

ASSESSMENT REPORT FOR ARCHAEOLOGICAL MITIGATION

NORTH ISLAND PLOT A, TOTTENHAM HALE CENTRE, LONDON, N17
9LB

JAC23963
Archaeological Mitigation
Assessment Report
Version: For Planning Issue
Site Code: THC20
Planning Ref: HGY/2018/2223
November 2022

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1 ABSTRACT

- 1.1 This report details the results of an archaeological excavation undertaken by Pre-Construct Archaeology Ltd (PCA) on land at North Island Plot A, Tottenham Hale Centre, London Borough of Haringey N17 9LB. The work was commissioned by RPS Consulting Services UK Ltd on behalf of Argent . The central grid reference for the site was TQ 34267 89579 (Figure 1)
- 1.2 Fieldwork was undertaken between 11th and 18th December 2020, with a further watching brief monitoring seven test pits and the area of an attenuation tank between 29th January and 11th March 2021. The archaeological investigations revealed six phases of archaeological activity dating from the natural formation of the site to the 20th century.
- 1.3 The natural drift geology comprised a natural brickearth horizon, consistent with the Enfield Silt Formation, overlain by a naturally deposited layer of alluvial silty clay. The brickearth was recorded between 7.09m OD to 6.92m OD in the western portion of the site and the alluvium between 7.10m OD and 6.85m OD in east.
- 1.4 A group of undated features, which included two linear cuts and features with characteristics consistent with plant or tree growth, were uncovered in the south of the excavation Trench 5. Similar deposits of sterile dark, silty clay material were noted filling all of these features.
- 1.5 Prehistoric activity was confirmed on site with the presence of one shallow burnt feature, two shallow postholes, a very shallow linear and three tree-throws. A small assemblage of flint including one Mesolithic/early Neolithic flint core, fragments of struck flint and a number of burnt flint fragments were produced from this phase.
- 1.6 The next period of human activity encountered during the excavation was dated to the middle of the Post-Medieval period. This activity was confined to the eastern portion of the site and included an NNW-SSE aligned ditch, a smaller linear cut, a group of three pits also aligned NNW-SSE and five shallow cut features in the southeast corner of Trench 5. Late medieval pottery and CBM recovered from the ditch provided the dating evidence for this phase as after AD1630.
- 1.7 Evidence of a major flood event sometime in the mid to late Post-Medieval was seen across the site. This deposited a layer of alluvial clay across the study area that sealed the earlier features. Two postholes, cutting into this alluvium, were the only evidence of human activity on site during this phase.
- 1.8 The last phase of archaeological activity occurred in the 19th –20th century. This included four walls, two brick-lined wells, a cesspit and various soil horizons, probably associated with residential properties seen on the historic maps of the period.

2 INTRODUCTION

- 2.1 This report details the results and working methods of an archaeological field excavation and watching brief undertaken at North Island Plot A, Tottenham Hale Centre, London Borough of Haringey, by Pre-Construct Archaeology Ltd between 11th December 2020 and 11th March 2021. The excavation area comprised one main trench of 233.25m² (Figure 2, Trench 5), a watching brief monitoring seven test pits (Figure 2, TP1-7) and the area for an attenuation tank of 57.7m² (Figure 2, Trench 6). Test Pits 6 and 7 monitored the area at the base of the cladding for the Premier Inn site on the eastern boundary as detailed in the WSI and RAMS for Stage 2 Archaeological Mitigation (RPS and PCA 2020). These works took place in advance of a mixed-use redevelopment comprising residential, retail, leisure, and office space, and formed part of the wider Tottenham Hale redevelopment. The archaeological work was commissioned by RPS Consulting Services UK Ltd on behalf of Argent.
- 2.2 The site was situated at North Island Plot A, Tottenham Hale Centre, London Borough of Haringey, N17 9LB, National Grid Reference TQ 34267 89579 (Figure 1). It is bounded by the five/six lane The Hale to the south and west (beyond which is a four-storey residential development), an existing retail unit to the north and the nine storey Premier Inn hotel to the east which was completed in 2016. Station Road also forms the southern side of the plot. The entire site covered an area of c.1430.95m².
- 2.3 The site has previously been subject to an archaeological desk-based assessment (CgMs Heritage 2018), a geoarchaeological borehole investigation and trial pit undertaken by QUEST (Lincoln 2020) and a four-trench archaeological evaluation undertaken by Pre-Construct Archaeology Ltd in September 2020 (Brooks 2020). This demonstrated that archaeological horizons were well-preserved in the northern portion of the site but in the south the sequence had been fully truncated by the basement of a former public house. Brickearth horizons were noted in evaluation Trenches 1-3 and evidence for early medieval and post-medieval activity was recorded in Trenches 2 and 3.
- 2.4 The investigation was conducted by PCA under the supervision of Shane Maher and the project was managed by Helen Hawkins. It was monitored by Adam Single of GLAAS (Historic England) on behalf of the London Borough of Haringey.
- 2.5 A site-specific Written Scheme of Investigation (RPS and PCA 2020) detailing the methodology and work programme for the archaeological excavation was prepared prior to the fieldwork and approved by Adam Single for Historic England on behalf of the London Borough of Haringey. This report details the results of the fieldwork and its methodology to demonstrate that all work has been carried out in accordance with the WSI and RAMS for Stage 2 Archaeological Mitigation (RPS and PCA 2020).
- 2.6 The site has been given the unique side code THC20. It is intended that the completed archive comprising written, drawn and photographic records will, upon completion of the project, be deposited with the London Archaeological Archive (LAA) and a copy of **this report submitted**

to the GLHER and OASIS for wider dissemination. An open day was held at the adjacent Ferry Island plot on 15th June 2022 for local schools and the general public. A site tour was given explaining the archaeology on view at Ferry Island and placing that in context with details of all of the Tottenham Hale Centre plots; Welbourne, Ferry Island, Ashley Road West and East and North Island. These plots were discussed and selected finds from all plots included in a table top display.

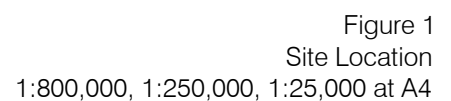


Figure 1
Site Location

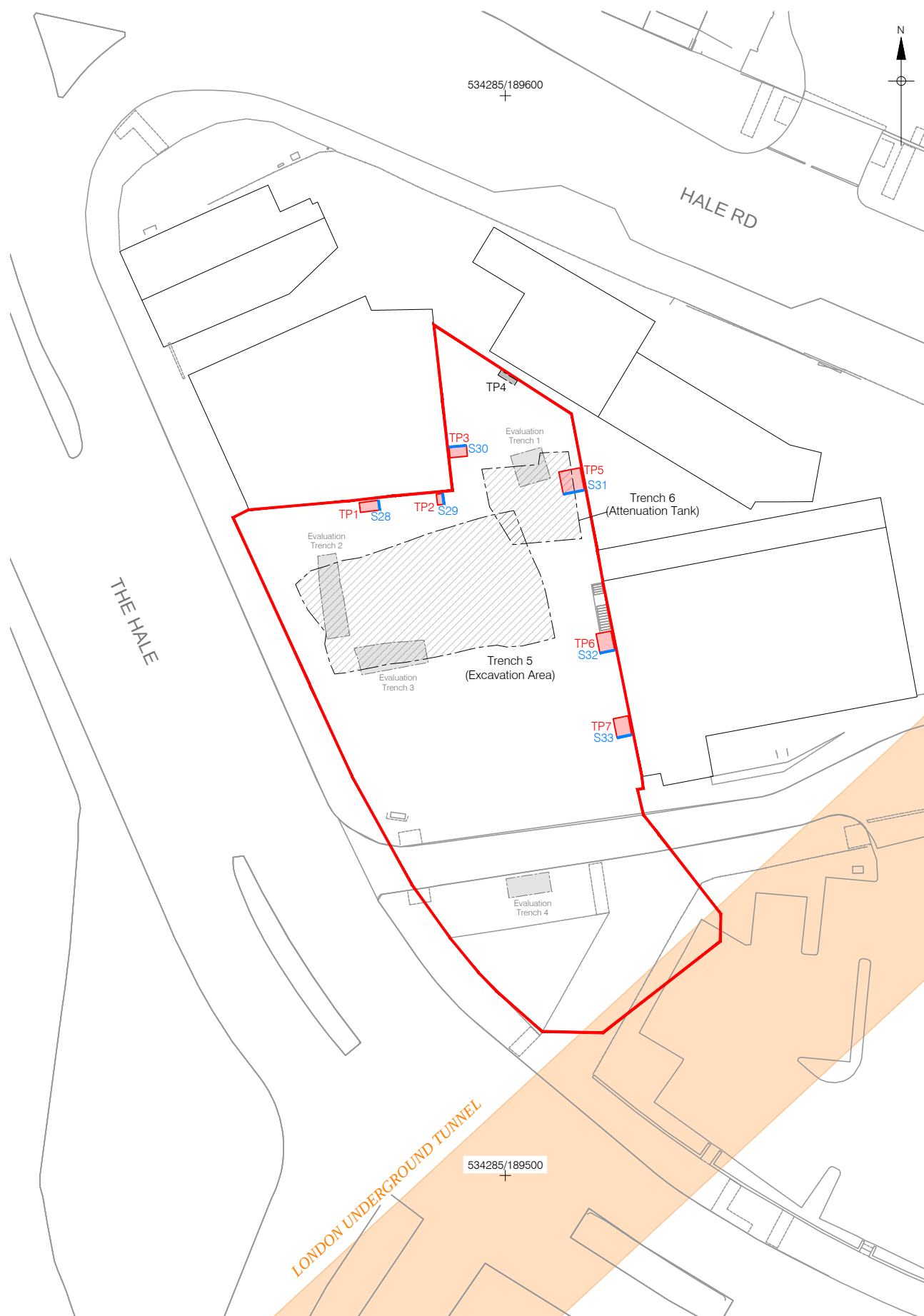


Figure 2
Detailed Site and Trench Location Plan showing Test Pit Section Locations
1:500 at A4

3 PLANNING BACKGROUND

- 3.1 The site was subject to an archaeological planning condition applied to planning application HGY/2018/2223:

Condition A23:

No demolition or development (apart from demolition to slab level) shall take place within Plot A until a stage 1 written scheme of investigation (WSI) in respect of Plot A has been submitted to and approved by the local planning authority in writing. For land that is included within the WSI, no demolition or development (apart from demolition to slab level) shall take place within Plot A other than in accordance with the agreed WSI, and the programme and methodology of site evaluation and the nomination of a competent person(s) or organisation to undertake the agreed works.

If heritage assets of archaeological interest are identified by stage 1 then for those parts of the site which have archaeological interest a stage 2 WSI shall be submitted to and approved by the local planning authority in writing. For land that is included within the stage 2 WSI, no demolition/development (apart from demolition to slab level) shall take place within Plot A other than in accordance with the agreed stage 2 WSI which shall include:

A. The statement of significance and research objectives, the programme and methodology of site investigation and recording and the nomination of a competent person(s) or organisation to undertake the agreed works.

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

- 3.2 The results presented in this report demonstrate that all of the work proposed in the Stage 2 Written Scheme of Investigation (RPS and PCA 2020) have been carried out, as required by Part B of Planning Condition A23.

4 GEOLOGY AND TOPOGRAPHY

- 4.1 The following is taken from the Written Scheme of investigation (RPS and PCA 2020):
- 4.1.1 The British Geological Survey (BGS Online 2018) indicates that the solid geology of the Plot comprises London Clay deposits (Clay, Silt & Sand) forming the London Basin.
- 4.1.2 Superficial deposits of Enfield Silt Member (Clay & Silt) are recorded across the Plot by the British Geological Survey.
- 4.1.3 The landscape zone within which Corcoran records the North Island plot is characterised as an area of London Clay situated at a height of 2-3m Ordnance Datum (OD), with the surface of the Pleistocene gravel at c.6-7m OD, overlain by c.1-3m of Enfield Silts (Corcoran *et al.* 2011) . It is also noted that it is difficult to differentiate between the Enfield Silts (brickearth) and Holocene alluvium/colluvium within the borehole logs used in the study.
- 4.1.4 Site investigation works were undertaken in early 2018 within the Welbourne, Ferry Island and North Island plots (Concept 2018). The borehole carried out in North Island roughly in the centre of the plot identified made ground of 1.2m thickness over River Terrace Deposits. The borehole recorded no further information until London Clay Formation was recorded at a depth of 5.6m below ground level.
- 4.1.5 A trial pit was carried out at the far southern boundary of the plot by QUEST (Lincoln 2020) which identified 1.4m of Made Ground over Enfield Silt.
- 4.1.6 The North Island plot is broadly level at c.8.48m OD in the north-centre of the plot, dropping down to 7.76m OD in the central and southern parts of the plot where the former pub and road were. The north-eastern corner was located at roughly 9.09m OD.
- 4.1.7 During the archaeological evaluation natural deposits [41], [31] and [22] consisting of mid orange brown sandy silty clay, representing the Enfield Silt member/brickearth (BGS Online 2020), were recorded as the basal layers in three of the four trenches. This layer was truncated in evaluation Trench 4 by modern development. Horizontal tubes of dark grey silt found as inclusions within the brickearth deposits were interpreted as the result of bioturbation.
- 4.1.8 In evaluation Trench 4 a layer of bluish grey clay [1] was recorded at a highest level of 6.29m OD and probably represented London Clay.
- 4.1.9 In two locations in evaluation Trench 3 where features were deeper, natural deposits comprising a layer of yellowish brown gravelly clay [23] was observed at a maximum level of 7.42m OD underlying the brickearth layer [22].
- 4.1.10 Brickearth deposits were recorded in evaluation Trenches 2 and 3 at a similar maximum level of between 7.68m OD and 7.62m OD in the north-west of the plot but at a lower maximum level of 7.16m OD in the north-east of the plot in evaluation Trench 1. Although this may indicate that the natural topography of the plot slopes down towards the north it is more likely that anthropogenic activity in the form of pits and ditches had reduced the level of the brickearth in

the vicinity of evaluation Trench 1.

- 4.1.11 During the excavation, the deposits which had been interpreted as Enfield silts during the archaeological evaluation (Brooks 2020) were re-evaluated and classed as water lain alluvial deposits which overlay an earlier layer of material more consistent with the Enfield silts. This layer was encountered in the west of the site at a high point of 7.09m OD.
- 4.1.12 The River Lee or Lea flows from Leagroave Marsh near Luton in Bedfordshire to its confluence with the River Thames at Bow Creek. The Lee Navigation is a canalised river constructed during the 18th century, and incorporated into the existing River Lea.
- 4.1.13 The canalised element runs from Hertford to Bow Creek and flows c.300m-550m to the east of the plot. The artificial elements of the river are referred to as Lee, as named by an Act of Parliament, and the natural features are referred to as Lea.

5 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

- 5.1 The following is taken from the Written Scheme of Investigation (RPS and PCA 2020), which is a summarised version of the desk- based assessment (CgMs Heritage 2018):

Early Prehistoric - Palaeolithic, Mesolithic & Neolithic

- 5.2 No evidence dating to the Palaeolithic, Mesolithic or Neolithic periods is recorded by the Greater London Historic Environment Record (GLHER) within 1km of the North Island plot.
- 5.3 Jane Corcoran (Corcoran *et al.* 2011) noted the lack of prehistoric evidence within the landscape zone within which the North Island plot is situated and suggest that this may be due to a lack of archaeological work or subsequent modern truncation rather than a lack of prehistoric activity.
- 5.4 Excavation work at the Welbourne plot, to the north of the North Island plot has identified a Mesolithic flint working site located at the top of the brickearth in a greenish brickearth layer. The results of the excavation indicate that activity during the Mesolithic period was taking place in 130m to the north-west of the North Island plot. There was no evidence for a similar greenish layer seen on the North Island evaluation.
- 5.5 No alluvial deposits were recorded during a recent geotechnical borehole investigation and geoarchaeological works undertaken by QUEST (Lincoln 2020) or during the evaluation (Brooks 2020). The QUEST geoarchaeological report did not recommend any further work. However, during the excavation sequences of alluvial deposits were identified across the site and examined further from a column sample (Appendix 8). This later sequence of alluvial deposits is thought to represent five or six flooding events associated with historical flooding of the River Lea. Current excavation at the nearby site of Ferry Island may have exposed a palaeochannel to the west of the site (Maher pers comm). The results of the current investigation will need to be compared with those from North Island to see if there is comparable supporting evidence for the possible flooding from both the palaeochannel and River Lea at both sites.

Bronze Age & Iron Age

- 5.6 A number of isolated Bronze Age finds were found within the marshland to the east of Tottenham Hale and are recorded within the area of the Maynard Reservoirs c.800m to the east of the North Island plot. These include cauldrons, spearheads, a dagger and a knife.
- 5.7 A ditch containing Late Bronze Age to Early Iron Age pottery was identified during an archaeological evaluation at Town Hall Approach c.700m south west of the North Island plot.
- 5.8 Building works within the area of the Low Maynard Reservoir c.800m east of the plot in 1869 revealed a series of timber piles interpreted as a pile dwelling plot. Eight pottery vessels were found apparently in association with the piles, and these were variously dated to the Late Bronze/Early Iron Age and to the Roman period.

5.9 Isolated Iron Age findspots are recorded by the GLHER within the Maynard Reservoir c.800m to the east of the North Island plot, including an axe and a spearhead.

5.10 Whilst the heavy London Clays underlying the North Island plot would have most likely provided an unattractive location for prehistoric agricultural activity, the Lee Valley is generally considered to hold an archaeological potential for the Later Prehistoric periods.

Roman

5.11 The High Road (A10), c.450m west of the Ferry Island plot, has been suggested to lie on the route of Ermine Street, a Roman road, running north-south linking the Roman towns of London and Lincoln.

Saxon/Early Medieval & Medieval

5.12 The name 'Tottenham' may derive from the Anglo-Saxon for Totta's village. This place name evidence is supported by an entry for the settlement in the Domesday Survey of 1086, strongly indicating that there was a settlement established in this area prior to 1066. In addition, the junction of Broad Lane and The Hale immediately west of the Ferry Land plot is thought to be the plot of an Early Saxon settlement, which continued to grow during the later Medieval and Post Medieval periods

5.13 Isolated finds of Early Medieval date within the Ferry Island Study Area Search Radius are limited to an early Viking sword found in the River Lea c.750m north east of the Ferry Island plot.

5.14 The HER records a further Saxon settlement at the High Road c.1km north west of the Ferry Island plot, which would later develop into a Medieval manor. Medieval remains associated with this manor that have been identified comprise a 14th century jug and a shallow gully containing a single sherd of Late Medieval pottery.

5.15 The Domesday Survey also mentions a weir in the manor of Tottenham, possibly sited near to the later Tottenham Mills c.400m west of the Ferry Island plot. The first reference to mills in Tottenham is in AD1254, and the quay which served the village of Tottenham during the Medieval period is recorded in the same area.

5.16 During the medieval period there is evidence that the settlements at Tottenham Hale and also along the High Road to the west had each expanded to become local focal points of activity. Evidence for this can be attributed to the number of Medieval roads which transect the area, primarily east to west. These are Phillip Lane, High Cross Lane, West Green Road, Broad Lane, Seven Sisters Road and Markfield Road to the west and south west of the Ferry Island plot and Forest Road c.800m to the east.

5.17 The GLHER indicates that there is evidence for a reasonable number of medieval structures in close proximity to the High Road c.450m west of the Ferry Island plot. These include various inns, a chapel, and location of a medieval road side cross whilst further north along the High Road a well and a further inn are recorded.

- 5.18 During evaluation trenching and excavation at the Welbourne plot, to the north of the North Island plot, a number of late Saxon/early medieval features were found (Maher pers comm). Medieval material was identified at the Ferry Island plot, directly to the south of North Island (PCA 2020). Medieval features were also seen during the North Island evaluation.

Post Medieval and Modern (including map regression exercise)

- 5.19 By 1600 Tottenham was recorded as a prosperous area with numerous alms-houses and charities, and by 1724 the density of buildings was so great it was noted as appearing to be one continuous street.
- 5.20 Thomas Clay's 1619 Survey of Tottenham shows the North Island plot occupied by a property and land owned by 'Mrs Candler'. A similar situation is shown on the 1754 Rocque map, and on Wyburd's Survey of 1798.
- 5.21 The 1843 Tottenham Tithe map shows the North Island plot occupied by a number of residential properties and associated yard areas. The Tithe Award describes those parcels within the North Island plot as follows:
- 568 - 8 Tenements and Yards
- 569 - 6 Cottages and Gardens
- 571 - White Hart Public House, Yard and Buildings
- 5.22 These buildings have been removed by 1864 and replaced with further residential terraced properties whilst the Public House has been expanded into the North Island plot. Minor changes are shown to the buildings on the 1894-6 Ordnance Survey Map.
- 5.23 The 1915 Ordnance Survey Map shows the clearance of the southern half of the North Island plot and the property in the north corner. The Public House has been removed and replaced with a new Public House in the southern area of the North Island plot, whilst terraced properties have been constructed along the northern boundary.
- 5.24 By 1939, the public house has been extended to the east and further buildings have been constructed in the central area of the North Island plot. The remaining mid-19th century properties in the centre of the North Island plot were demolished by 1955 and replaced with an industrial building.
- 5.25 A number of buildings were demolished in the central area of the North Island plot by 1975 and with significant changes to the road layout shown by 1999, the majority of the residential properties along the northern boundary of the North Island plot were demolished to accommodate these changes. No further changes are shown to the present day.
- 5.26 Brick walls of Victorian and 20th century date were encountered during the evaluation at North Island.

6 METHODOLOGY

- 6.1 The works were undertaken in accordance with the approved Written Schemes of Investigation (RPS and PCA 2020).
- 6.2 The works comprised one main excavation trench (Trench 5), seven test pits (TP1-7) and an attenuation tank (Trench 6) (Figure 2) . The attenuation tank excavation and the test pitting were monitored as watching briefs. Trench 5 covered an area of 233.25m² and was excavated to a maximum depth of 1.75m. In the northeast of the site Trench 6 covered an area 57.7m² and was 1.68m deep. The size and depth of the test pits and are tabulated below:

Test Pit	Length	Width	Depth
TP1	1.8m	0.9m	0.7m
TP2	1m	0.6m	0.77m
TP3	1.6m	1m	1.09m
TP4	1.8m	0.5m	0.1m
TP5	2.1m	2m	1.6m
TP6	1.8m	1.4m	1.1m
TP7	1.8m	1.4m	1.1m

- 6.3 A Temporary Benchmark (TBM) was established using GPS survey equipment on a concrete slab to the west of Trench 5 at a value of 8.34m OD. For the Trench 6 watching brief a TBM was established on the wall to the east at 10.0m OD.
- 6.4 All interventions associated with Trench 5 including trench edges, baselines and section lines were located using GPS survey equipment. Trench 6 was similarly recorded with the on-site engineer providing the survey data.
- 6.5 At first the modern overburden was removed by a JCB excavator, but because of on-site logistical constraints this was switched to a mechanical 360° excavator fitted with a ditching bucket. The overburden removal continued under archaeological supervision in spits of 100mm until the archaeological deposits and features were encountered. The archaeological deposits were excavated by PCA staff using hand tools, i.e. trowels, shovels and mattocks.
- 6.6 The archaeological deposits and features were recorded using standard single context recording, on *pro forma* context and planning sheets located on baselines. Plans and sections were drawn at a scale of 1:20 or 1:10 as appropriate. Digital photographs were taken.

- 6.7 In this report all context numbers (cuts, layers and fills) are written in squared brackets [] and environmental sample numbers are presented in curly brackets { }.

7 PHASED ARCHAEOLOGICAL SEQUENCE

7.1 Phase 1: Natural

7.1.1 The earliest deposit encountered was a brickearth horizon of light to mid, orange-brown silty sand [113] (Group 1). This was seen in the western portion of Trench 5 between 7.09m OD to 6.92m OD and represents the natural drift geology, the Enfield Silt Formation (brickearth), deposited between the Devensian Stage and Holocene Epoch (British Geological Survey 2021).

7.1.2 The brickearth was capped by a layer of natural alluvial (Group 2) material comprising a light yellowish to greenish brown silty clay [70] in Trench 5. In Trench 6 the alluvium [150] was a light yellow/orange brown colour. The alluvial material was noted in Trench 5 between 7.10m OD and 6.85m OD and in Trench 6 between 7.00m OD and 7.03m OD.

7.2 Phase 2: Undated

7.2.1 The undated phase relates to the earliest features and the alluvial deposit that covered them.

Group 3 Undated Features

7.2.2 Six undated features were recorded cutting into the alluvium [70] in the south-central area of Trench 5 (Figure 3, Plates 3 & 4). These all contained similar sterile fills consisting of firm, mid to dark grey/brown silts and clays. The table below lists the type, dimensions of the and levels of the cuts from this group.

Context	Type	Dimensions	Highest Level	Lowest Level
106	Linear cut	1.81m x 0.4m x 0.27m	6.7m OD	6.43m OD
108	Irregular/oval cut	1.76m x 0.82m x 0.12m	6.71m OD	6.59m OD
110	Linear cut	2.63m x 0.82m x 0.44m	6.78m OD	6.34m OD
112	Semi-circular cut	0.9m x 0.86m x 0.34m	6.9m OD	6.56m OD
116	Irregular cut	1.9m x 1m x 0.21m	6.71m OD	6.5m OD
118	Sub-oval cut	0.48m x 0.3m x 0.08m	6.83m OD	6.75m OD

Table 1: Group 3

7.2.3 The most notable feature of this group was linear [110], which lay on a north to south orientation with sides that sloped steeply down to a concave base. Due to the sterile nature of the fill [109] it was uncertain whether this was formed by natural processes or by human activity. An

environmental sample {59} was taken of the fill to further understand the nature of feature (Appendix 7).

- 7.2.4 A smaller linear feature [106] was located c.1.75m to west of, and parallel to cut [110], this had moderately steep sides and a concave to uneven base. The cut has been interpreted as a natural feature, possibly associated with the roots of a small tree or shrub. The fill [105] was sampled {60} to help better interpret the cut (Appendix 7).
- 7.2.5 To the immediate east of linear [106] lay the cut of an irregular to sub-oval shaped feature [108]. The sides of the cut were listed as moderately sloping and the base was uneven, it was interpreted as a natural feature possibly associated with a small tree or shrub. Because the fill [107] had a sterile composition an environmental sample {61} was taken to help further understand the formation of the feature (Appendix 7).
- 7.2.6 What has been interpreted as a tree-throw like feature [116] was the most westerly of this group of features. This had irregular sides that sloped gradually down to an uneven base, suggesting root action. This fill [115] differed slightly from those of the rest of the group, in that slight colour variations were noted making the fill appear mottled. An environmental sample {63} was taken for further analysis (Appendix 7).
- 7.2.7 Feature [112] lay to the east of linear [110] and was semi-circular shaped because it extended to the south beyond the LOE. The cut was characterised by sides that sloped gently down to a concave base. An environmental sample {62} was taken of the fill [111] (Appendix 7) .
- 7.2.8 The last and smallest of the features in this group was a small sub-oval cut [118]. Shallow sloping sides and a concave base characterised the cut again suggesting it was a natural feature.

Group 4

- 7.2.9 This group comprised a single layer of mid-purplish grey, alluvial clay [114] with frequent small, mineralised lumps. The layer was seen only in the south-central area of Trench 5 and sealed all the features in Group 3. At its thickest it measured 0.15m. To further understand the deposit an environmental sample was taken {68} (Appendix 7).
- 7.2.10 The environmental material collected from Phase 2 samples contained a poor assemblage of environmental material. Small quantities of charcoal were recovered from samples {62} and {68} as well as a single seed of *Rubus* sp. (Brambles). Of particular note in features considered to be natural in origin was the presence of small quantities of CBM and mortar fragments in samples {62} and {63} as well as a single rodent incisor in sample {62}, all considered to suggest bioturbation through activity such as rodent burrowing (Appendix 7) .

7.3 Phase 3 Prehistoric

- 7.3.1 In total eight features of potential prehistoric origin were encountered during the excavation, in Trench 5 three of these were interpreted as tree-throws and one, a linear lens of silty clay material. Three shallow sub-circular features and a shallow linear were recorded in Trench 6 (Figure 3).

Group 5

- 7.3.2 This group represents two features that have been interpreted as tree-throws, in the central and north-western area of Trench 5. The table below lists the dimensions and levels of the two cuts.

Context	Dimensions	Highest Level	Lowest Level
69	1.5m x 0.9m x 0.22m	7.02m OD	6.76m OD
79	1.76m x 0.82m x 0.12m	7.06m OD	6.67m OD

Table 2: Group 5

- 7.3.3 Tree-throw [69] had an irregular shape with sides that sloped gently and steeply to a base that was uneven (Figure 3, Plate 5). The fill of the feature was described as a firm to moderately compact, mottled light to mid greyish brown silty clay [68]. The only anthropogenic indicator within the fill was a struck flint; a two-platformed blade core that can be dated to the Mesolithic or Early Neolithic periods (Appendix 2). An environmental sample {53} was taken of the fill to see if any other indicators were present but contained a small quantity of charcoal of the 2-4mm fraction and no other environmental material. No archaeological finds were present (Appendix 7).
- 7.3.4 Circa 2.5m to the northwest the cut of a tree-throw [79] was recorded. This was a shallower feature, but it was also irregularly shaped and had sides that sloped gradually to an uneven base. Two fills were noted within the cut, the upper fill [77] was 0.15m thick and listed as a compact, mid bluish grey, silty clay with occasional charcoal flecks, manganese, and small lumps of whitish mineralisation. The lower fill was a compact deposit of mid bluish grey, clay material [78] with occasional small lumps of the whitish mineralisation. This had a maximum thickness of 0.24m.

Group 6

- 7.3.5 Located in the southwest corner of the trench this group comprised a shallow tree-throw [81] and a layer/lens of clayey material [82].
- 7.3.6 Tree-throw [81] had an irregular shape with shallow gently sloping sides and a slightly uneven base. The cut was filled with a moderately firm, mid greyish brown, sandy silty clay [80] with occasional mottling of grey brown clay and flecks of manganese. The high point of the cut was at 7.01m OD and the base at 7.89m OD, it measured was 0.92m x 0.8m x 0.12m.

- 7.3.7 The linear shaped layer/lens of moderately compact mid bluish grey silty clay [82] with occasional orange/brown clay mottling was recorded c.1.75m to the east the tree-throw. This was 2.46m long by 0.4m wide and had a maximum thickness of 0.25m. Prior to excavation this had the appearance of a linear cut, but when sondages were dug, they revealed the irregular nature of the edges and sides of the deposit indicating it was naturally formed either by water run-off or by root action.

Group 22

- 7.3.8 The largest of the features seen in Trench 6 was a shallow, N-S linear [148] that was 3.46m long by 0.46m wide and 0.1m deep. The cut extended beyond both northern and southern LOEs and was noted at a high point of 7.01m OD. The fill [142] was a sterile deposit of firm, light yellow brown clay with some mottling from rooting throughout.

Group 23

- 7.3.9 This was a shallow sub-circular patch of mid brownish red burnt clay [143] that left a shallow hollow cut [149] when excavated. The feature measured 0.35m x 0.32m x 0.06m and was recorded at 7.03m OD. One fragment of struck flint has clear conchoidal fracture scars at both ends and scars where two small flakes have been removed from one side. It is not clear what this represents; possibilities include a cobble that shattered during attempts at reduction, or an expedient made core-tool. Consequently, it can only be dated to the broader prehistoric period. An undated fragment of burnt flint created from heated round alluvial pebbles was also recovered from the surface of this deposit. An environmental sample {80} was taken for further analysis; the flint of {80} contained a small quantity of 2-4mm and <4mm charcoal (Appendix 7).

Group 24

- 7.3.10 Two sub-circular shallow features were recorded to the c.1.15m west (c.1.15m) and southwest (c.1.15m) of Group 23, on the surface these had the appearance of postholes or the bases of truncated ones, although no evidence of truncation was seen during the excavation. The close proximity of the cuts and their similar shapes suggest an association with Group 23. Dimensions and heights of the features are listed in the table below.

Context	Dimensions	Highest Level	Lowest Level
145	0.34m x 0.30m x 0.13m	7.00m OD	6.87m OD
147	0.36m x 0.34m x 0.08m	7.03m OD	6.95m OD

- 7.3.11 Posthole [145] had gently sloping sides with a concave base and was filled with a firm, dark grey brown, silty clay [144]. In the clay was an example of a struck flint; probably an end-scraper which has been skilfully made and has a symmetrically-arc'd retouched edge, suggesting that it is most likely to be of Mesolithic or Neolithic derivation (Appendix 2).

7.3.12 Laying c.0.65m to the south-southeast Posthole [147] had similar gently sloping sides and a concave base. The fill was a deposit of firm, mid grey brown, clay material [146] which was sterile.

7.4 Phase 4 Early Post-Medieval

7.4.1 This phase is represented by groups of features located in the east of Trench 5 comprising small pits, postholes and two linear features (Figure 3).

7.4.2 The table below shows the type, size and levels of Groups 7, 8, 9.

Group	Context	Type	Dimensions	Highest Level	Lowest Level
7	[95]	Linear cut	2.94m x 0.72m x 0.3m	6.89m OD	6.56m OD
8	[76]/[84]	Ditch	6.1m x 0.7m x 0.43m	7.09m OD	6.54m OD
9	[62]	Pit	1m x 0.74m x 0.27m	6.89m OD	6.62m OD
9	[64]	Pit	0.76m x 0.44m x 0.39m	6.89m OD	6.5m OD
9	[72]/[103]	Pit/terminus	1.2m x 1.09m x 0.35m	6.92m OD	6.5m OD

Table 3: Groups 7, 8, 9

Group 7

7.4.3 Linear [95] (Plate 10) was observed to be NW-SE aligned with sides that had moderate slopes and a base that was concave. The cut was filled by a deposit of soft, light bluish grey, silty clay [93]/[94] material that was devoid of inclusions. An environmental sample {58} was taken from the fill to further ascertain the nature of the feature but contained only minimal charcoal of between 2 and 4mm (Appendix 7).

Group 8

7.4.4 The northern segment of linear [95] was truncated by ditch [76]/[84], this cut lay on an almost NNW-SSE orientation and extended beyond the northern LOE (Figure 3, Plate 11). To the south it extended into that baulk that was left unexcavated to protect a monitoring borehole. The visible portion of the ditch was characterised with moderately steep sides and a concave base. A soft, bluish grey, silty clay [75]/[83] with occasional small sub-angular gravels filled the cut. Sherds of residual late medieval pottery associated with Pan tiles date this clay fill as no earlier than AD1630 (Appendices 3 and 4). This fill also yielded a fragment of corroded iron nail (Appendix 5) and two fragments of small indeterminate cattle-size bone (Appendix 6). The environmental sample {56} was taken from the southern portion of the feature and contained moderate quantities of charcoal of <4mm and a small quantity of animal bone (Appendix 7).

Group 9

- 7.4.6 This group of features included pits [62], [64] and a possible ditch terminus or pit [72]/[103] (Plate 8). The alignment of the cuts was almost NNW-SSE and in plan they appear almost parallel to Group 8 which lay c.2m to the west.
- 7.4.7 The terminus/pit [72]/[103] (Plate 8) was the most northerly of this group and was in the northeast corner of Trench 5. Only the southern part of this feature was visible as it extended in an NNE direction into the LOE and the shape, in plan, of the visible portion does suggest that it may be a ditch terminus. The sides of the cut sloped steeply down to the base which was concave. Filling the cut was a firm, mid grey brown, silty clay [71]/[102] with occasional charcoal flecks and small patches of mineralisation. An environmental sample {52} was taken from the fill at the southern end of the feature for further analysis but contained no other finds or environmental material (Appendix 7).
- 7.4.8 Pit [62] and pit [64] (Plate 7) lay c.1.25m to the south and had an obvious close association. The larger of the two, pit [62] was a sub-oval shaped feature with moderately steep sides and a concave base. A deposit of soft, mid orangey grey, silty clay [61] material filled the cut.
- 7.4.9 Pit [64] lay to the immediate south and was almost semi-circular shaped with sides that sloped steeply to a concave base. The fill [63], was similar in composition to fill [61], only in this case occasional small gravels and very occasional charcoal flecks were present.

Group 10

- 7.4.10 This group of features was located towards the southeast corner of Trench 5, their type, size and levels are tabulated below.

Context	Type	Dimensions	Highest Level	Lowest Level
56	Posthole	0.42m x 0.37m x 0.2m	6.85m OD	6.65m OD
58	Natural feature	0.38m x 0.26m x 0.05m	6.86m OD	6.81m OD
60	Natural feature	0.28m x 0.27m x 0.09m	6.86m OD	6.77m OD
74	Natural feature	0.5m x 0.18m x 0.08m	6.85m OD	6.77m OD
92	Shallow cut	1.28m x 1.04m x 0.18m	6.92m OD	6.74m OD

Table 4: Group 10

- 7.4.11 All the features in this group were filled by similar deposits of soft, mid to dark bluish grey, silty

clay material. No finds or environmental indicators were recovered from any of the cuts.

- 7.4.12 The largest of the cuts [92] was described as an irregularly shaped cut with shallow gradually to steeply sloping sides and an uneven base. Only part of the feature was visible as it extended into the LOE to the east, this gave the cut the appearance of a terminus of a larger natural feature, possibly a tree-throw. An environmental sample {57} was taken from the fill [91] for analysis but contained only charcoal of between 2 and 4mm and no other finds or environmental material (Appendix 7).
- 7.4.13 Small posthole [56] lay c.2m to the ENE of the terminus, it was sub-circular shaped with gradually sloping sides and a concave base. This was the only feature of the group that could be assigned a definitive purpose. Due to the sterile nature of the fill an environmental sample {54} was taken from the fill to further understand the feature but no other finds or environmental material was recovered (Appendix 7).
- 7.4.14 As can be seen in the table above the last three features in this group, cuts [58], [60], [74], have all been interpreted as shallow natural features. Their shapes ranged from oval to irregular with gradually sloping sides and bases from concave to uneven. An environmental sample {55} was taken from the fill [73] of the largest cut [74] but contained no other finds or environmental material (Appendix 7).

7.5 Phase 5 Mid to late Post-Medieval

- 7.5.1 This phase was characterised by the deposition of alluvial deposits across the site, possibly from several historic flooding events, and two post-flood postholes.

Group 11

- 7.5.2 The earlier activities came to an abrupt end with the deposition of alluvial deposits [54]/[90]/[130]/[131]/[141], [132] and [89] which sealed the site. The top of the alluvium was noted in the range 7.42m OD and 7.09m OD. Layer [132] was the earliest deposit of the alluvial sequence, this was noted at the base of Test Pit 7 to the southeast of the main investigation area. This was sealed by layer [54]/[90]/[130]/[131]/[141] which was noted across the whole of Trench 5, Trench 6, Test Pits 6-7 (Figure 5, sections 32 and 33). Two fragments of undatable fire-cracked flint was recovered from this deposit in the central and north of Trench 5. The Table below lists the descriptions and thicknesses of the deposits.

Context	Compaction	Colour	Composition	Thickness
[54]/[90]/[130]/[131]/[141]	Firm to Soft	Light to mid orange brown	Silty clay	0.45m
[89]	Soft	Mid grey brown	Clay silt	0.2m
[132]	Soft	Light to mid greenish brown	Silty clay	>0.1m

Table 5: Group 11

Group 12

- 7.5.3 This is a group of two postholes/pits that cut into the alluvium, their dimensions and levels are listed in the table below.

Context	Dimensions	Highest level	Lowest Level
[51]	0.8m x 0.66m x 0.37m	7.2m OD	6.83m OD
[53]	0.46m x 0.46m x 0.3m	7.09m OD	6.8m OD

Table 6: Group 12

- 7.5.4 Both cuts [51] and [53] (Plate 9) shared similar sub-rounded shapes and nearly vertical sides with concave to even bases (Figure 3). The fills were also had similar, both were firm, light to mid greyish brown with yellow mottling, silty clays. The larger of the two cuts, posthole [51], was located near to the centre of Trench 5, and the smaller was situated in the south-central area of the trench c.1.5m from the southern LOE. A fragment of animal bone was recovered from the fill [50] of posthole [51] this was an equid deciduous mandibular premolar (Appendix 6). The fills of both features were sampled for further investigation (fill [50] sample {50}, fill [52] sample {51}) but contained no finds or environmental material with the exception of an intrusive single non-carbonised seed of *Sambucus nigra* (Elder) in sample {50} (Appendix 7).

7.6 Phase 6 19th to 20th Century

- 7.6.1 Included in this phase are the remnants of structures and soil horizons associated with the properties seen on the historic maps of this period (CgMs Heritage 2018).

Group 13

- 7.6.2 This group was the earliest masonry structure encountered during the excavation. The structure, wall [88] was recorded at 7.76m OD in section only (Plate 1, Figure 4, section 24) in the southeast corner of Trench 5 and measured 0.4m (four courses) high and 0.61m wide at the stepped base. The wall comprised Post Great Fire unfrosted bricks (Fabric 3031) which were set in a soft light whitish grey sandy lime mortar with moderate stone and chalk flecks,

giving it a spotdate of 1800-1900 (Appendix 4).

Group 14

- 7.6.3 This was a layer of CBM fragments and mortar [87] that represented the demolition of wall [88]. The demolition layer was noted between 7.58m OD and 7.47m OD in the southeast corner of the trench measuring 4.5m x 3m and 0.23m thick.

Group 15

- 7.6.4 Demolition layer [87] acted as a bedding deposit for the footing [86] of a late 19th/20th century wall [85]. The dimensions and levels of the wall and footing are listed in the table below.

Context	Length	Height/Thickness	Highest level	Lowest level
[85]	3.61m	0.7m	8.44m OD	
[86]	3.61m	0.28m	7.76m OD	7.74m OD

Table 7: Group 15

- 7.6.5 Footing [86] was a course deposit comprising sub-rounded gravels and sub-angular stone fragments set in a soft whitish grey mortar. The wall [85] was a randomly coursed structure comprising a mixture of frogged yellow and red stock bricks (max brick size was 220mm x 100mm x 60mm) in moderately firm, mid brownish grey sandy mortar (Plate 1, Figure 4, section 24).

Group 16

- 7.6.6 The remains of a heavily truncated well [120] lay c.1.5m to the northeast of wall [85] between the heights of 7.21m OD and 6.83m OD (Figure 3). The well was built with slightly frogged, dark orange red bricks set in a soft, light orange brown, silty sandy mortar and measured 1.73m x 1.68m with a depth over 0.6m (the fill was not fully excavated). No construction cut backfill was present as the bricks sat flush against the construction cut [121]. Filling the well was a friable to sticky, mid orange brown, silty clay with occasional fragments of CBM, charcoal flecks, chalk flecks, small to medium sized gravels and frequent small to medium fragments of mortar.

Group 17

- 7.6.7 This group represents a brick-lined cesspit [67] located in the northwest corner of Trench 5 (Plate 12, Figure 3). The top of the cesspit had been partially revealed during the archaeological evaluation (Brooks 2020, figure 3) at 7.65m OD and the cut was assigned the context number [30]. The dimensions of the cut [67] were 2.08m (E-W) x 1.16m (N-S) x 0.73m (deep). Lining the cesspit was one row of frogged, mid orange red, bricks [66] set in a greyish red sandy mortar. These had been previously seen in evaluation Trench 2 as the brick-lined pit [29 and 30] dated to the second half of the 19th century (Brooks 2020). A deposit of moderately firm, dark grey brown, silty clay [65] filled this cesspit containing pottery dated as between 1830-

1900 (Appendix 3).

Group 18

- 7.6.8 This layer of silty clay [101]/[124]/[126]/[128] (Group 18) was a 19th-century soil horizon seen across the site in the untruncated parts of Trench 5 and TP1-3 (Figure 5 sections 28, 29 and 30). The layer was a firm to soft, mid to dark grey brown, silty clay [101]/[124]/[126]/[128] with occasional charcoal and coal lumps and very small CBM fragments. It was noted between 7.8m OD and 7.66m OD.

Group 19

- 7.6.9 A heavily truncated drain [100] and its fill [99] were recorded in section on the eastern side of the northern LOE (Figure 4, section 25, Plate 2). These were seen near to the top of the archaeological sequence at 7.98m OD. The portion of the drain that survived measured 0.35m (long) x 0.27m (high) and was built with incomplete red bricks that ranged in size between 210mm x 100mm x 60mm to 80mm x 80mm x 60mm. An accumulated deposit of friable, dark greyish black, sandy silt [99] material was seen filling the drain.

Group 20

- 7.6.10 The truncation on the western edge of Group 19 was caused by the construction cut [98] for well [97] (Figure 4, section 25). The well had a diameter of 1.5m and was lined with red bricks, similar to those in drain [100], which measured 210mm x 100mm x 70mm to 80mm x 100mm x 60mm, no bonding material was visible. A deposit of friable, dark grey black/brown, clayey silt [96] material backfilled the feature. Excavation of the fill stopped at a depth of 1.25m when it became unsafe to continue.

Group 21

- 7.6.11 This was a late 19th to 20th century horizon. The earliest deposit of this group was a thin lens of firm, mid orange brown, clayey gravels [123] that were noted in TP1 at 0.25m BGL (Below Ground Level) with a thickness of 0.06m. This was covered by a layer of soft, dark brown grey, sandy silt [122]/[125]/[127]/[129] which extended across the northern area of site. The deposit was recorded in TP1-3 between 0m BGL to 0.39m BGL and at TP5 1.2m BGL with thicknesses ranging 0.2m to 0.31m. The deeper level noted in TP5 may represent an area of truncation, suggesting [129] to be a fill (Figure 5, sections 28-31).

Group 25

- 7.6.12 A small bowl-shaped cut [140] was recorded in the western section (S40, not illustrated) of Trench 6 at 7.25m OD. The cut measured 0.55m N-S with a depth of 0.2m and was filled by a deposit of moderately compact, dark greyish black, silty sandy clay [139]. Occasional CBM and mortar were noted.

Group 26

- 7.6.13 This group represents two 19th to 20th-century dump deposits that made up part of the upper

stratigraphic sequence in Trench 6. The lower dump was 0.43m thick and described as a layer of moderately compact, mid brown to mid yellowish brown, redeposited alluvial clay [138]. The top of the layer was seen at 7.68m OD. Covering this was a loose layer of dark grey to black, clayey silt [137] with fragments of 20th -century frogged brick. The maximum height of the deposit was recorded at 8.43m OD and its thickness was 0.4m.

Group 27

- 7.6.14 Two 20th -century walls were noted in the north of Trench 6, forming the eastern wall [134] and the southern wall [135] of a room or outbuilding (not illustrated). Both walls were noted at 7.85m OD and were 2 courses high 0.16m.
- 7.6.15 Wall [134] was built using frogged, mid to dark orange red bricks bonded with a compact light grey, sandy mortar. It measured 3m long (N-S) by 0.23m wide and extended beyond the northern LOE.
- 7.6.16 The southern wall [135] ran 3.9m, from the inner face of wall [134] to the western LOE and beyond. Similar bricks were used in its construction, but the bonding material was different, this wall was bonded with a hard, light greyish white, sandy mortar. The width of the wall was 0.35m.

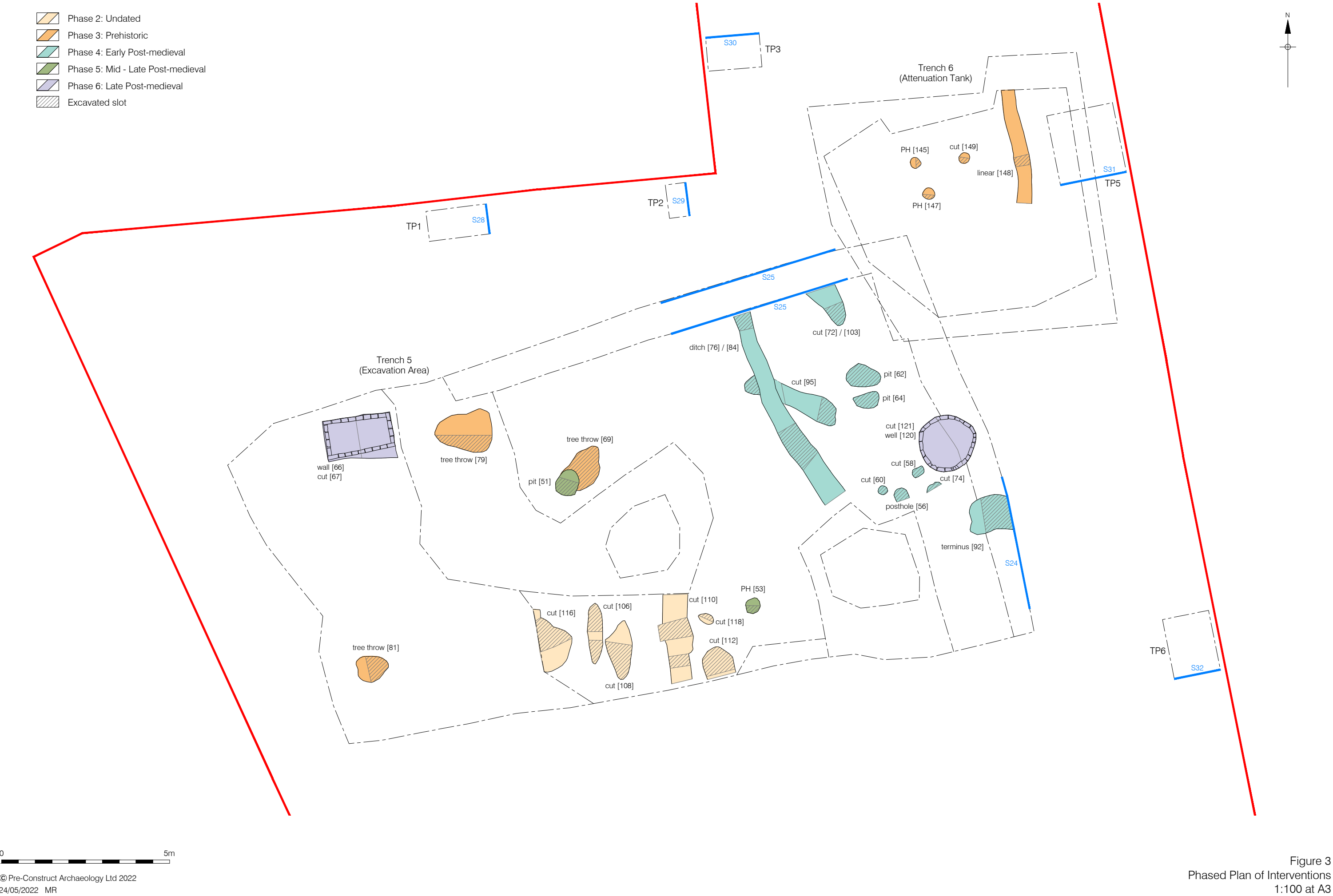
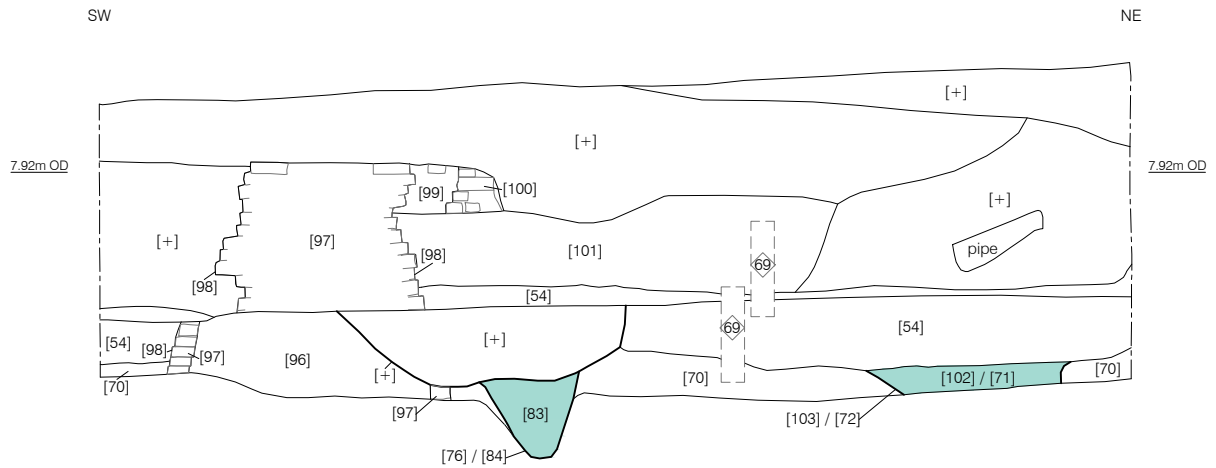
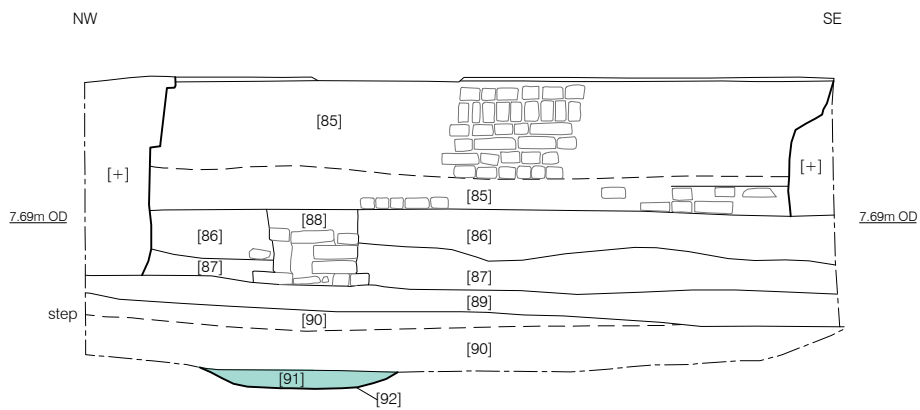


Figure 3
Phased Plan of Interventions
1:100 at A3



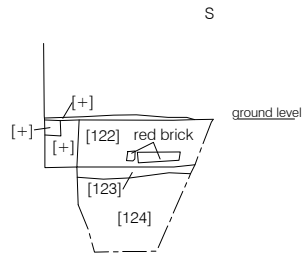
Section 25
Southeast Facing



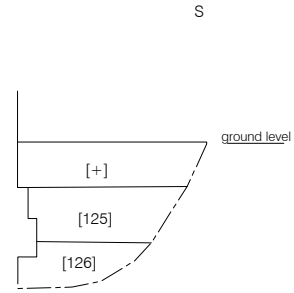
Section 24
Southwest Facing

Phase 4: Early Post-medieval

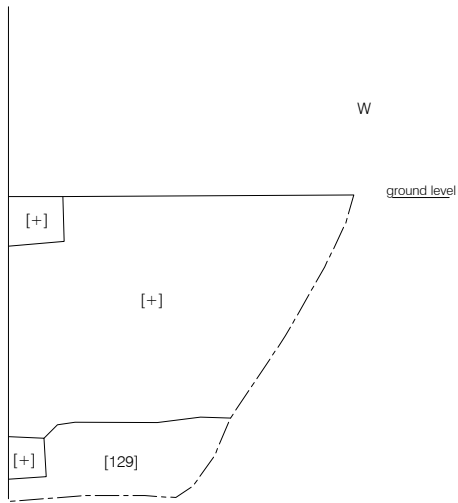
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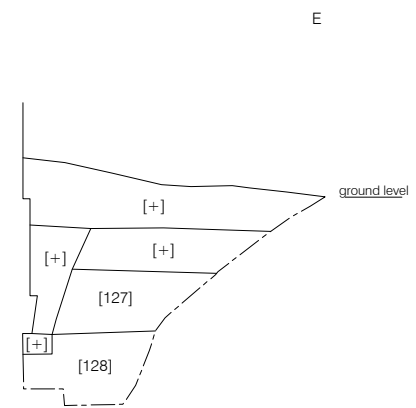
Section 28
West Facing
Test Pit 1



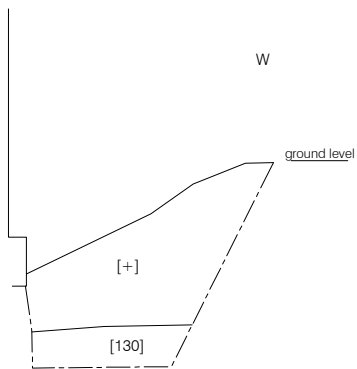
Section 29
West Facing
Test Pit 2



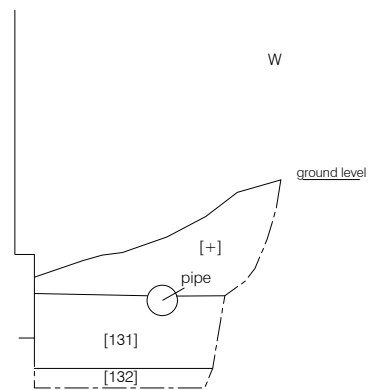
Section 31
North Facing
Test Pit 5



Section 30
South Facing
Test Pit 3



Section 32
North Facing
Test Pit 6



Section 33
North Facing
Test Pit 7



Figure 5
Test Pit Sections
1:40 at A4

PLATES



Plate 1: Section 24 on eastern LOE Trench 5, looking east (1m scale), see Figure 4



Plate 2: Section 25 on northern LOE Trench 5, looking northwest (1m scale). See Figure 4



Plate 3: cut [112] (left), cut [118], Linear [110] (right), (Group 3), looking southwest (1m scale)



Plate 4: Linear [110] (left), cut [112] (foreground), cut [118] (Group 3), looking north (1 m scale)



Plate 5: Tree-throw [69] looking south (1m scale)



Plate 6: Working shot looking west (1m scale)



Plate 7: Pits [62] and [64] looking west (1m scale)



Plate 8: Linear cut/pit [72] looking south (1m scale)



Plate 9: Posthole [53] looking north (1m scale)



Plate 10: linear cut feature [95] looking south (1m scale)



Plate 11: Linear cut feature [76]/[84] looking north(1m scale)



Plate 12: Brick-lined cesspit [67] looking north (1m scale)



Plate 13: Working shot looking west



Plate 14: Working shot looking west

8 ARCHAEOLOGICAL PHASE DISCUSSION

Six phases of activity were noted during the excavation:

8.1 Phase 1: Natural

- 8.1.1 The earliest natural deposit [113] was a layer of light orange brown silty sand material that was recorded in the western portion of the excavation trench, at a high point of 7.09m OD. This was sealed by a layer of alluvial silty clay [70] and [150] that extended across the whole of the trench. Current excavation on the adjacent site of Ferry Island has identified a palaeochannel to the west of the site (Maher pers comm) which might account for some of the earlier alluvial deposits also found at North Island.

8.2 Phase 2: Undated natural features

- 8.2.1 A group of six cuts ([106], [108], [110], [112], [116], [118]) that have been interpreted as natural features were noted in the south-central area of excavation Trench 5 between 6.9m OD and 6.7m OD. The characteristics of these varied from shallow irregularly shaped to linear. They were all filled by similar deposits of sterile firm dark grey brown silty clay with occasional small lumps of mineralised material. Environmental samples were taken from five of these features but produced little evidence of anthropogenic material to determine date or possible function (Appendix 7). A layer of sterile alluvial clay noted only in the south of the trench sealed all of the cuts. Four further natural features ([58], [60], [74], [92]) were identified in the east of the area filled with silty clay material ranging from mid orange grey to dark greyish blue in colour.

8.3 Phase 3 Prehistoric

- 8.3.1 Three irregular shaped features with characteristics that suggest small tree throws ([69], [79] and [81]) were noted in the north west of the trench. These were encountered between 7.06m OD and 7.01m OD and were filled with deposits of similar mid-bluish grey brown silty clay material. A fragment of burnt flint core was recovered from the fill of the largest of the cuts [69]. The presence of Mesolithic to Early Neolithic fragments of struck flint in tree throw [69] and cut [145] indicate prehistoric activity at this site potentially using one of the natural tree throw hollows. The association of a piece of unworked burnt flint with a burnt deposit in shallow hollow cut [149] may have significance as an indication of a ground-set hearth where flint was heated and is significant considering its proximity to the early Mesolithic occupation site excavated recently at the Welbourne Centre c. 150m to the northwest (Appendix 2).

8.4 Phase 4 Late Medieval to early Post Medieval

- 8.4.1 In the east of the excavation area six features were excavated, two intercutting linears ([76]/[84] and [95] and four small pit/posthole type features (Pits [62], [64], [72] and [92]). These were encountered between 7.09m OD and 6.85m OD, cutting into alluvial layer [70]. They were all filled with silty clay material ranging from mid orange grey to dark greyish blue in colour. This group of features has been tentatively dated by the similar characteristics of their fills and the finds that were recovered from the latter of the intercutting linears([76]/[84].

- 8.4.2 The later of the two linears ([76]/[84]) was aligned N-S (the earlier of the two lay on an NW-SE alignment) and yielded an assemblage of residual late medieval pottery and early post-medieval CBM dating from AD1630 onwards (Appendix 4).

8.5 Phase 5 Post-Medieval

- 8.5.1 The late medieval to early post-medieval activity was sealed by alluvial clay deposits, which were seen across the study area ranging from between 7.41m OD [54] and 7.09m OD [53] (highest levels OD). The highest point of the alluvium was recorded from [54] in section 25 (Figure 4) and the earliest deposit of the alluvial sequence was seen at the base [132] of Test Pit 7 to the southeast of the main investigation area. This alluvial clay was seen in TP 6-7, Trenches 5 and 6 and examined further from column sample <69> (Figure 4, section 25). The lithostratigraphic study of the column sample taken from the archaeological sequence suggested there had been five or six post-medieval flooding events attributed to the River Lea flooding the area (Wheeler, Appendix 8).
- 8.5.2 Two small features pit [51] and posthole [53]) were recorded cutting into the post-medieval alluvium in the central area but could not be attributed to a particular function/building or date.

8.6 Phase 6 19th to 20th Century

- 8.6.1 This phase was characterised mainly by masonry structures including two brick walls ([85], [88]), two wells ([121]/[120], [97]), a drain ([100]) and a cess pit ([67]). The two walls were noted at the eastern LOE, the older wall [88] was seen in section to be E-W aligned and brick samples were spotdated 1800-1900. The later wall [85] ran N-S across the top of the earlier wall sitting on a bed of rough gravelly concrete (Figure 4, section 24). The wells were located by the eastern and north-eastern LOEs and were constructed using similar materials. A brick drain [100] was noted behind the north-eastern well [97] (Figure 4, section 25). Cesspit [67] was in the north-western portion of the site and yielded pottery sherds of AD1830-1900 from its fill (Appendix 3). This cesspit was seen in evaluation Trench 2 as the brick-lined pit [29 and 30] dated to the second half of the 19th century (Brooks 2020, figure 3).

8.7 Environmental summary

- 8.7.1 The assessment of the environmental samples taken from across the entire sample-set has produced poor results in which only small quantities of charcoal were present, as well as three non-carbonised seeds (two elder and one bramble) which are likely to be intrusive and of no environmental significance. Rubus sp. and Sambucus sp. are among the most common genera of seeds to be present as modern contamination in bulk samples. Additionally, the presence of small quantities of industrial residue across much of the sample-set, particularly in those samples taken from Phases 4 and 5 (but also present in Phases 1 to 3 samples) suggests a significant degree of contamination. Although this residue was only ever noted in very low concentrations its presence in features attributed to Phases 1 and 2 (natural features) is particularly noteworthy. The presence of a rodent tooth in sample {62} (phase 2, undated natural features) in association with small fragments of building material indicates that rodent

burrowing penetrates down to these natural features. This likely presents a potential vector, by which the natural features on site have been contaminated and may go some way to explaining the ubiquity of the industrial residue and other post-depositional contaminants (Appendix 7).

9 ORIGINAL RESEARCH AIMS AND OBJECTIVES AND REVISED RESEARCH OBJECTIVES

9.1 Original research aims

- *What evidence is there for prehistoric occupation of the plot, particularly in light of the recent discoveries at the Welbourne plot?*

In comparison to the Welbourne Centre site to the northwest there is very little evidence of prehistoric activity at this site, but considering its close proximity and the presence of material of at least Mesolithic or early Neolithic date it should not be dismissed as insignificant. Three examples of struck flint and some burnt flint have been recovered associated with tree-throws and a cut feature which may have contained a burnt deposit. The most diagnostic pieces of the struck flint were a two-platformed blade core that can be dated to the Mesolithic or Early Neolithic periods and a scraper most likely to be of Mesolithic or Neolithic derivation (Appendix 2).

- *What further evidence is there for the Saxon/early medieval occupation of the plot given the plot's proximity to the historic Saxon/Medieval village core?*

There is no evidence for Saxon/early Medieval occupation at this site. One residual assemblage of late 15th century pottery was found in the fill of ditch [76]/[84] (Appendix 3).

- *What further evidence is there for the medieval occupation and development of the plot? Are the medieval remains part of the settlement or do they relate only to backyard usage? Is there any evidence for actual buildings of this date?*

There was no evidence for Saxon/early Medieval occupation or buildings found in this particular archaeological intervention.

- *Do the medieval remains provide any information relating to the development of the settlement in this period?*

There was no evidence for Saxon/early Medieval occupation or buildings found in this phase of archaeological work.

- *Can the results be used to help refine the Archaeological Priority Area for the Hale settlement core?*

The results of this particular archaeological investigation have produced further potentially significant evidence of prehistoric activity when considered in proximity to the results of the Welbourne Centre. Features of a post-medieval date replicate those found in the evaluation (Brooks 2020) which should be considered with map regression together with the results of the current fieldwork being carried out at Ferry Island.

No clear progression of Saxon to medieval or post-medieval occupation was identified at the North Island site and so confirms that the main core of settlement for the Hale lies

principally to the west of this site as already defined within an Archaeological Priority Area.

- *What further evidence is there for the post-medieval development of the plot? Post-medieval walls were identified in the evaluation, can these be correlated to historic mapping?*

Earlier post-medieval cut features were identified on site in the form of ditches, cuts and possible postholes. These types of features are not significant enough to be recorded on historic mapping and so cannot be correlated. A number of late post-medieval brick-built features; such as cesspit [67] and late post-medieval brick walls and wells were considered to be of 19th to 20th century date and are concentrated towards the northern part of the site (Trench 5). Cesspit [67] was associated with pottery of AD1830-1900 in its fill. Most of the other late post-medieval features were seen in section only (Figure 4). These features are most likely related to mid 19th century terraced housing in the northern part of the North Island site which can be seen on the Ordnance Survey mapping of 1864 and 1894-6 (CgMs Heritage 2018, Figures 7 and 8). From 1915 onwards the same area appears to be open land/?yard behind a public house (CgMs Heritage 2018, Figure 9). Correlation with historic mapping may be more fruitful when combined with the results of the current fieldwork being carried out at Ferry Island.

- *Assess the impact from all development stages on the archaeological horizon, including plot stripping, plot preparation, grubbing out, decontamination etc*

The discovery of natural Enfield Silt brickearth [113] in the west of excavation Trench 5 demonstrates that archaeological horizons were well-preserved in the northern portion of the site but in the south the sequence had been fully truncated by the basement of a former public house. Brickearth horizons were noted in the western part of Trench 5 overlain by alluvial deposits [70] in Trench 5 and [150] in Trench 6. A possible sequence of prehistoric features cut into the alluvium [70] as did potentially earlier post-medieval features. The medieval sequence, if ever present in this area, may have been truncated by later activity or is absent as this land was prone to flooding events and deliberately not occupied. Post-medieval activity was recorded in both Trenches 5 and 6.

The presence of small quantities of industrial residue throughout the environmental samples suggests a significant degree of contamination, maybe as a result of bioturbation or as the result of layers being deposited by flooding events with an inevitable degree of disturbance created. Although this residue was only ever noted in very low concentrations its presence in features attributed to Phases 1 and 2 (natural features) should be noted.

10 IMPORTANCE OF THE RESULTS, FURTHER WORK AND PUBLICATION PROPOSALS

10.1 Importance of the results

- 10.1.1 During the excavation, the deposits which had been interpreted as Enfield silts during the archaeological evaluation ([41], [31], [22], Brooks 2020) were re-evaluated and classed as water lain alluvial deposits which overlay an earlier layer of material [113] more consistent with the Enfield Silts (brickearth). This layer [113] was encountered in the west of the site at a high point of 7.09m OD. The Enfield Silts [113] were overlain by alluvial layers [70] in Trench 5 and [150] in Trench 6.
- 10.1.2 Recent excavation on the adjacent site of Ferry Island has identified a palaeochannel to the west of the site (Maher pers comm). Comparative lithostratigraphic analysis of the alluvial sequences from both sites should be considered to examine if similar silts associated with the palaeochannel might have been present in the earliest alluvial layers [70] and [150] seen at North Island.
- 10.1.3 The presence of Mesolithic to Early Neolithic fragments of struck flint in tree throw [69] and cut [145] indicate prehistoric activity at this site potentially using one of the natural tree throw hollows and in a possible hearth. These potential prehistoric features cut into alluvial layers [70] and [150]. The association of a piece of unworked burnt flint with a burnt deposit in shallow hollow cut [149] may have significance as an indication of a ground-set hearth where flint was heated and is significant considering its proximity to the early Mesolithic occupation site excavated recently at the Welbourne Centre c. 150m to the northwest (Appendix 2). The struck flint assemblage, though small, indicates prehistoric activity at the site that can be dated to at least the Mesolithic or Early Neolithic periods. In itself it can contribute little to a precise chronology or nature of the activities represented but would appear to be associated with the early Mesolithic flint production site in close proximity at the Welbourne plot and should be considered further in publication proposals for that plot.
- 10.1.4 Saxon and medieval activity was not identified at this site with the exception of a residual late medieval pottery assemblage found in the fill of ditch [76]/[84]. This cannot be attributed to any particular medieval feature on this site but demonstrates that there may have been late medieval activity in close proximity as has been demonstrated by the HER records showing medieval settlement to the west of the site in the area of the Hale settlement core (CgMs Heritage 2018 Figure 2). A few medieval pits were identified in the evaluation dated by pottery of AD1200-1550 and AD1240-1400 (Brooks 2020, Appendix 4). These evaluation features should be considered further with the publication of the results of recent fieldwork at Ferry Island and the Welbourne Centre.
- 10.1.5 A phase of probable mid to late post-medieval activity at this site is represented by a series of flooding events which have deposited several layers of alluvium across the site. These alluvial layers ([54]/[90]/[130]/[131]/[141], [132], [89]) were seen across the site in TP6-7, Trench 5 and

Trench 6 and are possibly indicative of five or six flooding events (Appendix 8).

10.1.6 A small number of later post-medieval walls, wells and a cesspit (also seen in the evaluation as pit [29 and 30]) are most likely related to mid to late 19th- century terraced housing in the northern part of the North Island site as can be seen on the Ordnance Survey mapping of 1864 and 1894-6 (CgMs Heritage 2018, Figures 7 and 8). Cesspit [67] was the only later post-medieval feature in this investigation to produce a pottery assemblage dated as AD1830-1900. These features extended the area of post-medieval archaeology identified in the evaluation further to the east. Both phases of work should be considered further in publication of the results of the recent fieldwork at Ferry Island.

10.1.7 In summary the results of the archaeological intervention at North Island have not produced results of great significance. However, two periods of archaeology are of local significance and should be considered further and included in the publication of the results of other recent excavation work at Tottenham Hale; the prehistoric evidence at this site should be included with the results of the early Mesolithic site at the Welbourne Centre and is of interest in potentially extending the known area of Mesolithic activity within the Tottenham Hale area. Secondly the later post-medieval features should be correlated with historic mapping and the final mapping of post-medieval archaeology recently excavated at Ferry Island.

10.2 Further work

10.2.1 The excavation extended the area opened in evaluation Trenches 2 and 3 where both medieval and post-medieval features were seen (Brooks 2020). This phase of excavation identified prehistoric features and exposed a larger area of post-medieval features across the site. No further work is recommended regarding the stratigraphic phases and periods of activity seen at this site, but integration of the results should be undertaken and combined with analysis and publication of the results from the Welbourne Centre site and with the Ferry Island site, placing these results into the wider context of the Tottenham Hale area. Selected groups of finds from the North Island site will contribute further to the publication of Prehistoric activity in the Tottenham Hale area and should be considered together with the assemblages found at the Welbourne Centre. Selected medieval and post-medieval finds from North Island will contribute further to the publication of the results from this period combined with the results from the Ferry Island site.

10.2.2 Lithics

10.2.3 The struck flint indicates prehistoric activity at the site that can be dated to at least the Mesolithic or Early Neolithic periods. The material is significant in light of the important assemblages recovered c. 150m to the northwest at the Welbourne Centre, although by itself it can contribute little to understandings of the precise chronology or nature of the activities represented. Due to the size of the assemblage no further analytical work is warranted although it should be recorded in the Historic Environment Record and discussed in any further publication of the fieldwork. It should also be considered in any wider consideration and publication of the

prehistoric activity found recently at the Welbourne Centre in the Tottenham Hale area.

10.2.4 Pottery

10.2.5 The assemblage of pottery has some significance at a local level and demonstrates medieval and post-medieval development on the study area. The medieval pottery recovered from both the evaluation and excavation phases of work demonstrate that the ceramic profile of the study area contrasts with that from Greater London where a more restricted range of Essex pottery types were marketed, but compares well with other locally excavated pottery assemblages, e.g. the Tottenham Hale Centre; Welbourne, Ashley Road West and Ashley Road East sites (Jarrett 2020). The post-medieval pottery component of the assemblage is not of significance. The pottery has reliable potential for dating evidence. There are no recommendations for further quantitative work on the pottery and if further publication text is required then information should be taken from this report and that of the evaluation (Brooks 2020, Appendix 4).

10.2.6 Ceramic Building material

10.2.7 The building ceramic material from this project was principally comprised of post-medieval bricks and roofing tiles, some of which were spotted on site. No further work is recommended.

10.2.8 Metalwork

10.2.9 A single heavily corroded iron nail was recovered from the excavations and was associated with pottery dating from the late 15th century. No further work is recommended for this object which, having been catalogued, may now be discarded.

10.2.10 Animal Bone

10.2.11 These few bones add very little to the understanding of animal usage in this area during the post-medieval era and no further work can be recommended.

10.2.12 Environmental

10.2.13 The moderate degree of ground disturbance, indicated by the presence of industrial residue across the sample set as well as the general scarcity of preserved environmental material, suggests that this set of bulk samples is of limited palaeoenvironmental value. This suggests that the overall environmental potential of the remaining bulk samples from North Island is low. It is recommended that no further analysis of the flots is required, and the material assessed may be discarded along with the remaining unprocessed environmental samples.

10.2.14 Lithostratigraphic analysis

10.2.15 Current excavation on the adjacent site at Ferry Island has identified a palaeochannel to the west of the site (Maher pers comm). Comparative lithostratigraphic analysis of the alluvial sequences from both the North Island and Ferry Island sites should be considered further to examine if the silts within the palaeochannel are similar and the source of the earliest alluvial layers [70] and [150] seen at North Island.

10.3 Publication proposals

- 10.3.1 The results of this investigation and the previous evaluation (Brooks 2020) do not warrant a stand alone publication but do have potential to contribute further to the research and publication of Prehistoric activity in the Tottenham Hale area combined with the results from the Welbourne Centre (PCA Studies Paper). The possible medieval occupation and the late post-medieval features associated with 19th and 20th century development of the Tottenham Hale area should be combined with the results of the Ferry Island site in a peer-reviewed journal article published in the *Transactions for London and Middlesex Archaeological Society* (LAMAS).
- 10.3.2 Comparison of the early alluvial deposits [70] and [150] and their relationship to a recently identified palaeochannel to the west of the Ferry Island site should be considered in the PX Assessment of that site (PCA forthcoming). Any similarities should be assessed as part of the consideration of this recently identified landscape feature.
- 10.3.3 The Mesolithic/early Neolithic results should be included and discussed further in a publication considering the Prehistoric activity within the Tottenham Hale area which will draw principally on the results of the early Mesolithic archaeology from the Welbourne Centre potentially in a PCA Studies Paper. A consideration of the medieval and late post-medieval features should be included in any analysis/publication work proposed for the Ferry Island site where features of a similar date have been recently excavated (Maher pers comm). These results are recommended for publication as a journal article in LAMAS.
- 10.3.4 Further dissemination is recommended in the form of a summary note publishing these results in the Annual London Fieldwork and Publication Round-up; a Supplement of the London Archaeologist. A summary record of the results has been created on the OASIS database (Appendix 9). On approval of this report further dissemination will be through copies uploaded to ADS and supplied to the GLHER.

11 CONTENTS OF THE ARCHIVE

11.1 Paper records:

Context sheets; 71 sheets (Excavation)

12 sheets (WB on TP's)

16 sheets (WB on Attenuation Tank)

Plans; 18 sheets (Excavation)

Sections; 8 sheets (Excavation)

6 sheets (WB on TP's)

5 sheets (WB on Attenuation Tank)

11.2 The finds:

Material	Boxes	Recommendation
Pottery	0.25 box	
Animal Bone	0.25 box	Discard
Lithics	0.25 box	
Metalwork	1 item	Discard

11.3 Digital archive:

Photographs; 81 jpeg (excavation)

25 jpeg (WB on TP's)

24 jpeg (WB on Attenuation Tank)

12 ACKNOWLEDGEMENTS

- 12.1 Pre-Construct Archaeology would like to thank RPS Consulting Services UK Ltd for commissioning the work on behalf of Argent. Particular thanks are extended to James Archer for overseeing this project.
- 12.2 The author would like to thank Adam Single of the Greater London Archaeological Advisory Service (GLAAS) for monitoring the project on behalf of the London Borough of Haringey.
- 12.3 Thanks are also extended to Helen Hawkins for managing the fieldwork and Lucy Whittingham for the post-excavation management and editing. Thanks, are also given to Shane Maher for site supervision and Mark Roughley for preparing the illustrations. Specialist contributions have been provided by Barry Bishop (Lithics), Kevin Reilly (animal bone), Amparo Valcarcel (ceramic building material), Marit Gaimster (metalwork/slag), Chris Jarrett (pottery) Duncan Field (environmental) and Jane Wheeler (lithostratigraphic).

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APPENDIX 1: CONTEXT INDEX

Ctx	Ctx Type	Ctx equal to	Trench	Fill of	Phase	Group	CTX Interpretation	CTX Category	Length	Width	Depth	Levels high	Levels low
50	Fill		5	51	PH5	GP12	Silty sand fill of small pit or posthole, contained an equid tooth	Natural Silting	0.8	0.66	0.37	7.2	
51	Cut		5		PH5	GP12	Cut for small posthole or pit	Post-hole	0.8	0.66	0.37	7.2	6.83
52	Fill		5	53	PH5	GP12	Silty clay fill of small pit or posthole	Post-hole	0.46	0.46	0.3	7.09	
53	Cut		5		PH5	GP12	Cut for small pit or posthole	Post-hole	0.46	0.46	0.3	7.09	6.8
54	Layer	90, 130, 131	5		PH5	GP11	Layer of alluvial clay containing burnt flint	Alluvial			0.45	7.42	7.09
55	Fill		5	56	PH4	GP10	Silty sandy clay fill of small pit of posthole	Post-hole	0.42	0.37	0.2	6.85	
56	Cut		5		PH4	GP10	Cut for small pit or posthole	Post-hole	0.42	0.37	0.2	6.85	6.65
57	Fill		5	58	PH4	GP10	Silty sandy clay fill of small natural feature	Natural Silting	0.38	0.26	0.05	6.86	
58	Cut		5		PH4	GP10	Small natural feature	Natural	0.38	0.26	0.05	6.86	6.81
59	Fill		5	60	PH4	GP10	Silty clay fill of small natural feature	Natural Silting	0.28	0.27	0.09	6.86	
60	Cut		5		PH4	GP10	Small natural feature	Natural	0.28	0.27	0.09	6.86	6.77
61	Fill		5	62	PH4	GP9	Silty clay fill of small pit	Natural Silting	1	0.74	0.27	6.89	
62	Cut		5		PH4	GP9	Small undated pit	Pit	1	0.74	0.27	6.89	6.62
63	Fill		5	64	PH4	GP9	Silty clay fill of small pit	Natural Silting	0.76	0.44	0.39	6.89	
64	Cut		5		PH4	GP9	Small pit	Pit	0.76	0.44	0.39	6.89	6.5
65	Fill	28	5	67	PH6	GP17	Fill of 19th century cesspit [66]	Use	1.76	0.88	0.73	7.65	
66	Masonry		5	67	PH6	GP17	Frogged brick lining of cess-pit	Lining	2.08	1.16	0.73	7.65	6.92
67	Cut	30	5		PH6	GP17	Cut for brick lined cess-pit	Pit	2.08	1.16	0.73	7.65	6.92
68	Fill		5	69	PH3	GP5	Silty clay fill of possible tree-throw with a burnt flint core	Natural Silting	1.5	0.9	0.22	7.02	6.98
69	Cut		5		PH3	GP5	Possible tree throw	Natural	1.5	0.9	0.22	7.02	6.76
70	Layer		5		PH1	GP2	Natural alluvial layer	Alluvial				7.1	6.85
71	Fill	102	5	72	PH4	GP9	Silty clay fill of feature that extends beyond the northern LOE	Natural Silting	1.2	0.9	0.35	6.84	6.73

Ctx	Ctx Type	Ctx equal to	Trench	Fill of	Phase	Group	CTX Interpretation	CTX Category	Length	Width	Depth	Levels_high	Levels_low
72	Cut	103	5		PH4	GP9	Feature that extends beyond the northern LOE may be a pit or a ditch terminus	Ditch	1.2	0.9	0.35	6.85	6.5
73	Fill		5	74	PH4	GP10	Silty clay fill of natural feature	Natural Silting	0.5	0.18	0.08	6.85	
74	Cut		5		PH4	GP10	Cut of natural feature	Natural	0.5	0.18	0.08	6.85	6.77
75	Fill	83	5		PH4	GP8	Silty clay fill of fill of linear feature	Accumulation	6.1	0.7	0.43	7.03	6.92
76	Cut	84	5		PH4	GP8	Linear cut	Ditch	6.1	0.7	0.43	7.09	6.68
77	Fill		5	79	PH3	GP5	Top fill of natural feature	Natural Silting	1.7	1.28	0.15	7.06	7.05
78	Fill		5	79	PH3	GP5	Mid blue grey clay	Natural Silting			0.24	6.91	
79	Cut		5		PH3	GP5	Natural feature possible tree-throw	Natural	1.7	1.28	0.39	7.06	6.67
80	Fill		5	81	PH3	GP6	Sandy silty clay fill of natural feature	Natural Silting	0.92	0.8	0.12	7.01	
81	Cut		5		PH3	GP6	Natural feature, tree/root-throw	Natural	0.92	0.8	0.12	7.01	6.89
82	Layer		5		PH3	GP6	Thin layer of water-lain material	Alluvial	2.46	0.4	0.25	6.98	
83	Fill	75	5	84	PH4	GP8	Fill of ditch [84] and same as [75]	Accumulation	6.1	0.52	0.32	6.87	6.82
84	Cut	76	5		PH4	GP8	Ditch cut same as [76]	Ditch	6.1	0.52	0.32	6.87	6.54
85	Masonry		5		PH6	GP15	19th to 20th century wall	Wall	3.61		0.7	8.44	
86	Layer		5		PH6	GP15	Very rough footing for wall [85], comprised gravels and sandy mortar	Bedding	3.61		0.28	7.76	7.74
87	Layer		5		PH6	GP14	layer of demolition material, possible demolition of wall [88]	Demolition	4.5	3	0.23	7.58	7.47
88	Masonry		5		PH6	GP13	Portion of post-medieval wall seen in section	Wall		0.61	0.4	7.76	
89	Layer		5		PH5	GP11	Layer of alluvial clay seen in southeast of trench	Alluvial			0.2	7.41	7.32
90	Layer	54, 130, 131	5		PH5	GP11	Layer of alluvial clay same as [54]	Alluvial			0.33	7.32	7.14
91	Fill		5	92	PH4	GP10	Clay fill of shallow feature [92]	Accumulation	1.28	1.04	0.18	6.92	
92	Cut		5		PH4	GP10	Shallow feature that extended beyond LOE, poss natural feature or tree throw	Other	1.28	1.04	0.18	6.92	6.74
93	Fill	94	5	93	PH4	GP7	Silty clay fill of linear cut [95]. Same as [94]	Accumulation	2.94	0.65	0.3	6.89	6.84
94	Fill	93	5	95	PH4	GP7	Fill of linear [95], same as [93]	Accumulation	2.94	0.72	0.28	6.84	6.75

Ctx	Ctx Type	Ctx equal to	Trench	Fill of	Phase	Group	CTX Interpretation	CTX Category	Length	Width	Depth	Levels_high	Levels_low
95	Cut		5		PH4	GP7	Linear feature truncated by [76]/[84]	Gully	2.94	0.72	0.3	6.89	6.56
96	Fill		5	97	PH6	GP20	Fill of well	Accumulation			1.25	7.98	
97	Masonry		5		PH6	GP20	Brick well	Other	1.5	1.5	1.25	7.98	
98	Cut		5		PH6	GP20	Construction cut for well [97]	Well	1.5	1.5	1.25	7.98	6.72
99	Fill		5	100	PH6	GP19	Dark grey black silty deposit, may even be a fill associated with [100]	Disuse			0.27	7.97	
100	Masonry		5		PH6	GP19	Brick structure adjacent to well [97], this is likely a drain	Drain		0.35	0.27	7.98	
101	Layer	124, 126, 128	5		PH6	GP18	Layer of dark silty clay	Garden Soil			0.5	7.8	7.66
102	Fill	71	5	103	PH4	GP9	Fill of [103] and same as [71]	Accumulation		1.09	0.15	6.92	6.89
103	Cut	72	5		PH4	GP9	Feature that extends beyond the northern LOE	Ditch		1.09	0.15	6.92	6.74
104	Void												
105	Fill		5	106	PH2	GP3	Dark grey brown silty clay fill of [106]	Natural Silting	1.81	0.4	0.27	6.7	
106	Cut		5		PH2	GP3	Possible natural oval shaped feature maybe associated with foliage	Natural	1.81	0.4	0.27	6.7	6.43
107	Fill		5	108	PH2	GP3	Dark grey brown silty clay fill of [108]	Natural Silting	1.76	0.82	0.12	6.71	
108	Cut		5		PH2	GP3	Irregular/oval shaped feature, may be natural	Natural	1.76	0.82	0.12	6.71	6.59
109	Fill		5	110	PH2	GP3	Dark grey brown silty clay fill of [110]	Natural Silting	2.63	0.82	0.44	6.78	6.74
110	Cut		5		PH2	GP3	Linear feature, possibly natural	Natural	2.63	0.82	0.44	6.78	6.34
111	Fill		5	112	PH2	GP3	Dark grey brown silty clay fill of [112]	Natural Silting	0.9	0.86	0.34	6.9	
112	Cut		5		PH2	GP3	Semi-circular cut feature. Possibly natural	Other	0.9	0.86	0.34	6.9	6.56
113	Layer		5		PH1	GP1	Natural silty sand in the base of the trench in the west	Natural				7.09	6.92
114	Layer		5		PH2	GP4	Alluvial layer seen in the south of the trench	Alluvial			0.15	6.97	6.82
115	Fill		5	116	PH2	GP3	Mid greyish brown silty clay fill of tree-throw/natural feature [116]	Natural Silting	1.9	1	0.21	6.71	6.67
116	Cut		5		PH2	GP3	Irregular shaped tree-throw of other natural feature	Natural	1.9	1	0.21	6.71	6.5

Ctx	Ctx Type	Ctx equal to	Trench	Fill of	Phase	Group	CTX Interpretation	CTX Category	Length	Width	Depth	Levels_high	Levels_low
117	Fill		5	118	PH2	GP3	Mid greyish brown clay fill of [118]	Natural Silting	0.48	0.3	0.08	6.83	
118	Cut		5		PH2	GP3	Shallow sub-oval feature, possibly natural	Other	0.48	0.3	0.08	6.83	6.75
119	Fill		5	121	PH6	GP16	backfill of well [120]	Backfill	1.73	1.68	0.6	7.18	
120	Masonry		5	121	PH6	GP16	Brick well	Other	1.73	1.68	0.6	7.21	6.83
121	Cut		5		PH6	GP16	Cut for well [120]	Well	1.73	1.68	0.6	7.18	6.58
122	Layer	125, 127, 129	TP1		PH6	GP21	Post-medieval/19th century layer	Dump			0.25		
123	Layer		TP1		PH6	GP21	Possible temporary surface or work surface, clayey gravels	Surface (External)			0.06		
124	Layer	101, 126, 128	TP1		PH5	GP18	Light to mid grey brown silty clay	Other			0.4		
125	Layer	122, 127, 129	TP2		PH6	GP21	Post-medieval/19th century layer	Dump			0.28		
126	Layer	101, 124, 128	TP2		PH5	GP18	Light to mid grey brown silty clay	Other			0.25		
127	Layer	122, 125, 129	TP3		PH6	GP21	Post-medieval/19th century layer	Dump			0.31		
128	Layer	101, 124, 126	TP3		PH5	GP18	Light to mid grey brown silty clay	Other			0.39		
129	Layer	122, 125, 127	TP5		PH6	GP21	Post-medieval/19th century layer	Dump			0.2		
130	Layer	54, 90, 131	TP6		PH5	GP11	Mid orange brown silty clay, alluvial layer	Alluvial			0.22		
131	Layer	54, 90, 131	TP7		PH5	GP11	Mid orange brown silty clay, alluvial layer	Alluvial			0.4		
132	Layer		TP7		PH5	GP11	Light to mid green brown, silty clay. Alluvial deposit	Alluvial			0.1		
134	Masonry		6		PH6	GP27	20th century wall, east wall of room	Wall	3	0.23	0.16	7.85	
135	Masonry		6		PH6	GP27	20th century wall, south wall of a room	Wall	3.9	0.35	0.16	7.85	
137	Layer		6		PH6	GP26	late 19th twentieth century dump layer	Dump			0.4	8.43	
138	Layer		6		PH6	GP26	Redeposited alluvial deposit with brick fragments	Floor (External)			0.43	7.68	
139	Fill		6	140	PH6	GP25	Fill of feature [140], looks to be late post-med possibly 19th-20th century	Backfill		0.55	0.2	7.25	
140	Cut		6		PH6	GP25	Bowl shaped feature seen in section	Other		0.55	0.2	7.25	7.07

Ctx	Ctx Type	Ctx equal to	Trench	Fill of	Phase	Group	CTX Interpretation	CTX Category	Length	Width	Depth	Levels_high	Levels_low
141	Layer		6		PH5	GP11	Alluvial deposit noted across the base of the trench	Alluvial				7.25	7.2
142	Fill		6	148	PH3	GP22	Fill of naturally formed linear feature	Natural Silting	3.46	0.46	0.1	7.01	6.91
143	Fill		6	149	PH3	GP23	Burnt fill of a shallow hollow	Use	0.35	0.32	0.06	7.03	6.97
144	Fill		6	145	PH3	GP24	Fill of possible shallow posthole	Natural Silting	0.34	0.3	0.13	7	
145	Cut		6		PH3	GP24	Cut of very shallow circular feature a possible posthole	Post-hole	0.34	0.3	0.13	7	6.87
146	Fill		6	147	PH3	GP24	Fill of shallow circular cut, possible posthole fill	Natural Silting	0.34	0.3	0.13	7	6.87
147	Cut		6		PH3	GP24	Shallow circular cut a possible posthole	Post-hole	0.36	0.34	0.08	7.03	6.96
148	Cut		6		PH3	GP22	Naturally formed linear feature	Gully	3.4	0.46	0.1	7.01	6.91
149	Cut		6		PH3	GP23	Shallow hollow filled with burnt clay	Pit	0.35	0.32	0.06	7.03	6.97

APPENDIX 2: LITHIC ASSESSMENT

Barry Bishop

Introduction

The archaeological investigations at the above site resulted in the recovery of three pieces of struck flint and a small quantity of burnt unworked stone fragments. The assemblages have been comprehensively catalogued by context and this includes further descriptive details of each piece (Table L01). This report summarises the data in the catalogue; it quantifies and describes the material and presents a preliminary assessment and outline of its significance.

The assemblage was recorded following standard technological and typological classifications and largely follows the methodology of Inizan *et al.* (1999) with modifications and additions as indicated in the text by the author. Retouched tools were classified following standard British works such as Healy (1988) and Bamford (1985). Measurements were taken following the methodology of Saville (1980).

Quantification

Feature	Trench	Core: blade	Retouched	Conchoidal chunk	Unworked burnt stone (no.)	Unworked burnt stone (wt:g)
Tree-throw 69	5	1				
Alluvium 54	5				2	6
Hollow 149	6				1	3
Hollow 149	6			1		
Posthole 145	6		1			

Table L01: Quantification of the lithic material from Tottenham North Island

Description

The struck flint comprises a core, a scraper and a conchoidal chunk. The core is the most diagnostic piece and consists of a two-platformed blade core that can be dated to the Mesolithic or Early Neolithic periods. The scraper is fragmentary with only the working edge surviving but is probably an end-scraper. Scrapers are difficult to date as they were made throughout the

prehistoric Holocene, but this has been skilfully made and has a symmetrically-arc'd retouched edge, suggesting that it is most likely to be of Mesolithic or Neolithic derivation. The remaining piece is a lenticular thermal (frost fractured) spall that has clear conchoidal fracture scars at both ends and there are also two small flakes removed from one side. It is not clear what this represents; possibilities include a cobble that shattered during attempts at reduction, or an expedient made core-tool. Consequently, it can only be dated to the broader prehistoric period.

The unworked burnt stone comprises three small fragments from rounded flint alluvial pebbles that have been heated to a high degree, causing them to change to a grey-white colour and become fire-crazed. The small quantities present suggest they were most probably generated from being in close proximity to a ground-set hearth or similar fire. Burnt flint is difficult to date and the heating could have occurred during any period prior to its deposition.

Significance and Recommendations

The struck flint indicates prehistoric activity at the site that can be dated to at least the Mesolithic or Early Neolithic periods. The material is significant in light of the important assemblages recovered c. 150m to the northwest at the Welbourne Centre, although by itself it can contribute little to understandings of the precise chronology or nature of the activities represented. Due to the size of the assemblage no further analytical work is warranted although it should be recorded in the Historic Environment Record and mentioned in any published account of the fieldwork.

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APPENDIX 3: THE POTTERY

Chris Jarrett

Introduction

Pottery from the evaluation phase of the report has already been reported upon (Jarrett 2020a) and this report considers the finds recovered from context [65] onwards. A small sized assemblage of pottery was recovered solely by hand (less than one box). The pottery dates to both the medieval and post-medieval periods. None of the sherds show evidence for abrasion and the pottery was deposited under secondary circumstances. The assemblage is comprised entirely of sherd material. Pottery was recovered from two contexts and only as small sized groups (fewer than 30 sherds). The assemblage is generally homogenous and domestic in nature.

In total the assemblage consists of 16 sherds, 13 estimated number of vessels (ENV), 349g (of which none was unstratified). The pottery is discussed by types (The Assemblage) and its distribution.

Methodology

The pottery was quantified by sherd count (SC) and estimated number of vessels (ENV's), besides weight. The assemblage was examined macroscopically and microscopically using a binocular microscope (x20), and entered into a database format, by fabric, form and decoration. The classification of the pottery types follows that of the Museum of London Archaeology (2014). The classification of the vessel shapes corresponds to that of MPRG (2009) and the guideline for cataloguing the pottery follows that for the Medieval Pottery Research Group (1998) and Barclay *et al* (2016).

The assemblage

The pottery types can be quantified as belonging to the following periods:

Medieval: 10 sherds, 8 ENV, 100g

Post-medieval: 6 sherds, 5 ENV, 249g

The range of pottery types and the forms that occur in those wares are shown in Table 1.

Medieval

All of the medieval pottery was solely recovered from context [75] and consists of too small a sample to determine a ceramic profile for the study area although a fairly wide range of pottery types are recorded, most of which came from an Essex source. Such Essex wares consist of residual sherds of non-diagnostic c. 1150–1350 dated Hedingham-type ware (HEDI) and 1175–1400 dated reduced coarseware. Other types of Essex pottery were contemporaneous in the late medieval period and include a dish with a narrow flat-topped rim, dated c. 1200–1550 made in unsourced sandy orange ware (SOWX) and late medieval Essex -type fine redware (LMFX), which was in production more so between c. 1450–1600. The latter occurs as sherds from three unidentified forms and may include the kicked base of a bowl or dish. From a different source is recorded Coarse Surrey-Hampshire border ware (CBW) dated 1270–1500 but was more frequent in the London area from c. 1340. Amongst the two sherds of CBW was identified a possible jug sherd decorated with an incised line and a zone of green glaze.

Pottery code	Expansion	Date range	SC	ENV	Wt (g)	Forms
Medieval						
CBW	Coarse Surrey-Hampshire border ware	1270–1500	2	2	17	Jug, unidentified
HEDI	Hedingham-type ware	1150–1350	1	1	9	Unidentified
LMFX	Late medieval Essex -type fine redware	1350/1450–1600	5	3	56	Unidentified
RCWX	Essex-type reduced coarse ware	1175–1400	1	1	5	Unidentified
SOWX	Essex unsourced sandy orange ware	1200–1550	1	1	13	Dish
Post-medieval						
BBASG	Glazed black basalt ware	1770–1880	1	1	27	Teapot
BONE	Bone china	1794–1900	1	1	58	Figurine
ENGs BRST	English stoneware with a Bristol glaze	1830–1900	1	1	70	Jug
REFW SLIP	Refined white earthenware with slip decoration	1830–1900	1	1	54	Bowl: medium carinated
ROCK	Rockingham ware with mottled brown glaze	1800–1900	1	1	40	Vase

Table 1. medieval and post-medieval pottery types quantified by sherd count (SC), ENV and weight.

Post-medieval

All of the post-medieval pottery was solely found in context [65] and consists of types and forms that date to the 19th-century. Each pottery type (see Table 1) was represented by a single vessel. Twice-fired factory made earthenwares were more frequent. The latter consist of a bone china figurine in the form of a standard poodle, missing only its paws and tail, and has encrusting on its ears and thorax and holds a possible largely missing basket in its mouth. A refined white earthenware with slip decoration (REFW SLIP) medium sized carinated bowl base with a footring is recorded and the vessel wall has a grey-green slip band augmented with brown, tan and white worming. A Rockingham ware (ROCK) vase fragment has a simple beaded rim and a moulded design from the top of the vessel downwards surviving as a grape vine, cordon and daisy flowers with strap leaves. Two stonewares are recorded. The first, consists of a jug made in English stoneware with a Bristol glaze (ENGs BRST) and survives as a vertical loop rod handle moulded in the shape of a hound dog with its head on its paws and the item has an amber-brown bichrome glaze. The second stoneware vessel consists of a glazed black basalt ware (BBASG) teapot with a flanged triangular section rim and a moulded

bead border on the top of the rim, while another moulded bead border occurs on the neck and at the top of the shoulder, which in turn is above a raised band with fine trellis texturing.

Distribution

Table 2 shows the contexts containing pottery and for each deposit is recorded the size/number of sherds, ENV and weight in grams (Wt), the earliest and latest date of the most recent pottery type (Context ED/LD), the pottery types and forms present and a considered (spot) date for the group. Pottery was recovered from Phase 4 (the fill of a ditch) and Phase 6 (the backfill of a masonry cess pit).

Context	Fill of	Phase	Size	SC	ENV	Wt (g)	Context ED	Context LD	Fabric (forms)	Spotdate
65	66	6	5	6	5	249	1830	1900	BBASG (teapot). BONE (figurine), ENGS (jug), REFW SLIP (bowl: medium carinated), ROCK (vase)	1830–1900
75	76	4	5	10	8	100	1350	1500	CBW (jug, unidentified), HEDI (unidentified), LMFx (unidentified). RCWX (unidentified), SOWX (dish)	Late 15th century

Table 2. Distribution of pottery showing individual contexts containing pottery, the size of the group, the number of sherds (SC), ENV's and weight, the date range of the latest pottery type (Context ED/LD), the pottery types and forms present and a suggested deposition date (spotdate).

Phase 4

The linear ditch [76] contained in its fill [75] solely late medieval pottery that included residual sherds of HEDI and RCWX, while finds of contemporaneous sherds of LMFx and SOWX (found as a dish rim) from Essex and coarse Surrey-Hampshire border ware (CBW) indicated a late 15th-century deposition date.

Phase 6

The masonry cesspit [66], construction cut [67], contained in its backfill [65] sherds of pottery types and forms that were contemporaneous in the 19th-century. The latest item was the English stoneware with a Bristol glaze (ENGs BRST) jug handle moulded in the form of a dog and dates the deposit to c. 1830–1900. The feature was recorded in the evaluation phase of archaeological work: masonry feature [29] and its backfill [28] did not contain any pottery.

Significance of the collection

The assemblage of pottery has some significance at a local level and demonstrates medieval and post-medieval development on the study area. The medieval ceramic profile for the site shows a mixture of pottery sources from either Essex or Surrey-Hampshire, which were also recorded in the evaluation phase of the archaeological work, but additionally contained pottery from other sources: Hertfordshire, London and Surrey (Jarrett 2020a). Together, the medieval pottery recovered from both the evaluation and excavation phases of work demonstrate that the ceramic profile of the study area contrasts with that from greater London where a more restricted range of Essex pottery types were marketed, but compares well with other locally excavated pottery assemblages, e.g. the Tottenham Hale Centre (Jarrett 2020b). The post-medieval pottery component of the assemblage is not of significance, although the occurrence of the bone china (BONE) dog figurine and the stoneware (ENGS BRST) jug handle moulded in the shape of a dog is also of interest.

Potential of the collection

The pottery has the potential to date the contexts the finds were found in and demonstrate the presence of medieval activity on the study area. The pottery has the potential to compare and contrast the medieval ceramic profile of Central London with this part of north-east suburban London. There are no recommendations for further work on the pottery and if a publication text is required then information should be taken from this report and that of the evaluation (Jarrett 2020a).

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APPENDIX 4: THE BUILDING MATERIAL

Amparo Valcarcel

Spotdates were provided for the small assemblage of ceramic building material excavated from post-medieval features; ditch [76] and wall [88]. The brick wall [88] was seen in section only (Figure 4 section 24).

Context	Fabric	Form	Size	Date range of material		Latest dated material		Spotdate
75	2586;2276;2279	Medieval and early post-medieval roofing tiles	8	1180	1900	1480	1900	1630-1900
88	3032	Post great fire unfrogged bricks	1	1666	1900	1666	1900	1800-1900

APPENDIX 5: METAL FINDS

Märit Gaimster

A single metal find was recovered from the excavations, in the form of an incomplete and heavily corroded iron nail; it is catalogued below. The nail came from the early post-medieval linear cut [75] and was associated with pottery dating from the late 15th century.

No further work is recommended for this object which, having been catalogued, may now be discarded.

context	description	pot date	recommendations
75	Iron nail; incomplete and heavily corroded; L 25mm+	late 15th century	discard

THC20: iron nail

APPENDIX 6: ANIMAL BONE ASSESSMENT

Kevin Rielly

Introduction

A small number of bones were hand collected and collected from bulk samples from deposits in Trench 5.

Methodology

The bone was recorded to species/taxonomic category where possible and to size class in the case of unidentifiable bones such as ribs, fragments of longbone shaft and the majority of vertebra fragments. Recording follows the established techniques whereby details of the element, species, bone portion, state of fusion, wear of the dentition, anatomical measurements and taphonomic including natural and anthropogenic modifications to the bone were registered.

The sample collections were washed through a modified Siraf tank using a 1mm mesh and the subsequent residues were air dried and sorted.

Description of faunal assemblage

The site provided a total of 4 bones by hand collection, 2 each from hand collection and bulk samples. These were all taken from post-medieval deposits dated to Phase 4 – mid post-medieval and Phase 5 – mid to later post-medieval. They include a rat incisor (brown or black rat) from a sample taken from pit [62] Phase 4; 2 cattle-size indeterminate pieces, one each from the hand collected and sieved contents of the fill (75) of ditch [76]/[84] Phase 4; and a single equid cheektooth from the fill (50) of posthole [51] Phase 5. This latter tooth is clearly deciduous (a milk tooth) and very well worn. It is probably from an animal aged between about 2 and 3 years of age (after Schmid 1972, 76).

Conclusion and recommendations for further work

These few bones add very little to the understanding of animal usage in this area during the post-medieval era and no further work can be recommended.

References

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APPENDIX 7: ENVIRONMENTAL ARCHAEOLOGY ASSESSMENT

Duncan Field

Introduction

This report summarises the content of twenty bulk samples collected during an evaluation at Tottenham Hale, North Island Plot A.

Methodology

Twenty bulk samples were collected from a range of features during an archaeological excavation at Tottenham Hale, North Island. These features included tree throw, postholes, ditches and alluvial layers. These samples varied in volume between 10 to 40 litres. A 5 to 10 litre subsample was collected from each sample, the volume of sub-sample being dependant on the overall volume of the entire sample

The sub-samples were processed using a modified Siraf-type water floatation system, with material collected using a 300µm mesh for the light fraction (flot) and a 1mm mesh for the heavy residue (retent). The retent was then air-dried, sieved at 1, 2 and 4mm fractions, and sorted to extract artefacts and ecofacts. The flot (>300µm), once dried, was scanned under a low-power binocular microscope at 10x magnification to determine quantities of environmental material, e.g. seeds, chaff, charred grains, molluscs, and charcoal.

Abundance of artefacts/ecofacts in both the flot and retent were recorded using a non-linear scale where '1' indicates occasional occurrence (1-10 items), '2' indicates occurrence is fairly frequent (11-30 items), '3' indicates presence is frequent (31-100 items) and '4' indicates an abundance of material (>100 items).

Seeds were identified to species level where possible in accordance with Cappers (2012). Nomenclature follows Stace (2014). Results are presented in Tables 1-2.

Results

Phase 5: Mid to Late Post Medieval

{50}, {51} and {65}. Pit [51], Posthole [53] and Alluvial layer [54].

Three samples were collected from features attributed to the Mid to Late Post Medieval phase at Tottenham Hale, North Island. The retent of these samples contained no finds or environmental material while {50} contained a single non-carbonised seed of *Sambucus nigra* (Elder). No other finds or environmental material were present across the Phase 5 samples.

Phase 4: Mid Post-Medieval

{52}, Cut [72]. {54}, Fill of posthole [56]. {55} Natural feature [73]. {56}, {58}, {64}, Linear features [76], [95]. {57}, Shallow feature [92].

Eight samples were collected from a variety of Phase 4 features. Samples {56} and {58} contained moderate quantities of charcoal with {56} containing charcoal of <4mm, while {58} contained only minimal charcoal of between 2 and 4mm. Sample {56} contained a small quantity of animal bone fragments.

Phase 3: Prehistoric

{53}, Tree throw [69]. {80} burnt layer [143]

Sample {53} was collected from the fill of tree throw [69]. This sample contained a small quantity of charcoal of the 2-4mm fraction but no other environmental material. No archaeological finds were present. The flot of {80} contained a small quantity of 2-4mm and <4mm charcoal.

Phase 2: Undated Natural Features

{59}, Linear feature [110]. {60} and {61}, Oval features [106] and [108]. {62}, Natural feature [112]. {63}, Alluvial layer [115]. {68}, Alluvial feature [114].

The environmental material collected from Phase 2 samples contained a similarly poor assemblage of environmental material. Small quantities of charcoal were recovered from samples {62} and {68} as well as a single seed of *Rubus sp.* (Brambles). Of particular note in features considered to be natural in origin was the presence of small quantities of CBM and mortar fragments in samples {62} and {63}. Sample {62} also contained a single rodent incisor which, in association with small fragments of building material suggests bioturbation through rodent burrowing.

Phase 1: Natural

{66} Natural layer [70]. {67}, Alluvial layer [113].

The two samples collected from Phase 1 features each contained minimal quantities of charcoal with {67} containing occasional <4mm charcoal. Besides this charcoal neither sample contained either archaeological finds or environmental material.

Discussion

The general paucity of the environmental evidence recovered from this sample-set suggests that, overall, the potential for preservation of environmental material at North Island, Tottenham Hale is low.

Across the entire sample-set only small quantities of charcoal were present, as well as 3 non-carbonised seeds (two elder and one bramble). As there was no obvious means by which these seeds may have been preserved (i.e mineralisation, waterlogging or carbonisation) and they were only present in minimal quantities they are likely intrusive and of no environmental

significance. *Rubus* sp. and *Sambucus* sp. are among the most common genera of seeds to be present as modern contamination in bulk samples.

Additionally, the presence of small quantities of industrial residue across much of the sample-set, particularly in those samples taken from Phases 4 and 5 (but also present in Phase 1 to 3 samples) suggests a significant degree of contamination. Although this residue was only ever noted in very low concentrations its presence in features attributed to Phases 1 and 2 (natural features) is particularly noteworthy.

The presence of a rodent tooth in sample {62} (phase 2, undated natural features) in association with small fragments of building material indicates that rodent burrowing penetrates down to these natural features. This likely presents a potential vector, by which the natural features on site have been contaminated and may go some way to explaining the ubiquity of the industrial residue and other post-depositional contaminants.

Conclusion and recommendations

The moderate degree of ground disturbance, indicated by the presence of industrial residue across the sample set as well as the general scarcity of preserved environmental material, suggests that this set of bulk samples is of limited palaeoenvironmental value. This suggests that the overall environmental potential of the remaining bulk samples from North Island is low. It is recommended that no further analysis of the flots is required, and the material assessed may be discarded along with the remaining unprocessed environmental samples.

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Table 1: Bulk sample contents: phases 1, 2 and 3

Sample Number	66	67	68	59	60	61	62	63	80	53
Context Number	70	113	114	109	105	107	111	115	143	68
Phase	1	1	2	2	2	2	2	2	3	3
Trench	5	5	5	5	5	5	5	5	6	5
Feature type	Natural layer	Alluvial layer	Alluvial layer	Linear	Oval feature	Oval feature	Natural feature	Tree throw	Possible hearth	Tree throw
Volume of Sample (litres)	9	9	9	8	8	9	8	9	8	5
Volume of flot (ml)	1	1	3	1	1	1	1	1	1	1
Retent										
Carbonised plant macrofossils										
Charcoal->4mm			1				1			
Charcoal-2 to 4mm	1	1								1
Charcoal-<2mm		1								
Animal bone										
Rodent							1			
Finds										
Mortar								1		
CBM							1			
Slag								1		
Note				Empty	Empty	Empty			Empty	
Flot										
Carbonised plant macrofossils										
Charcoal >4mm		1	1						1	
Charcoal-2 to 4mm									1	
Charcoal <2mm										
Non-carbonised plant macrofossils										
Rubus sp. seeds				1						
Peaty detritus		1	2	1						
Rooting			1	1						
Industrial residue										
Fe							1			
Coal/clinker residue		1	1						1	1
Note	Empty				Empty	Empty		Empty		

Table 2: Bulk sample contents: Phases 4 and 5

Sample Number	52	54	55	56	57	58	64	65	50	51
Context Number	71	55	73	75	91	94	93	54	50	52
Phase	4	4	4	4	4	4	4	5	5	5
Trench	5	5	5	5	5	5	5	5	5	5
Feature type	Cut	PH	Natural feature	Linear	Shallow feature	Linear	Linear	Alluvial layer	Pit	PH
Volume of Sample (litres)	8	7	5	8	9	5	8	9	8	7
Volume of flot (ml)	1	1	1	1	1	1	1	1	4	1
Retent										
Carbonised plant macrofossils										
Charcoal->4mm				1				1		
Charcoal-2 to 4mm				2		1		1		
Charcoal-<2mm				3				2		
Animal bone										
Fragments				1						
Finds										
Burnt flint								1		
Note	Empty	Empty	Empty		Empty		Empty		Empty	Empty
Flot										
Carbonised plant macrofossils										
Charcoal >4mm										
Charcoal-2 to 4mm					1					
Charcoal <2mm										
Non-carbonised plant macrofossils										
<i>Sambucus nigra</i> seeds								1	1	
Peaty detritus					1		1			
Rooting							1			
Biological remains										
Insect remains/puparia									1	
Industrial residue										
Fe						1	1			
Coal/ clinker residue			1	1	1		1	1	1	1
Note	Empty	Empty								

APPENDIX 8: LITHOSTRATIGRAPHIC ASSESSMENT

Dr Jane Wheeler

Introduction

The British Geological Survey (BGS) shows the Tottenham Hale Centre site is underlain by London Clay bedrock, overlain by Enfield Silt (comprising clay and silt), with Alluvium (clay, silt, sand and peat); in turn, underlain by (in respect of the Enfield Silt in the Lower Thames and its tributaries, which subsume the River Lea) Pleistocene Gravels (in the Lea Valley comprising The Kempton Park or Lea Valley Gravel (Gibbard 1994)) (<http://mapapps2.bgs.ac.uk/geoindex/home.html> (see Lincoln 2020)).

The site (Central Grid Reference TG 34267 89579) is underlain by Enfield Silt and Alluvium. The BGS generic lithological description: “[v]aries from silt to clay, commonly yellow-brown and massive” (<http://webapps.bgs.ac.uk/lexicon/lexicon.cfm>) correlates with the hue/colour and sediment descriptions recorded for the sampled lithostratigraphic profile (see below). However, it was noted during excavation that deposition may be attributable to a number of flood events of the River Lea (Whittingham & Maher, pers. comm.). This assessment has been conducted to create a sedimentary sequence to determine phases of alluvial deposition.

Methods

2 x 50cm long monolith columns (Environmental Sample <69>) were extracted from the south-facing W-E section (Section 25) of the main excavation Trench 5. The upper monolith (M1) cutting into contexts [101] and the underlying [54]. The lower monolith (M2) cutting into contexts [101] (basal 5cm), [54], and [70]. The vertical overlap of the 2 x monoliths is 15cm (see Plan/Section S.25). Lateral distance between the 2 x monoliths is 5cm. The surface of the 2 x monoliths (M1 and M2) were cut to reveal clean working faces. Sediment colour was determined using Munsell® Soil Colour Charts (2000). Deposits were recorded in accordance with the Troels-Smith (1955) scheme. This scheme has been adapted for illustrative clarity in the visual lithostratigraphy (see Figure 1). Textual classification is adapted from Trudgill (1989) (see Kennedy 2002). Archaeological inclusions and additional observations of note were also recorded. No organic matter (natural or archaeological) was identified as suitable for radiocarbon dating.

Lithostratigraphic sequence

M1 and M2 are described in their entirety due to sedimentary differences noted between the basal 15cm of M1, and the upper 15cm of M2. Thus, the 15cm overlap is included in the description. The lithostratigraphies are presented in Table 1. The profiles of the 2 x monoliths illustrated in Figure 1.

Monolith 1 (M1): 7.66 - 7.16 mOD

M1 comprises two distinct sediments with a clear boundary at 20cm (7.46 mOD). The upper 20cm of silty-sandy-loamy-clay containing inclusions of CBM fragments (brick) ≤ 5mm and coal/heat-effected pumice-like fragments ≤ 25 mm, along with angular gravel ≤ 20 mm and rounded gravel ≤ 25mm. In

comparison the underlying 30cm of clay (with a low silt ratio) contained noticeably fewer inclusions of coal/heat-effected coal ($\leq 10\text{mm}$), and the occasional angular shell fragment $\leq 3\text{mm}$. Differing artifact densities (subsuming all inclusions) and spatial distribution indicate that the overlying 20cm of sedimentation was relatively rapid, in comparison to a slower deposition of the underlying 30cm of clay (Brown 2001). Similarly, the presence of angular and rounded gravels in the upper 20cm deposit indicate a higher velocity of inwash/deposition, probably attributable to flooding (perhaps flash-flooding). The absence of gravels in the underlying clay deposit, with the low silt ratio mix, suggests a less turbulent transport mechanism (Friedman & Sanders 1978). The presence of vertical earthworm burrows throughout the 50cm length of M1, which extend into and to the base (50cm (7.16 mOD)) of the underlying clay deposit, may account for the mixing of the archaeological inclusions (along with the occasional shell fragment) as a consequence of bioturbation (Brown 2001). However, the absence of CBM fragments and gravels in the lower deposit, and the absence of shell fragments in the upper 20cm of this monolith, would support the more probable hypothesis for differing waterborne velocities and matrix suspensions from two phases of alluvial inwash and deposition.

Monolith 2 (M2): 7.31 - 6.81 mOD

M2 comprises one general deposit based on hue and colour, with the major sedimentary component comprising silty clay. However, this monolith has been sub-divided into 4 x deposits based on differing moisture/texture and inclusions. The upper 15cm of M2 forming the lateral overlap with the bottom 15cm of M1. Despite the overlap, there is a notable difference in the corresponding deposits. They do not form a consecutive lithostratigraphic sequence in respect of overlap similarity. Alluvial parcels reflective of lateral variability is not uncommon in floodplain sites (Needham 1989). The top 10cm of M2 contained smaller particles (as opposed to the larger fragments noted 0-20cm in M1) of CBM and coal/heat-effected pumice-like coal. A single eroded pot sherd of Essex Fine Sandyware (AD 1100-AD 1300) (Jarrett pers. comm.) was recorded at 5cm (7.26 mOD). Occasional rounded pebbles $\leq 50\text{mm}$ were also present. Artifact density, again, suggesting rapid sedimentation, probably the result of relative high velocity flooding, which may have also resulted in the redeposition and/or re-mixing of this deposit. The underlying 9cm (7.21 - 7.12 mOD) of silty clay (notably stiff) in comparison to the overlying deposit, had an absence of archaeological material, with the only inclusion being angular gravel $\leq 4\text{mm}$. The underlying 19cm of sediment (7.12 – 6.94 mOD) being similar except for the inclusion of semi-rounded pebbles $\leq 14\text{mm}$. These 2 x deposits indicate two phases of deposition, which may be attributable to either a single flood event, with the heavier fraction of larger pebbles and gravel contained within a silty clay matrix being deposited prior to the lighter suspension; or, two distinct fluvial depositional events with differing velocities and matrix suspensions (Friedman & Sanders 1978). The 13cm base deposit (6.94 – 6.81 mOD), which cuts into Context [70], does not appear to be a natural deposit to the maximum depth of M2. Whilst the sediment is the same in respect of colour and texture, it was notably less stiff than the two overlying deposits. In respect of inclusions, it also contained particles ($\leq 2\text{mm}$) of coal/heated-effected pumice-like coal and CBM particles. However, no gravel or pebbles were present. The lithostratigraphic boundary at 37cm (6.94 mOD) indicating a further phase of alluvial deposition due to sedimentation resulting from inwash/flooding.

Conclusion

The assessment of the lithostratigraphy provided by the monolith sequence from Trench 5 (Figure 4 <69>, Section 25) has identified five (and potentially six) phases of alluvial deposition that is more complex than that defined by the archaeological stratigraphy. Sedimentation was not uniform. Variation being dictated by changes in flood history (perhaps also exacerbated by localised groundwater run-off), source sediment availability, and hydrological velocity, over time. These phases of deposition are attributed primarily to inwash and deposition as a result of historic flood waters from the River Lea.

References

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M1 (cm)	mODs	Hue & Colour	Sediment Description	Inclusions	Observations	Troels-Smith
0 - 20	7.66 - 7.46	2.5Y very dark greyish brown	3/2 Silty sandy loamy clay + 2% sandy mottling (very fine sand)	CBM (brick) fragments ≤ 5mm Coal/heat effected fragments ≤ 25mm Angular gravel ≤ 20mm Rounded gravel ≤ 25mm	Earthworm burrows	Ag1Ga2Gg(maj)
20 - 50	7.46 - 7.16	2.5Y olive brown	4/4 Clay (low silt ratio)	Coal/heat effected fragments ≤ 10mm Occasional white angular shell frags ≤ 3mm	Earthworm burrows	Ag1part.test.(moll.)
M2 (cm)	mODs	Hue & Colour	Sediment Description	Inclusions	Observations	Troels-Smith
0 - 10	7.31 - 7.21	10YR dark yellowish brown	4/6 Silty sandy clay + 3% sandy mottling	Coal/heat effected particles ≤ 4mm CBM (brick) particles ≤ 3mm 1 x pot sherd 43x21mm Occasional rounded pebbles ≤ 50mm		Ag1Ga2Gg(maj)
10 - 19	7.21 - 7.12	10YR dark yellowish brown	4/6 Stiff silty clay + 7% sandy mottling	Angular gravel ≤ 4mm		Ag1Ga2Gg(min)
19 - 37	7.12 - 6.94	10YR dark yellowish brown	4/6 Stiff silty clay + 7% sandy mottling	Angular gravel ≤ 4mm Semi-rounded pebbles ≤ 14mm		Ag1Ga2Gg(maj)
37 - 50	6.94 - 6.81	10YR dark yellowish brown	4/6 Silty sandy clay + 3% sandy mottling	Coal/heat effected particles ≤ 2mm CBM (brick) particles ≤ 2mm		Ag1Ga2

Table 1. Sediment descriptions for Monolith 1 (M1) and Monolith 2 (M2).

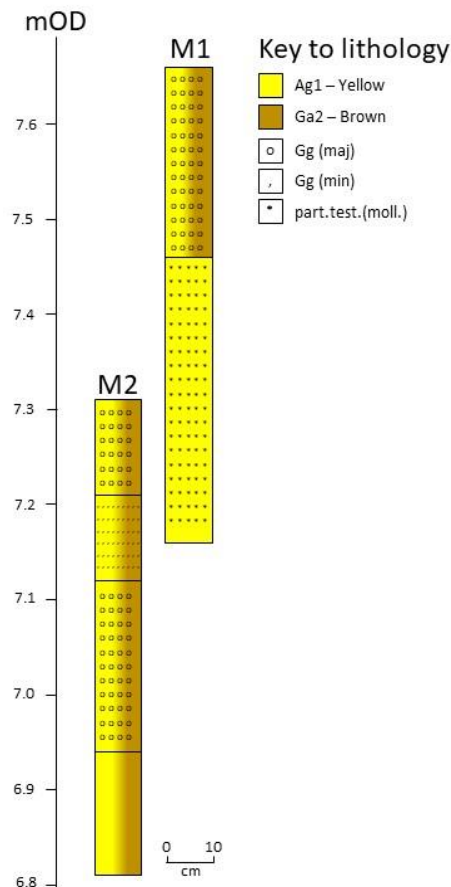


Figure 1. Lithostratigraphies for Monolith 1 (M1) and Monolith 2 (M2) (after Troels-Smith (1955)).

Summary for preconst1-507315

OASIS ID (UID)	preconst1-507315
Project Name	Excavation at North Island Plot A, Tottenham Hale
Sitename	
Activity type	Excavation
Project Identifier(s)	THC20
Planning Id	HGY/2018/2223
Reason For Investigation	Planning: Post determination
Organisation Responsible for work	Pre-Construct Archaeology Ltd
Project Dates	11-Dec-2020 - 11-Mar-2021
Location	North Island Plot A, Tottenham Hale NGR : TQ 34267 89579 LL : 51.5890735787939, -0.063260207368745 12 Fig : 534267,189579
Administrative Areas	Country : England County : Greater London District : Haringey Parish : Haringey, unparished area
Project Methodology	Archaeological Excavation was undertaken by Pre-Construct Archaeology at North island, Plot A, Tottenham Hale following evaluation in 2020. The work was commissioned by Argent, Further excavation was carried out in the northwest area of the site in one main trench (Trench 5) with a watching brief monitoring the area of an attenuation tank (Trench 6) and 7 test-pits. Six phases of stratigraphy were identified; natural brickearth, consistent with the Enfield Silt Formation, was recorded at between 7.09 mOD and 6.92mOD. Archaeological activity was recorded in Trenches 5 and 6. Prehistoric activity was recorded in one shallow burnt feature, cut features and possible tree-throws which were associated with a small number of struck flint pieces identified as Mesolithic/early Neolithic and some unworked burnt flint. In the eastern part of the site early post-medieval cut features such as ditches and pits were recorded containing material dating from AD1630 onwards. A series of major flooding events seen as alluvial layers sealed the early post-medieval stratigraphy across the whole site. Later post-medieval 19th and 20th century brick-built features such as wells, cesspits and brick walls were recorded in Trench 5 represented residential development of the site.
Project Results	
Keywords	Lithic Implement - MESOLITHIC - FISH Archaeological Objects Thesaurus Ceramic - MEDIEVAL - FISH Archaeological Objects Thesaurus Ceramic - POST MEDIEVAL - FISH Archaeological Objects Thesaurus Pit - POST MEDIEVAL - FISH Thesaurus of Monument Types Well - POST MEDIEVAL - FISH Thesaurus of Monument Types Ditch - POST MEDIEVAL - FISH Thesaurus of Monument Types Residential Building - POST MEDIEVAL - FISH Thesaurus of Monument Types
Funder	

HER	
Person Responsible for work	
HER Identifiers	
Archives	



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