140-150 EARLHAM GROVE, LONDON BOROUGH OF NEWHAM E7 9AB AN ARCHAEOLOGICAL EVALUATION

SITE CODE: EAG18

LOCAL PLANNING AUTHORITY: LONDON BOROUGH OF NEWHAM

NOVEMBER 2018

PRE-CONSTRUCT ARCHAEOLOGY

140-150 EARLHAM GROVE, LONDON BOROUGH OF NEWHAM E7 9AB

AN ARCHAEOLOGICAL EVALUATION

Site Code:	**EAG18**
Central NGR:	**TQ 40452 85153**
Local Planning Authority:	**LONDON BOROUGH OF NEWHAM**
Planning Reference:	**17/00467/FUL**
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1 ABSTRACT

1.1 This report details the results of an archaeological evaluation undertaken by Pre-Construct Archaeology at 140-150 Earlham Grove, Forest Gate, London Borough of Newham E7 9AB. The central grid reference for the site was TQ 40452 85153. The fieldwork was undertaken between 5th and 8th November 2018. The work was commissioned by Hill Partnerships on behalf of Victoria Park Housing Developments (VPHD).

1.2 Five evaluation trenches were excavated. The earliest deposits encountered on site were Pleistocene gravels overlain by brickearth. Levels taken on the natural deposits indicated that the natural topography was flat.

1.3 A total of ten dedicated geo-archaeological test-pits were excavated, two in each trench, all of which revealed Pleistocene deposits. A small quantity of derived struck flints was also recovered, the majority coming from the disturbed upper surface of the Pleistocene deposits. Only two of the lithics could be securely dated, to the Late Mesolithic/Early Neolithic period.

1.4 Other than the struck flints, no archaeological evidence dating to before the 19th century was recovered from the site.

1.5 Evidence of landscaping and waste disposal pits dated to the mid 19th century was probably related to the back gardens of properties fronting Woodgrange Road.

1.6 Layers of made ground and remnant tarmac surfaces indicated that the site had been developed for car parking during the 20th century.

2 INTRODUCTION

2.1 An archaeological evaluation was carried out at 140-150 Earlham Grove, Forest Gate, London Borough of Newham E7 9AB, by Pre-Construct Archaeology Ltd (PCA) in advance of redevelopment for housing.

2.2 The Archaeological Advisor to the London Borough of Newham, Adam Single of Historic England, advised that the planning condition should include an archaeological condition stating that the site be evaluated for archaeological survival.

2.3 The site, which was centred at TQ 40452 85153 and was rectangular in shape, was bounded to the north by Earlham Grove; by properties fronting Woodgrange Road to the east; by Network Rail land to the south; and by the rear gardens of properties fronting Sprowston Road to the west.

2.4 The proposed methodology was detailed in a site-specific Written Scheme of Investigation (Hawkins, 2018). Five evaluation trenches were excavated across the evaluation area (Figure 2); these were intended to assess the presence or absence of archaeological remains within the development area. Ten dedicated geo-archaeological test-pits were also excavated, two in each trench.

2.5 The evaluation works were undertaken between 5th and 8th November 2018 and were supervised by the authors.

2.6 The works were instructed by Hill Partnerships on behalf of Victoria Park Housing Developments (VPHD). The project was managed for PCA by Helen Hawkins and was monitored for the local planning authority by Adam Single of Historic England.

3 PLANNING BACKGROUND AND OBJECTIVES

National Planning Policy Framework

3.1.1 The National Planning Policy Framework (NPPF) was adopted on March 27th 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. Chapter 12 of the NPPF concerns the conservation and enhancement of the historic environment.

3.1.2 In considering any proposal for development, including allocations in emerging development plans, the local planning authority will be mindful of the policy framework set by government guidance, existing development plan policy and of other material considerations.

3.2 Regional Guidance: The London Plan

3.2.1 Additional relevant planning strategy framework is provided by The London Plan, which was updated in 2015. It includes the following policy of relevance to archaeology within London:

3.2.2 **Historic environments and landscapes**

POLICY 7.8 HERITAGE ASSETS AND ARCHAEOLOGY

Strategic

A London's heritage assets and historical 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 utilising their positive role in place shaping can be taken into account.

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

Planning decision

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

D Development affecting heritage assets and their setting 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 assets or memorial cannot be preserved or managed on-site, provision must be made for the investigation, understanding, recording, dissemination and archiving of that assets.

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 organizations, should include appropriate policies in their LDFs for identifying, protecting, enhancing and improving access to the historic environment and heritage assets and their setting where appropriate, and to archaeological assets, memorials and historic and natural landscape character within their area.

3.3 Site Specific Planning Background

3.3.1 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.

3.3.2 The site does not lie within the Newham Archaeological Priority Area.

3.3.3 The archaeological investigation was undertaken in line with an archaeological planning condition for trial trenching issued by Historic England/GLAAS. The work was designed within an Written Scheme of Investigation prepared by Pre-Construct Archaeology Ltd (Hawkins 2018) which was approved by the archaeological adviser to the London Borough of Newham, Adam Single.

3.4 Evaluation Objectives

3.4.1 The archaeological evaluation aimed to establish whether any archaeological evidence survived on the site, and if so to assess its location, form, extent, date, character, condition, significance and quality.

3.4.2 The evaluation also sought to clarify the nature and extent of existing disturbance and intrusions, and hence assess the degree of archaeological survival of buried deposits and any surviving structures of archaeological significance.

3.4.3 Within these parameters, the evaluation of the site presented an opportunity to address the following objectives:

- To determine the natural topography of the site, and the height at which it survives.
- To establish the presence or absence of prehistoric and Roman activity, its nature and (if possible) date.
- To establish if there is any potential for Palaeolithic material to survive on site
- To establish the presence or absence of medieval activity.
- To establish the presence or absence of post-medieval activity at the site.
- To establish the nature, date and survival of activity relating to any archaeological periods at the site.
- To establish the extent of all past post-depositional impacts on the archaeological resource.

4 GEOLOGICAL AND TOPOGRAPHICAL BACKGROUND

4.1 The site lies on a generally flat interfluvial plateau located between the Rivers Lea and Roding, c. 5km north of the present course of the River Thames (Figure 1). Bedrock geology is mapped as Palaeogene Woolwich and Reading Beds, part of the Lambeth Group, which is shown overlain by the Taplow Gravel Formation (BGS 2018). These gravels extend c. 3km to the south of the site, are truncated by the Rivers Lea and Roding to the east and west and continue c. 300m to the north where they have cut through the earlier Hackney Gravel Member. The Taplow Gravel Member was first recognized as a middle Thames during the 19th century and is represented in the lower Thames by the Mucking Gravel Formation (Bridgland 1988; 1994; Gibbard 1985; 1994).

4.2 Modern ground level at the site is level at between c. 10.20 – 10.50m OD.

5 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

5.1 Prehistoric

5.1.1 In east London the Mucking gravels have produced relatively few artefacts and mostly singly or in small numbers, and their frequent rolled and abraded condition suggests that they have eroded out of earlier terrace gravels, such as the (relatively) artefact-rich Hackney Gravels that are present to the north of the Mucking gravels (Wymer 1999, 47, MAP 10). The Historic Environment Record for Newham records "*at least 5 handaxes known to have come from the Forest Gate area*" and within a few hundred metres of the site, although little is known of these.

5.1.2 In the wider area, the Mucking gravels have produced significant artefact assemblages, most notably at Crayford to the south of the Thames and at West Thurrock which have both produced important Levallois assemblages (e.g. Schreve *et al.* 2006). Other sites have produced a wealth of palaeoenvironmental evidence, including important mammalian bone assemblages, such as at Sandy Lane and Ponds Farm in Averley, Essex, which have become "bio - stratigraphy markers" for the MIS 7 interglacial (Schreve 1997; 2001).

5.1.3 The HER shows no Mesolithic evidence within the study area.

5.1.4 A polished stone axe dated to the Neolithic period (MLO13055) was found in 1888 c.200m west from the site.

5.1.5 The HER shows no Bronze Age or Iron Age evidence within the study area.

5.2 Roman

5.2.1 The possible Roman road between London and Chelmsford (*Londinium – Camulodunum*) is recorded c.60m south from the site along the modern Romford Road (MLO106812). The projected road line and the potential for occupation adjacent to it is also reflected by an Archaeological Priority Area (DLO35910) just south of the site. However, the only Roman find within the study area is a stray find of Dupondius dated to the early 1st century AD and is recorded c.400m north-west from the site.

5.3 Saxon and Medieval

5.3.1 A settlement known as Hamme was mentioned in an Anglo-Saxon charter of AD958 and at the compilation of the Domesday Book in 1086. West Ham and East Ham represent Saxon settlements with the Old English 'hamm' and meaning 'a dry area of land between rivers or marshland'. This will reference its location on the gravel terrace bounded on three sides by the rivers Lea, Thames and Roding and their marshes. The contemporary status of settlement at Upton itself is not known but it is possible that Upton hamlet was instigated in this period.

5.3.2 The only Saxon find from the study area is a gold pin dated to late 6th / early 7th century found during unspecified works in Forest Gate in c.1875. The location of the pin is recorded in the HER as c.15m south from the site boundary (MLO24167).

5.3.3 A medieval Manor of Woodgrange, dated to 1189, is believed to be located c.170m north-west from the site (MLO25677). It was located near Wanstead Flats and the name is thought to mean a farm in a forest clearing. The manor formed part of the Montfichet estate in East and West Ham and possibly formed part of the original endowment to Stratford Langthorne Abbey.

5.3.4 A medieval settlement of Upton is recorded c.640m south from the site (MLO25836). Documentary evidence first attests the village of Upton in the 13th century. It is thought that the name means "at the high-lying tun", a reference to its relative height over the surrounding marshland.

5.3.5 The site of Hamfrith Farm and its environs extends over a large area immediately west from the study site (MLO25667). The farmstead probably originates from the medieval period.

5.4 Post-Medieval

5.4.1 The 1762 Rocque Map shows the site within open fields west of Wood Grange Farm. The HER shows the site of Hamfrith Farm and its environs extending to the east of the site (MLO25667). The farm dates to at least the 16th century. The main farm house was probably rebuilt in the 18th-19th centuries when it became a country residence. An archaeological evaluation at The Eagle and Child Public House north of the Wood Grange Farm and c.320m north-east from the site recorded pits containing 16th -18th century pottery.

5.4.2 The 1777 Chapman and Andre's Map of Essex shows the site in a similar form.

5.4.3 The 1852 West Ham Tithe Map shows the site located in three plots of land. The Tithe Map Apportionment provides the following descriptions and land use:

25 (Northern Plot)

Part of Gravel Pit Field and Site of Wood

Grange Place

Market Garden

341 Part of Gravel Pit at Angle of Road Formerly Market Garden

342 Site of Almshouse and Grounds Formerly Market Garden

5.4.4 The HER shows the location of Pawnbrokers' Almshouses (MLO69217), founded in 1849 by the Pawnbrokers' Charitable Institutions, on the southern edge of the site.

5.4.5 The 1855 Survey of West Ham and the 1863 Ordnance Survey show the central area of the study site occupied by rear gardens of three residential dwellings and the southern part of the site occupied by Pawnbrokers' Almshouses.

5.4.6 The 1888 Bacon's Map of London shows the general development of the area and the site occupying rear gardens of buildings fronting Woodgrange Road. The 1895 Ordnance Survey shows the site in more detail. The newly built Earlham Gove is shown to the north of the study, a vicarage to the west, and further residential properties to south-west and south. Additional structures are shown in the western part of the site.

5.4.7 The Pawnbrokers' Almshouses were demolished and replaced by a Skating Ring by 1919. The south-western part of the site occupies rear gardens of dwellings fronting Sprowston Road and additional structures appear in the rear gardens in the western area of the site.

5.4.8 The rear gardens occupying the northern area of the study site were replaced by what appear to be garages by 1939 and an extension was added to the Skating Ring. The site remained largely unchanged until 1975 when the skating rink was demolished.

6 METHODOLOGY

6.1 Evaluation

6.1.1 Five trenches were set out using a dGPS. A 13-tonne mechanical excavator fitted with a toothless bucket, under the supervision of an attendant archaeologist, removed the modern overburden to reveal the archaeological deposits. All trenches were hand cleaned and planned at a scale of 1:20, while sections were recorded at 1:10; discrete features were half sectioned.

6.1.2 All five trenches were 1.8m wide by c.20m in length and were excavated to a depth of c.1m when natural deposits were encountered.

6.2 Geo-archaeological test pits

6.2.1 The fieldwork reported here follows the methodologies developed by *Medway Palaeolithic Project* and the *Managing the Essex Pleistocene Project* (O'Connor 2015; Wenban-Smith *et al*. 2007). Its aims are to assess the nature and significance of the Pleistocene deposits and Palaeolithic remains present at the site, establish their distribution and depth across the site and to assess the archaeological significance of any deposits.

6.2.2 To achieve these aims, a total of ten dedicated geo-archaeological test-pits were excavated across the site, two each in the five evaluation trenches that formed part of the general mitigation for the site (Figure 2).

6.2.3 The test-pits measured approximately 2m x 2m and were excavated under the supervision of the Palaeolithic specialist, Dr Barry Bishop, to the maximum reach of the mechanical excavator. Due to problems with access, Test-pits 1 and 2 were excavated using a 180 degree mechanical excavator with a reach of c. 3m; all of the other test-pits were excavated using a 360 degree mechanical excavator that had a reach of c. 5m. In all test-pits sediment was removed using a 1.8m wide ditching bucket in spits up to 250mm thick but followed the interfaces between sedimentary units wherever possible. Each sedimentary unit was numbered separately. Due to the thickness of loose, modern made-ground deposits across the site, it was not possible to enter the test-pits even at an early stage of the excavation. Each test-pit was therefore photographed and drawn from the side. Samples (100 litres) from each significant geological unit was shaken through a 10mm mesh on site in order to retrieve artefacts and coarse ecofacts, and 10 litre bulk samples were taken for off-site clast size and lithological analyses.

7 SUMMARY OF ARCHAEOLOGICAL SEQUENCE

7.1 Phase 1: Natural

7.1.1 Natural deposits were recorded in all five of the trenches. The natural deposits on site consisted of a layer of brickearth [27]/[28]/[22]/[12]/[5]/[2] sealing sandy gravel [29]/[23]/[9]/[8]/[3]. The level at which natural deposits were encountered in each trench is described in the table below:

Trench	level of natural brickearth (m OD)	level of natural gravel (mOD)
1	9.67	9.43
2	9.68	9.26
3	9.64	9.42
4	9.64	9.52
5	9.6	9.4

7.1.2 The levels taken at the top of the brickearth deposits indicated that the natural topography of the site was flat.

7.1.3 Worked flint was recovered from the top of the gravel and parts of the brickearth. This was likely to be intrusive and is discussed further at Appendix 6.

7.2 Phase 2: 19th century

Trench 1 (Figure 3)

7.2.1 A 0.3m thick layer [26] of dark greyish brown silty clay was recorded at a highest level of 10.12m OD and sealed the natural deposits in Trench 1. This deposit probably represented horticultural landscaping associated with the construction of three large houses in the mid-19th century, fronting Woodgrange Road, the gardens of which extend across the study site.

Plate 1: Trench 1 facing east

Trench 2 (Figure 4)

7.2.2 A similar layer of made ground [18] was recorded in Trench 2 at a maximum level of 10.03m OD. Layer [18] was 0.35m thick and contained occasional inclusions of charcoal and chalk flecks.

7.2.3 At the northern end of Trench 2, layer [18] was cut by a construction trench [21] which extended to a depth of 9.35m OD. A wall [19] built from yellow frogged bricks had been built within cut [21] which was also filled with loose mid greyish brown silty clay containing frequent brick rubble. The wall [19], which was formed in English bond, was built on a brick step 0.35m thick; it spanned the across the 2m width of Trench 2 and extended upwards to a height of 10.18m OD. Wall [19] was likely to represent a garden wall associated with the mid-19th century properties fronting Woodgrange Road.

7.2.4 Another probable horticultural feature - possibly a garden path – was discovered in the northern part of Trench 2. A 1.13m wide, 0.51m deep trench [25] with concave sides was backfilled with compact light brown sandy gravel and cut into the made ground layer [18].

7.2.5 A pit [17] with vertical sides extending 1.10m north-south by 0.5m east-west by 0.87m deep, was recorded along the eastern section of the central part of Trench 2. The pit [17] was backfilled with dark brown clayey silt [16] and contained sherds of plant pot dating to the 19th century (Jarret, 2018). The pit was interpreted as either a garden feature or cess pit.

Plate 2: Trench 2 facing south

Trench 3 (Figure 5)

7.2.6 In Trench 3 a 0.40m thick layer of dark greyish brown made ground [13] extended across the entire trench sealing the brickearth [12]. The made ground [13] was thought to represent 19th century horticultural landscaping.

7.2.7 Cutting layer [13] from a maximum level of 10.00m OD, was a pit [15] measuring 1.65m east-west by 0.5m north-south which was 1.13m deep. Pit [15] was filled with two deposits. The primary backfill consisted of soft greyish brown clayey silt which contained an intact moulded Bovril bottle dating to the late 19th/ early 20th century (Jarrett, 2018). The upper fill [11] was formed of firm dark greyish brown clayey silt and was 0.78m thick.

7.2.8 Contexts [15]/[10]/[11] may have represented a cess pit associated with the mid-19th century properties fronting Woodgrange Road.

Plate 3: Trench 3 facing east

Trench 4 (Figure 6)

7.2.9 The natural reworked brickearth [5] was sealed by a 0.24m thick layer of mid greyish brown silty clay [4] containing occasional CBM and charcoal flecks. Layer [4], which was recorded at a maximum level of 9.86m OD, was interpreted as 19th century made ground.

7.2.10 The made ground layer [4] was cut by a pit [7] measuring 0.95m north-south by 0.25m east-west and had a depth of 0.36m. Pit [7] was cut from 9.67m OD and was backfilled with mid greyish brown silty clay [6] containing flecks of CBM, charcoal and fragments of metal. A sherd of pot dated to the mid 19th century was also recovered from fill [6] (Jarret, 2018).

Plate 4: Trench 4 facing north

Trench 5 (Figure 7)

7.2.11 A layer of made ground [1] 0.24m thick, recorded at a maximum level of 9.90m OD, sealed the reworked brickearth [2] in Trench 5. This made ground deposit [1], which was contaminated with hydrocarbons, probably represented 19th century landscaping.

7.3 Phase 3: modern

7.3.1 Numerous modern truncations were observed in all of the trenches on the site. These features probably represent development in the 20th century.

7.3.2 A manhole [+] constructed with yellow bricks and a concrete footing was recorded in the western part of Trench 1. The manhole was sealed with a layer of demolition material [+] 0.50m thick that extended across the entire area of Trench 1 forming the current ground surface at a level of 10.39m OD.

7.3.3 A 0.25m thick layer of demolition material also sealed earlier deposits in Trench 2 forming the current ground surface at a level of 10.28m OD.

7.3.4 In the western part of Trench 3 a large modern cut [+] was recorded measuring 5m east-west by 2m north-south and 0.90m deep, which truncated earlier deposits. A layer of

demolition material extended across the full area of the trench and made up the current ground surface to a level of 10.29m OD.

7.3.5 An east-west aligned yellow brick wall [+] built on a concrete footing was recorded in Trench 4. To the south of the wall a 0.28m thick deposit of demolition material was sealed by a 0.10m thick layer of tarmac, which was recorded at a maximum level of 10.09m OD.

7.3.6 A 0.10m thick layer of crushed concrete extended across the entire trench and was capped by a 0.20m thick reinforced concrete slab forming the current ground surface at a level of 10.38m OD.

7.3.7 In Trench 5 a 0.10m thick deposit of concrete crush was capped with a layer of tarmac recorded at a maximum level of 10.07m OD. This was sealed by a layer of crushed concrete 0.25m thick which was capped by a 0.20m thick reinforced concrete slab which formed the current ground surface at a maximum level of 10.46m OD.

Plate 5: Trench 5 facing west

7.4 Results of Geo-Archaeological Investigation

7.4.1 Quaternary deposits were recorded in all the dedicated geo-archaeological test-pits excavated at the site. They comprised a complex set of Pleistocene sand and gravel

deposits that, in all but one test-pit, was overlain by a sandy and gravelly silt-clay which had developed into top- and sub-soils and which had been extensively disturbed by bio- and mechanical (e.g. ploughing) reworking. No pre-Quaternary bedrock, which in this area comprises sand, silts and clays of the Palaeogene Lambeth Group, were encountered. Geo-technical boreholes completed prior to this investigation suggest that this is present at just over 5m below ground level and therefore just beyond the reach of the mechanical excavators.

7.4.2 The Pleistocene deposits at Earlham Grove can be divided in two main sediment groups (see Table L01 and Appendix 1 for detailed sediment logs of the test-pits). Sediment Group I was encountered in all test-pits with the exception of Test-pit 7 where it appeared to have been truncated. It consisted of mottled yellowish brown and mid grey sandy and gravelly silt-clay. It was compact but riven with visible root- and worm-holes which had introduced frequent small fragments of ceramic building material, charcoal and coal. The upper surface in many locations appears to be truncated and it has been mechanically disturbed, possibly by ploughing and cryoturbation; no bedding is visible. It was interpreted as part of the late Pleistocene / early Holocene Langley Silt Complex that had been partially reworked into soils and sub-soils.

7.4.3 Sediment Group II was present in all test-pits and comprised Pleistocene sands and gravels. Although locally variable, they were broadly comparable and shared similar stratigraphic development. They comprised horizontally bedded, moderately well sorted, bands of sands, gravels and pebbles and sand supported pebbles and small cobbles. Towards the upper boundary of the sequence the silt-clay content of these sediments increased and they became very compact, massive and poorly sorted. In some instances the upper surface appeared convoluted and interdigitated with Sediment Group I, the distortion most likely caused by cryoturbation. The pebbles and cobbles that formed the main constituent of the deposits were rounded to sub-angular and dominated by flint, a small proportion of which was Tertiary flint, with occasional rounded quartz and coarse siliceous sandstone clast also present. The majority measured less than 50mm in maximum diameter with occasional sub-angular cobbles measuring up to 150mm.

Sediment group	Deposit	Period	Interpretation	Test-pits
Made-ground	MADE GROUND: Unconsolidated CBM, concrete, plastic, metal etc. in a sandy silt-clay matrix	Recent	Re-introduced levelling deposits	All
II	SANDY SILT-CLAY: Dull mid brown sandy and gravelly silt-clay. Root / worm holes, small fragments of CBM and charcoal. Sharp contact with made-ground above, diffuse contact with Sedimentary Group II below	Late Pleistocene / Holocene	Reworked Langley Silt Complex (Brickearth).	All except TP7
I	SAND AND GRAVEL: Loosely compacted mid orange brown weakly horizontally bedded and moderately well sorted bands of sand, gravel and pebbles, and sand supported gravels and pebbles. Flint clasts including Tertiary pebbles, occasional quartz pebbles. Diffuse interface with Sedimentary Group I above.	Pleistocene	Mucking Gravel Formation	All

Table L01: Major sediment groups identified during geo-archaeological investigations at Earlham Grove

7.4.4 Geo-Archaeological evidence

7.4.5 Each sedimentary unit was sieved on-site through a 10mm mesh with a minimum of 100 litres per unit being processed. In total, c. 4,500 litres of sediment were sampled. This resulted in the recovery of six struck flints. These comprised three flakes, two blade-like flakes and a blade of unstained (patinated) brown or black translucent flint that were recovered from the upper parts of the Pleistocene gravels (Sedimentary Unit II). They were all small and in a good or only slightly chipped condition, showing no evidence of rolling. None are typologically diagnostic but their technological traits and condition would suggest that they are Holocene in date, most probably Mesolithic or Early Neolithic (Appendix 6). Their recovery from the upper parts of the Pleistocene sequence suggests that they are intrusive; their size indicating that they may have been introduced through biological (worms, roots) or mechanical (ploughing) reworking of the overlying brickearth.

Plate 6: TP6, Trench 4

Plate 7: TP 4 Trench 2

8 CONCLUSIONS

8.1 Evaluation

8.1.1 Levels taken on natural deposits suggest that the natural topography of the site was flat.

8.1.2 No evidence of Roman occupation was recorded on the site.

8.1.3 The inclusion of CBM and charcoal flecks within the top of natural brickearth deposits suggest that they had been reworked, most probably by ploughing. This may have occurred during the medieval period although no archaeological evidence was discovered to support this.

8.1.4 The lack of any artefactual evidence dating to earlier than the 19th century suggests that the site was occupied by open fields until this date, a hypothesis supported by cartographic sources which do not show any urban development until 1855.

8.1.5 A made ground horizon recorded in all of the trenches indicates that the site was landscaped in the 19th century, when gardens were laid out behind the houses fronting Woodgrange Road. Several pits and walls associated with these gardens were discovered during the archaeological evaluation.

8.1.6 Development in the 20th century was represented by a tarmac surface, which appeared to extend across the southern part of the site. This was sealed by a later 20th century concrete slab which formed a car park.

8.1.7 A layer of demolition material recorded in the northern part of the site forming the current ground surface was probably related to the demolished garages that are shown standing on the site until at least 1975.

8.2 Geo-Archaeological Investigation

8.2.1 The geo-archaeological evaluation at the site produced useful information relating to the location and composition of the Pleistocene deposits in the area. Pleistocene deposits were recorded in all trenches and consisted of sand and gravel terrace deposits of the Mucking Gravel Formation. No stabilised land surfaces were identified and the deposits are thought to have been laid down under active, high to medium energy fluvial conditions. Six pieces of struck flint were recovered from the sieved sample; their technological attributes combined with their condition and lack of staining suggests that they were intrusive from Holocene deposits. No environmental indicators were recovered.

8.3 Recommendations

8.3.1 The geo-archaeological investigations have improved the understanding of the extent and condition of the Mucking Gravel deposits at Earlham Grove but considering the size of the site and that, despite intensive sampling, no Palaeolithic artefactual material or environmental indicators were identified, no further work is recommended for the geo-archaeological investigations.

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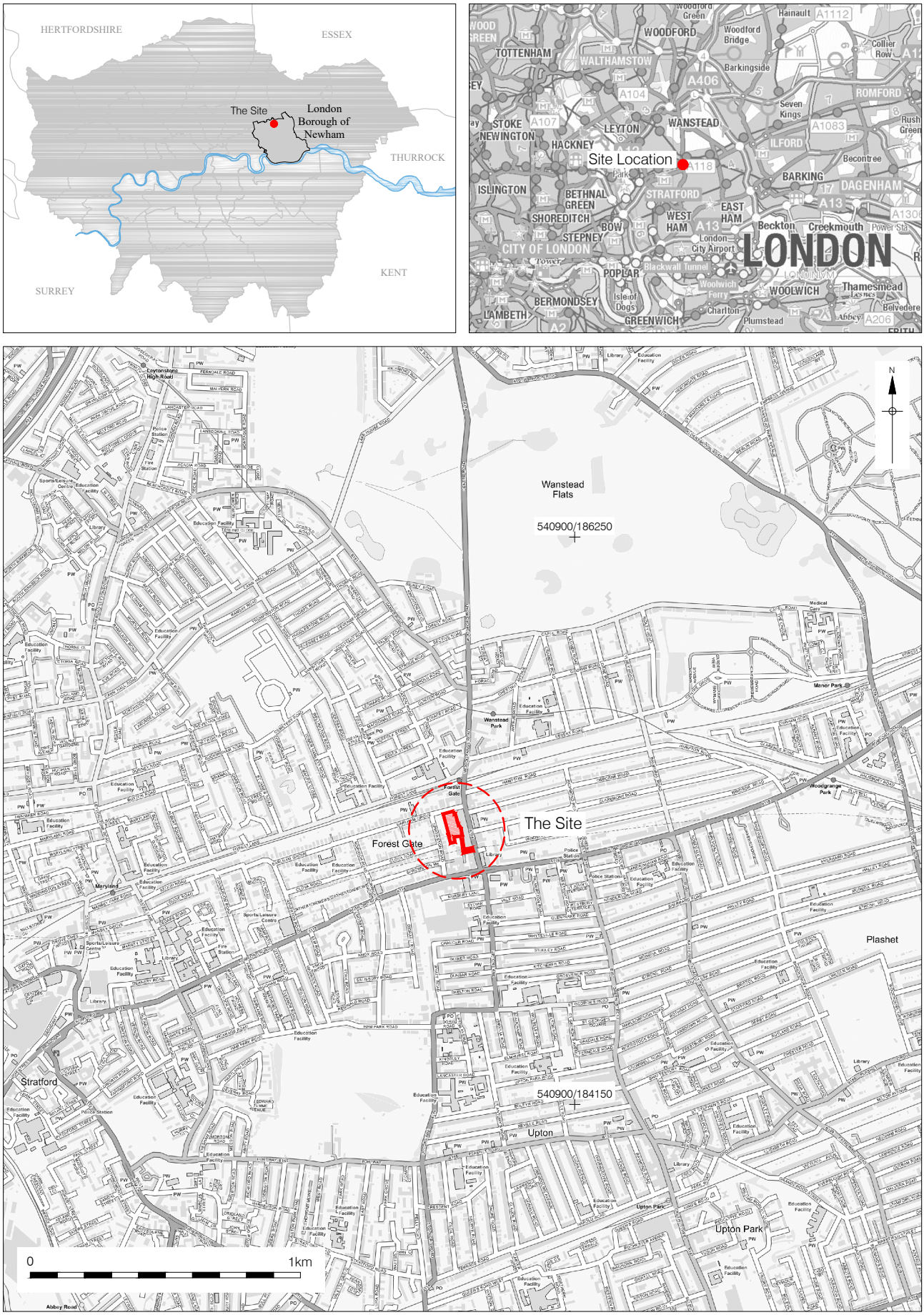
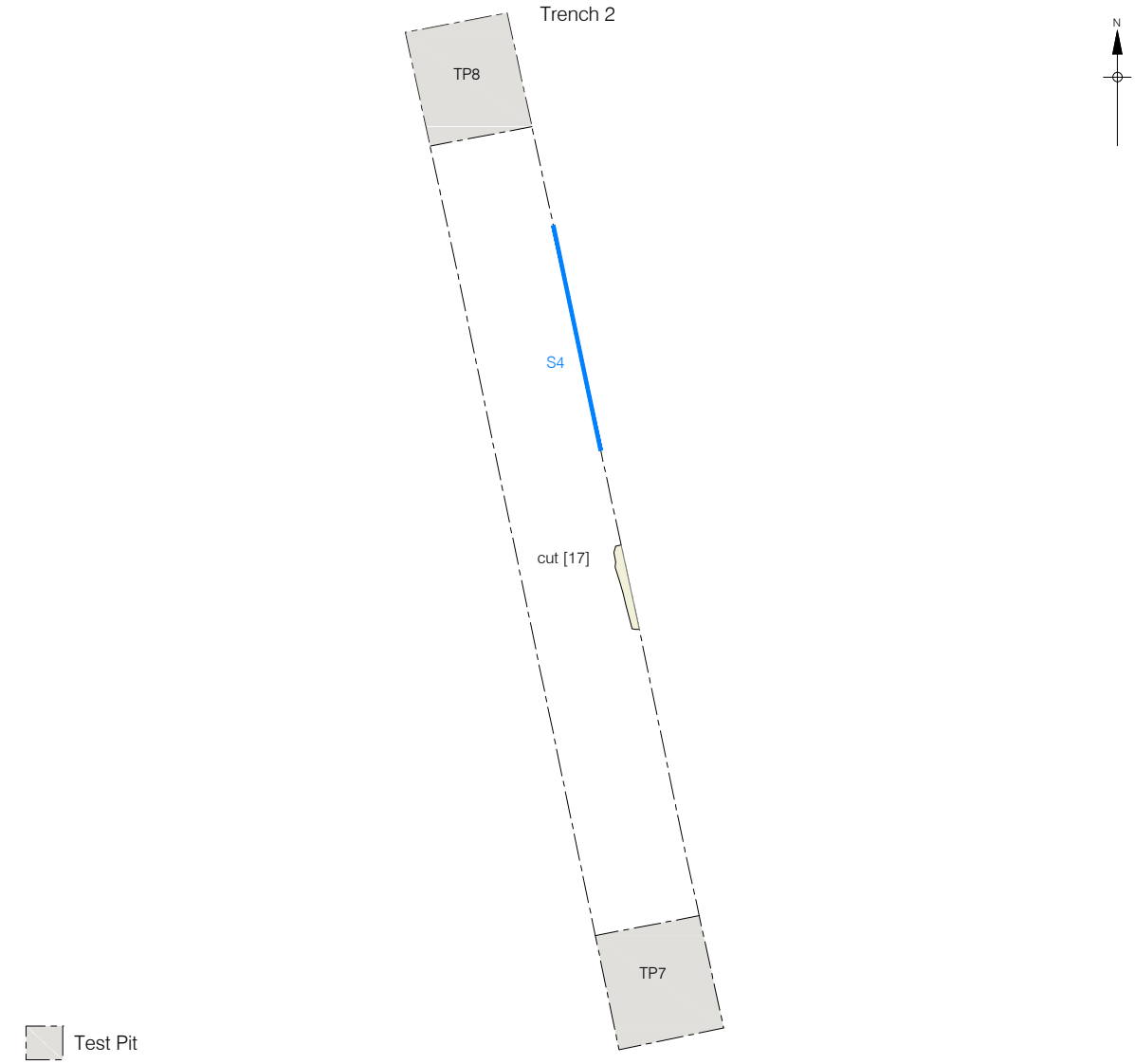


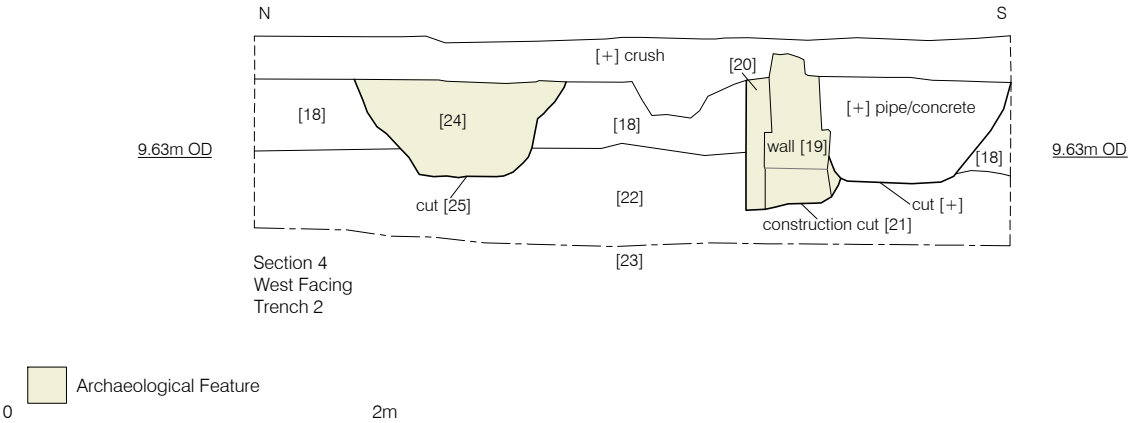
16/11/18 DV

Figure 1
Site Location
1:800,000, 1:250,000, 1:20,000 at A4

05/12/18 DV

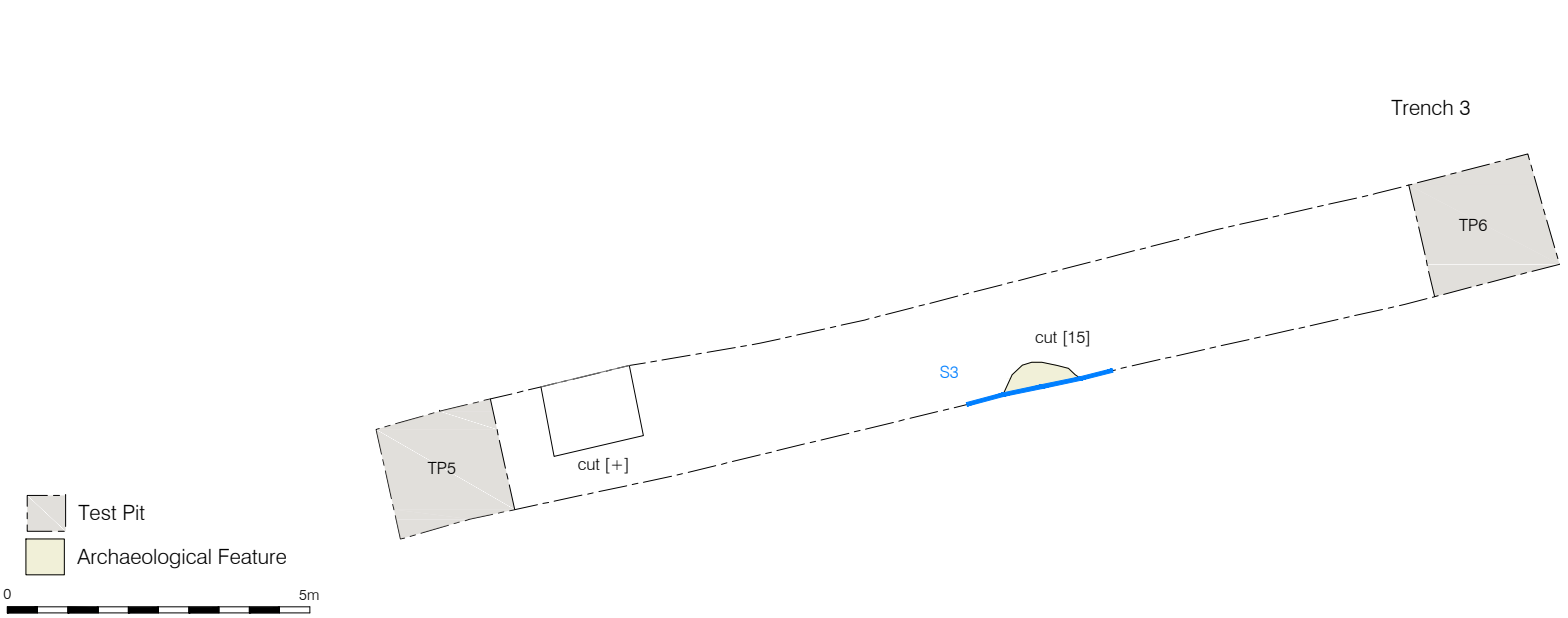
Figure 2
Detailed Site Location
1:1,000 at A4

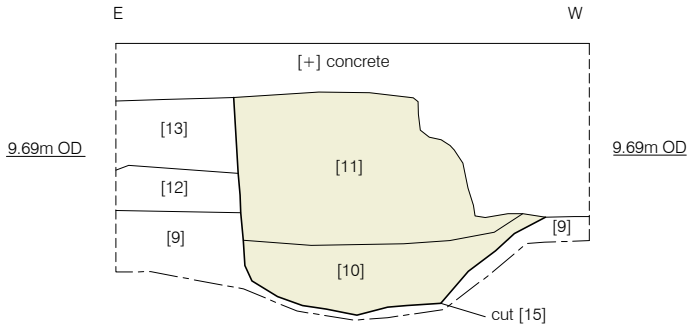




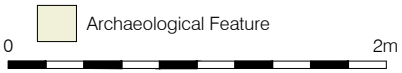
22/11/18 DV

Figure 3
Trench 2 Plan and Section 4
Plan at 1:125 and Section at 1:40 at A4



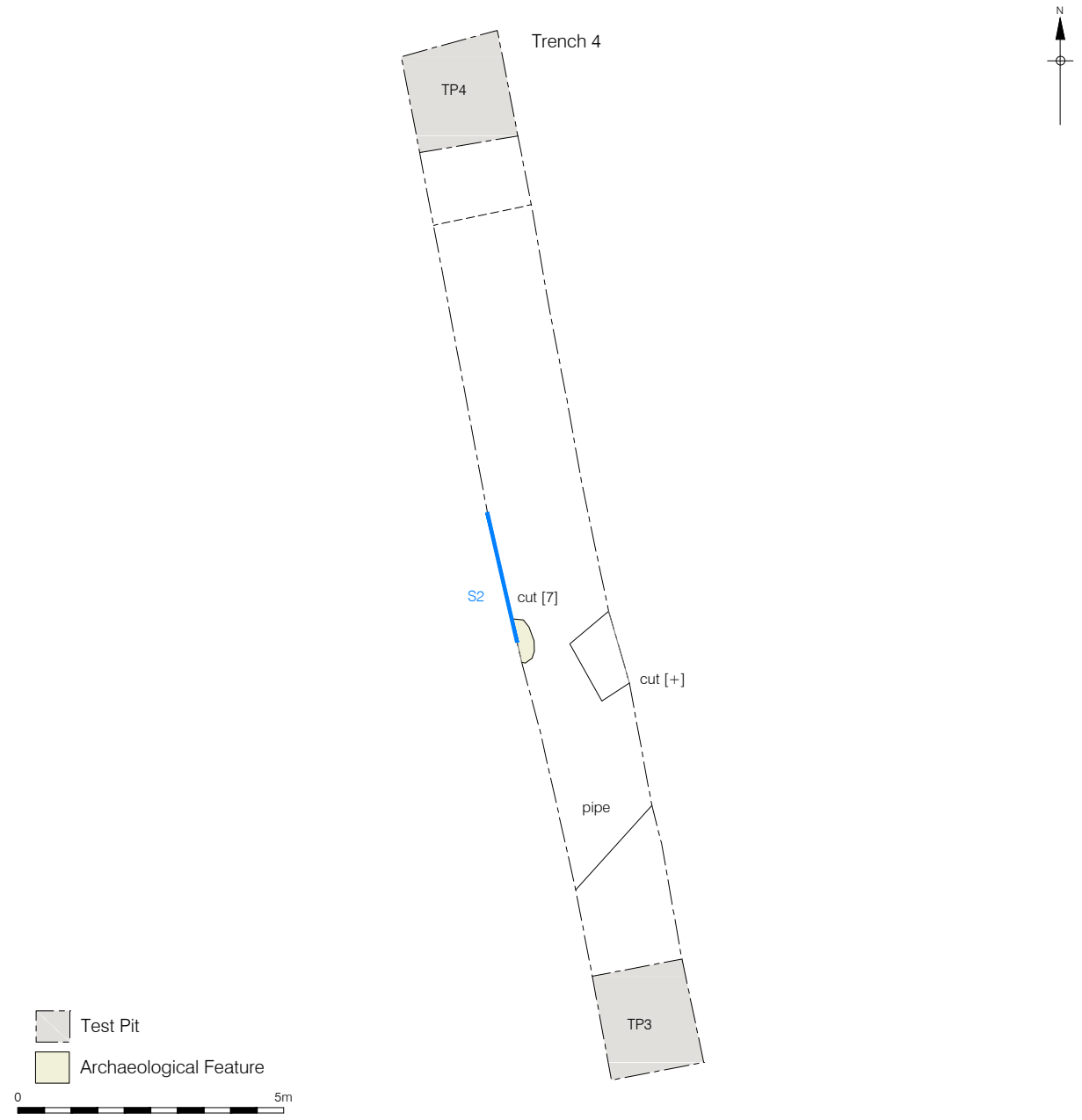


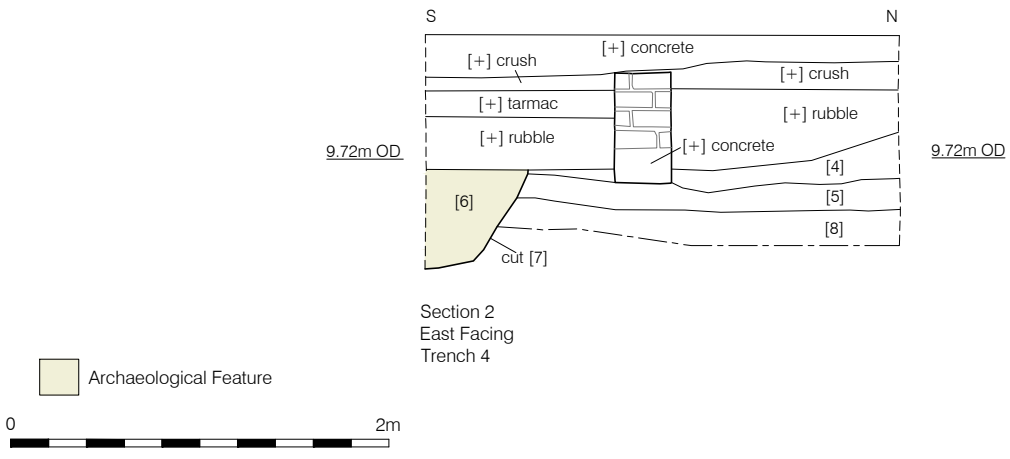
Section 3
North Facing
Trench 3



22/11/18 DV

Figure 4
Trench 3 Plan and Section 3
Plan at 1:125 and Section at 1:40 at A4

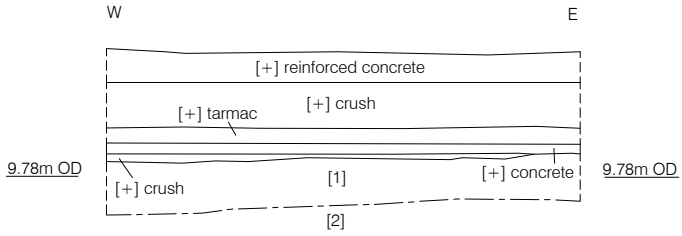




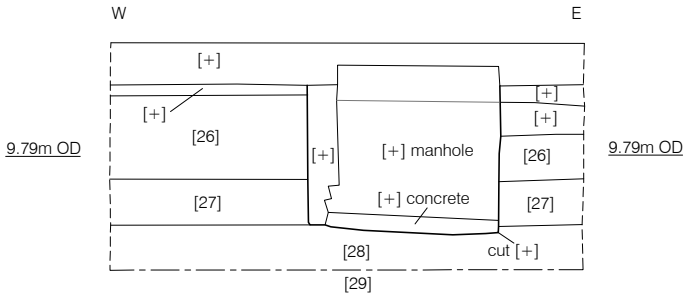
Section 2
East Facing
Trench 4

22/11/18 DV

Figure 5
Plan of Trench 4 and Section 2
Plan at 1:125 and Section at 1:40 at A4



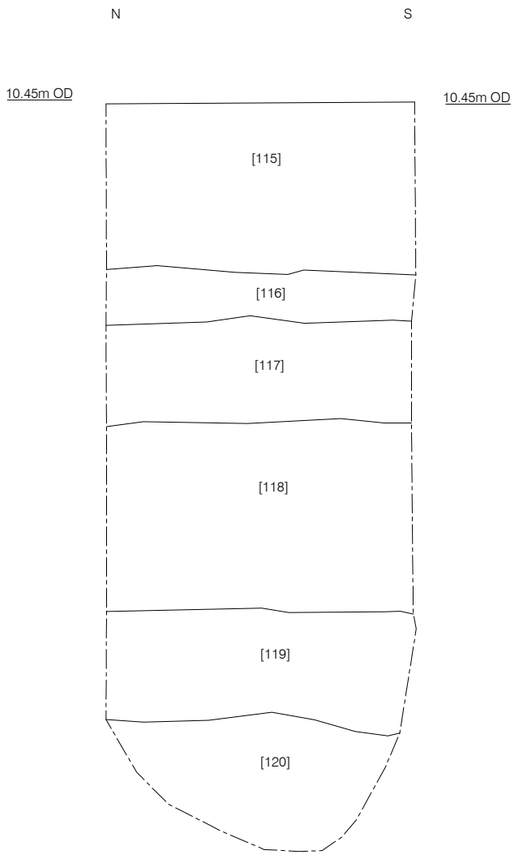
Section 1
South Facing
Trench 5



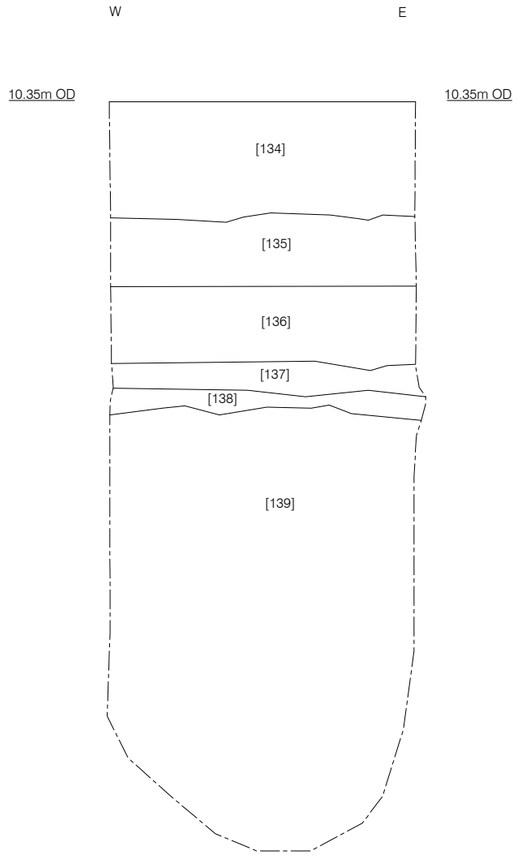
Section 5
South Facing
Trench 1

16/11/18 DV

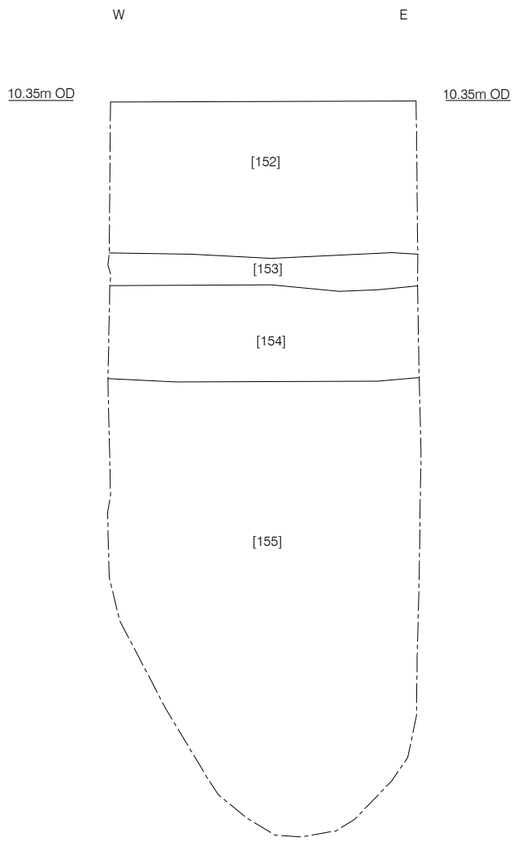
Figure 6
Sections 1 and 5
1:40 at A4



Test Pit 3
West Facing
Trench 4



Test Pit 6
South Facing
Trench 3



Test Pit 10
South Facing
Trench 1

0 2m

05/12/18 DV

Figure 7
Geotech Sections from Test Pits 3, 6, and 10
1:40 at A3

APPENDIX 1: GEO-ARCHAEOLOGICAL TEST PIT LOGS

Table 1: Summary

Sediment group	**Deposit**	**Period**	**Interpretation**	**Test-pits**
Made-ground	MADE GROUND: Unconsolidated CBM, concrete, plastic, metal etc. in a sandy silt-clay matrix	Recent	Re-introduced levelling deposits	All
II	SANDY SILT-CLAY: Dull mid brown sandy and gravelly silt-clay. Root / worm holes, small fragments of CBM and charcoal. Sharp contact with [134]	Late Pleistocene / Holocene	Reworked Langley Silt Complex (Brickearth).	All except TP7
I	SAND AND GRAVEL: Loosely compacted mid orange brown weakly horizontally bedded and moderately well sorted bands of sand, gravel and pebbles, and sand supported gravels and pebbles. Flint clasts including Tertiary pebbles, occasional quartz pebbles. Diffuse interface with Sedimentary unit above.	Pleistocene	Mucking Gravel Formation	All

Table 2: Test pit 1

Test pit:	1	**Dimensions**		Length (m):		**NGR**	Easting:	
Date:	07/11/2018			Width (m):			Northing:	
Height OD (m)	10.40			Depth (m):				
East End Trench 5								
Group	Context	Description	depth (top	depth (base	samples	vol. (L)	Lithic finds	Enviro remains
Made-ground	101	MADE GROUND: Unconsolidated CBM, concrete, plastic, metal etc. in a sandy silt-clay matrix	0.00	1.00				
II	102	SANDY SILT-CLAY: Dull mid brown sandy and gravelly silt-clay. Root / worm holes, small fragments of CBM and charcoal. Sharp contact with [101]	0.95	1.30	<>	100	None	None
I	103	SANDY GRAVEL. Firmly compacted dark orange-brown poorly sorted rounded to sub-angular gravel, pebbles and small cobbles <50mm (60%), sub-angular cobbles <150mm (10%) in a stiff clayey coarse sand matrix (30%). Silt-clay content reduced with depth. Flint clasts including Tertiary pebbles, occasional quartz pebbles. Very diffuse interface with [102]	1.22	1.98	<>	100	None	None
I	104	SANDY GRAVEL. Similar to [103] but more obviously horizontally bedded and loosely compacted 50mm - 150mm thick bands of coarse sand, gravel and unsupported small pebbles. Some (Mn?) staining. Flint clasts including Tertiary pebbles, occasional quartz pebbles. Very diffuse interface with [103]	1.95	2.50	<>	100	None	None
	105	SANDY GRAVEL. Similar to [103] but less silt-clay; gravels in a sandy matrix. Very diffuse interface with [104]	2.46	2.95	<>	100	None	None
	106	SANDY GRAVEL: As [104]. Very diffuse interface with [105]	2.95	>3.22	<>	100	None	None

Table 3: TP2

Test pit:	2	**Dimensions**		Length (m):		**NGR**	Easting:	
Date:	07/11/2018			Width (m):			Northing:	
Height OD (m)	10.44			Depth (m):				
West End Trench 5								
Group	Context	Description	depth (top	depth (base	samples	vol. (L)	Lithic finds	Enviro remains
Made-ground	107	MADE GROUND: Unconsolidated CBM, concrete, plastic, metal etc. in a sandy silt-clay matrix	0	1.1				
II	108	SANDY SILT-CLAY: Dull mid brown sandy and gravelly silt-clay. Root / worm holes, small fragments of CBM and charcoal. Sharp contact with [107]	1.1	1.4	<>	100	2 flint flakes	None
I	109	SANDY GRAVEL. Firmly compacted dark orange-brown weakly bedded rounded to sub-angular gravel, pebbles and small cobbles <50mm (60%), sub-angular cobbles <150mm (10%) in a stiff clayey coarse sand matrix (30%). Silt-clay content reduced with depth. Flint clasts including Tertiary pebbles, occasional quartz pebbles. Very diffuse interface with [108]	1.34	2.6	<>	100	None	None
	110	SAND AND GRAVEL: Loosely compacted mid orange brown horizontally bedded gravel, pebbles and small cobbles <50mm (5%) in a coarse sand matrix (50%). Occasional lenses of coarse sand. Flint clasts including Tertiary pebbles, occasional quartz pebbles. Very diffuse interface with [109]	2.38	3.15	<>	100	None	None
	111	PEBBLES: Loosely compacted yellow-brown rounded pebbles <5mm - <5 - <30mm.	3.12	3.32	<>	100	None	None
	112	SAND AND GRAVEL: Loosely compacted mid orange brown horizontally bedded gravel, pebbles and small cobbles <50mm (5%) in a coarse sand matrix (50%). Occasional lenses of coarse sand. Flint clasts including Tertiary pebbles, occasional quartz pebbles. Very diffuse interface with [111]	3.3	>3.22	<>	100	None	None
	113	PEBBLES: Loosely compacted yellow-brown rounded pebbles <5mm - <5 - <30mm.	3.5	3.7	<>	100	None	None
	114	SAND AND GRAVEL: Loosely compacted mid orange brown horizontally bedded gravel, pebbles and small cobbles <50mm (5%) in a coarse sand matrix (50%). Occasional lenses of coarse sand. Flint clasts including Tertiary pebbles, occasional quartz pebbles. Very diffuse interface with [113]	3.7	>3.80	<>	100	None	None

Table 4: TP3

Test pit:	3	**Dimensions**		Length (m):		**NGR**	Easting:	
Date:	07/11/2018			Width (m):			Northing:	
Height OD (m)	10.45			Depth (m):				
South end Trench 4								
Group	Context	Description	depth (top	depth (base	samples	vol. (L)	Lithic finds	Enviro remains
Made-ground	115	MADE GROUND: Unconsolidated CBM, concrete, plastic, metal etc. in a sandy silt-clay matrix. Sharp contact with [115]	0	1.12				
II	116	SANDY SILT-CLAY: Dull mid brown sandy and gravelly silt-clay. Root / worm holes, small fragments of CBM and charcoal	1.06	1.4	<>	100	None	None
I	117	SANDY GRAVEL. Firmly compacted dark orange-brown massive, rounded to sub-angular gravel, pebbles and small cobbles <50mm (60%), sub-angular cobbles <150mm (10%) in a stiff clayey coarse sand matrix (30%). Silt-clay content reduced with depth. Flint clasts including Tertiary pebbles, occasional quartz pebbles. Very diffuse interface with [116]	1.2	2.1	<>	100	None	None
	118	SAND AND GRAVEL: Loosely compacted mid orange brown horizontally bedded bands of gravel and pebbles in a coarse sand matrix and coarse sand. Occasional lenses of unsupported pebbles. Flint clasts including Tertiary pebbles, occasional quartz pebbles. Very diffuse interface with [117]	2.06	3.3	<>	100	None	None
	119	SAND AND GRAVEL: Loosely compacted mid orange brown horizontally bedded gravel, pebbles and small cobbles <50mm (5%) in a coarse sand matrix (50%). Becomes sandier with depth. Occasional lenses of coarse sand and unsupported pebbles. Flint clasts including Tertiary pebbles, occasional quartz pebbles. Very diffuse interface with [118]	3.28	4.04	<>	100	None	None
	120	SAND: Loosely compacted yellow coarse sand. Very diffuse boundary with [119]	3.98	>4.90	<>	100	None	None

Table 5: TP4

Test pit:	4	**Dimensions**		Length (m):		**NGR**	Easting:	
Date:	07/11/2018			Width (m):			Northing:	
Height OD (m)	10.40			Depth (m):				
North end of Trench 4								
Group	Context	Description	depth (top	depth (base	samples	vol. (L)	Lithic finds	Enviro remains
Made-ground	121	MADE GROUND: Unconsolidated CBM, concrete, plastic, metal etc. in a sandy silt-clay matrix	0	1.02				
II	122	SANDY SILT-CLAY: Dull mid brown sandy and gravelly silt-clay. Root / worm holes, small fragments of CBM and charcoal. Sharp contact with [121]	1	1.2	<>	100		None
I	123	SILTY GRAVEL. Firmly compacted dark orange-brown massive, rounded to sub-angular gravel, pebbles and small cobbles <50mm (60%), sub-angular cobbles <150mm (10%) in a stiff sandy silt-clay matrix (30%). Flint clasts including Tertiary pebbles, occasional quartz pebbles. Very diffuse interface with [122]	1.18	1.5	<>	100	1 small struck flake	None
	124	SANDY GRAVEL. Firmly compacted dark orange-brown massive, rounded to sub-angular gravel, pebbles and small cobbles <50mm (60%), sub-angular cobbles <150mm (10%) in a stiff clayey coarse sand matrix (30%). Silt-clay content reduced with depth. Flint clasts including Tertiary pebbles, occasional quartz pebbles. Very diffuse interface with [123]	1.36	2.72	<>	100	None	None
	125	SAND AND GRAVEL: Loosely compacted mid orange brown horizontally bedded bands of gravel and pebbles in a coarse sand matrix and coarse sand. Occasional lenses of unsupported pebbles. Flint clasts including Tertiary pebbles, occasional quartz pebbles. Very diffuse interface with [124]	2.68	3.5	<>	100	None	None
	126	SAND: Loosely compacted yellow horizontally bedded gravelly coarse sand with occasional pure coarse sand lenses. Very diffuse boundary with [125]	3.5	3.98	<>	100	None	None
	127	GRAVELLY SAND: Loosely compacted horizontally bedded yellow gravelly coarse sand with occasional pure coarse sand lenses. Very diffuse boundary with [126]	3.95	>4.95	<> + <1> retained for clast size and lithology	100 + 1	None	None

Table 6: TP5

Test pit:	5	**Dimensions**		Length (m):		**NGR**	Easting:	
Date:	07/11/2018			Width (m):			Northing:	
Height OD	10.36			Depth (m):				
West end Trench 3								
Group	Context	Description	depth (to	depth (ba	samples	vol. (L)	Lithic find	Enviro ren
Made-ground	128	MADE GROUND: Unconsolidated CBM, concrete, plastic, metal etc. in a sandy silt-clay matrix	0	0.92				
II	129	SANDY SILT-CLAY: Dull mid brown sandy and gravelly silt-clay. Root / worm holes, small fragments of CBM and charcoal. Sharp contact with [128]	0.9	1.05	<>	100	1 struck fli	None
I	130	SANDY GRAVEL. Firmly compacted dark orange-brown horizontally bedded rounded to sub-angular gravel, pebbles and small cobbles <50mm (60%), sub-angular cobbles <150mm (10%) in a stiff clayey coarse sand matrix (30%). Silt-clay content reduced with depth. Flint clasts including Tertiary pebbles, occasional quartz pebbles. Very diffuse interface with [129]	1	1.48	<>	100	None	None
	131	SANDY GRAVEL. Moderately compacted dark orange-brown horizontally bedded rounded to sub-angular gravel, pebbles and small cobbles <50mm (60%), sub-angular cobbles <150mm (10%) in a coarse sand matrix (30%). Flint clasts including Tertiary pebbles, occasional quartz pebbles. Very diffuse interface with [130]	1.42	2	<>	100	None	None
	132	SAND AND GRAVEL: Loosely compacted mid orange brown horizontally bedded bands of gravel and pebbles in a coarse sand matrix and coarse sand. Occasional lenses of unsupported pebbles. Flint clasts including Tertiary pebbles, occasional quartz pebbles. Very diffuse interface with [131]	2	2.32	<>	100	None	None
	133	SANDY GRAVEL. Firmly compacted dark orange-brown horizontally bedded rounded to sub-angular gravel, pebbles and small cobbles <50mm (60%), sub-angular cobbles <150mm (10%) in a coarse sand matrix (30%). Occasional lenses <100mm of coarse sand. Flint clasts including Tertiary pebbles, occasional quartz pebbles. Diffuse interface with [132]	2.32	>4.70	<>	100	None	None

Table 7: TP6

Test pit:	6	**Dimensions**		Length (m):		**NGR**	Easting:	
Date:	07/11/2018			Width (m):			Northing:	
Height OD	10.35			Depth (m):				
East end Trench 3								
Group	Context	Description	depth (top	depth (ba	samples	vol. (L)	Lithic find	Enviro ren
Made-ground	134	MADE GROUND: Unconsolidated CBM, concrete, plastic, metal etc. in a sandy silt-clay matrix	0	0.8				
II	135	SANDY SILT-CLAY: Dull mid brown sandy and gravelly silt-clay. Root / worm holes, small fragments of CBM and charcoal. Sharp contact with [134]	0.72	1.2	<>	100	None	None
I	136	SILTY GRAVEL. Firmly compacted dark orange-brown massive, rounded to sub-angular gravel, pebbles and small cobbles <50mm (60%), sub-angular cobbles <150mm (10%) in a stiff sandy silt-clay matrix (30%). Flint clasts including Tertiary pebbles, occasional quartz pebbles. Very diffuse interface with [135]	1.2	1.72	<>	100	None	None
	137	SILTY GRAVEL. Firmly compacted dark orange-brown massive, rounded to sub-angular gravel, pebbles and small cobbles <50mm (60%), sub-angular cobbles <150mm (10%) in a coarse sand matrix (30%). Flint clasts including Tertiary pebbles, occasional quartz pebbles. Very diffuse interface with [136]	1.7	1.92	<>	100	None	None
	138	SAND: Loosely compacted yellow coarse sand. Diffuse contact with [137]	1.88	2.05	<>	100	None	None
	139	SANDY GRAVEL. Moderately compacted dark orange-brown horizontally bedded rounded to sub-angular gravel, pebbles and small cobbles <50mm (70%), sub-angular cobbles <150mm (10%) in a coarse sand matrix (20%). Flint clasts including Tertiary pebbles, occasional quartz pebbles. Diffuse interface with [138]	1.98	>4.90	<>	100	None	None

Table 8: TP7

Test pit:	7	**Dimensions**		Length (m):		**NGR**	Easting:	
Date:	08/11/2018			Width (m):			Northing:	
Height OD	10.27			Depth (m):				
South end Trench 2								
Group	Context	Description	depth (top	depth (ba	samples	vol. (L)	Lithic find	Enviro rem
Made-ground	140	MADE GROUND: Unconsolidated CBM, concrete, plastic, metal etc. in a sandy silt-clay matrix	0	1				
I	141	SILTY GRAVEL. Firmly compacted dark orange-brown massive, rounded to sub-angular gravel, pebbles and small cobbles <50mm (60%), sub-angular cobbles <150mm (10%) in a stiff sandy silt-clay matrix (30%). Flint clasts including Tertiary pebbles, occasional quartz pebbles. Sharp interface with [140]	1	1.9	<>	100	None	None
	142	SAND AND GRAVEL: Loosely compacted mid orange brown horizontally bedded bands of gravel and pebbles in a coarse sand matrix and coarse sand. Occasional lenses of unsupported pebbles. Flint clasts including Tertiary pebbles, occasional quartz pebbles. Very diffuse interface with [141]	1.9	>4.85	<>	100	None	None

Table 9: TP8

Test pit:	8	**Dimensions**		Length (m):		**NGR**	Easting:	
Date:	08/11/2018			Width (m):			Northing:	
Height OD	10.28			Depth (m):				
North end of Trench 2								
Group	Context	Description	depth (top	depth (base	samples	vol. (L)	Lithic finds	Enviro remains
Made-ground	143	MADE GROUND: Unconsolidated CBM, concrete, plastic, metal etc. in a sandy silt-clay matrix	0	0.5				
II	144	SANDY SILT-CLAY: Dull mid brown sandy and gravelly silt-clay. Root / worm holes, small fragments of CBM and charcoal. Sharp contact with [143]	0.5	1.1	<>	100	2 small struck flint flakes	None
I	145	SILTY GRAVEL. Firmly compacted dark orange-brown massive, rounded to sub-angular gravel, pebbles and small cobbles <50mm (60%), sub-angular cobbles <150mm (10%) in a stiff sandy silt-clay matrix (30%). Flint clasts including Tertiary pebbles, occasional quartz pebbles. Diffuse contact with [144]	1	2.9	<>	100	None	None
	146	SAND AND GRAVEL: Loosely compacted mid orange brown horizontally bedded bands of gravel and pebbles in a coarse sand matrix and coarse sand. Occasional lenses of unsupported pebbles. Flint clasts including Tertiary pebbles, occasional quartz pebbles. Very diffuse interface with [145]	2.9	3.6	<>	100	None	None
	147	GRAVELLY SAND: Loosely compacted horizontally bedded yellow gravelly coarse sand with occasional pure coarse sand lenses. Very diffuse boundary with [146]	3.6	>5.10	<>	100	None	None

Table 10: TP9

Test pit:	9	**Dimensions**		Length (m):		**NGR**	Easting:	
Date:	08/11/2018			Width (m):			Northing:	
Height OD	10.35			Depth (m):				
Centre of Trench 01								
Group	Context	Description	depth (top	depth (ba	samples	vol. (L)	Lithic find	Enviro ren
Made-ground	148	MADE GROUND: Unconsolidated CBM, concrete, plastic, metal etc. in a sandy silt-clay matrix	0	0.92				
II	149	SANDY SILT-CLAY: Dull mid brown sandy and gravelly silt-clay. Root / worm holes, small fragments of CBM and charcoal. Sharp contact with [148]	0.9	1.22	<>	100	None	None
I	150	SANDY GRAVEL. Firmly compacted dark orange-brown poorly sorted rounded to sub-angular gravel, pebbles and small cobbles <50mm (60%), sub-angular cobbles <150mm (10%) in a stiff clayey coarse sand matrix (30%). Silt-clay content reduced with depth. Flint clasts including Tertiary pebbles, occasional quartz pebbles. Very diffuse interface with [102]	1.15	1.65	<>	100	None	None
	151	SANDY GRAVEL. Moderately compacted dark orange-brown weakly bedded rounded to sub-angular gravel, pebbles and small cobbles <50mm (60%), sub-angular cobbles <150mm (10%) in a coarse sand matrix (30%). Flint clasts including Tertiary pebbles, occasional quartz pebbles. Very diffuse interface with [136]	1.6	>4.80	<> + <1> retained for clast size and lithology	100 + 10	None	None

Table 11: TP10

Test pit:	10	**Dimensions**		Length (m):		**NGR**	Easting:	
Date:	08/11/2018			Width (m):			Northing:	
Height OD	10.35			Depth (m):				
East end Trench 1								
Group	Context	Description	depth (top	depth (base	samples	vol. (L)	Lithic finds	Enviro remains
Made-ground	152	MADE GROUND: Unconsolidated CBM, concrete, plastic, metal etc. in a sandy silt-clay matrix	0	1				
II	153	SANDY SILT-CLAY: Dull mid brown sandy and gravelly silt-clay. Root / worm holes, small fragments of CBM and charcoal. Sharp contact with [152]	1	1.2	<>	100	None	None
I	154	SILTY GRAVEL. Firmly compacted dark orange-brown massive, rounded to sub-angular gravel, pebbles and small cobbles <50mm (60%), sub-angular cobbles <150mm (10%) in a stiff sandy silt-clay matrix (30%), becoming less silt-clayey with depth. Flint clasts including Tertiary pebbles, occasional quartz pebbles. Diffuse contact with [153]	1.2	1.8	<>	100	None	None
	155	SAND AND GRAVEL: Loosely compacted mid orange brown horizontally bedded bands of gravel and pebbles in a coarse sand matrix with occasional pure coarse sand and unsupported pebble lenses. Flint clasts including Tertiary pebbles, occasional quartz pebbles. Very diffuse interface with [154]	1.8	>4.80	<>	100	None	None

APPENDIX 2: FINDS REPORTS

Glass Assessment (EAG18)

By Chris Jarrett

Two fragments of glass (74g) were recovered from the archaeological work and were found in two contexts. Context [6] produced a single rim sherd (1g) of a saucer made in opaque white glass, which in this case is dated from *c*. 1860, although the vessel could be of a 20th century date. From deposit [10] was derived an intact (74mm tall), moulded Bovril bottle (73g) made in brown high-lime low-alkali glass. The vessel has a patent/extract-type rim (22mm in diameter), a deep cylindrical neck and an oval section body with oval side panels. The narrow side panel shoulders are both embossed '1oz/BOVRIL' although one side additionally has embossed 'LIMITED'. The concave base underside is embossed 'IGI4/RP./1' and this may relate to the glass bottle maker. Bovril was first marketed in 1870 and so dates the bottle to the late 19th-mid 20th century.

The glass has no significance as it occurs in such a small quantity and without much meaning. The only potential of the material is to date the contexts it was recovered from. There are no recommendations for further work on the material, which can be discarded at the archive stage.

Post-Roman pottery spot dating index (EAG18)

Chris Jarrett

Introduction

A small assemblage of pottery was recovered from the excavation (six sherds/six estimated number of vessels /264g, none of which was unstratified). The pottery dates to the post-medieval period and more specifically the 19th century. The assemblage is in a good condition, although it is present only as sherd material, however, all the sherds could be assigned to a form. None of the sherds are residual and show no evidence of abrasion and therefore the assemblage was mostly deposited fairly rapidly after breakage or on its discard. The material was found in three contexts as small sized groups (under 30 sherds). The classification of the pottery types is according to the Museum of London Archaeology (2014). The assemblage is discussed as an index.

Index

ENV: estimated number of vessels

Context [2], spot date: mid 19th century

Pearlware with transfer-printed decoration (PEAR TR), 1770–1840, 1 sherd, 1 ENV, 6g, form: plate. Base sherd with an internal European landscape featuring the head of a European male with a hat.

Refined whiteware with under-glaze transfer-printed decoration (TPW), 1780–1900, 1 sherd, 1 ENV, 5g, form: medium rounded bowl. Simple rim. External landscape featuring a coconut palm and an internal scene of a Chinese person sat in a summerhouse.

Context [6], spot date: mid 19th century

Miscellaneous unsourced post-medieval pottery (MISC), 1480–1900, 2 sherds, 2 ENV, 23g, form: flower pot. Rim sherds: thickened straight-sided exteriors. Oxidised fine red earthenware.

Refined whiteware with under-glaze transfer-printed decoration (TPW), 1780–1900, 1 sherd, 1 ENV, 2g, form: plate. Rim sherd, decorated with the Wlid Rose rim border, dated to the mid-19th century.

Context [16], spot date: 19th century

Miscellaneous unsourced post-medieval pottery (MISC), 1480–1900, 1 sherd, 1 ENV, 228g, form: flower pot. Base sherd with a central drainage hole. Oxidised fine red earthenware.

Significance, potential and recommendations for further work

The pottery has no significance at a local level and consists of pottery types frequently found in the London area. The pottery has only the potential to date the contexts it was recovered from and infers very little upon activities associated with the study area, except that flower pots are well represented and indicate that horticulture was practiced on the study area . There are no recommendations for further work on the material, which has been fully catalogued and therefore can be discarded at the archive stage.

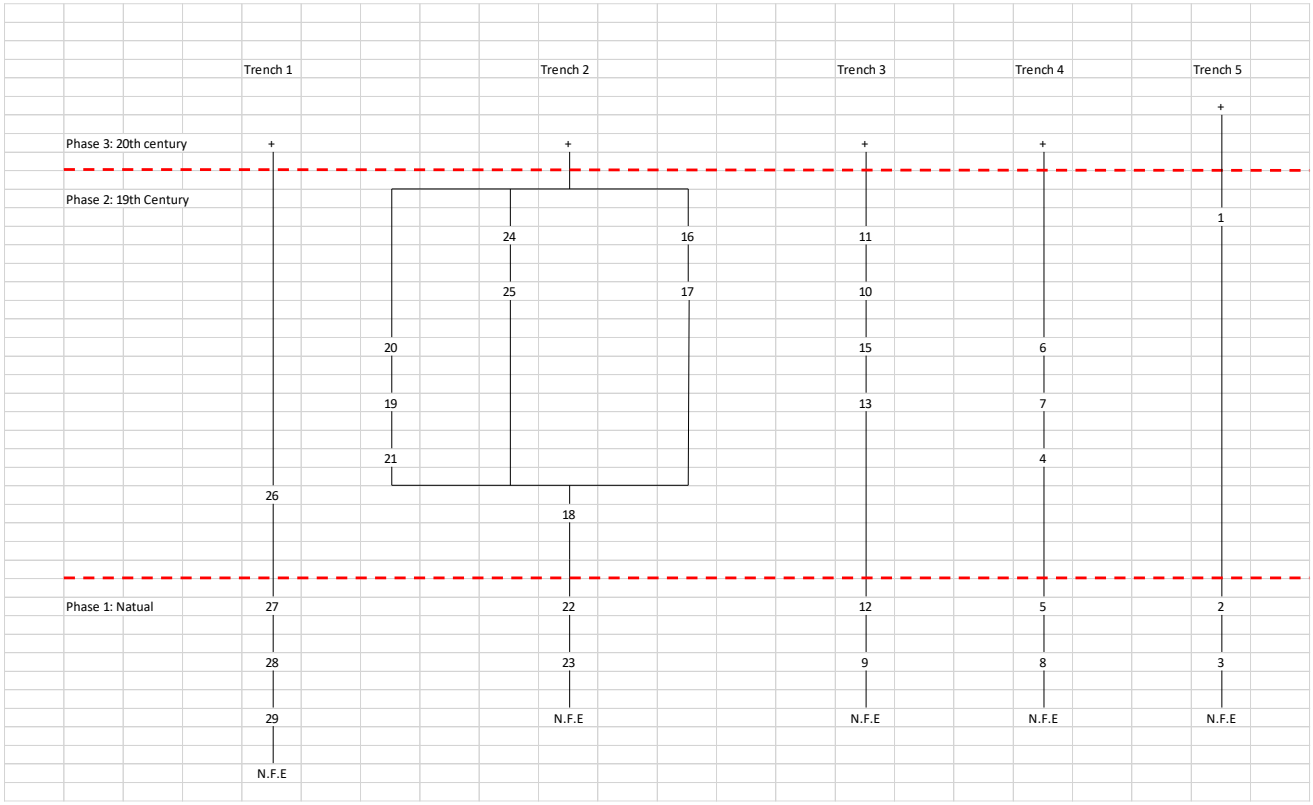
References

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

APPENDIX 3: CONTEXT LIST

Context	Type	Fill of	Trench	Interpretation	Category	Length	Width	Depth	Levels high	Levels low	Phase
1	Layer		5	Layer of modern made ground	Make-up	18.95	2	0.24	9.9		2
2	Natural		5	Reworked natural brickearth	Natural	18.95	2	0.2	9.6		1
3	Natural		5	Natural gravels	Natural	1.46	0.3	0.1	9.4		1
4	Layer		4	Post-medieval made ground	Make-up	1.2	18	0.24	9.86	9.71	2
5	Layer		4	Reworked brickearth	Natural	2.5	18	0.17	9.64	9.55	1
6	Fill	7		Fill of post-medieval pit	Backfill	0.95	0.25	0.53	9.67	9.4	2
7	Cut		4	Cut of post-medieval rubbish pit	Pit	0.95	0.25	0.53	9.67	9.14	2
8	Natural		4	Natural gravel	Natural	14.65	1.8	0.2	9.52	9.45	1
9	Natural		3	Natural gravel	Natural	15.95	2	0.1	9.42		1
10	Fill	15	3	Domestic waste	Backfill	1.65	0.5	0.35	9.39	9.36	2
11	Fill			Domestic waste	Backfill	1.45	0.5	0.78	9.6	9.58	2
12	Natural		3	Reworked brick earth	Natural	2	0.65	0.22	9.64		1
13	Layer		3	19th made ground	Make-up	1.85	2	0.4	10.04	9.59	2
14	Void										
15	Cut		3	Waste disposal pit	Pit	1.65	0.5	1.13	10	8.87	2
16	Fill	17	2	Fill of 19th century waste disposal pit	Backfill	1.1	0.5	0.1	9.16		2
17	Cut		2	19th century waste disposal pit	Backfill	1.1	0.1	0.87	10.03	9.16	2
18	Layer		2	19th century made ground	Horticultural	18	1.75	0.35	10.03		2
19	Masonry	21	2	Brick garden wall	Wall	0.61	0.33	1.75	10.18		2
20	Fill	19		Construction cut backfill	Backfill	0.5	1.75	0.43	10.03		2
21	Cut		2	Construction cut for 19th century brick wall	Cut						2
22	Layer		2	Brick earth	Natural	18	1.75	0.5	9.68		1
23	Layer		2	Natural sandy gravels	Natural	2	0.18	0.2	9.26	9.16	1
24	Fill	25	2	19th domestic waste	Backfill	1.1		0.35	10.03		2
25	Cut		2	19th century waste disposal pit	Backfill	1.1		0.5	10.03	9.53	2
26	Layer		1	19th century made ground horticultural deposit	Horticultural	1.9	21	0.3	10.12		2
27	Layer		1	Reworked brick earth	Natural	1.9	21	0.24	9.67		1
28	Layer		1	Natural brickearth	Natural	1.9	21	0.2	9.43		1
29	Layer		1	Natural sandy gravel	Natural	1.9	21		9.19		1

APPENDIX 4: MATRIX



APPENDIX 5: OASIS FORM

OASIS ID: preconst1-334658

Project details

Project name	140-150 EARLHAM GROVE, LONDON BOROUGH OF NEWHAM E7 9AB
Short description of the project	This report details the results of an archaeological evaluation undertaken by Pre-Construct Archaeology at 140-150 Earlham Grove, Forest Gate, London Borough of Newham E7Five evaluation trenches were excavated. The earliest deposits encountered on site were Pleistocene gravels overlain by brickearth. Levels taken on the natural deposits indicated that the natural topography was flat. A total of ten dedicated geo-archaeological test-pits were excavated, two in each trench, all of which revealed Pleistocene deposits. A small quantity of derived struck flints was also recovered, the majority coming from the disturbed upper surface of the Pleistocene deposits. Other than the struck flints, no archaeological evidence dating to before the 19th century was recovered from the site. Evidence of landscaping and waste disposal pits dated to the mid 19th century were probably related to the back gardens of properties fronting Woodgrange Road.
Project dates	Start: 05-11-2018 End: 08-11-2018
Previous/future work	No / Not known
Any associated project reference codes	EAG18 - Sitecode
Type of project	Field evaluation
Site status	Local Authority Designated Archaeological Area
Current Land use	Vacant Land 1 - Vacant land previously developed

Monument type	PIT Post Medieval
Significant Finds	FLINT Mesolithic
Methods & techniques	"Sample Trenches"
Development type	Urban residential (e.g. flats, houses, etc.)
Prompt	Planning condition
Position in the planning process	After full determination (eg. As a condition)

Project location

Country	England
Site location	GREATER LONDON NEWHAM EAST HAM 140-150 Earlham Grove, Forest Gate
Postcode	E7 9AB
Study area	3702 Square metres
Site coordinates	TQ 40452 85153 51.547268048877 0.025819886531 51 32 50 N 000 01 32 E Point
Height OD / Depth	Min: 9.26m Max: 9.52m

Project creators

Name of Organisation	PCA
Project brief originator	GLAAS

Project design originator	Helen Hawkins
Project director/manager	Helen Hawkins
Project supervisor	Barry Bishop
Project supervisor	Joe Brooks
Type of sponsor/funding body	House builder
Name of sponsor/funding body	Hill Partnerships

Project archives

Physical Archive recipient	LAARC
Physical Archive ID	EAG18
Physical Contents	"Worked stone/lithics"
Digital Archive recipient	LAARC
Digital Archive ID	EAG18
Digital Contents	"Ceramics","Worked stone/lithics"
Digital Media available	"Images raster / digital photography","Text"

Paper Archive recipient	LAARC
Paper Archive ID	EAG18
Paper Contents	"none"
Paper Media available	"Context sheet","Plan","Section"

Project bibliography 1

Publication type	Grey literature (unpublished document/manuscript)
Title	140-150 EARLHAM GROVE, LONDON BOROUGH OF NEWHAM E7 9AB AN ARCHAEOLOGICAL EVALUATION
Author(s)/Editor(s)	Brooks, J
Date	2018
Issuer or publisher	PCA
Place of issue or publication	London

APPENDIX 6: LITHICS

An Archaeological Evaluation at 140-150 Earlham Grove, London Borough of Newham

Site Code: EAG 18

Lithic Assessment

Dr Barry Bishop December 2018

Introduction

Archaeological investigations at the above site resulted in the recovery of a small quantity of struck flint. A full catalogue of the material arranged by individual contexts is presented in Appendix 6; this should be consulted for information relating to the specific metrical and other details of each piece. This report summarises that information, describing the general characteristic of the assemblage and its distribution across the site and comments on its archaeological significance. All metrical data is based on that devised by Saville (1980).

Quantification

Context	Feature	Test-pit	Flake	Blade-like flake	Blade
23	Pleistocene gravels	4		1	
144	Brickearth	8			1
144	Brickearth	8		1	
129	Brickearth	5	1		
108	Brickearth	2	1		
108	Brickearth	2	1		

Table L01: Quantification of struck flint by geo-archaeological test-pit

A total of six struck flints were recovered during the excavations, all of which were recovered during the sieving samples taken from the upper parts of the Pleistocene sequence. Langley Silt Deposits (brickearth) provided five of these, two each from Test-pits 2 and 8 and the other from Test-pit 5, whilst one struck piece was recovered from just below the brickearth in the upper part of the Taplow Gravels in Test-pit 5.

Description

The struck pieces comprise three flakes, two blade-like flakes and a blade, all made from a fine grained 'glassy' black or brown flint. Only one piece retained cortex which consisted of an ancient, mineral stained, thermal surface. They are all small and in a good or only slightly chipped condition with none showing any evidence of rolling (Table LO2).

There are no retouched implements or any other typologically diagnostic pieces and dating is problematic. The blade and two blade-like flakes derive from a systematic, blade-based, approach to reduction which is characteristic of Upper Palaeolithic through to Early Neolithic industries.

Taken together, and given their size, lack of rolling or (post-flaking) mineral staining and the clearly disturbed nature of the brickearth, they are most likely to be Holocene in date, most probably Mesolithic or Early Neolithic. Their recovery from the upper parts of the Pleistocene sequence suggests that they are intrusive; their size indicating that they may have been introduced through biological (worms, roots) or mechanical (ploughing) reworking of the brickearth and underlying gravels.

Recommendations

The struck flint assemblage has been comprehensively catalogued and no further analytical work is recommended. It is also small in quantity and devoid of secure contextual association, which limits its interpretative value. Nevertheless, it does contribute in a small way to broader understanding of prehistoric activity in this part of London and, consequently, a record of their presence should be made in the local Historic Environment Record and they should be mentioned in any published accounts of the investigations.

Bibliography

Saville, A. 1980 On the Measurement of Struck Flakes and Flake Tools. *Lithics* 1, 16-20.

Context	Feature	Trench	Test-pit	Flake	Blade-like flake	Blade	Colour	Cortex	Condition	Suggested date range	Comments
108	Langley Silt	5	2	1			Translucent black	None	Good	Undated	Thin but wide, reasonably well struck but hinged termination. 21x33x3mm
108	Langley Silt	5	2	1			Translucent mid brown	Ancient thermal scar	Slightly chipped	Undated	Quite narrow, plunged distal termination
123	Pleistocene gravels	4	4		1		Translucent dark brown	None	Slightly chipped	Meso/ENeo	Small narrow flake with parallel dorsal scars. 21x13x2mm
129	Langley Silt	3	5	1			Translucent mid brown	None	Slightly chipped	Undated	Small trimming flake, 10x13x1mm
144	Langley Silt	2	8			1	Translucent black	None	Good	Meso/ENeo	Small, 18x8x2mm
144	Langley Silt	2	8		1		Translucent mid brown	None	Slightly chipped	Undated	Small trimming flake, 21x14x4mm

Table LO2 Lithic Descriptions

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
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t: 01926 485490
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PCA WINCHESTER
5 RED DEER COURT, ELM ROAD
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e: winchester@pre-construct.com