDON BOROUGH OF NEWHAM

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ARCHAEOLOGICAL WATCHING BRIEF

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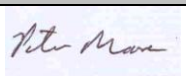
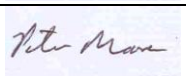
Graphics Checked by:	Peter Moore		11/2/16
Project Manager Sign-off:	Peter Moore		12/2/16

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An Archaeological Watching Brief at Area 3, Phase 2B, Edwin Street, Canning Town, London Borough of Newham, E16 1PZ

Site Code: EDN15

Central National Grid Reference: TQ 4017 8163

Written and Researched by Richard Krason & Maria Buczak
Pre-Construct Archaeology Limited, February 2016

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Commissioning Client: Countryside Properties plc

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1 ABSTRACT

1.1 An archaeological watching brief was undertaken, intermittently, between 1st December 2015 and 8th January 2016 at Area 3, Phase 2B, Canning Town, London Borough of Newham, by Pre-Construct Archaeology Limited, as part of the archaeological investigations on the ongoing regeneration of the area. The area monitored, Phase 2B, consisted of a roughly "L"-shaped block of land bounded by Fife Road to the south, Edwin Street to the west, Keir Hardie Primary School to the east, and Phase 2A of the development site to the north. The watching brief was commissioned by Countryside Properties plc.

1.2 The archaeological watching brief was carried out on the ground reduction works undertaken for the creation of piling mats.

1.3 The watching brief identified natural sandy gravels beneath alluvial clay overlain by brickearth below a sequence of post-medieval dumping and redeposited alluvium, probably related to the reclamation of this once marshy and waterlogged area. Within the northernmost portion of the study area two undated northeast-southwest aligned ditches were exposed directly below modern topsoil.

2 INTRODUCTION

2.1 This report details the results and working methods of an archaeological watching brief undertaken by Pre-Construct Archaeology Ltd. on land at Area 3, Phase 2B, Canning Town, London Borough of Newham (Figure 1) between 1st December 2015 and 8th January 2016.

2.2 The boundaries of the monitored area were defined by Fife Road to the south, Edwin Street to the west, Keir Hardie Primary School to the east, and Phase 2A of the development site to the north. The archaeological watching brief was to be undertaken on ground reduction works carried out within Phase 2B (Trenches, 1, 2, 3 and 4), mostly for the creation of piling mats.

2.3 Trench 1 measured 20.05m (N-S) x 28.15m (E-W) and was excavated to a depth of 0.80m across its extent. Five small, deeper sondages excavated within Trench 1 reached a maximum depth of 2.05m below ground level (bgl).

2.4 Trench 2 measured 13.95m (E-W) x 36.60m (N-S) and was dug down between 0.40m and 0.60m below ground level (bgl). A maximum depth of 1.29m bgl was reached from one of two sondage trenches dug into the natural.

2.5 Trench 3 measured 8 (E-W) x 28m (N-S) and was excavated to an average depth of between 0.80mk bgl to 1.10m bgl. Two sondages were excavated into the natural reaching a depth of 1.89m bgl in one and 2.42m bgl in the other.

2.6 Trench 4 measured 17.70m (E-W) x 19.50m (N-S) and was excavated to a depth of 1.10m (0.60m OD). Three small, deeper sondages excavated within Trench 4 reached a maximum depth of 1.80m (-1.20m OD).

2.7 The watching brief was commissioned by Countryside Properties plc; the project was managed for Pre-Construct Archaeology Limited by Peter Moore and the supervising archaeologists were Maria Buczak, James Langthorne and Richard Krason. The project was monitored by Adam Single for Historic England (GLAAS) on behalf of the London Borough of Newham. All works were carried out according to the written scheme of investigation (Moore. 2014) agreed with Historic England.

2.8 The National Grid Reference of the site was centred at TQ 4017 8163.

2.9 The site was given the code EDN15.

10/02/16 JS

Figure 1
Site Location
1:20,000 at A4

10/02/16 JS

Figure 2
Trench Location
1:800 at A4

3 PLANNING BACKGROUND

3.1 National Guidelines

3.1.1 The National Planning Policy Framework (NPPF) was adopted on March 27 2012, and now supersedes the Planning Policy Statements (PPSs). The NPPF constitutes guidance for local planning authorities and decision-takers both in drawing up plans and as a material consideration in determining applications.

3.1.2 Chapter 12 of the NPPF concerns the conservation and enhancement of the historic environment, with the following statements being particularly relevant to the proposed development:

> 128. In determining applications, local planning authorities should require an applicant to describe the significance of any heritage assets affected, including any contribution made by their setting. The level of detail should be proportionate to the assets' importance and no more than is sufficient to understand the potential impact of the proposal on their significance. As a minimum the relevant historic environment record should have been consulted and the heritage assets assessed using appropriate expertise where necessary. Where a site on which development is proposed includes or has the potential to include heritage assets with archaeological interest, local planning authorities should require developers to submit an appropriate desk-based assessment and, where necessary, a field evaluation.
>
> 129. Local planning authorities should identify and assess the particular significance of any heritage asset that may be affected by a proposal (including by development affecting the setting of a heritage asset) taking account of the available evidence and any necessary expertise. They should take this assessment into account when considering the impact of a proposal on a heritage asset, to avoid or minimise conflict between the heritage asset's conservation and any aspect of the proposal

3.1.3 Additionally:

> 141. Local planning authorities should make information about the significance of the historic environment gathered as part of plan-making or development management publicly accessible. They should also require developers to record and advance understanding of the significance of any heritage assets to be lost (wholly or in part) in a manner proportionate to their importance and the impact, and to make this evidence (and any archive generated) publicly accessible. However, the ability to record evidence of our past should not be a factor in deciding whether such loss should be permitted.

3.1.4 In considering any planning application for development, the local planning authority will now be guided by the policy framework set by the NPPF.

3.1.5 The NPPF also states that:

> 214. For 12 months from the day of publication, decision-takers may continue to give full weight to relevant policies adopted since 2004 even if there is a limited degree of conflict with this Framework.
>
> 215. In other cases and following this 12-month period, due weight should be given to relevant policies in existing plans according to their degree of consistency with this framework (the closer the policies in the plan to the policies in the Framework, the greater the weight that may be given).

3.1.6 The provisions set out in the new guidelines superseded the policy framework set out in previous government guidance namely Planning Policy Statement 5 (PPS 5) 'Planning for the Historic Environment'. Planning Policy Statement 5 had itself replaced Planning Policy Guidance Note 16, PPG 16, which was issued in November 1990 by the Department of the Environment.

3.1.7 Although the replacement of PPG 16 with PPS 5 gave new guidance the Unitary Development Plans of most local authorities still contain sections dealing with archaeology that are based on the provisions set out in PPG 16.. The key points in PPG16 can be summarised as follows:

3.1.8 Archaeological remains should be seen as a finite and non-renewable resource, and in many cases highly fragile and vulnerable to damage and destruction. Appropriate management is therefore essential to ensure that they survive in good condition. In particular, care must be taken to ensure that archaeological remains are not needlessly and thoughtlessly destroyed. They can contain irreplaceable information about our past and the potential for an increase in future knowledge. They are part of our sense of national identity and are valuable both for their own sake and for their role in education, leisure and tourism.

3.1.9 Where nationally important archaeological remains, whether scheduled or not, and their settings, are affected by a proposed development there should be a presumption in their physical preservation.

3.1.10 If physical preservation in situ is not feasible, an archaeological excavation for the purposes of 'preservation by record' may be an acceptable alternative. From an archaeological point of view, this should be as a second best option. Agreements should also provide for subsequent publication of the results of any excavation programme.

3.1.11 The key to informed and reasonable planning decisions is for consideration to be given early, before formal planning applications are made, to the question of whether archaeological remains are known to exist on a site where development is planned and the implications for the development proposal.

3.1.12 Planning authorities, when they propose to allow development which is damaging to archaeological remains, must ensure that the developer has satisfactorily provided for excavation and recording, either through voluntary agreement with archaeologists or, in the absence of agreement, by imposing an appropriate condition on the planning permission.

3.2 Regional Guidance: The London Plan

The over-arching strategies and policies for the whole of the Greater London area are contained within the Greater London Authority's London Plan (July 2011) which includes the following statement relating to archaeology:

Policy 7.8
Heritage assets and archaeology

Strategic
A London's heritage assets and historic environment, including listed buildings, registered historic parks and gardens and other natural and historic landscapes, conservation areas, World Heritage Sites, registered battlefields, scheduled monuments, archaeological remains and memorials should be identified, so that the desirability of sustaining and enhancing their significance and of utilising their positive role in place shaping can be taken into account.

B Development should incorporate measures that identify, record, interpret, protect and, where appropriate, present the site's archaeology.

Planning decisions
C Development should identify, value, conserve, restore, re-use and incorporate heritage assets, where appropriate.

D Development affecting heritage assets and their settings should conserve their significance, by being sympathetic to their form, scale, materials and architectural detail.

E New development should make provision for the protection of archaeological resources, landscapes and significant memorials. The physical assets should, where possible, be made available to the public on-site. Where the archaeological asset or memorial cannot be preserved or managed on-site, provision must be made for the investigation, understanding, recording, dissemination and archiving of that asset.

LDF preparation

F Boroughs should, in LDF policies, seek to maintain and enhance the contribution of built, landscaped and buried heritage to London's environmental quality, cultural identity and economy as part of managing London's ability to accommodate change and regeneration.

G Boroughs, in consultation with English Heritage, Natural England and other relevant statutory organisations, should include appropriate policies in their LDFs for identifying, protecting, enhancing and improving access to the historic environment and heritage assets and their settings where appropriate, and to archaeological assets, memorials and historic and natural landscape character within their area.

3.3 Local Planning Policy

3.3.1 This study aims to satisfy the objectives of the London Borough of Newham, which fully recognises the importance of the buried heritage for which they are the custodians. The Core Strategy of the Borough's Local Development Framework was adopted on the 26th of January 2012 and replaces the policies of the Unitary Development Plan. However, the Core Strategy contains no policies relating to archaeology; the relevant policy statements regarding the protection of the buried archaeological resource within the Borough are still the saved policies that form part of the UDP. These statements are outlined below:

ARCHAEOLOGY

Archaeology: Investigation, Excavation and Protection

3.114 Archaeological remains often provide the only evidence of the Borough's past. They are a finite and fragile resource very vulnerable to modern development and land use. The archaeology of the Borough is a community asset which should be preserved and the needs of development balanced and assessed against this. Early consideration of and consultation on archaeological issues will maximise preservation in accordance with PPG16. The destruction of such remains should be avoided if possible and either left in situ if the remains are of national or particular local interest, or excavated and recorded prior to development, where remains are of lesser importance. Site layouts designed to retain archaeological features intact will be considered favourably by the Council.

3.115 The Greater London Archaeology Advisory Service (GLAAS - part of English Heritage) provides impartial advice to Newham Council. Sites of potential archaeological importance, to which this policy relates, can be defined as any site within an Archaeological Priority Area (APA). APAs are defined by GLAAS as areas having particular interest or value (Please refer to Map EQ6), or as sites where it can

reasonably be shown from existing sources of information (most notably the Greater London Sites and Monuments Record) that remains of archaeological importance may survive. For further information, please refer to SPG Note 'Archaeological Code of Practice'. An archaeological assessment (either a desk study or a preliminary field investigation) will normally be required for any development involving a site more than 0.4 acres within an APA. The Council will also require such an assessment for smaller sites within the APAs, and sites outside the APAs, where this is clearly justified by the archaeological sensitivity of the site. Developers should undertake early consultation with the Council, and recognised archaeological organisations such as GLAAS, to avoid uncertainty and later delays.

POLICY EQ43: The council will promote the conservation, protection and enhancement of the archaeological heritage of the borough. Developers of sites of potential archaeological importance will be required to produce a written report, as part of the application for planning permission, on the results of an archaeological assessment or field evaluation carried out by a suitably qualified archaeological contractor; and when remains of importance are identified, the council will seek preservation of the remains in situ. On other important sites, where the balance of other factors is in favour of granting planning permission by means of the imposition of conditions on the grant of planning permission, and possibly by legal agreements, the council will ensure that adequate provision is made for the protection, excavation and recording of remains, and the subsequent publication of the records of excavation, providing a written account of the archaeological exploration, including records of finds.

3.116 The Council will promote co-operation between landowners, developers and archaeological organisations in accordance with the British Archaeologists' and Developers' Liaison Group Code.

3.4 Site Specific Background

3.4.1 Planning permission (Planning Ref 08/01599/FUL) has been granted for the proposed development at the site. A schedule of planning conditions has been issued, including Condition 35 which specifies that a programme of archaeological works is required in accordance with an approved Written Scheme of Investigation.

3.4.2 The implementation of the programme of archaeological work as preceded by the preparation of a Written Scheme of Investigation (WSI) which was submitted by PCA

and approved by Mr Adam Single of the Greater London Archaeological Advisory Service, English Heritage acting in his capacity as advisor to the London Borough of Newham, prior to the excavation of the area.

3.4.3 The site is located within the 'Tier 3' Archaeological Priority Area as defined by the London Borough of Newham's Unitary Development Plan. The areas defined as Archaeological Priority Areas can be seen by viewing the map located at: https://www.newham.gov.uk/Documents/Environment%20and%20planning/DPDEvidenceArchaeological.pdf

3.4.4 The site does not contain, nor is adjacent to, any Scheduled Ancient Monuments.

4 GEOLOGY AND TOPOGRAPHY

4.1 Geology

4.1.1 The British Geological Survey shows the underlying solid geology of the site to consist of London Clay (clay, silt and sand), formed approximately 34 to 56 million years ago in the Palaeogene Period and reflecting an environment previously dominated by deep seas (BGSa, 2016).

4.1.2 London Clay is overlain by alluvium (clay, silt, peat and sand) and river terrace deposits (undifferentiated sand and gravel), formed up to 2 million years ago in the Quaternary Period. Rivers deposited sand and gravel detrital material in channels to form river terrace deposits. Meanwhile, fine silt and clay from the overbank flooding of these rivers resulted in floodplain alluvium, with some bogs depositing peat. These deposits are indicative of an environment previously dominated by rivers, and include estuarine and coastal plains.

4.1.3 A number of boreholes scans are available from locations within close proximity to the site. The nearest, recorded around 15m to the west of Edwin Street, records 0.67m of made ground overlying 1.13m of "mottled clay" which is first encountered at 0.59m AOD and is presumably natural ground, although it could be redeposited. This is underlain by a sequence of different natural deposits, with sandy gravels first appearing at -1.15m AOD and clay at -2.58m AOD. Although this gives a general idea of the height of various natural deposits and the impact of modern ground, one must remember that this site may well have a different history to that across the road. Indeed, current ground level for this borehole is recorded as being 0.40m lower than current ground level within Phase 2B. This could suggest a different original topology or a different degree of subsequent human impact, thus different potential of archaeological survival between the sites (BGSb, 2016).

4.1.4 In 2008 25 test pits were archaeologically monitored across the site and found natural gravel, alluvial clays and in some locations bands of peat (Pullen and Humphrey 2008).

4.1.5 These deposits are anaerobic and are often sealed by thick layers of alluvial clay

4.1.6 An evaluation was undertaken on Area 3 Phases 1A and 1B in 2012. This featured 5 trenches which revealed the underlying natural sand and gravel which was sealed in the eastern part of the site by a sequence of alluvial clay, peat and a further layer of alluvial clay. It was suggested that a "temporary recession of the waters of the marsh prior to further inundation." (Langthorne, 2012).

4.1.7 Another evaluation was undertaken in 2012 on Area 3 Phases C and D (Killock, 2012) consisting of four trenches. Two of these revealed a thin organic layer with no artefacts. It was therefore suggested that this deposit could be the same as the peat found at the A13 Canning Town investigation. There was also a 19th century ditch but no other discrete features were found.

4.1.8 Lastly an archaeological watching brief was carried out on the Area 2A in 2015 which revealed that the river gravels slope up from west to east possibly defining the extent of Cherry Island. A possible north south marsh drainage ditch was potentially located as well but no artefacts were found to be able to date the feature. (Buczak, 2015)

4.2 Topography

4.2.1 The site is located approximately half a mile east of Bow Creek and approximately two miles north of the Thames. It is on an area of almost flat ground, which rises only very slightly from east to west. Ground level at the east end of the excavated trench was at a height of 1.68m OD, while ground level at the trench's western end lay at a height of 1.80m OD. Spot heights on the A13 along the northern boundary of the site, and along Fife Road towards the centre of the study site, are level at circa 1.4-1.6m OD (Meager, 2008).

4.2.2 Topographically the site lies close by the interface of the higher gravel terrace to the north (the edge of which corresponds with the A13 along the northern boundary) and the alluvial floodplain to the south, upon which the study site lies. No geological or topographical anomalies are known from the vicinity of the study site.

5 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

5.1 Introduction

5.1.1 Most of the archaeological and historical background reproduced below came from the evaluation report for Phases C and D of the same development site (Killock, 2012). Additional information also came from the desk-based assessment (Meager, 2008), the evaluation report for Phases 1A and 1B (Langthorne, 2012) and the watching brief reports at Blocks 1, 2, 4 and 5 (Pullen and Humphrey, 2008) and Phases 2A and 2B, (Buczak, 2015).

5.2 Prehistoric

5.2.1 Two Palaeolithic handaxes are known from Prince Regent's Lane, Plaistow, northeast of the study site (MLO7966, TQ4100 8200), and another two from the River Lea, northwest of the study site (MLO22719, TQ4000 8200).

5.2.2 No finds of Mesolithic or Neolithic date are recorded from the immediate vicinity of the site. Environmental deposits, comprising peat and underlying organic rich sands, dated to the Late Neolithic/Early Bronze Age, were identified at Canning Town station, south of the study site (MLO64387, TQ 3950 8110). Archaeological investigations before and during the construction of the Canning Town Junction (A13 Thames Gateway DBFO Road Scheme) found five broad sediment units, namely made ground over silt & clay, over Peat, over sands, clays & silts and sand & gravel. In a borehole near the study site the deposits indicated rising gravels, thickening peats and deepening made ground (Stafford et all, 2012). No direct evidence of any human activity was found during these investigations.

5.2.3 Bronze Age finds from the study area include a 'broadward' spearhead found in the Plaistow Marshes area before 1865 (MLO25406, TQ 4040 8140). Bronze Age peat deposits containing wood, burnt flint, and a fragment of pottery, were found at Butchers Row, southeast of the study site (MLO67684, MLO67685, TQ 4045 8146). Undated worked prehistoric flint, together with alluvial clays, peat and a watercourse, was discovered at the Elizabeth Fry School, north of the study site (MLO66983, MLO66984, MLO66985, TQ 3995 8256).

5.2.4 Excavations at the Beckton Golfers' site, c.2.5km to the east of the study site but in a similar topographical location, revealed peat deposits containing two phases of worked timber including a platform dating to the Early Bronze Age and a brushwood trackway dating to the Middle Bronze Age. The purpose of such structures was to facilitate access from the higher drier gravel terrace into the wetlands of the floodplain. The latter were exploited for sedges, rushes, fishing and wildfowling. The features at Beckton were found within the datum envelope -1.5m AOD to + 1.5m AOD

5.2.5 Overall while the archaeological potential of the site for the Bronze Age can therefore be defined as moderate/high, archaeological remains of this period are likely to occur

as find spots and possibly as discrete features, rather than as widespread 'horizons' of activity.

5.2.6 A gold coin of Cunobelinus was found in Plaistow, north of the study site in 1866 (MLO24138, TQ4000 8250). Peat deposits dated to the Iron Age were identified at the Butcher's Row site, to the southeast of the study site (MLO67686, TQ 4045 8146), and a cremation burial was found at the Cumberland School, Alexandra Street, north of the study site (MLO76367, TQ 4000 8190).

5.2.7 Traditionally the Iron Age is not well evidenced elsewhere on the northern Thames floodplain, which is thought to be the result of environmental conditions, with much of the Iron Age corresponding with a period of prolonged marine transgression.

5.2.8 During the Archaeological Evaluation of Area 3, Phases C and D, on the study site, no direct evidence of prehistoric occupation was found. However, a layer of decayed vegetation above a sandy alluvial palaeosoil demonstrated a period of stabilisation in the marsh which had previously been the predominant feature of the local environment.

5.2.9 Although this organic layer yielded no features or artefacts that might have definitively demonstrated human activity on the site, the presence of prehistoric human activity in the area was hinted at by the occurrence of large charcoal fragments within the layer below; the ground surface where this vegetation formed. The palaeosoil had clearly been buried by alluvial deposition which marked the return of the higher water levels that have characterised the history of the area.

5.3 Roman

5.3.1 The Roman city of *Londinium* occupied an area that corresponds to the modern City of London, a small suburb located on the south side of the Roman Bridge covered the area of north Southwark. No sizeable Roman settlements are located within the vicinity of the study site and the area would have formed part of the agricultural hinterland of Roman London.

5.3.2 Residual Roman pottery was found in a nineteenth century deposit at Prince Regent Lane north of the study site (MLO63572, TQ4114 8214). Two drainage/boundary ditches were identified at the Cumberland School, Alexandra Street, north of the study site, containing pottery and ceramic building material (CBM; MLO78043, TQ 4000 8190).

5.4 Saxon

5.4.1 There is no evidence for significant Saxon occupation in the vicinity of the site. The Middle Saxon centre of *Lundenwic* was established to the west of the abandoned Roman settlement of *Londinium* in the area of Covent Garden and the Strand[1]. The settlement was established in the 7th century and remained in this area during the 8th century before being abandoned in the mid-9th century due to the frequency of Viking

attacks. Later Saxon occupation was centred on the re-settled City of London and the royal site as Westminster.

5.5 Medieval

5.5.1 A small number of chance finds from this period are recorded within a 1 kilometre radius of the study site. These include a Medieval iron lancehead from Canning Town in 1912 southwest of the study site (MLO25427, TQ 3950 8140). A 15th century iron spur was found in the Plaistow area prior to 1912 (MLO25428, TQ 4000 8200). A Medieval wooden drain, made from a tree trunk, was found at Hayday Road, Canning Town, northeast of the study site (MLO25429, TQ 4025 8195). An 11th or 12th century iron spur was found in Canning Town, southwest of the study site (MLO57245, TQ 3950 8140). Throughout the Medieval period the study area will have lain within the large tracts of marshland which dominated the area at this time.

5.6 Post-Medieval

5.6.1 John Rocque's Map of 1745, and the Chapman & Andre Map survey of 1777, both shows the study site lying within the 'Plaistow Level' marshland.

5.6.2 During the Archaeological Evaluation of Area 3, Phases C and D, on the study site, a ditch feature was encountered which was probably once a field drainage ditch within the marsh. The date it was initially excavated is unknown but artefacts from its fill suggest it was still being backfilled in the 18th century or later.

5.6.3 Clayton's Map of 1821 shows the line of the Barking Road running northeast from Bow Creek. No development has taken place within the study site.

5.6.4 The First Edition Ordnance Survey (1867) shows the bulk of the study site to remain within Plaistow Marshes. Edwin Street has been laid out along the western boundary.

5.6.5 During the 1860s, Cherry Island, a small market-garden partly surrounded by marsh ditches, was developed. It would have occupied the area now bounded by Newham Way, Edwin Street, Fife Road and Forty Acres Lane, thus just outside the western boundary of the study site. Around 1868, Bradley and Thomas Streets were lain out and a number of squalid cottages were built on Cherry Island, reportedly a nuisance to the local board. Far more favourable was a clean and orderly gipsy camp which also existed on Cherry Island, but which must have disappeared by 1894, as the Ordinance Survey map of that year shows housing now occupying Cherry Island (Sainsbury, 1986).

5.6.6 The Second Edition Ordnance Survey (1894) shows the extent of development within the marsh. Corner Street and Richard Street have been laid out within the northwest corner of the study site, fronted by terraced houses and a school. Fife Road has been laid out and named, and the line of Watford Road has been laid out also.

5.6.7 The Third Edition Ordnance Survey (1919) shows the study site fully developed. In addition to the streets present on the previous map, Watford Road, Charford Road,

Totnes Road and Exeter Road now occupy the eastern side of the study site. All of these streets are shown fronted by terraced houses, save for the southern part of Edwin Street and the western part of Richard Street, which remain open. The subsequent Revised Ordnance Survey (1935) shows no changes within the study site.

5.6.8 The part of Canning Town between Silvertown Road to the west, Freemasons Road to the east and Royal Dock Road to the south, within which lies the entire study site, is known to have suffered significant bombing damage during World War Two.

5.6.9 The 1952 Ordnance Survey demonstrates the extent of this destruction; small sections of terraced housing survive on Edwin Street, Richard Street, Charford Road, Totnes Road and Exeter Road. The 1954 Ordnance Survey shows the creation of the Keir Hardie County Primary School in the northwest corner of the study site, the removal of Corner and Richard Streets, and the presence of an electricity substation on Fife Road.

5.6.10 The Archaeological Evaluation carried out in Area 3, Phases C and D, of the study site encountered areas of heavily scorched ground sealed by an extensive layer of charcoal which were almost certainly attributable to the effects of this wartime bombing and associated fire damage.

5.6.11 The 1959 Ordnance Survey shows the redevelopment of the eastern side of the study site, including the foreshortening of Watford Road, Totnes Road, Exeter Road and South Molton Road and the creation of Lowe Avenue. New housing is shown fronting the above roads.

5.6.12 The 1970 Ordnance Survey shows the replacement of the remaining pre-war terraced housing with low rise blocks, and high rise blocks including Wood Point and Pattinson Point. Totnes Road and Charford Road have been replaced by a central open area. Garages are positioned close to Richard Street to the north and north of Exeter Road to the south of the study site.

5.7 Previous Archaeological Investigations

5.7.1 As mentioned above, the archaeological evaluation of the adjacent Area 3, Phases C and D, on the study site encountered evidence for wartime bombing and fire damage, a post-medieval drainage ditch and a prehistoric land surface during a period of stabilisation in the marsh with suggestions, albeit no definitive evidence, of human activity upon it.

5.7.2 A more recent watching brief carried out in Area 3, Phases 2A and 2B (Buczak, 2015) did uncover remains of human activity in the forms of probable field drainage ditches and a possible pit feature, all of unknown date. Whilst these features are believed to be cultural, they could not be definitively proved so, owing to their lack of cultural inclusions or artefacts. It is also important to note that due to very modern activity on site it is highly possible that although two of the ditches contained modern material, this could have been pushed into the soft soil filling them.

5.7.3 An earlier archaeological evaluation undertaken in Area 3, Phases 1A and 1B (Langthorne, 2010) and a still earlier watching brief carried out in Area 3, Blocks 1, 2, 4 and 5 (Pullen and Humphrey, 2008) revealed no evidence for human activity on the site.

6 ARCHAEOLOGICAL METHODOLOGY

6.1 Methods

6.1.1 Ground reduction works across a large L-shaped area measuring roughly 76.00m (N-S) by 74.00m (E-W), were archaeologically monitored by the attending archaeologists.

6.1.2 An archaeologist monitored the excavation of three main areas, namely Trenches 1,,3 and 4 and a sondage in Trench 2, which were excavated to a uniform depth of approximately 0.80m bgl. The area was not excavated in one go but rather in small sections which were progressively backfilled with piling mat and crush.

6.1.3 Twelve sondages of various sizes from 1m x 2.10m to 1.50m x 3m were also excavated to varying depths in various locations across the site, to ensure that there were no obstructions beneath the new piling mat. The sondages ranged in depth from just 1.10m below ground level to a maximum of 2.05m below ground level.

6.1.4 The excavation of the trenches and sondages were carried out by a mechanical excavator using a toothless ditching bucket under the supervision of an archaeologist.

6.1.5 During machine excavation, any discrete archaeological features encountered were cleaned and evaluated by hand tools and recorded in plan at 1:50 or in section at 1:10 or 1:20 using standard single context recording methods. Photographs were also taken as appropriate.

6.2 Excavations

6.2.1 The table below summarises the dimensions of the archaeologically monitored and/or recorded areas:

Trench	N-S	E-W	Maximum Depth
1	20.05m	28.15m	2.05m bgl
2	13.95m	34.60m	1.80m bgl
3	8.00m	28.00m	2.42m bgl
4	19.50m	17.70m	2.90m bgl

7 ARCHAEOLOGICAL DESCRIPTION

7.1 Natural Deposits

7.2 Sandy gravels (Trench 3 [124], Trench 4 [128]) (Figure 4 Section 7, Plate 3)

7.2.1 Sandy gravels [124] were observed within both sondages excavated in Trench 3, at a depth of 2.30m bgl in Sondage 7, and at 1.85m bgl in Sondage 8.

7.2.2 Sandy gravels [128] were also observed within sondage 10 in Trench 4, at a depth of -0.81m OD.

7.2.3 These gravels consisted of a firm mid orange brown, coarse sand with small angular gravels, underneath varying types of alluvium, possibly suggesting that they are related to a rising a river terrace.

7.3 Alluvium (Trench 1 [115], Trench 3 [122], Trench 4 [128] [124]) (Figure 4 Sections 4 & 7 Plates 7 & 8)

7.3.1 Natural alluvium [115] was observed within 4 of the 5 sondages excavated in Trench 1, at a depth of 0.98m bgl in Sondage 9, at 1.10m bgl in the Sondage 6 and at 2.0m bgl in Sondages 3 and 4.. A soft, mid greyish-blue deposit of sandy clay with occasional small shells, this deposit is likely to have formed through overbank flooding of rivers or the slowing down of sediment within a river.

7.3.2 The positions of the sondages confirmed that the drop in this deposit must be fairly steep and sudden, but it is not known whether this is a natural formation or subsequent truncation.

7.3.3 Sondage 3 in Trench 2, and Sondage 4 to the north did not reveal any alluvial deposits, only a thick layer of brickearth.

7.3.4 Within Trench 3, the alluvium (a mid-greyish blue,) was seen only within Sondage 8, at 1m bgl (Figure 4 Section 4).

7.3.5 Within Trench 4 however, the natural undisturbed alluvium seen in Sondages 10, 11 and 12 consisted of, a light orange brown silty, coarse sand. This was located at 0.95m OD, or 0.85m bgl and was at least 1.80m thick with a sandy gravel layer [128] underneath which was only seen within Trench 3 as well as [124]. (Figure 4 Section 7, Plates 7, 8).

7.4 Brickearth/Sandy Aluvium (Trench 1 [118], Trench 2 [113], Trench 3 [121,122, 123 & 124], Trench 4 [127) (Figure 4 Sections 7 & 9, Plate 1)

7.4.1 Natural brickearth [118] (Figure 4 Section 3, Plate 1) was only observed in Trench 1 within Sondage 9 at a depth of 0.98m bgl, and comprising a firm, light brownish-orange clay permeated by occasional rooting. Within this sondage, it could be seen to overlay the blue alluvium [115] and to become gradually thinner from west to east.

7.4.2 The top of natural brickearth [113] was also observed at 1.29m bgl (with a thickness of at least 1.80m) in Trench 2 Sondage 1. Here, it comprised a soft, light orange yellow sandy clay which was much cleaner and sandier than that observed in Trench 1.

7.4.3 Natural brickearth [121], alluvium [122] and clay [123] were visible within the sondages (Figure 4 Section 4) over the natural sandy gravels [124] within Trench 3.

7.5 Layer of Redeposited Natural (Trench 1: [116], [117]; Trench 2: [111] and [112]; Trench 3: [120])

7.5.1 A layer of redeposited natural brickearth/alluvium [117] was observed across the north-west of Trench 1, lying above natural deposits [113] and [115]. It was first encountered around 0.80m bgl and from observation of sections within the northern and western most sondages had a fairly uniform thickness of c. 0.30m.

7.5.2 However this layer varied in consistency across its extent depending on the nature of the natural deposits which lay below it. Across those areas where natural brickearth [118] underlay the deposit, context [117] was visible as a soft, mottled, dirty brownish-orange silty clay, with many patches of darker, more silty material containing more cultural finds throughout. Across those areas where natural alluvium [115] underlay the deposit, context [117] was visible as a soft, dirty blueish-grey silty sandy clay. Nevertheless, it appears to have comprised a single, distinct phase of redisposition with a constant thickness across the north western part of the site (Figure 4 Section 3, Plate 8).

7.5.3 Although this deposit is clearly distinct from, and stratigraphically beneath, the dumping layers above it, modern brick within this deposit suggest it was part of some process of 19th century land reclamation.

7.5.4 Redeposited alluvium [111] was also observed within Sondage 1 in Trench 2, consisted of a thick layer of dirty brickearth with many silty patches and rooting, with a thickness of at least 0.38m.

7.5.5 This band of redeposited mixed alluvium was seen to the north as [120] and seemed to get thicker to the north of the site, as by Trench 3 it was a maximum depth of 0.68m compared to 0.30m within Trench 1. This can probably be attributed to further ground raising and levelling though no cultural finds were located to secure a date for this event.

7.5.6 This layer of mixed redeposited natural did not exist in Trench 4.

7.6 Archaeological Features

7.7 Linear Ditch [126] (Figure 4 Sections 7 & 9, Plates 2 & 3)

7.7.1 A linear feature [126], with a fill of redeposited alluvium [125], was observed truncating the natural alluvium [127] in the northern end of Trench 4 and was interpreted as a drainage ditch within the marsh. Aligned NE-SW it was 1.50m wide and reached a maximum depth of 0.54m. Its surface was encountered at a level of 0.60m OD.

7.7.2 The absence of any artefacts or cultural inclusions within its fill means it cannot be dated, but coal, concrete and broken modern brick within the top of the fill suggest that it may have been sealed by the 19/20th centuries.

7.8 Linear Ditch [131] (Figures 3 & 4, Plates 5 & 6)

7.8.1 Linear feature [131] with a fill of redeposited alluvium [130], was observed truncating alluvium [127] in the northern end of Trench 4 and is also interpreted as a drainage ditch in the marsh. Aligned NE-SW, it was 1.40m wide and reached a maximum depth of 0.52m but continued below the excavation depth limit. Its surface was encountered at a level of 0.60m OD.

7.8.2 Ditch [131] ran almost parallel to, and c.7.5m north of, ditch [126] and both may be part of the same drainage system. Again like [126] the absence of any artefacts or cultural inclusions means it cannot be definitively dated, but both are likely to be Post Medieval in date. Ditch [131] was truncated by the construction cut [134] for a modern basement in the North West corner of the site.

7.9 Modern Deposits [101, 102, 103, 104, 105, 106, 107, 108, 116, 119 &129] (Plates 4 & 7)

7.9.1 All features and alluvial layers were sealed by a varied topsoil layer between 0.30m and up to 0.80m thick in Sondage 2, Trench 2. This heavily mixed, dark grey brown layer contained mixed lenses of alluvium and silt and thickened northwards. The presences of plastic and ceramic artefacts prove this to be a very modern layer of redeposited ground, evidently relating to relatively recent development of the site.

7.9.2 Within Trench 4 the topsoil [129] (Plate 4) was up to 0.80m thick and contained very modern items like plastic, tarmac and steel packing ties.

7.9.3 Within the northwestern corner of Trench 4 there has been a large truncation of 3.75m north-south, by 3.70m east-west down to -0.90m OD for the construction of a modern basement with concrete floor (Plate 7).

7.9.4 A 20th century basement (Plate 7) truncated the north-western area of the site down to a depth of -0.90m OD. Further evidence of modern truncation came in the form of layers of made ground and services. These included drain runs, layers of tarmac, concrete and other types of construction related made ground.

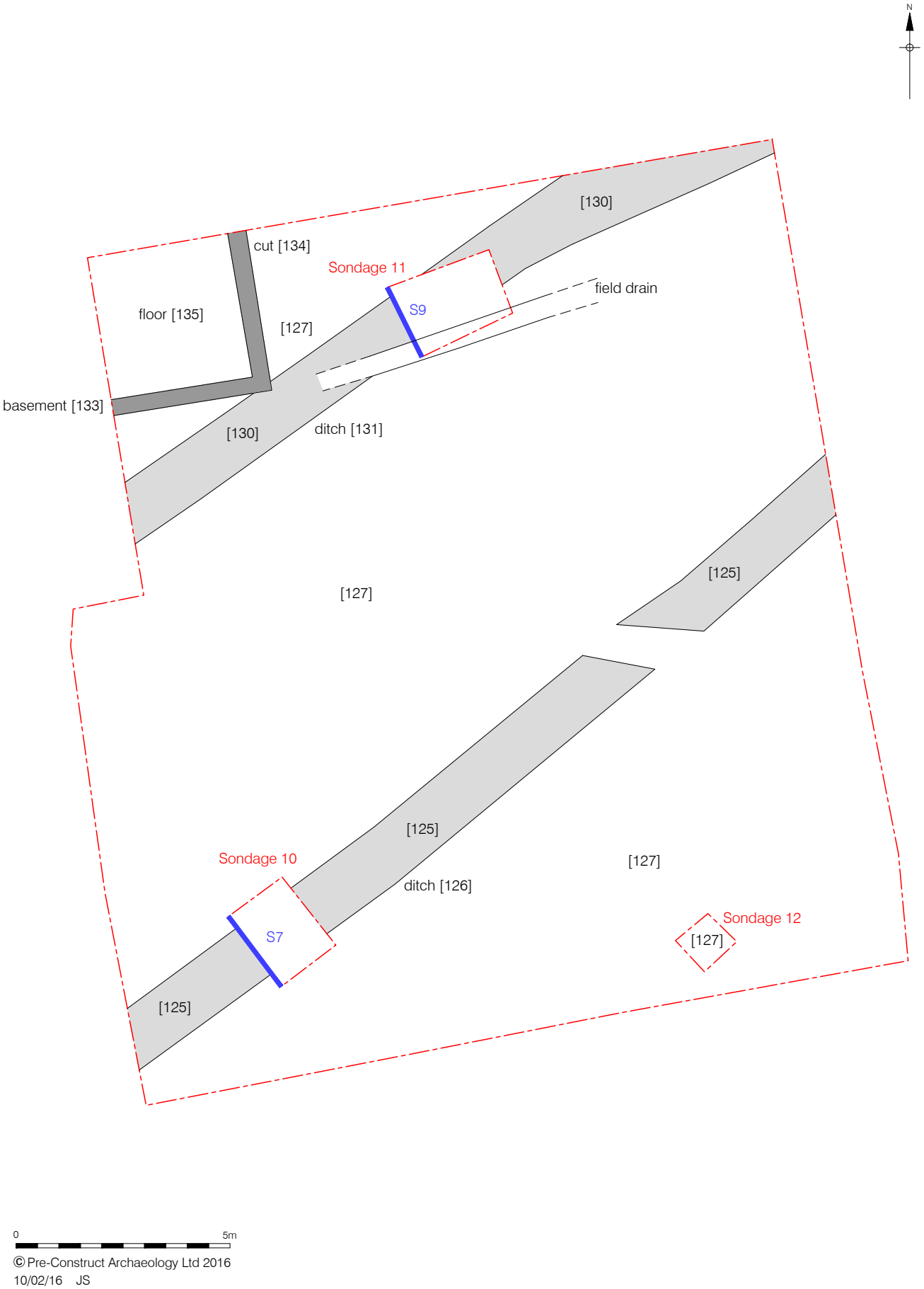

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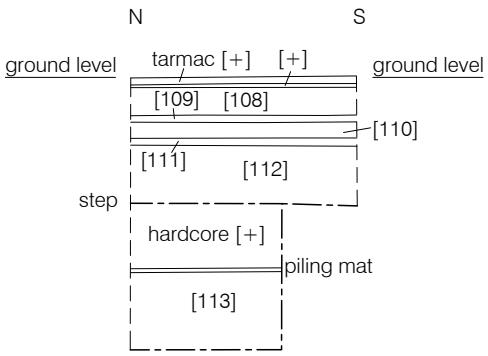
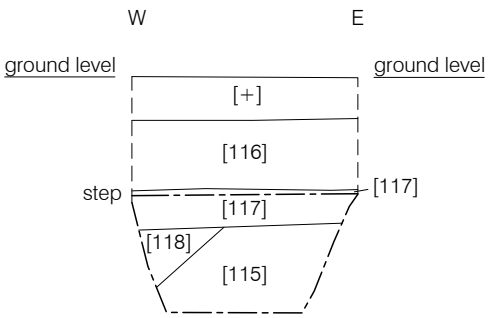
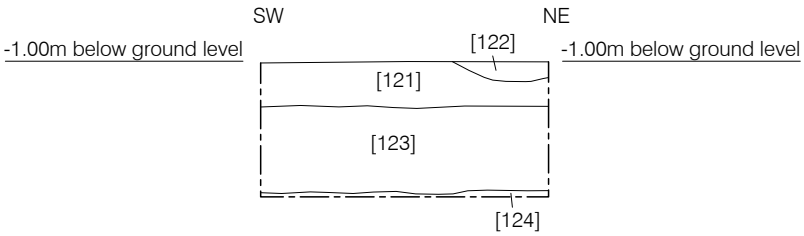
Figure 3
Plan of Trench 4
1:125 at A4



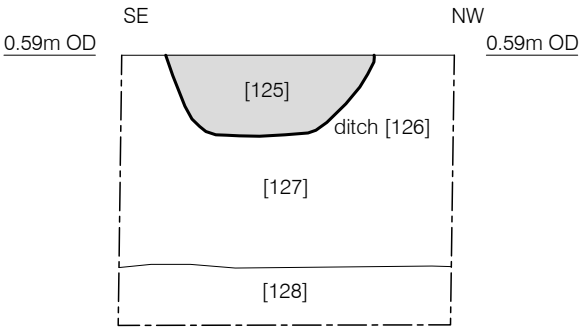
Section 2
Trench 1
West Facing



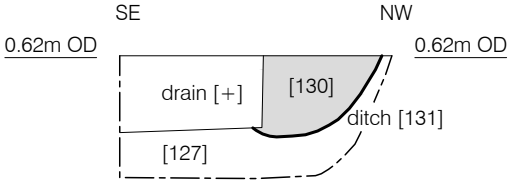
Section 3
Trench 2
South Facing



Section 4
Trench 3; Sondage 8
Southeast Facing



Section 7
Trench 4; Sondage 10
Northeast Facing



Section 9
Trench 4; Sondage 11
Northeast Facing

10/02/16 JS

Figure 4
Sections
1:50 at A4

Plate 1- North facing section of Trench 1 (Figure 3), showing the natural mixed soil horizons [118, 115 & 117].

Plate 2 – Northeast facing shot of Ditch [126] between the spoil heap and unexcavated ground, cutting the natural brown grey soil [127].

Plate 3 – West facing shot of section 7 (Figure 4) containing Ditch [126], and natural layers [127], [128]

Plate 4 - South facing section of Trench 4. This also shows the large amount of modern made ground on top of the natural alluvium.

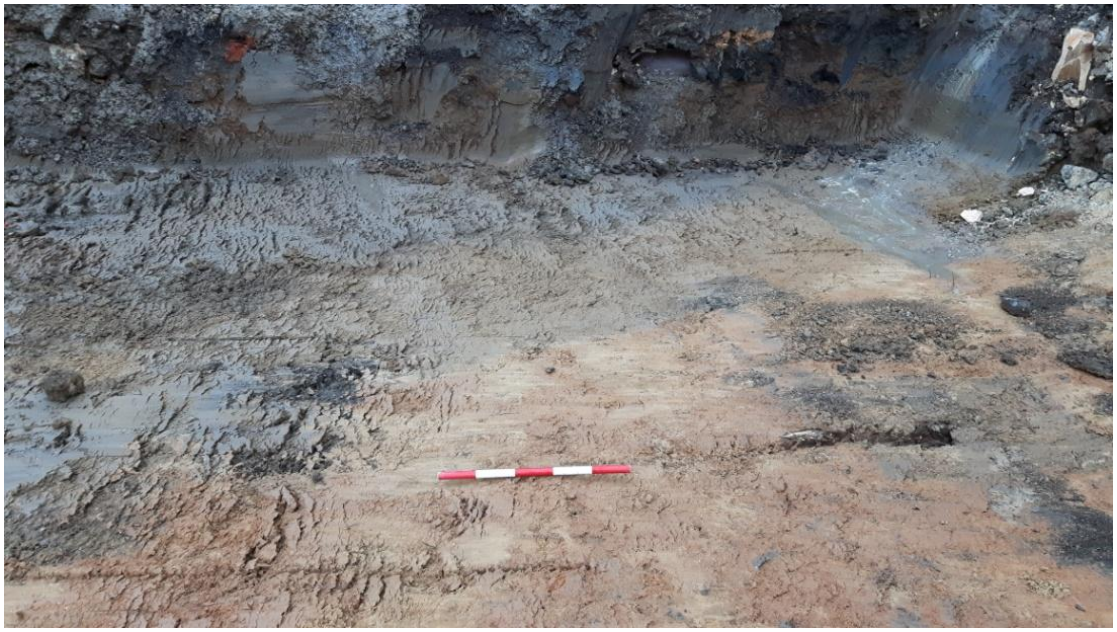


Plate 5 – North facing shot of Ditch [131] running along the base of the section.

Plate 6 – West facing photo of Ditch [131] and Figure 4 Section 9. Also showing a modern drain cut truncating everything to the left of the image.

Plate 7 – Southeast facing shot of modern basement [133]

Plate 8 – West facing section of redeposited natural layers within Trench 2 [111 & 112] [Figure 4 Section 2].

8 INTERPRETATION AND CONCLUSIONS

8.1.1 River terrace sands and gravels sloped up from southeast to the northwest, a pattern in keeping with that found elsewhere on site and reflecting a continuation of rising gravels towards the A13.

8.1.2 Natural sands and gravels were overlain by a mixed band of alluvial deposits. This sequence is disturbed only by modern activity.

8.1.3 Only two cultural features were encountered on site; two southwest north east orientated field drainage ditches within the marsh. Whilst neither contained cultural material they are almost certainly Post-Medieval in date.

8.1.4 All features and alluvial deposits were immediately overlain by modern layers of redeposited alluvium, and loose made ground.

8.1.5 With the exception of the two ditches, no other evidence for human activity beyond the most recent modern period was observed.

9 ACKNOWLEDGEMENTS

9.1 Pre-Construct Archaeology Limited would like to thank Countryside Properties plc for commissioning the work, especially Scott Law, Jim McDade and Robert Finlow for their support and help. PCA would also like to thank project architect Nick Hufton, of Shepeard Epstein Hunter, for his help throughout the overall regeneration project.

9.2 The authors would like to thank James Langthorne, for his monitoring and thorough recording of the site, Jennifer Simonson for the figures and illustration, Wayne Richards for logistics and Peter Moore for his project management and editing.

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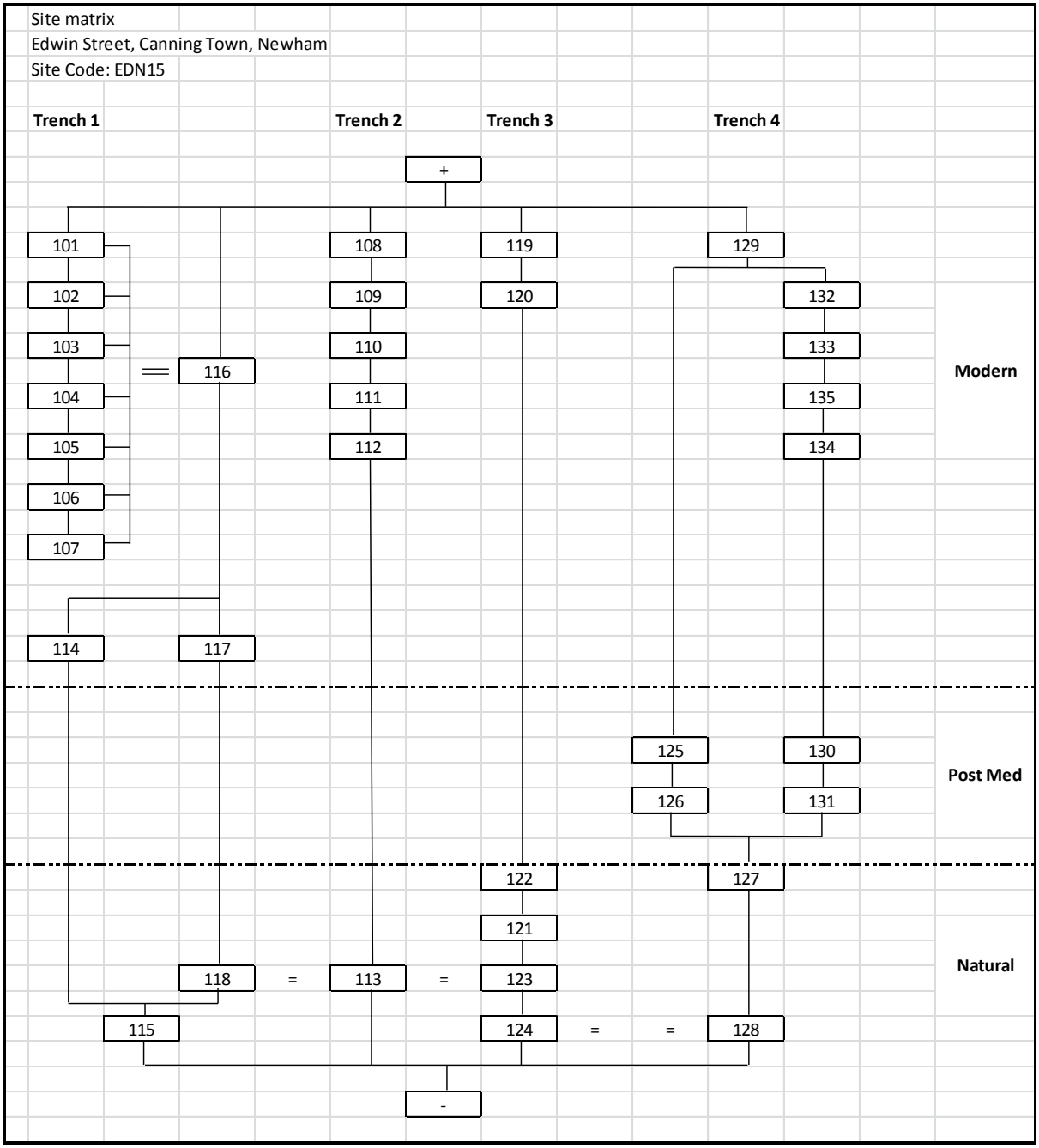
APPENDIX 1 – CONTEXT DESCRIPTIONS FROM HERE ON

Context	Grid Square/Trench	Type	Description
101	TR 1	Layer	Loose gravelly sand made ground deposit
102	TR 1	Layer	Mixed made ground
103	TR 1	Layer	Yellowish gravelly sand
104	TR 1	Layer	Cinder lens
105	TR 1	Layer	Silty sandy clay made ground
106	TR 1	Layer	Dump of modern bricks and rubble
107	TR 1	Layer	Cinder
108	TR 1 & TR 2	Layer	Mixed dump deposit
109	TR 1 & TR 2	Layer	Cinder
110	TR 1 & TR 2	Layer	Made ground
111	TR 1 & TR 2	Layer	Dirty brickearth
112	TR 1 & TR 2	Layer	Brickearth
113	TR 2	Layer	Natural brickearth
114	TR 1	Layer	Post-Med organic dump deposit
115	TR 1	Layer	Alluvium (blue)
116	TR 1	Layer	Post-Med dump layer
117	TR 1	Layer	Redeposited brickearth
118	TR 1	Layer	Natural clay brickearth
119	TR 3	Layer	Made ground (late post-medieval to Modern)
120	TR 3	Layer	Redeposited made ground
121	TR 3	Layer	Natural brickearth
122	TR 3	Layer	Alluvium
123	TR 3	Layer	Natural clay deposit
124	TR 3	Layer	Natural sandy gravel
125	TR 4	Fill	Fill of ditch [126]
126	TR 4	Cut	Cut of drainage ditch
127	TR 4	Layer	Natural alluvium
128	TR 4	Layer	Natural sandy gravels
129	TR 4	Layer	Very modern topsoil
130	TR 4	Fill	Fill of ditch [131]
131	TR 4	Cut	Cut of drainage ditch
132	TR 4	Fill	Modern backfill of basement [133]
133	TR 4	Masonry	Basement walls
134	TR 4	Cut	Cut for basement [133]
135	TR 4	Masonry	Floor of basement [133]

APPENDIX 2 – SITE MATRIX



APPENDIX 3 – OASIS REPORTING FORM

10.1.1 Printable version

10.2 OASIS ID: preconst1-242376

Project details

Project name	Area 3, Phase 2B, Edwin Street, Canning Town
Short description of the project	An archaeological watching brief was undertaken, intermittently, between 1st December 2015 and 8th January 2016 at Area 3, Phase 2B, Canning Town, London Borough of Newham, by Pre-Construct Archaeology Limited, as part of the archaeological investigations on the ongoing regeneration of the area. The watching brief revealed two ditches of Post Medieval in date.
Project dates	Start: 01-12-2015 End: 08-01-2016
Previous/future work	Yes / Not known
Any associated project reference codes	EDN 15 - Sitecode
Type of project	Recording project
Site status	Local Authority Designated Archaeological Area
Current Land use	Vacant Land 1 - Vacant land previously developed
Monument type	DITCH Post Medieval
Monument type	DITCH Post Medieval
Significant Finds	NO FINDS None
Significant Finds	NO FINDS None
Investigation type	'"Recorded Observation"'

Project location

Country	England
Site location	GREATER LONDON NEWHAM CANNING TOWN Edwin Street, Canning Town
Postcode	E16 1PZ
Study area	3725 Square metres
Site coordinates	TQ 540194 181669 50.941768350106 0.192538293817 50 56 30 N 000 11 33 E Point
Height OD / Depth	Min: -1.2m Max: 0.8m

Project creators

Name of Organisation	Pre-Construct Archaeology Limited
Project brief originator	GLAAS
Project design originator	Peter Moore
Project director/manager	Peter Moore
Project supervisor	Richard Krason
Type of sponsor/funding body	Developer
Name of sponsor/funding body	Countryside Properties plc

Project archives

Physical Archive Exists?	No
Digital Archive recipient	LAARC
Digital Contents	"Stratigraphic"
Digital Media available	"Database","Images raster / digital photography","Spreadsheets","Survey","Text"
Paper Archive recipient	LAARC
Paper Contents	"Stratigraphic"
Paper Media available	"Context sheet","Plan","Report","Section"

Project bibliography 1

Publication type	Grey literature (unpublished document/manuscript)
Title	An Archaeological Watching Brief at Area 3, Phase 2B, Edwin Street, Canning Town, London Borough of Newham, E16
Author(s)/Editor(s)	Krason, R, and Buczak, M
Date	2016
Issuer or publisher	Pre-Construct Archaeology Limited
Place of issue or publication	London

Description	Unpublished client report
URL	http://www.oasis.ac.uk
Entered by	Peter Moore (pmoore@pre-construct.com)
Entered on	12 February 2016

OASIS:

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