90-106 HIGH STREET, STAINES-UPON-THAMES, SURREY, TW18 4DP

PLANNING AUTHORITY:

SPELTHORNE BOROUGH COUNCIL

PLANNING REFERENCE: 15/01518/FUL

FEBRUARY 2017

PRE-CONSTRUCT ARCHAEOLOGY

DOCUMENT VERIFICATION

90-106 HIGH STREET, STAINES-UPON-THAMES, SURREY, TW18 4DR
AN ARCHAEOLOGICAL EVALUATION

Quality Control

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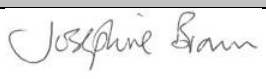
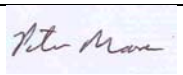
Graphics Checked by:	Josephine Brown		3/2/17
Project Manager Sign-off:	Peter Moore		3/2/17

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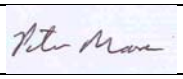
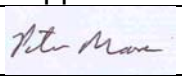
1	9/2/17		

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90-106 High Street, Staines-upon-Thames, Surrey, TW18 4DP:
An Archaeological Evaluation

Site Code:	SMMR16
Central NGR:	TQ 0262 7171
Local Planning Authority:	Spelthorne
Planning Reference:	15/01518/FUL

Commissioning Client: Property Partners (Two Rivers) Limited

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PCA REPORT NO. R12779

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1 ABSTRACT

1.1 This report details the results of an archaeological evaluation carried out following the demolition of the buildings occupying 90-106 High Street, Staines in Surrey (central National Grid Reference: TQ 0362 7171; Figure 1). The work was undertaken by Pre-Construct Archaeology Ltd. and was commissioned by the Property Partners (Two Rivers) Limited. The project was managed by Peter Moore and supervised by Alexis Haslam, Matt Edmunds and Paw Jorgenson, all of Pre-Construct Archaeology Ltd.

1.2 The evaluation was carried out in two phases, with the first phase taking place between 14th and 18th November 2016 and the second phase between 9th and 24th January 2017.

1.3 During the work, a number of phases of archaeological activity were recorded. These included evidence of Roman activity followed by ground consolidation, pitting and ditch digging within the burgage plots that formerly occupied land to the rear of Staines High Street during medieval and post-medieval times.

1.4 The finds recovered during the evaluation were dominated by 12-13th century remains, however three probable Roman features were also discovered along with a scatter of residual Roman material. Post-medieval to 20th century finds were also uncovered, demonstrating prolonged occupation in this area of Staines.

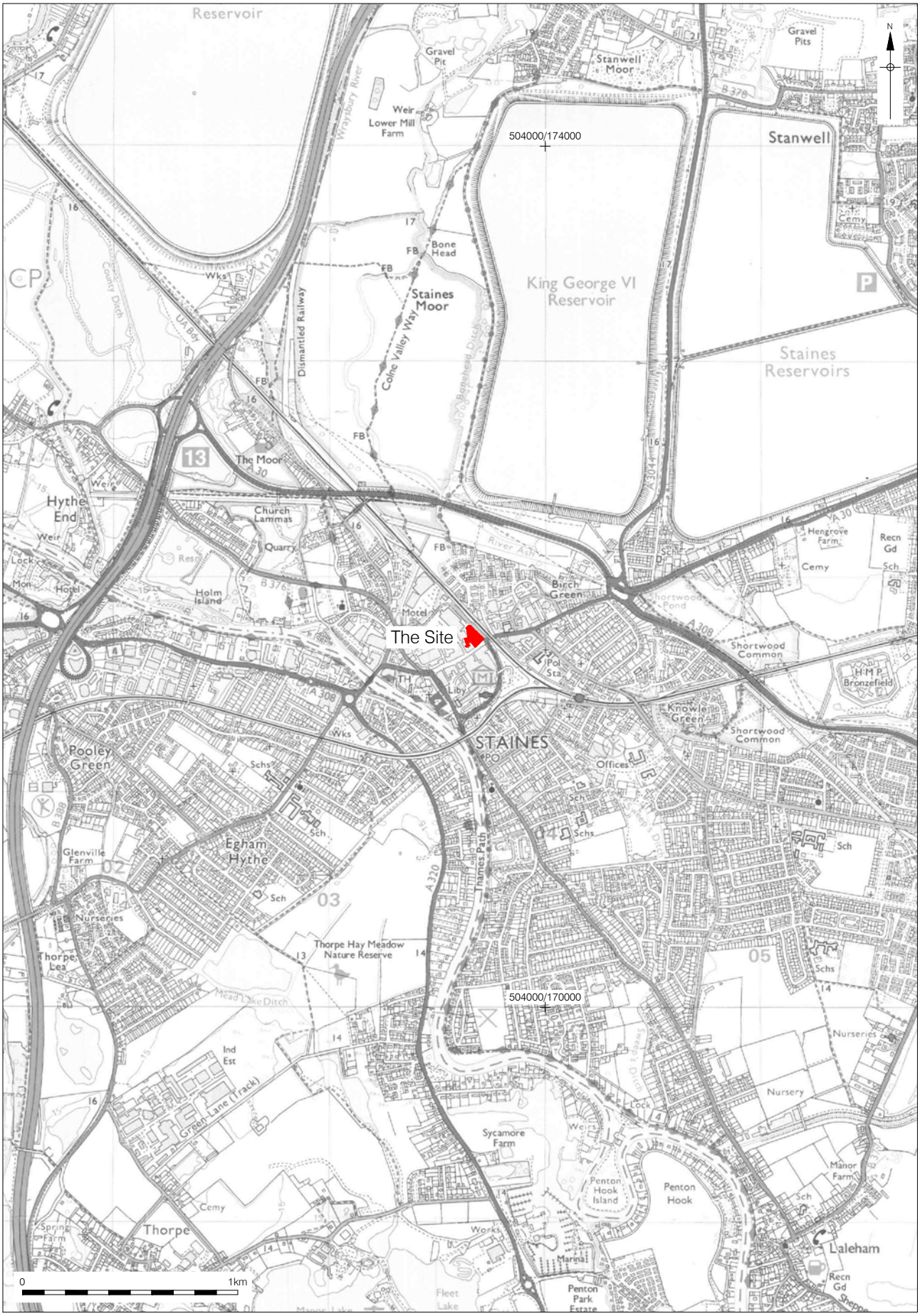

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Figure 1
Site Location
1:20,000 at A4

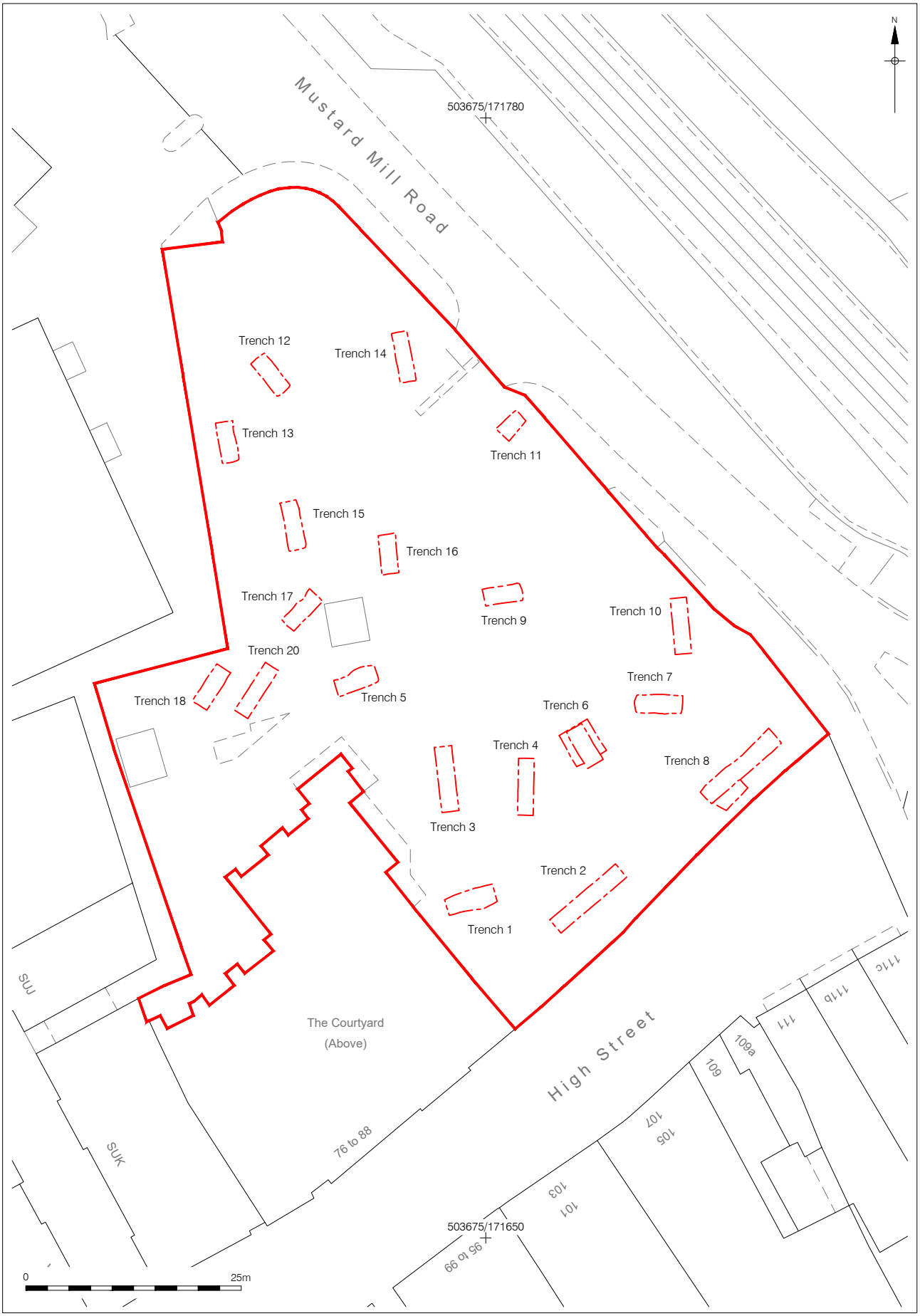

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Figure 2
Trench Locations
1:625 at A4

2 INTRODUCTION

2.1 An archaeological evaluation was carried out by Pre-Construct Archaeology Ltd. Following the demolition of the buildings occupying 90-106 High Street, Staines, TW18 4DP (Figures 1 and 2). The evaluation was conducted in two phases between 14th and 18th November 2016 and the second phase between 9th and 24th of January 2017 on behalf of Property Partners (Two Rivers) Limited.

2.2 The site comprised a plot of land located at the corner of High Street and Mustard Mill Road. The central National Grid Reference of the site is TQ 0362 7171.

2.3 The project was monitored by Nigel Randall (Surrey County Council), archaeological advisor to Spelthorne Council. It was project managed by Peter Moore and supervised by Alexis Haslam, Matt Edmunds, and Paw Jorgenson.

2.4 The completed archive comprising written, drawn and photographic records and artefactual material will be deposited with the Guildford Museum under the site code SMMR16.

3 PLANNING BACKGROUND

3.1 National Policy: National Planning Policy Framework

3.1.1 In March 2012 the Department for Communities and Local Government issued National Planning Policy Framework (NPPF), which provides guidance for planning authorities, property owners, developers and others on the investigation and preservation of heritage assets.

3.1.2 In considering any planning application for development, the local planning authority will be guided by the policy framework set by government guidance, in this instance NPPF, by current Local Plan policy and by other material considerations.

3.2 Local Policy: Archaeology in Spelthorne

3.2.1 The study aims to satisfy the objectives of Spelthorne Borough Council, which fully recognises the importance of the buried heritage for which it is the custodian. Relevant saved policy statements for the protection of the buried archaeological resource within the borough are contained within the Spelthorne Borough Local Plan:
ARCHAEOLOGY, ANCIENT MONUMENTS AND HISTORIC LANDSCAPES

4.73. Spelthorne is situated entirely on various alluvial and gravel deposits associated with the Thames, whose river terraces were attractive to ancient settlements. This has resulted in an area rich in archaeological finds and with great potential for further discoveries. From the Neolithic period onwards, significant finds including small settlements have been found across a wide area of Spelthorne with many Roman remains found around the important Roman town of Staines. The Council will seek to protect this archaeological heritage. Government guidance contained in PPG16 paragraph 8 contains a presumption in favour of the preservation of nationally important remains, whether scheduled or not, and their settings, and paragraphs 15 and 16 note the need to protect other important sites identified in the development plan. On the basis of currently available information all Scheduled Ancient Monuments are worthy of preservation, their sites are shown on the Proposals Map. Close liaison will be maintained with the Environment Department of Surrey County Council which holds the archaeological Sites and Monuments Record and with the Surrey County Archaeological Unit which conducts archaeological investigation and research. Any new areas of archaeological importance identified through the national Monuments Protection Programme of English Heritage or local research will be added to the areas covered by the policies which follow. Where archaeological investigation is required in the context of a development proposal, the applicant will be asked to fund the work deemed necessary. Planning conditions or legal agreements will be used where appropriate to secure compliance with policies.

4.74. There are four Scheduled Ancient Monuments which are by definition of national importance within the Plan area (see Appendix 5) and which the Council will seek to preserve from any development adversely affecting site or setting. An application for Scheduled Monument Consent must be made to the Secretary of State for the Environment, Transport and the Regions for any proposal affecting these sites. In addition to the scheduled sites and monuments, two others of special local importance have been identified on the basis of current information from the County Sites and Monuments Record which should also be preserved (see Appendix 5). The Council will encourage as appropriate the management and interpretation of these sites and monuments to develop their educational and recreational potential. These sites are identified on the basis of currently available information, and during the currency of the plan, additional sites may be identified to be of national importance following archaeological evaluation, or reassessment of sites on the Sites and Monuments Record.

3.2.2 The subject site is also subject to the following additional policies, as defined by Spelthorne County Council:

POLICY BE24

There will be a presumption against any development which would adversely affect a scheduled or other nationally important ancient monument or its setting. Development adversely affecting a site or monument of County archaeological importance will not normally be permitted.

4.75. In addition to the above sites and monuments, other areas exist where there is good evidence for the existence of archaeological remains based on previous finds, maps or aerial photographs. These individual sites and areas of high potential are shown on the Proposals Map and are listed in Appendix 5. Any development proposal affecting such an area should include an initial assessment by a qualified archaeologist of its archaeological potential and what, if any, further field evaluation is required. An evaluation should assess the impact of the development upon the preservation of any archaeological remains. Where possible, remains should be left in situ. Proposals for development should wherever possible avoid damage to or disturbance of the archaeological remains. The Council will encourage the local display of archaeological finds, where appropriate, at the Spelthorne Museum or other suitable

location.

Developers are advised to refer to the British Archaeologists and Developers Code of Practice, and to Supplementary Planning Guidance produced by Surrey County Council entitled "Archaeology and Historic Landscapes" which gives a fuller explanation of Areas of High Archaeological Importance.

POLICY BE25

In considering proposals for development within areas of high archaeological potential, the Borough Council will:-

(a) require an initial assessment of the archaeological value of the site to be submitted as part of any planning application
(b) expect the applicant to arrange an archaeological field evaluation to be carried out prior to the determination of the planning application, where, as a result of the initial assessment, important archaeological remains are considered to exist
(c) have a preference for preservation in situ, and in such circumstances will impose conditions or seek a legal agreement, where appropriate, to ensure that damage to the remains is minimal or will be avoided
(d) require by planning condition or seek a legal agreement to secure a full archaeological investigation and recording of the site and subsequent publication of results in accordance with a scheme of work to be agreed in writing with the Council prior to the commencement of the proposed development, where important archaeological remains are known or considered likely to exist but their preservation in situ is not justified.

4.76. Work in recent years has resulted in sites of major archaeological importance being discovered in the course of gravel extraction, where no previous specific evidence existed for them. In view of Spelthorne's river gravel base, it is reasonable to assume that any large scale development is likely to affect features of
archaeological interest and that discoveries could be made in any size of new development site. Any new development proposal for sites larger than 0.4 hectares and smaller sites where requested should include agreed arrangements for archaeological assessment or evaluation, and where appropriate investigation, and allow for future preservation of remains as deemed appropriate.

POLICY BE26
Outside the defined areas of high archaeological potential, the Borough Council will require an agreed scheme of archaeological assessment or evaluation appropriate for the site concerned to be submitted with any new development proposal for a site larger than 0.4 ha, and for smaller sites if deemed necessary. Where evidence of significant archaeological remains is found then the requirements set out in policy BE25 will apply.

4.77. Where other land is identified as of historic interest but is not covered by historic building, conservation area or archaeological protection policies, the Council will
nonetheless seek to preserve the historic and amenity value of such land. This may include landscaped gardens and open landscapes. Where such areas are affected by development proposals it is important to record their historic details. The extent of such areas is to be

further investigated by Surrey County Council for the County as a whole but in Spelthorne currently known sites are Sunbury Park and Laleham Park.

POLICY BE27

The Council will seek to ensure that any proposed development within or adjacent to an area of historic landscape value, or garden of special historic interest, does not detract from its character or appearance. An adequate record will be required where development affecting such an area is permitted. Where necessary the Council will encourage the sensitive restoration of gardens of special historic interest within the Borough.

3.3 Site Specific Constraints

3.3.1 The site is located within an Area of High Archaeological Potential and therefore the planning permission included the following condition (Condition 18):
No development shall take place until the applicant has secured the
implementation of a programme of archaeological work in accordance with a Written Scheme of Investigation which has been submitted by the applicant and approved by the Planning Authority.

Reason:

The Site, which is located within an Area of High Archaeological Potential, is capable of containing archaeological remains and it is important that the archaeological information should be preserved as a record before it is destroyed by the development.

3.4 Archaeological Objectives of the Project

3.4.1 The objectives of the archaeological investigation, as outlined in the WSI were:
To determine the natural topography of the site, particularly evidence for the gravel island and for Sweeps Ditch.
To establish the presence or absence of prehistoric activity, particularly Mesolithic occupation as suggested by the lithic scatter recorded close by.
To establish the presence or absence of Roman activity, in particular, road side development and chronology, characterisation of occupation type, date of abandonment
To establish the presence or absence of medieval activity, particularly of burgage plots and road side structural development extending back from the High Street.
To establish the presence or absence of post-medieval activity at the site, in particular whether further 16/17th building remains exist along the High Street frontage, and to characterise the type of use such buildings were put.
To establish the nature, date and survival of activity relating to any archaeological periods at the site.

To establish the extent of all past post-depositional impacts on the archaeological resource.

4 GEOLOGY AND TOPOGRAPHY

4.1 Geology

4.1.1 Staines-upon-Thames is located above 'a series of low-lying gravel islands within the flood plain of the middle Thames Valley, situated on the north bank of the river Thames at its confluence with the braided tributary channels of the rivers Colne and Wraysbury' (McKinley et al 2004).

4.1.2 The British Geological survey (http://mapapps.bgs.ac.uk/geologyofbritain/home.html) identifies the underlying Bedrock geology on site to be the 'London Clay Formation'. This clay, silt and sand deposit formed between 34 and 55 million years ago during the Palaeogene Period. At this time the local environment was dominated by deep seas and the clay, silt and sand was formed during 'infrequent slurries of shallow water sediments' which were then 'redeposited as graded beds'. The bedrock geology is overlain by the Shepperton Gravel Member. These superficial deposits of sand and gravel formed during the quaternary period up to 2 million years ago. During this period the local environment was dominated by rivers, and the gravel member was formed from fluvial deposition of material within channels.

4.1.3 During the Holocene period a network of braided river channels forming part of the Thames and its tributaries cut through the gravel member. Alluvium (fine silt and clay) was deposited within these channels as they began to silt up as well as in adjacent lower lying areas as a result of overbank flooding. Upstanding gravel eyots would have existed between these channels and these dryer areas would have been better suited to occupation in antiquity.

4.1.4 A borehole recorded to the south of the site however (http://scans.bgs.ac.uk/sobi_scans/boreholes/574497/images/12192268.html) recorded a 3.30m depth of made ground overlying natural gravels. However, some, if not the majority of this 'made ground' may be of archaeological interest. London clay was identified at 11.10m below ground level.

4.1.5 An archaeological evaluation carried out to the immediate north of the subject site (Watson 2013) failed to identify natural horizons due to extensive modern truncation. Archaeological investigations to the immediate east of the study site however identified London Clay at 6m OD, overlain by gravel at 13m OD and brickearth at c.14.50m OD (Ellis 2013). These investigations, at Majestic House, were located at the north-western periphery of the adjacent gravel island denoted as the 'London Road Island'. As the subject site also lies at the periphery of a known gravel island, it is likely that similar heights of the natural horizons may be expected, if not truncated by later intrusions.

4.2 Topography

4.2.1 The River Thames runs roughly east-west approximately 0.4km south-west of the subject site. In addition, the convergence of two tributaries of the Thames occurs c.0.34km west of the site. These form a north-north-west south-south-east tributary, the Wraysbury River, and

a north-north-east south-south-west aligned tributary, the River Colne to the west and east respectively. The River Colne is known to have been canalized during the later part of the post-medieval period.

4.2.2 The level of the site is variable. The grassed areas in the north vary between 15.69m OD and 14.86m OD. The car parking areas in the east of the site exhibit a slight southerly inclination from 15.28m OD to 15.54m OD from north to south respectively. The western car parking areas also exhibit a southerly inclination from the slightly lower elevations of 15.02m OD to 15.52m OD from north to south. Other than this slight increase in elevation towards the shop frontages the car parking areas appear relatively level.

5 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

5.1 Introduction

5.1.1 Prior to the archaeological evaluation, an archaeological desk based assessment was carried out (Fairman 2015). This included a detailed study of the historical and archaeological background pertinent to the proposed development. The following is a summary of that study

5.2 Prehistoric

5.2.1 Numerous archaeologically identified features and findspots of prehistoric material testify to significant prehistoric occupation of the immediate area. The earliest evidence of this period is Mesolithic in date. A presence in the vicinity in this period is inferred by the recovery of residual material within alluvial deposits to the east of the site. The Neolithic is better represented, with evidence of human occupation or exploitation deriving from excavations less then 100m west of the subject site. Archaeological work at this location identified three zones of land use, the edge of the town gravel island, a broad alluvium filled channel in the north, and beyond this a second gravel island. By contrast the Bronze Age is extremely well represented, with numerous findspots of material in addition to multiple well provenanced cut features indicative of settlement. A number of these Bronze Age settlement areas continued in use into the Iron Age.

5.3 Roman

5.3.1 The Roman settlement at Staines was established in the pre-Flavian period and attained an urban character by early Flavian times. As such a Roman presence at Staines is well documented, with the settlement being initially recorded as Pontibus (‘at the bridges’) in the ‘Antonine Itinerary’, reflecting its position adjacent to a major crossing point of the Thames over the road. The modern High Street is believed to ‘overlie the line of the Roman road running between London (Londinium) and Silchester (Calleva), with Pontibus lying *c*. 21 Roman miles from the former and *c*. 27 Roman miles from the latter.

5.4 Anglo-Saxon and Medieval

5.4.1 By the 7th century the town lay within the territory of St. Albans, later becoming part of the territory of the Middle Saxons, or Middlesex. As in the Roman period, Saxon settlement is likely to have remained focussed on the higher gravel ‘island’. The importance of the river crossing at this point is likely to have contributed to this, and there was probably only one bridge west of London until c.1410, giving further impetus to the development of the town.

5.4.2 In addition to the numerous well provenanced finds and archaeological features, a large quantity of residual Saxon material, either within later deposits, or within generic dump layers of this date testifies to the Saxon occupation of Staines.

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5.4.3 The instatement of a new bridge also demarcated a reversal in the shift towards settlement on the Island of Binbury, attracting settlement back to the former gravel island in the centre of Staines. The town was granted a market and is likely to have comprised a series of burgage plots extending back from the main road, presumably following the Roman highway. Further contractions to the town are noted from both documentary and archaeological sources in the mid-14th century, but saw a revival in the late 15th and early 16th centuries. The position of Staines on the main road from London was no doubt important to its late medieval and post-medieval development.

5.5 Post-Medieval

5.5.1 The bridge which was formerly so important to the development of the town was destroyed during the Civil War of the 17th century, and the ensuing long delay in rebuilding stiffened the area economically. After being rebuilt in wood during the latter part of the 17th century it survived until the late 18th century. A stone bridge replacement was opened in 1803 and, after collapsing almost immediately, an iron replacement was opened in 1807. The iron bridge had become unsafe by the 1820s and as a consequence a new bridge, opened in 1832, was constructed further upstream where it continues to stand today.

5.5.2 Over the course of the next century, the value of the bridge and the necessity for uninterrupted river transport grew, and with it the wealth of the county. This long term concern with Thames navigation is linked to the growth of London and the growing demands of the population. The ensuing stimulation of farming practices and production effected a horticultural boom in the Thames Valley. Evidence pertaining to the exploitation of the river has been identified archaeologically within the wider area and includes features relating to boatyards or slipways wharves and canal workers cottages.

5.5.3 As described above, the town experienced a revival during the early post-medieval period, no doubt aided by its position along the main thoroughfare from London. This growth led to the establishment of numerous coaching inns to cater for passing trade. A number of these were located near to the bridge, and as such were convenient for both road and river traffic.

5.5.4 With the introduction of the railways river traffic declined, but the population started to grow at a faster rate. Alongside this increase came a diversification and expansion of industry during the later 19th centuries. Industrial premises and works pre-dating this period are few, but have been documented within the area. A Malt House is illustrated from at least the 1840s, and a mill on the river Colne first mentioned in the 15th century produced papier-mâché until 1855 when it became a calico printing works.

5.5.5

6 ARCHAEOLOGICAL METHODOLOGY

6.1 The archaeological evaluation was undertaken in accordance with the approved WSI (Moore 2016). Trenches 5, 9, 11-18 were excavated in the Phase 1 works and Trenches 1-4, 6-8, 10-18 and 20 were excavated in Phase 2. Trench 19 will be excavated at a future date, when access allows, and reported on as an addendum.

6.2 All trenches were excavated by a mechanical excavator under archaeological supervision to the top of the archaeological horizon, after which all further excavation was by hand.

6.3 Once excavation of each trench was completed, written, drawn and photographic records were made of the trench in plan and section.

6.4 The recording systems were fully compatible with those used elsewhere in Surrey. Individual descriptions of all archaeological strata and features excavated and exposed were entered onto pro-forma recording sheets. All plans and sections of archaeological deposits were recorded on polyester based drawing film, the plans being drawn at a scale of 1:20 and the sections at 1:10. A digital photographic record was made of the investigations as they progressed. Levels were derived from spot heights recorded on Ordnance Survey plans and earlier surveys.

7 ARCHAEOLOGICAL SEQUENCE

7.1 Trench 1 (Figure 3, Figure 4, Plate 1)

7.1.1 Phase 1 (natural): Naturally deposited alluvium, consisting of silty sandy clay, [66], was encountered in the base of Trench 1, the top of the layer being unearthed at a maximum height of 14.05m OD. It comprised stiff greenish brown silty sandy clay with occasional small rounded stones.

7.1.2 Phase 2 (Late Roman): This was cut by N-S ditch [57], which was 2.3m wide and 0.4m deep. Only a 1.6m length was exposed. Its fill, [56], was a firm dark greyish black silty clay containing shells and charcoal fragments, the top of the deposit being uncovered at a level of 13.95m OD. A pit, [55], was also cut from this level. Roman pottery spot dated to AD 350–400 was found within the fills of these features, suggesting that they fell out of use and were backfilled during that period.

7.1.3 Phase 3 (medieval): The ditch was sealed by layer [59], a gravelly greyish brown silty clay, the top of the deposit being at a height of 14.8m OD. This may represent a layer of medieval made ground.

7.1.4 Phase 4 (post-medieval to modern): A probable post-medieval wall, [58], lay on an east-west orientation and the remains of 7 courses were recorded. This feature could form part of an outbuilding or extension within a burgage plot. It was truncated to the east by a late 19th century well and from above by later activity. The well's construction revealed layer [60] a grey/light brown sandy silt.

Plate 1: View of Trench 1, looking north, showing ditch [57] (foreground, centre-right), wall [58] and a later 19th century well.

7.2 Trench 2 (Figure 3, Figure 4, Plate 2)

7.2.1 Phase 1 (natural): Naturally deposited alluvial clay, [75], was uncovered in the base of Trench 2 at a maximum height of 14.12m OD. It contained occasional small-medium stones and flecks of manganese.

7.2.2 Phase 3 (medieval): The natural clay was cut to the north-east by well [68] which was filled by [67]. It was 0.84m N-S, by 1.1m E-W and was excavated to a depth of 0.52m however the base was not reached. It extended beyond the northeastern and southeastern limits of excavation. Its fill, [67], was a dark blackish brown clayey silt containing sub angular stones. To the west lay irregular ditch [81], which widened and was deeper to the north; it contained three fills. Basal fill [80] was a dark brown silty clay containing occasional small stones and one very large flint nodule measuring 0.30m x 0.15m, as well as pottery dated to AD 1240–1400. Because of flooding this deposit was not bottomed. It was sealed by fill [79], a compact reddish brown silt replete with large quantities of CBM, suggesting it represented a demolition deposit. The top fill was [78], a dark brown clayey silt containing fragments of oyster shell and CBM, which also contained residual Roman pottery. Another possible linear feature, [53], lay to the west. It had a NW-SE eastern cut and an irregular base that extended beyond the northwestern and southwestern limits of the excavation. Its fill [52] spread over a wider area than the cut below and was a dark brown sandy clay; it contained mMedieval pottery dating to the 12th to 13th centuries.

7.2.3 Phase 4: All features and fills were sealed by a 1.1m thick dump layer, [82], which consisted of dark brown clayey silt that contained modern CBM.

Plate 2: Overview of Trench 2, looking northeast.

7.3 Figure 3Trench 3 (Figure 3; Plate 3)

7.3.1 Phase 1: In Trench 3 the natural alluvial layer [77] was found at 13.74m OD; it was truncated by a single modern cut.

Plate 3: Overview of Trench 3 looking northeast

7.4 Trench 4 (Figure 3, Figure 4, Plate 4)

7.4.1 Phase 1 (natural): Natural alluvial silty clay, [63], was encountered at a depth of 14.04m OD in Trench 4.

7.4.2 Phase 2 (late Roman): The natural clay was truncated by a shallow north-south orientated gully, [65], that was filled by a pale greyish brown deposit of silty clay, [64]. This in turn was truncated to the north by a large pit or ditch, [62], which was over 0.42m deep and 2.60m wide. It was filled with a dark greyish brown deposit of silty clay. Both of these features contained pottery assemblages that were spot dated to AD 350–400, which suggests that they may date to the late Roman period.

7.4.3 Phase 3 (medieval): These features were sealed by a probable medieval dump layer, [70], the top of which was observed at a height of 14.08m OD.

7.4.4 Phase 4 (post-medieval to modern): Ditch [62] was later truncated by the construction cut for a late 19th century well.

Plate 4: Overview of Trench 4 looking north with [65] in the foreground and [62] in the background.

7.5 Trench 5 (Figure 3, Figure 6, Plate 5)

7.5.1 Phase 3 (medieval): A layer of dark greenish grey silty clay, [25], was encountered in the base of Trench 5, which proved to be over 0.60m thick. In addition to residual Roman material dating to AD 250–400, the layer contained medieval pottery (AD 1240–1300), suggesting that it was lain down during that later period. The top of this horizon was encountered at a level of 14.64m OD; it most probably represents ground consolidation.

7.5.2 Phase 4 (post-medieval to modern): The layer was truncated by a much later rectangular clay lined pit, [22], which contained a deposit of clinker replete with glass and pottery of late 19th to 20th century date. It most probably represents an industrial structure that was backfilled with manufacturing waste after it fell out of use in the modern era.

Plate 5: Overview of Trench 5 with clay lined industrial pit [22] in the background, looking west

7.6 Trench 6 (Figure 3; Figure 8)

7.6.1 Phase 3 (medieval): A dark greenish grey silty clay layer of probable medieval date, [84], was encountered in the base of this trench at a level of 14.47m OD. It most probably represents the aforementioned ground consolidation layer, which appears to have been lain down across most of the site in order to form a stable occupation horizon from which medieval activity could take place. To the north, a substantial northeast-southwest orientated ditch, [74], had been dung into this horizon, which was 2m in width and 1.48m in depth. It contained four fills, [71], [72], [73] and [85]. Artefacts recovered from them suggest that they were most probably deposited during the latter centuries of the medieval period. It is possible that this ditch was also encountered in Trench 7, where it was recorded as [40]. Running roughly parallel with Staines High Street, it may represent a boundary that either delineated the rear of a burgage plot or a sub-plot within it.

7.7 Trench 7 (Figure 3; Figure 5; Plate 6)

7.7.1 Phase 1 (natural): Naturally deposited silty sandy clay alluvium, [38], was found in the base of Trench 7 at a maximum height of 14.19m OD. It comprised stiff greenish yellow silty sandy clay with occasional small rounded stones.

7.7.2 Phase 3 (medieval): At the western end of the trench, the natural clay was cut by a square feature, [40]. Its dimensions remain unknown as this unexcavated feature extended north beyond the limits of the trench, whilst to the east it was truncated by a later ditch. What can be said, however, is that it was in excess of 0.66m by 0.86m in plan. It contained a fill, [39], consisting of moderately compact brownish grey silty clay. This feature aligned with [74] in Trench 6 to the southwest, suggesting that it may form part of the same boundary. To the south of [40], the natural was cut by pit [37], which was filled by [36]. This pit extended beyond the southern and western boundaries of the trench. It was rectangular in plan and measured 1.20m x 0.40m x 90mm in depth. Its fill comprised firm greyish brown silty clay with occasional small rounded stones. As mentioned previously, [40] was truncated to the east by a later ditch, [35], which was aligned along a roughly northeast-southwest axis; it measured 2.50m x 1.40m in plan and 0.88m in depth. It contained a single fill, [34], which comprised firm greyish brown silty clay with frequent charcoal flecks. Excavation of the fill produced a relatively large quantity of pottery and occasional CBM and animal bone fragments. The majority of the pottery was dated to 1240-1300, although residual Roman pottery was also present. In addition to these finds, the fill also produced a Roman coin (sf 1). Immediately to the east of the ditch and aligned with it, two postholes, [44] and [46], were cut into the natural. Both measured 60mm in diameter and were filled with similar material, comprising soft dark brown sandy silt. The fills were recorded as [43] and [45]. Orientated at an approximate right-angle to Staines High Street they may, along with ditch [35], have formed part of a boundary that separated two burgage plots that ran back from that thoroughfare. To the north, both the fill of the ditch, [34], and the fill of the square pit, [39], were truncated by another feature, [42], a pit with rounded edges. This extended beyond the limits of the trench to both the north and east. As seen, it measured 0.60m x 0.50m in plan and was first observed at a height of 14.01m OD. It was filled with a deposit of stiff greyish brown silty clay, [41].

7.7.3 Phase 4 (post-medieval to modern): Sealing this and extending across the entire trench was a layer of made ground, [33], which comprised firm brown silty clay. Modern made ground sealed this deposit.

Plate 6: Overview of Trench 7 featuring ditch [35], photograph looks east

7.8 Trench 8 (Figure 3; Plate 7)

7.8.1 Phase 1 (natural): In this trench naturally deposited alluvium, [30], comprised moderately compact mid-yellow clayey sand to sandy clay with occasional small rounded stones. It was sealed by a second layer of alluvial material, [29], which consisted of yellowish brown silty clay. The upper layer of natural clay was first seen at 13.75m OD.

7.8.2 Phase 3 (medieval): At the eastern end of the trench, the upper layer of natural clay was cut by a 0.16m deep linear feature, [32], aligned on a roughly northwest-southeast axis. Excavation of the fill, [31], which comprised moderately compact greyish brown silty clay, produced both residual Roman pottery (AD 250–400) and CBM (AD 55–400), however the presence of medieval sherds suggests that it was infilled during or after the 13th century.

7.8.3 Phase 4 (post-medieval): The fill of the linear feature was sealed by a dumped deposit of moderately compact bluish green silty clay, [28], which produced no finds. This was in turn sealed by the modern made ground, [27], which covered the entire site.

Plate 7: Overview of Trench 8 with linear feature [32] in the background, looking east

7.9 Trench 9 (Figure 3; Plate 8)

7.9.1 Phase 1 (natural): Natural alluvial material, [19], was again encountered in the base of Trench 9 at a level of 14.21m OD.

7.9.2 Phase 4 (post-medieval to modern): A brick lined rectangular masonry structure, [17], was discovered in the western end of the trench, which was composed of bricks that had been manufactured between 1825 and 1900. This 0.40m deep structure was 2m from north–south and over 0.70m east–west, continuing beyond the western edge of the trench. It represents a brick lined industrial structure of 19th century date, which was backfilled with dark greyish brown silty clay, [18], after it fell out of use.

Plate 8: Overview of Trench 9 with masonry feature [17] in the background, looking west

7.10 Trench 10 (Figure 3; Figure 5)

7.10.1 Phase 2–3 (late Roman to medieval): The earliest deposit encountered in this trench was a layer of what appeared to be reworked or disturbed alluvium, [47]. It comprised compact mid-greenish brown sandy clayey silt with moderately frequent small to large rounded pebbles, occasional chalk flecks and occasional small mollusc shells.

7.10.2 Phase 3 (medieval): To the south and east the alluvium was truncated by ditches [51] and [49]. Ditch [49] was aligned on a roughly north-south axis while [51] was aligned east-west at an approximate right-angle to [49]. They were both filled with identical fills that consisted of moderately stiff dark greyish brown silty clay, [48] and [50] respectively. These similarities in alignment and fill type suggest that the features may be related. Both produced Roman pottery however fill [50] also yielded medieval sherds manufactured between AD 1050 and 1200 thus suggesting that the Roman remains in both features are residual. Ditch [49] was first seen at a height of 13.96m OD while the top of [51] was slightly lower at 13.90m OD.

7.10.3 Phase 4 (post-medieval): The fills of the two ditches were sealed by a layer of made ground comprising compact bluish green silty clay, [83], which was in turn sealed by modern made ground.

7.11 Trench 11 (Figure 3; Figure 7; Plate 9)

7.11.1 Phase 1 (natural): The only deposit to be encountered within this trench was natural alluvium, [15], the top of which was unearthed at a level of 14.31m OD.

Plate 9: Overview of Trench 11, photograph looks east

7.12 Trench 12 (Figure 3; Figure 7; Plate 10)

7.12.1 Phase 1 (natural): Natural alluvium, [8], was uncovered in a machine sondage within this trench at a level of 13.86m OD.

7.12.2 Phase 3 (medieval): Sealing the alluvium was a layer of greyish green silty clay, [7], the top of which was encountered at a level of 14.44m OD. It represents a dump layer that contained medieval pottery pertaining to the 12th century. The top of this made ground is thought to form part of a mid to late medieval horizon.

Plate 10: Overview of Trench 12 after excavation of the machine sondage, photograph faces north

7.13 Trench 13 (Figure 3; Plate 11)

7.13.1 Phase 3 (medieval): A dark green dump layer, [6], containing pottery dating to AD 1050–1150/1200 was uncovered at the base of the archaeological sequence. Forming part of the aforementioned medieval horizon that underlies most of the site, the top was encountered at a level of 14.06m OD.

7.13.2 Phase 4 (post-medieval): The medieval horizon was truncated by a large pit, [5], which had been lined with horn cores, [4]. This substantial pit continued beyond the limits of the excavation to the north, south and west, meaning that its full dimensions remain unknown. Partial excavation of the pit yielded pottery, which suggested that this post-medieval industrial feature fell out of use and was backfilled between 1760 and 1800. Horn lined pits are commonly associated with the post-medieval tanning industry, thus providing evidence for artisan or industrial activity within the burgage plots to the rear of Staines High Street during that period.

Plate 11: Horn core lining [4] in pit [5], photograph looks southwest in Trench 13.

7.14 Trench 14 (Figure 3; Plate 12)

7.14.1 Phase 3 (medieval): The base of the archaeological sequence was again characterised by a medieval dump layer, [11], which contained pottery that was spot dated to AD 1270–1350. The top of the layer was encountered at a level of 14.55m OD; it was probably deposited as a ground consolidation layer in order to form a stable horizon during medieval times.

7.14.2 Phase 4 (post-medieval to modern): The medieval horizon was truncated by [9], which was a substantially sized post-medieval pit or ditch that continued beyond the limit of the excavation to the north and east. It had been backfilled with [10], a rubble rich deposit that contained 17th century pottery and clay building material that post-dated 1600.

Plate 12: Overview of Trench 14, photograph looks north

7.15 Trench 15 (Figure 3; Plate 13)

7.15.1 Phase 3 (medieval): The only deposit to be encountered in Trench 15 was a medieval dump layer, [3], the top of which was encountered at a height of 14.38m OD. Containing pottery that dated to AD1050–1150, it presumably formed part of the aforementioned medieval horizon that underlies most of the site.

Plate 13: Overview of Trench 15, photograph faces north

7.16 Figure 3Trench 16 (Figure 3; Figure 7; Plate 14)

7.16.1 Phase 4 (post-medieval to modern): A dump layer, [12], identified in the base of Trench 16, contained pottery that dated to AD 1550–1700 thus suggesting that it was deposited during the post-medieval era. This layer most probably represents a second attempt at ground consolidation prior to continued activity in the post-medieval period. The top of the layer was encountered at a height of 14.18m OD.

Plate 14: Overview of Trench 16, photograph looks south

7.17 Trench 17 (Figure 3; Plate 15)

7.17.1 Phase 4 (post-medieval): A dump layer, [2], covered the base of Trench 17, the top of which was encountered at a level of 14.42m OD. It most probably forms part of the aforementioned episode of post-medieval ground consolidation. In addition to residual Roman and medieval material, the layer yielded clay tobacco pipe fragments indicative of a mid 17th century deposition date.

Plate 15: Overview of Trench 17, photograph faces east

7.18 Trench 18 (Figure 3; Figure 6; Plate 16)

7.18.1 Phase 3 (medieval): Medieval dump layer [14] was unearthed at a level of 14.07m OD, which must form part of the horizon pertaining to that period that covers most of the site. It yielded pottery that dated to AD 1050–1150.

7.18.2 Phase 4 (post-medieval): Sealing [14] was [13], a greyish green dump layer that also contained medieval pottery dated AD 1270–1500. The stratigraphic position of the layer at a height of 14.87m OD makes a post-medieval date more probable thus suggesting that these finds are residual. In all probability it forms part of a second phase of ground consolidation that took place during the post-medieval period.

Plate 16: Overview of Trench 18, photograph looks northeast

7.19 Trench 20 (Figure 3; Figure 6)

7.19.1 Trench 20 had to be repositioned from its original location to the south due to access issues.

7.19.2 Phase 4 (post-medieval to modern): A dump layer of probable post-medieval date was encountered in the base of Trench 20, the top of which was discovered at a height of 14.87m OD. The layer was over 0.60m thick. It probably forms part of a second phase of ground consolidation that took place over swathes of the site during the post-medieval period.

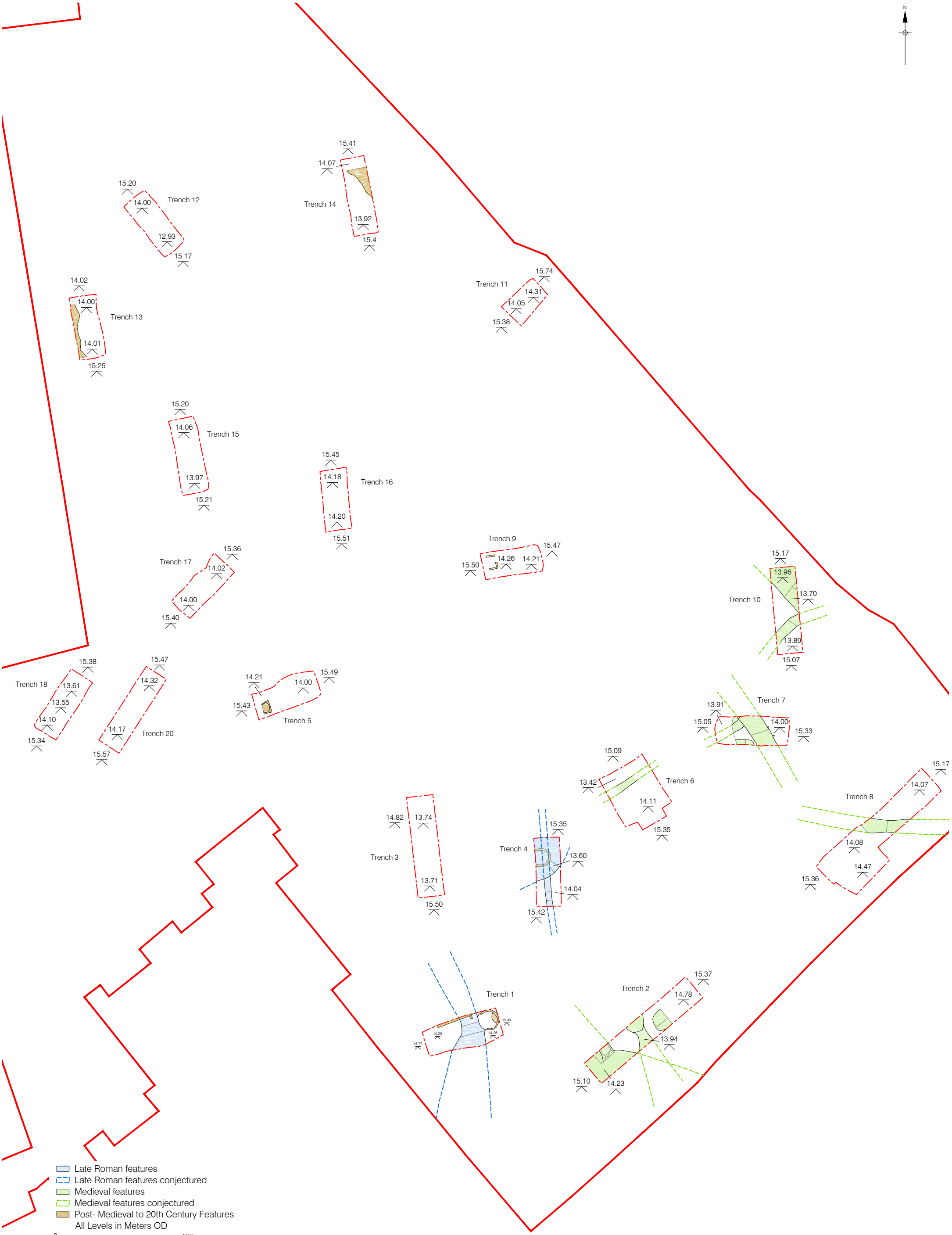

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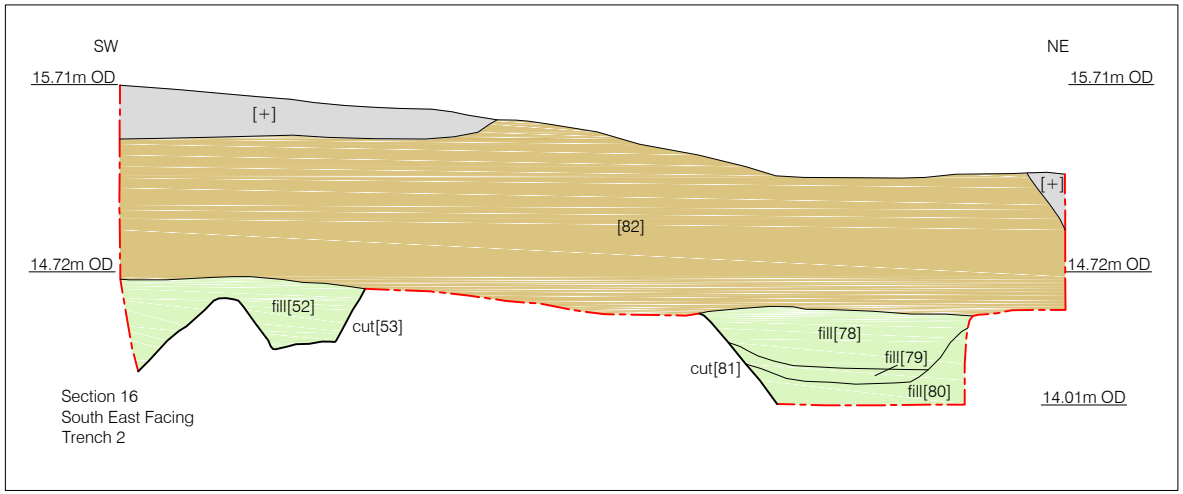
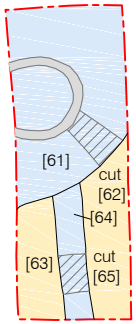
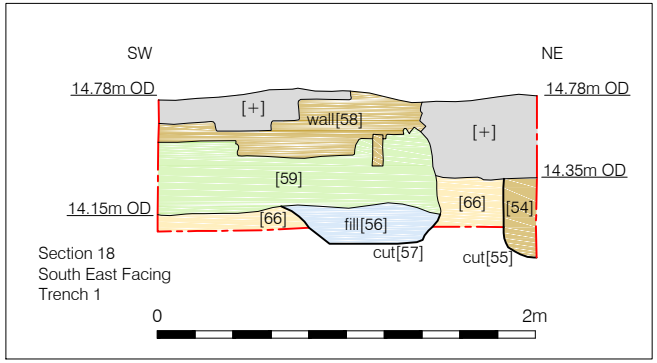
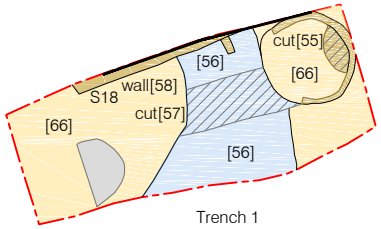
Figure 3
Trench Locations with conjectured archaeological features
1:250 at A3



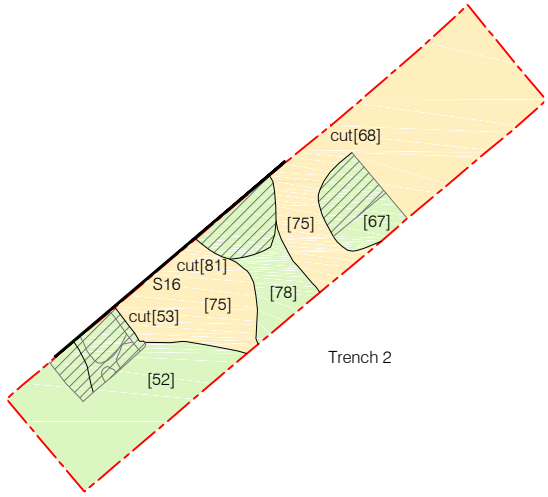


Trench 4





Trench 1



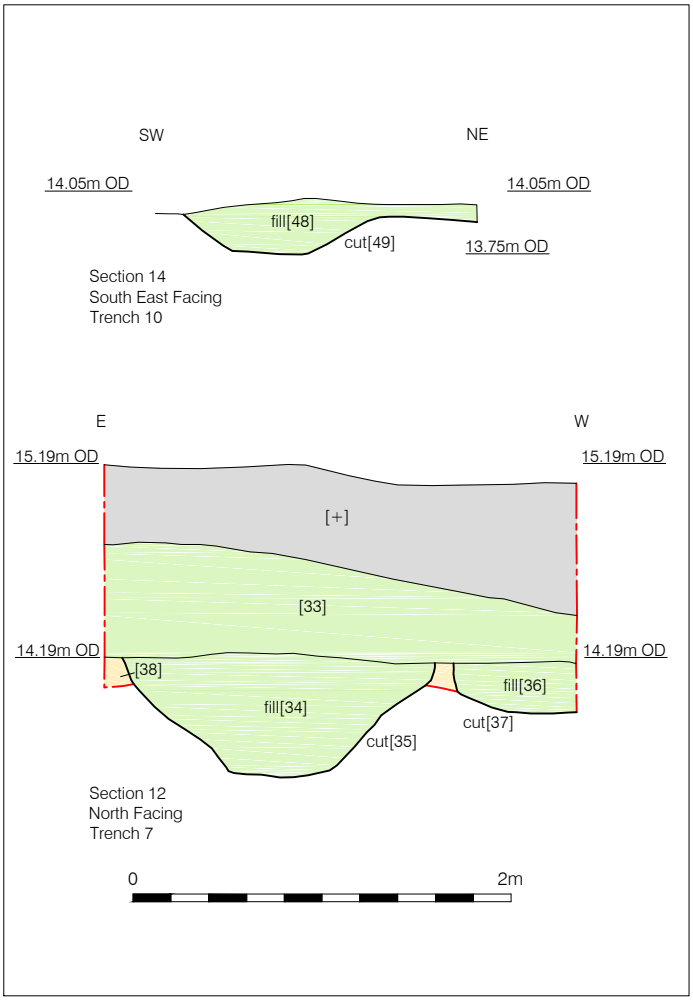
Trench 2

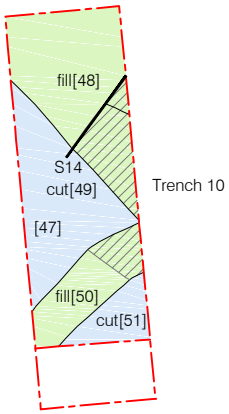
- Post-Medieval-20th Century
- Medieval
- Late Roman
- Natural Alluvial Horizon
- Excavated Slots in Archaeological Features
- Modern Features/ Truncation

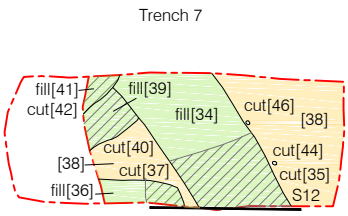
0 5m

02/02/17 CF

Figure 4
Trenches 1, 2 and 4 and Sections 16 and 18
Sections at 1:40 and Plans at 1:125 at A4





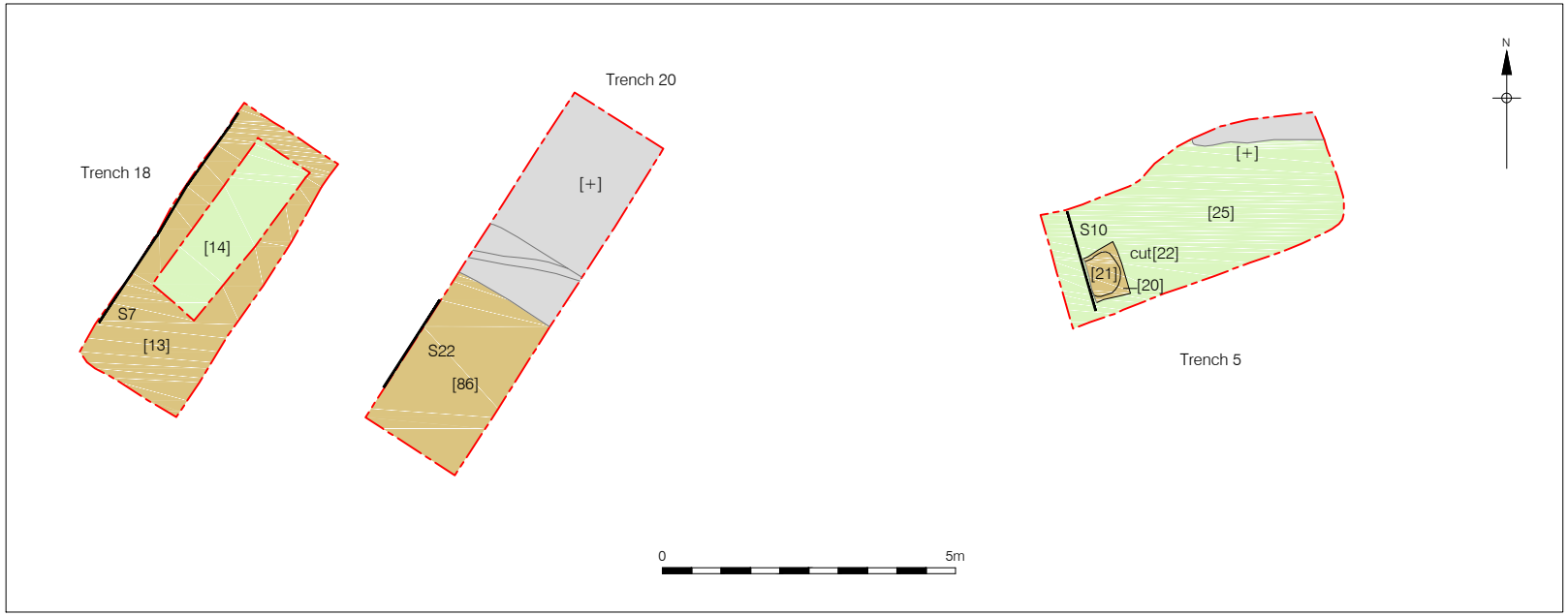


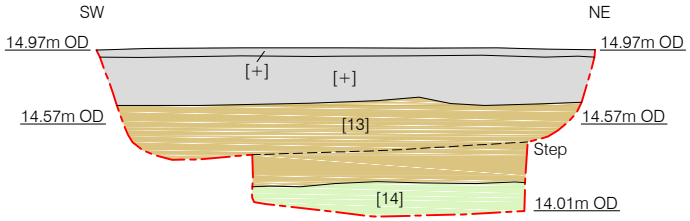
Medieval
Late Roman
Natural Alluvial Horizon
Excavated Slots in Archaeological Features

0 5m

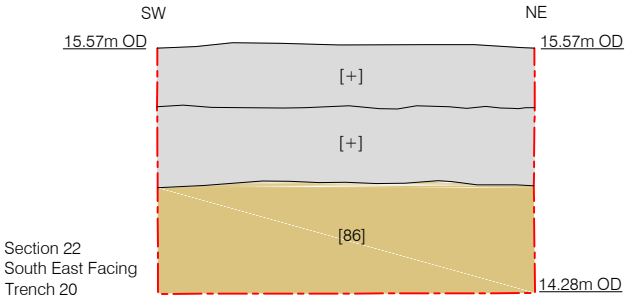
02/02/17 CF

Figure 5
Trenches 7 and 10 and Sections 12 and 14
Sections at 1:40 and Plans at 1:125 at A4

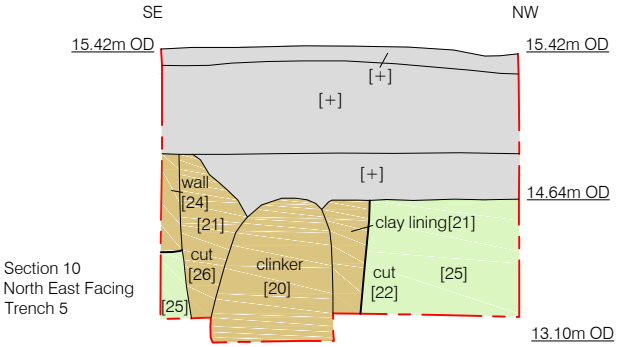




Section 7
South East Facing
Trench 18



Section 22
South East Facing
Trench 20



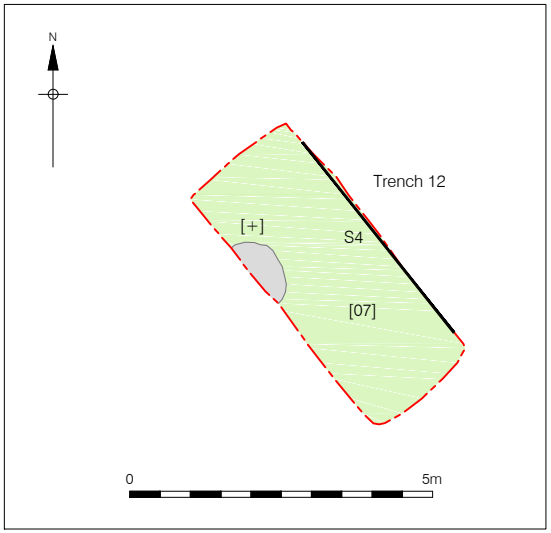
Section 10
North East Facing
Trench 5

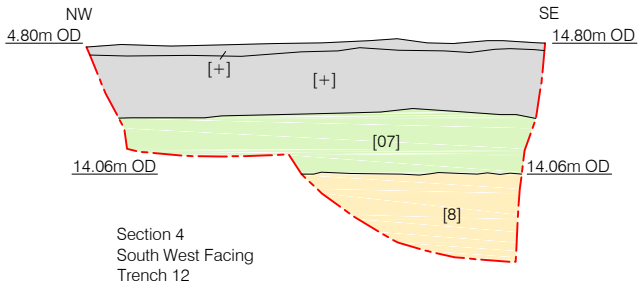
Post-Medieval-20th Century
Medieval
Modern Features/Truncation

0 2m

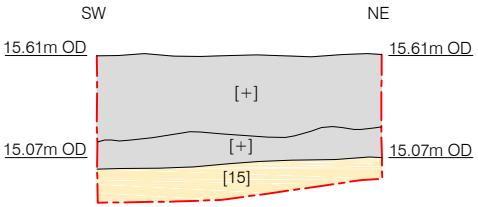
02/02/17 CF

Figure 6
Sections 7, 22 and 10 in Trenches 18, 20 and 5
Sections at 1:40 and Plans at 1:125 at A4

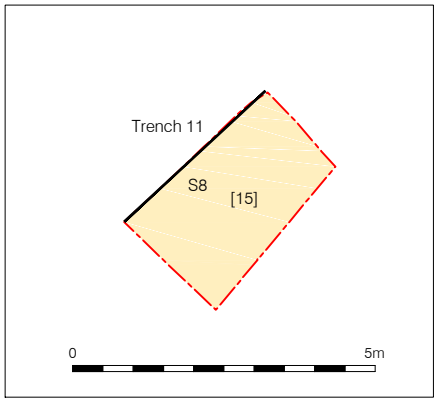


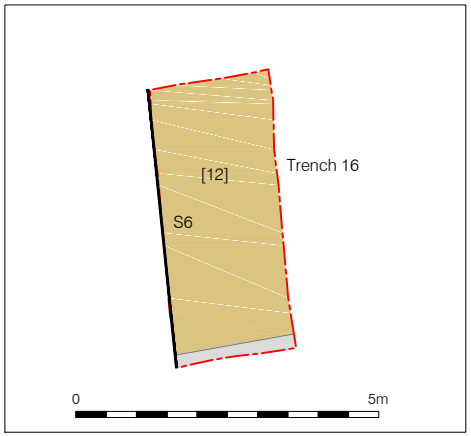


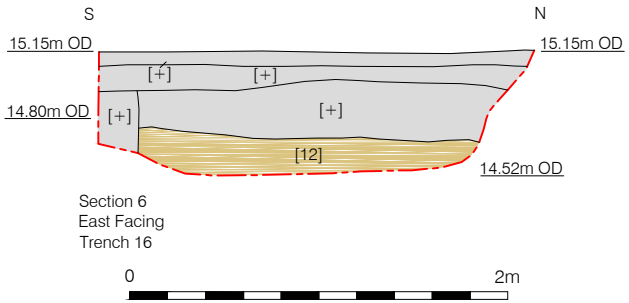
Section 4
South West Facing
Trench 12



Section 8
South East Facing
Trench 11





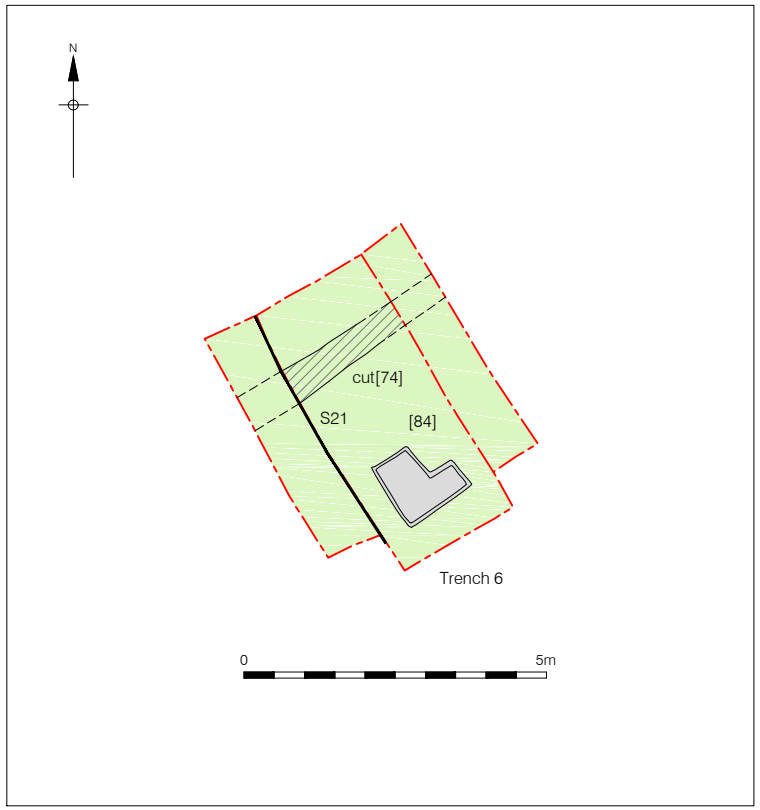


Section 6
East Facing
Trench 16

Post-Medieval-20th Century
Medieval
Natural Alluvial Horizon
Modern Features/Truncation

02/02/17 CF

Figure 7
Sections 4, 6 and 8 in Trenches 12, 16 and 11
Sections at 1:40 and Plans at 1:125 at A4



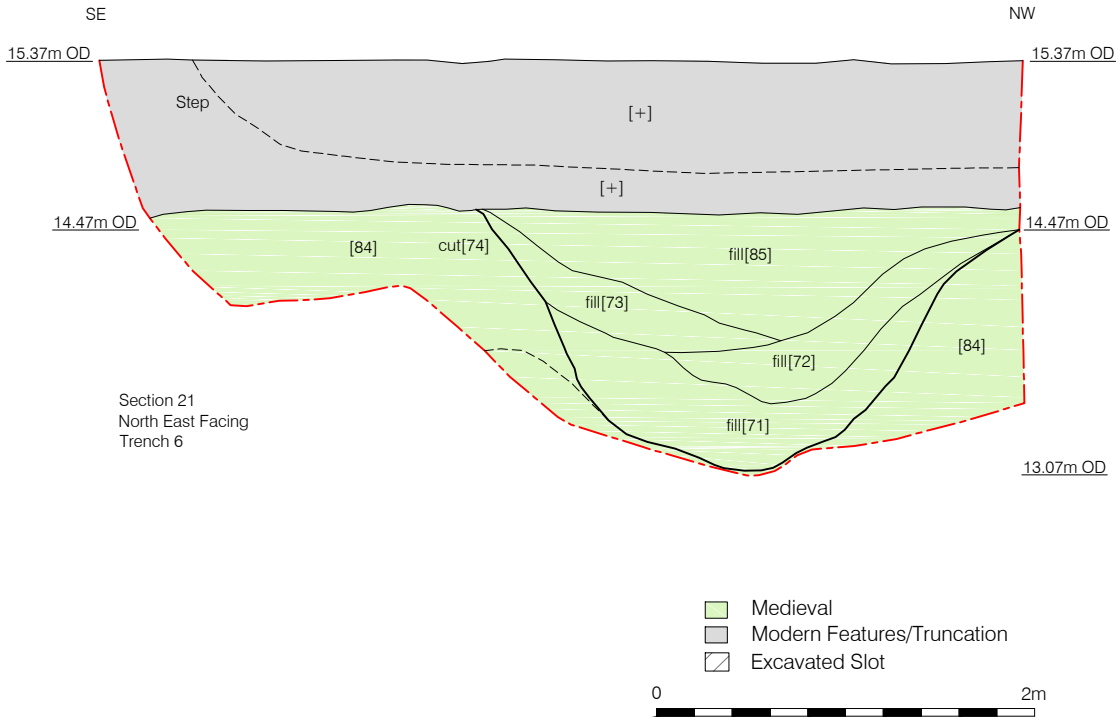


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Figure 8
Section 21 in Trench 6
Sections at 1:40 and Plan at 1:125 at A4

8 IMPACTS OF THE PROPOSED DEVELOPMENT

8.1 Surface Drainage

8.1.1 Because of flooding risk the external area of the site will be remediated to store surface water and prevent runoff. This will be achieved using Permeable Paving with 350mm sub-base (Figure 9, 10 and 11). Along certain routes, close to existing drainage runs, the sub-base will be 550mm thick.

8.1.2 There will be no impact on the level of underlying archaeological horizon as the modern made ground and undifferentiated soil is 850mm thick in Trench 5, 750mm thick in Trench 18, 400mm thick in Trench 16, 750mm thick in Trench 4 and 800mm thick in Trench 11. Therefore only in certain routes might the sub-base be slightly deeper than the depth of made ground.

8.2 Services

8.2.1 In general (see Figure 9) the proposed services run along the external western and northern sides of the proposed hotel, and along the internal eastern wall. The services also extend northwest along the northern extension of the hotel. The levels of individual service trenches is unknown but the typical manhole encasements will be 3.00m deep.

8.2.2 Given the concentration of service runs and manhole encasements along the western side of the building in the vicinity of Trench 1 (see Figure 23), this run of services will have an impact on the archaeological horizon.

8.2.3 The run of services along the northern side of the building will have an impact on the level of the archaeological horizon but this route lies between Trenches 3, 5 and 9, where no archaeology was found. It is there interpreted that this run of services will have no impact on any archaeology.

8.2.4 The run of services along the eastern wall and the concentration of three manhole encasements is likely to impact on the archaeology as seen in Trenches 7 and 10.

8.2.5 The run of services along the northwestern hotel extension lies in the vicinity of Trenches 9, 11, 14 and 16 where no archaeological features were encountered. This service run will therefore not have an impact on an archaeology.

8.3 Piles

8.3.1 The proposed piles are located on Figures 10 and 12 which show clusters of piles across the site. Pre-Construct Archaeology undertook a watching brief on the removal of previous foundations and possible obstructions so as to prevent deep searching for obstructions and the preservation in situ of the archaeological horizon. Given the nature of the archaeology as found, i.e. mostly linear ditches, there will be a low impact by the piles. However from circa just south of gridline J (see Figure 10) across to Gridline 6, there is a denser concentration of piles which will have a higher overall impact on the archaeology. No archaeology was found in the northern extension of the hotel so there will be no impact by the piling.

8.4 Pile Caps

8.4.1 The pile caps are set out on Figures 11 and 12. Again with the piles they are widely spaced across the site. Figure 12 shows that the top of the finished floor level will be at 15.49m OD. The project structural engineer, Mr Paul Connor-Woodley, confirmed that the formation level for each pile cap would be 14.19m OD, that there would be a 50mm layer of blinding underneath the base of each pile cap and that the formation level for the blinding would therefore be 14.14m OD.[1] Typically pile caps have 0.5m construction space around the vertical sides meaning that the overall size of the pile caps, including construction space, at J4 and J5 will be 5.0m x 3.2m in plan, at pile caps at J6, J3, and I4 will measure 3.0m x 3.0m, and pile caps at I5 and I6 will measure 2.6m x 2.6m.

8.4.2 The top of the archaeology in Trench 10 was 14.00m OD, 14.08m OD in Trench 8, 14.16m OD in Trench 7, 14.30m OD in Trench 1, 14.32m OD in Trench 2 and 14.47m OD in Trench 6. See Figure 15 for the archaeological trenches and features superimposed onto the proposed building.

8.4.3 This shows that as the archaeological horizon will not be reached by the formation level for the piles and blinding at the eastern side of the site, but an archaeological excavation area is nevertheless proposed here because of other proposed impacts. The central pile caps at I4 & 5 and J4 & 5 will impact the archaeology and an area of mitigation excavation is proposed here (see Figure 14). The pile caps at the west of the site are minimal in size and there is an archaeological mitigation area proposed on the basis of other impacts.

8.5 Lift Pits

8.5.1 Figure 11 shows the location of three lift pits in the area of Gridline J and Figure 13 Detail 007 shows the formation level for the lift to be 13.99m OD. As such these lift pits will impact the archaeology.

8.6 Manhole Sumps

8.6.1 Figure 11 shows the positions of three manholes in the area of Gridline J and Figure 13 Detail 005 shows the formation level of the manhole encasement to be at least 13.14m OD and as such they will impact the archaeology.

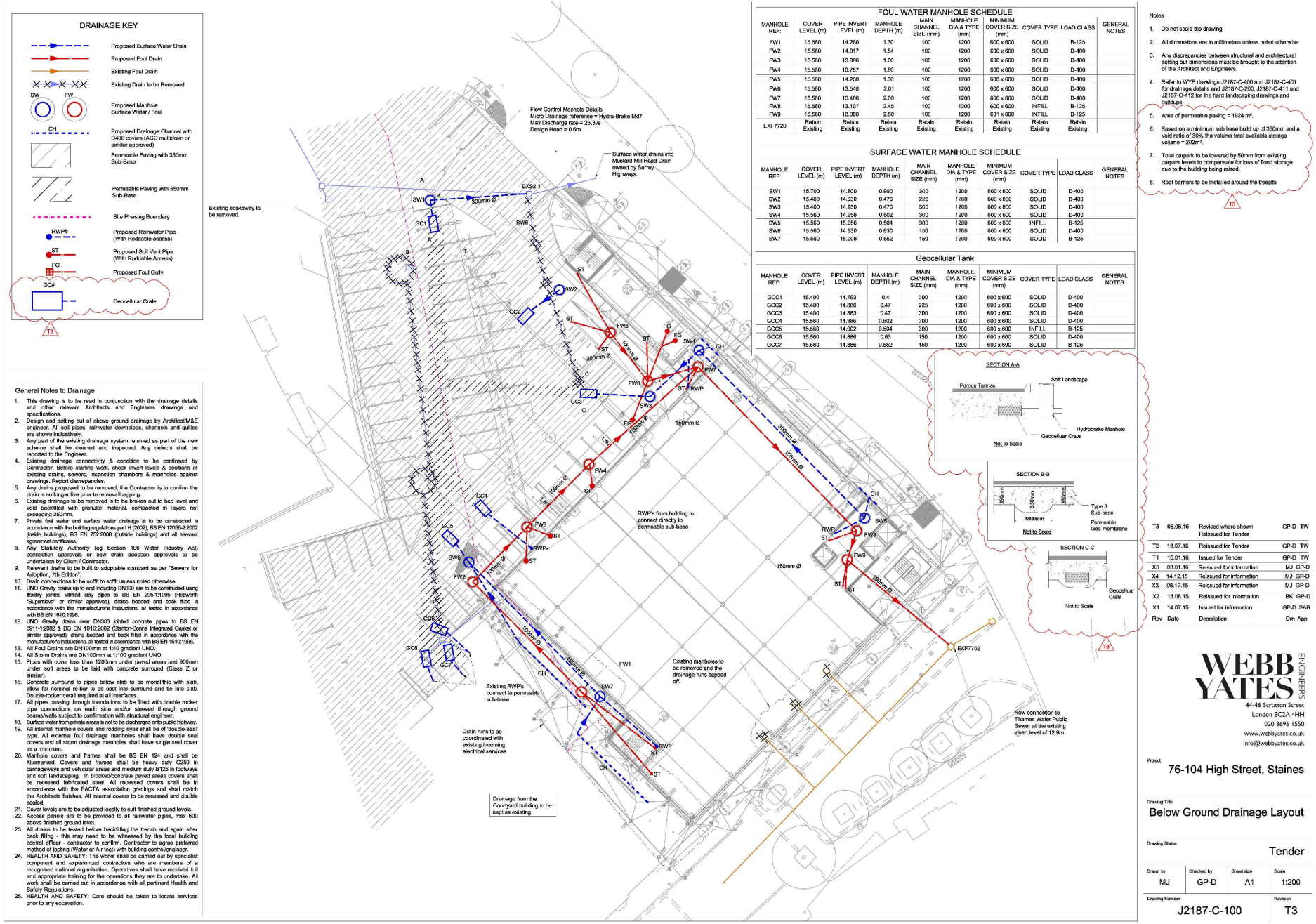
8.7 Impact Conclusions

8.7.1 There is no archaeology in the norther three quarters of the site. The landscaping and surface drainage works and pile caps will have no impact on the archaeology. The piles are well spaced and because most of the archaeology consists of ditches most of the archaeology will be preserved in situ. A concentration of piles in the southeastern part of the site, together with the locations of the lift pits and manholes sumps will have an impact on

[1] Email Paul Connor-Woodley to Peter Moore 7/2/17

the archaeology. The concentration of services along the southwestern boundary will have an impact on the archaeology.

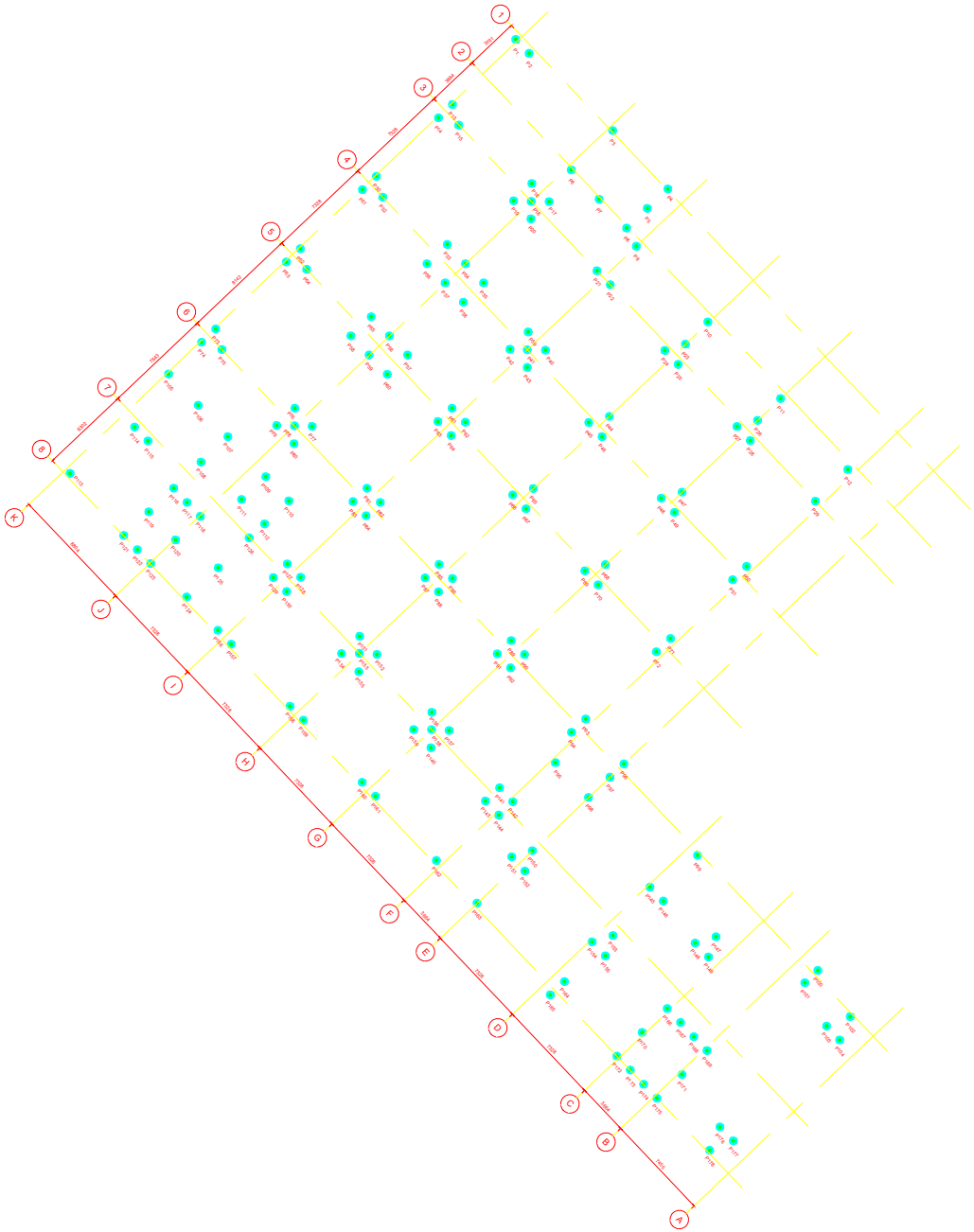
8.7.2 It is therefore recommended that two areas of archaeological excavation are undertaken to mitigate the construction impact (Figure 14).



Engineers drawing supplied by the client

03/02/17 CF

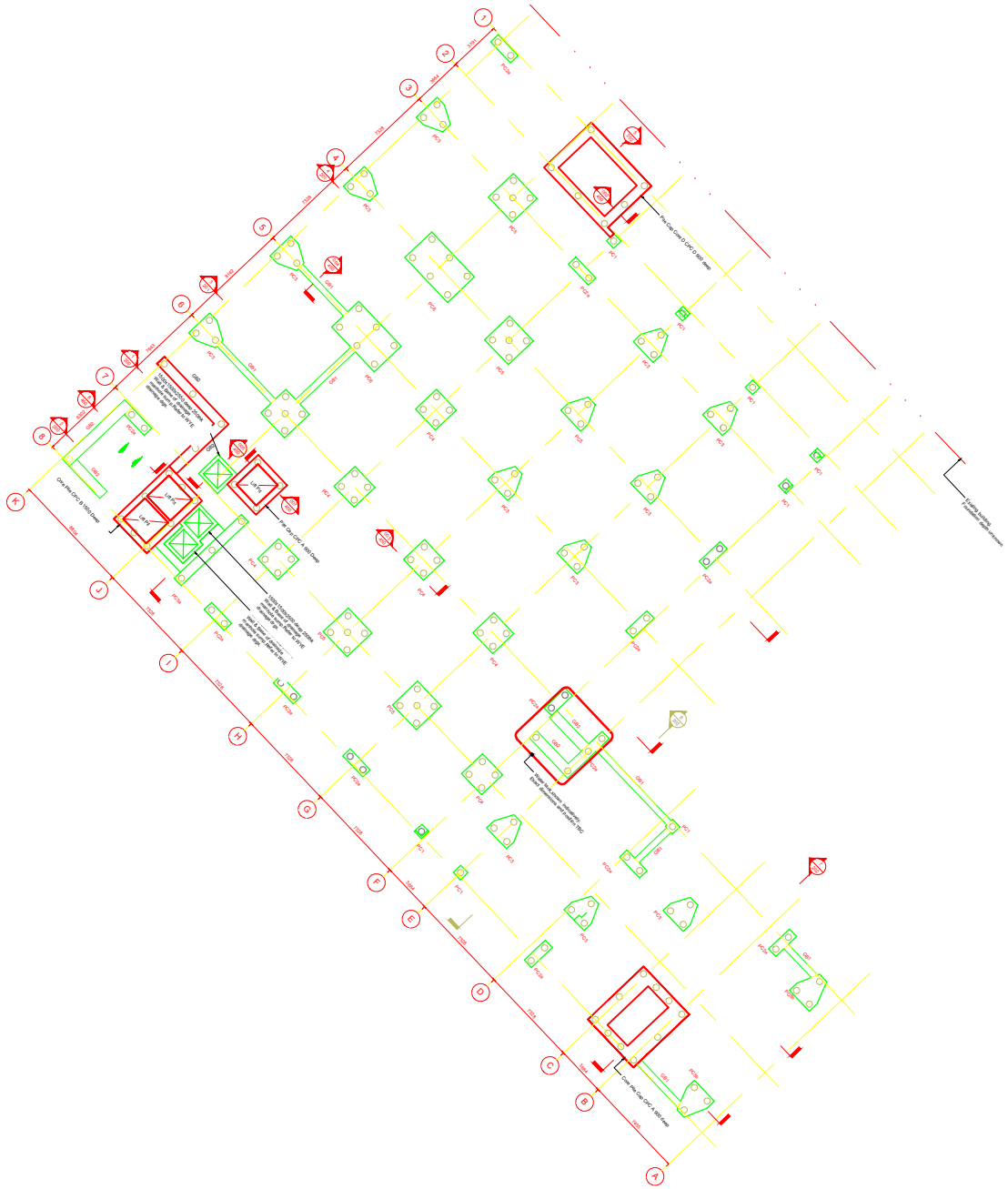
Figure 9



Pile Layout drawing supplied by the client

03/02/17 CF

Figure 10



Pile Cap Layout drawing supplied by the client

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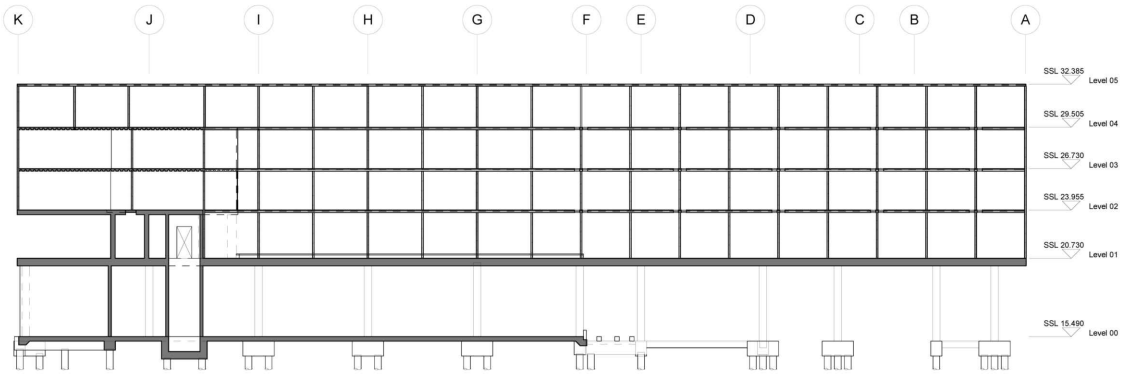
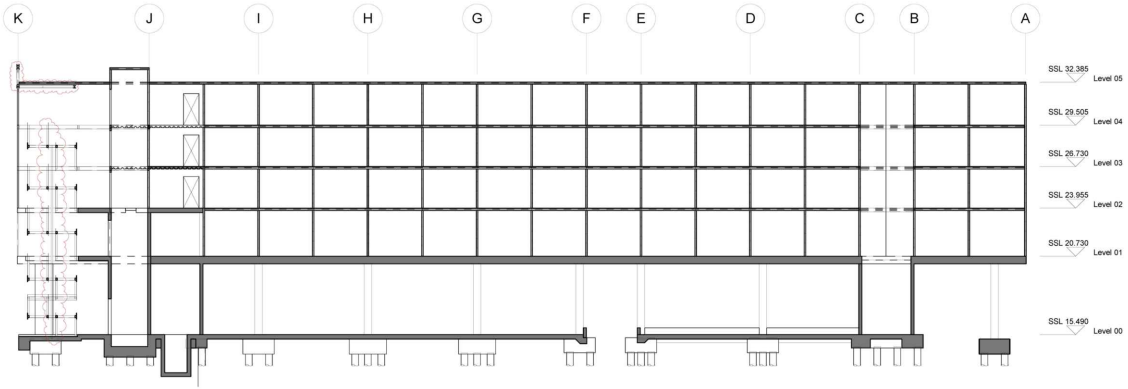
Figure 11



Section 1



Section 2

Notes

1. For general notes refer to J2187-S-002
2. Do not scale the drawing
3. This drawing to be read in conjunction with all other Architects and Engineers drawings and specifications including outline structural specification
   This drawing to be read in conjunction with all other Architects and Engineers drawings and specifications including outline structural specification
4. All dimensions are in millimetres unless noted otherwise
5. Any discrepancies between structural and architectural setting out dimensions must be brought to the attention of the Architect and Engineers

Rev	Date	Description	Drn	App
T 3	30.09.16	Revision as Clouded	PB	LA
T 2	15.02.16	Issued for Tender	PB	PC-W
T 1	15.01.16	Issued for Tender	PB	LA

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Project
High Street, Staines

Drawing Title
Sections Sheet 1
General Arrangement

Drawing Status
Tender

Drawn by	Checked by	Sheet size	Scale
PB	TW	AI	1 : 150

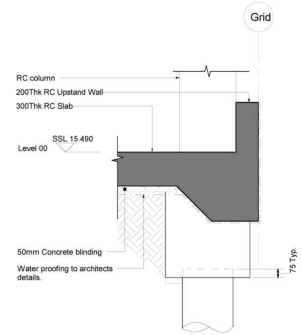
Drawing Number
J2187-S-200

Revision
T 3

Engineers drawing supplied by the client

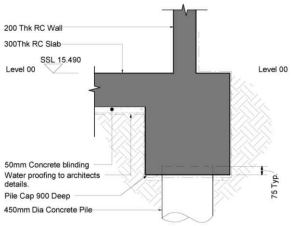
03/02/17 CF

Figure 12



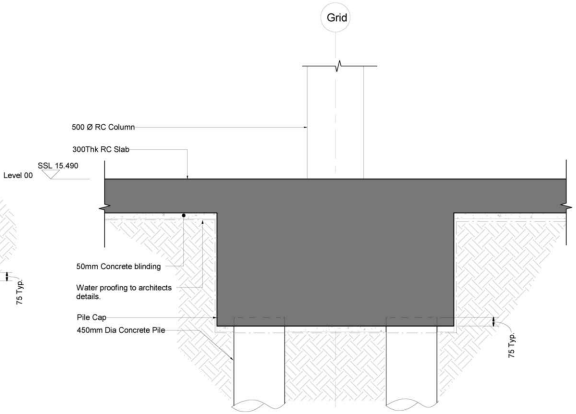
Detail 001

Typical Suspended Ground Slab outer perimeter edge



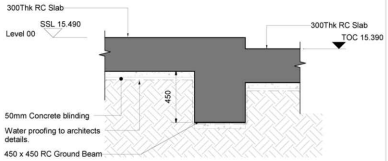
Detail 002

Typical Ground Slab to Exterior Pile Cap

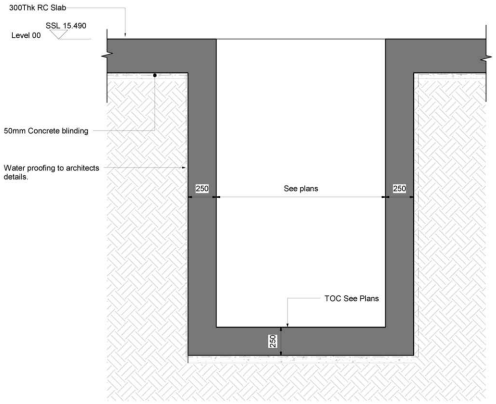


Detail 003

Typical Ground Slab to Interior Pile Cap

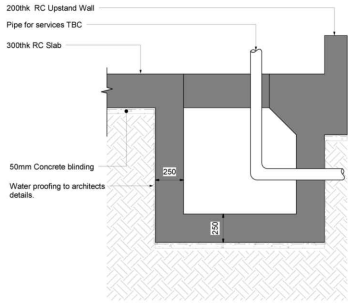


Detail 004



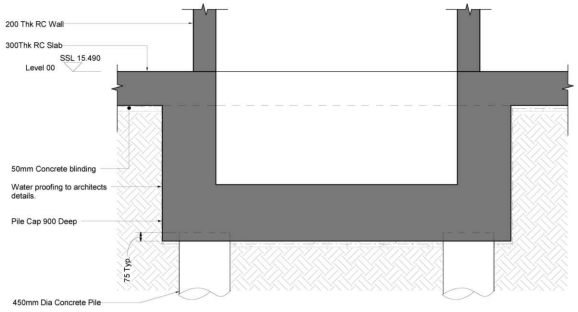
Detail 005

Typical manhole encasement



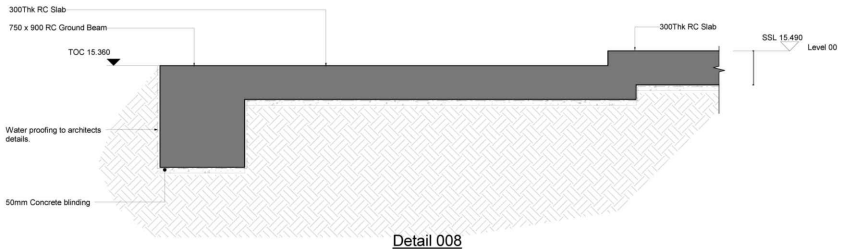
Detail 006

Typical Detail Services Pit to Ground Slab



Detail 007

Typical Lift Pit



Detail 008

Notes

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Rev	Date	Description	Drn	App
T 1	15.01.16	Issued for Tender	PB	LA

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Project: High Street, Staines

Drawing Title: Ground Floor Details

Drawing Status: Tender

Drawn by	Checked by	Sheet size	Scale
PB	TW	AI	1 : 20

Drawing Number: J2187-S-450

Revision: T 1

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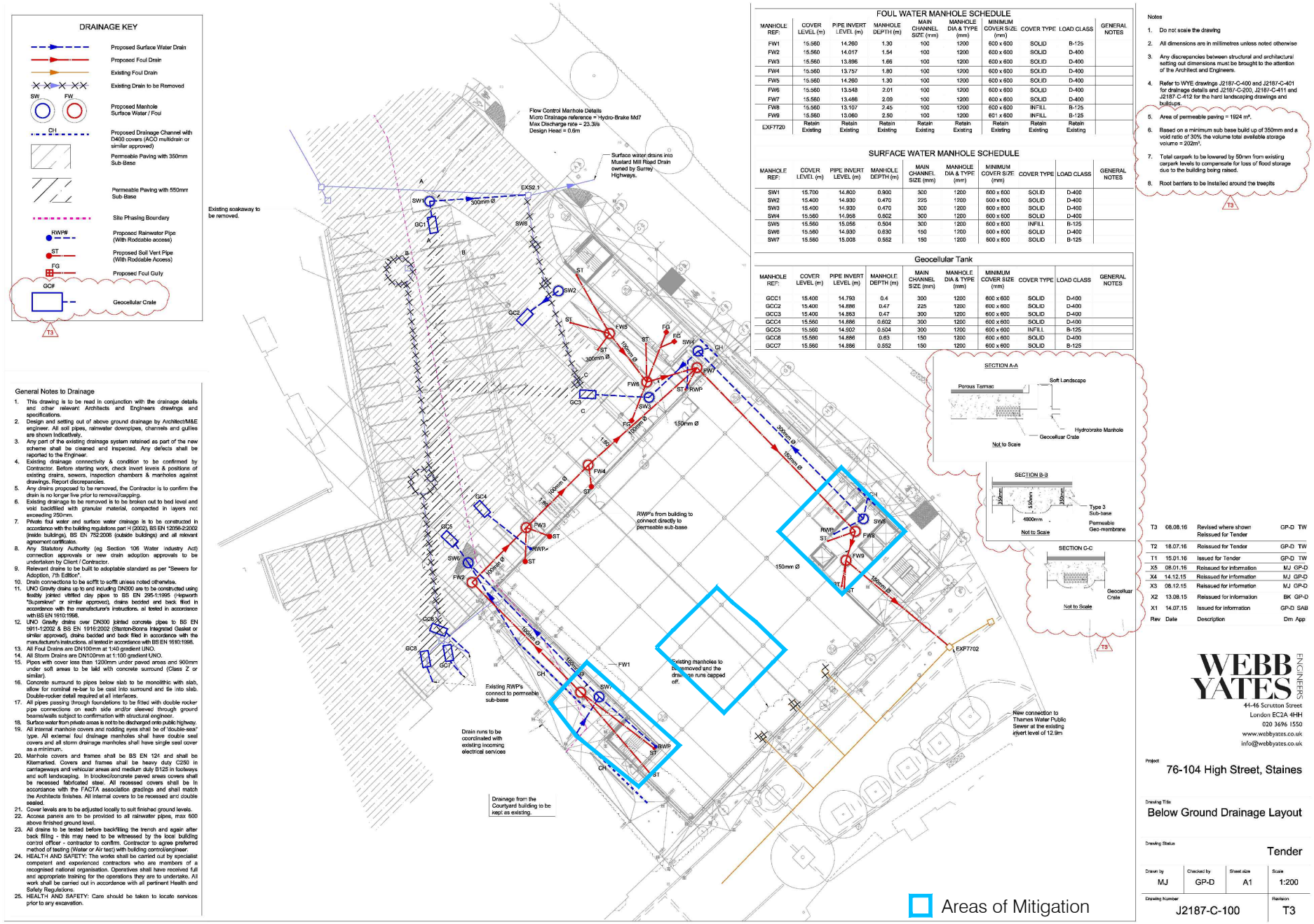
Figure 13



FOUL WATER MANHOLE SCHEDULE

MANHOLE REF:	COVER LEVEL (m)	PIPE INVERT LEVEL (m)	MANHOLE DEPTH (m)	MAIN CHANNEL SIZE (mm)	MANHOLE DIA & TYPE (mm)	MINIMUM COVER SIZE (mm)	COVER TYPE	LOAD CLASS	GENERAL NOTES
FW1	15.560	14.260	1.30	100	1200	600 x 600	SOLID	B-125	
FW2	15.560	14.017	1.54	100	1200	600 x 600	SOLID	D-400	
FW3	15.560	13.896	1.66	100	1200	600 x 600	SOLID	D-400	
FW4	15.560	13.757	1.80	100	1200	600 x 600	SOLID	D-400	
FW5	15.560	14.260	1.30	100	1200	600 x 600	SOLID	D-400	
FW6	15.560	13.548	2.01	100	1200	600 x 600	SOLID	D-400	
FW7	15.560	13.466	2.09	100	1200	600 x 600	SOLID	D-400	
FW8	15.560	13.107	2.45	100	1200	600 x 600	INFILL	B-125	
FW9	15.560	13.060	2.50	100	1200	601 x 600	INFILL	B-125	
EXF7720	Retain Existing	Retain Existing	Retain Existing	Retain Existing	Retain Existing	Retain Existing	Retain Existing	Retain Existing	

SURFACE WATER MANHOLE SCHEDULE

MANHOLE REF:	COVER LEVEL (m)	PIPE INVERT LEVEL (m)	MANHOLE DEPTH (m)	MAIN CHANNEL SIZE (mm)	MANHOLE DIA & TYPE (mm)	MINIMUM COVER SIZE (mm)	COVER TYPE	LOAD CLASS	GENERAL NOTES
SW1	15.700	14.800	0.900	300	1200	600 x 600	SOLID	D-400	
SW2	15.400	14.930	0.470	225	1200	600 x 600	SOLID	D-400	
SW3	15.400	14.930	0.470	300	1200	600 x 600	SOLID	D-400	
SW4	15.560	14.958	0.602	300	1200	600 x 600	SOLID	D-400	
SW5	15.560	15.056	0.504	300	1200	600 x 600	INFILL	B-125	
SW6	15.560	14.930	0.630	150	1200	600 x 600	SOLID	D-400	
SW7	15.560	15.008	0.552	150	1200	600 x 600	SOLID	B-125	

Geocellular Tank

MANHOLE REF:	COVER LEVEL (m)	PIPE INVERT LEVEL (m)	MANHOLE DEPTH (m)	MAIN CHANNEL SIZE (mm)	MANHOLE DIA & TYPE (mm)	MINIMUM COVER SIZE (mm)	COVER TYPE	LOAD CLASS	GENERAL NOTES
GCC1	15.400	14.793	0.4	300	1200	600 x 600	SOLID	D-400	
GCC2	15.400	14.886	0.47	225	1200	600 x 600	SOLID	D-400	
GCC3	15.400	14.863	0.47	300	1200	600 x 600	SOLID	D-400	
GCC4	15.560	14.886	0.602	300	1200	600 x 600	SOLID	D-400	
GCC5	15.560	14.902	0.504	300	1200	600 x 600	INFILL	B-125	
GCC6	15.560	14.886	0.63	150	1200	600 x 600	SOLID	D-400	
GCC7	15.560	14.886	0.552	150	1200	600 x 600	SOLID	B-125	

SECTION A-A
Porous Tarmac
Soft Landscape
Hydrobrake Manhole
Geocellular Crate
Not to Scale

SECTION B-B
150mm
350mm
300mm
4800mm
Type 3 Sub-base
Permeable Geo-membrane
Not to Scale

SECTION C-C
Geocellular Crate
Not to Scale

Notes
1. Do not scale the drawing
2. All dimensions are in millimetres unless noted otherwise
3. Any discrepancies between structural and architectural setting out dimensions must be brought to the attention of the Architect and Engineers.
4. Refer to WYE drawings J2187-C-400 and J2187-C-401 for drainage details and J2187-C-200, J2187-C-411 and J2187-C-412 for the hard landscaping drawings and buildups.
5. Area of permeable paving = 1924 m².
6. Based on a minimum sub base build up of 350mm and a void ratio of 30% the volume total available storage volume = 202m³.
7. Total carpark to be lowered by 50mm from existing carpark levels to compensate for loss of flood storage due to the building being raised.
8. Root barriers to be installed around the treepits

Rev	Date	Description	Dm	App
T3	08.08.16	Revised where shown Reissued for Tender	GP-D	TW
T2	18.07.16	Reissued for Tender	GP-D	TW
T1	15.01.16	Issued for Tender	GP-D	TW
X5	08.01.16	Reissued for information	MJ	GP-D
X4	14.12.15	Reissued for information	MJ	GP-D
X3	08.12.15	Reissued for information	MJ	GP-D
X2	13.08.15	Reissued for information	BK	GP-D
X1	14.07.15	Issued for information	GP-D	SAB

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Project
76-104 High Street, Staines

Drawing Title
Below Ground Drainage Layout

Drawing Status
Tender

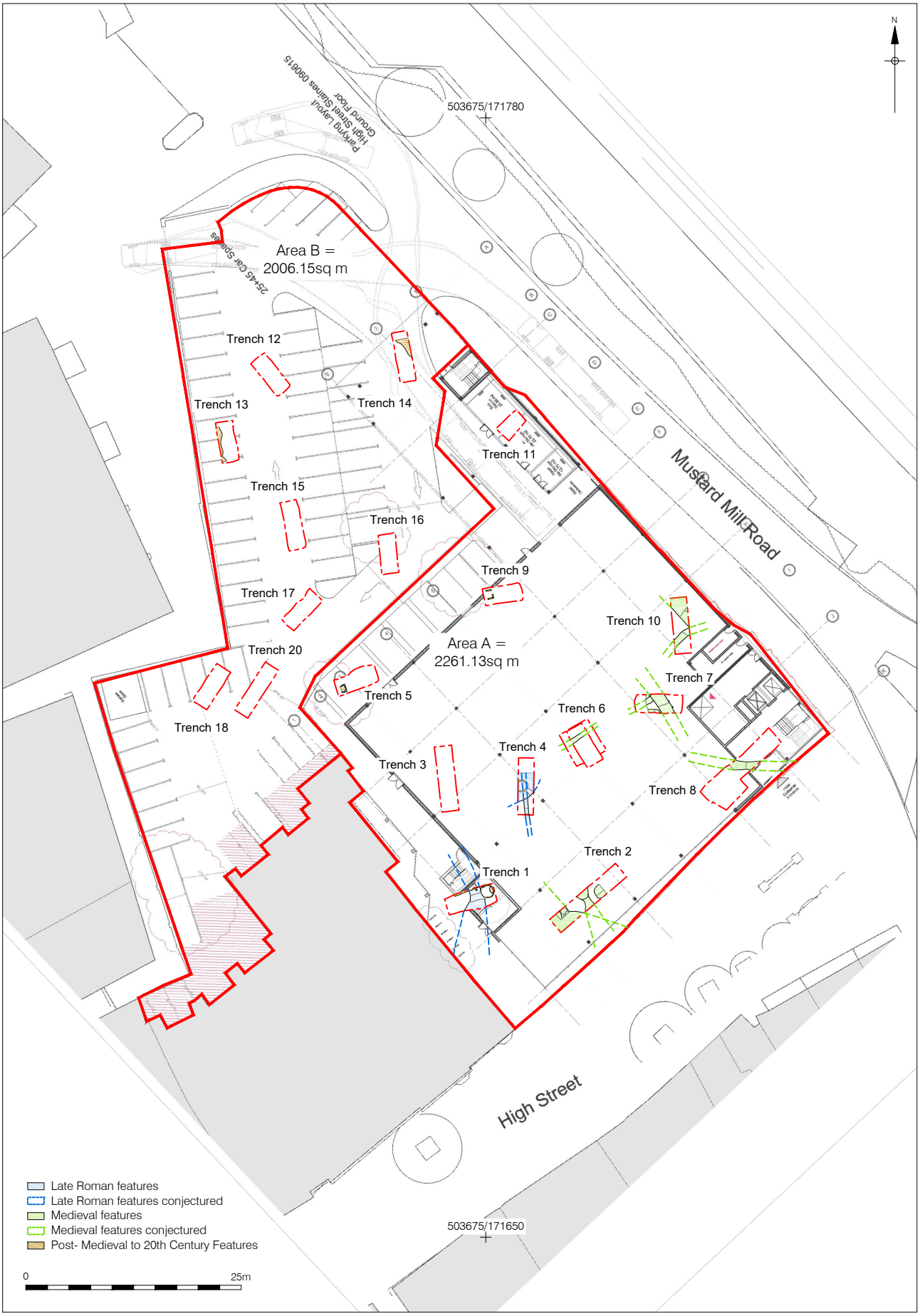
Drawn by	Checked by	Sheet size	Scale
MJ	GP-D	A1	1:200

Drawing Number: J2187-C-100
Revision: T3

Engineers drawing supplied by the client

03/02/17 CF

Figure 14
Areas of Mitigation



06/02/17 CF

Figure 15
Actual Trench Locations and archaeological features
overlain on the Proposed Ground Floor plan
1:625 at A4

9 INTERPRETATIONS AND CONCLUSION

9.1 The objectives of the archaeological investigation, as stated in the WSI, have been partially answered by this study (outlined below in sections 9.2–9.8) however further archaeological work would be required in order to fully understand the development of this area of Staines.

9.2 To determine the natural topography of the site, particularly evidence for the gravel island and for Sweeps Ditch.

9.2.1 Natural alluvial material (Phase 1) was identified along the eastern side of the site in the bases of Trenches 1–4 and 7–12. This material was likely deposited by overbank flooding from the Thames to the south and Sweeps Ditch that formerly occupied the northern portion of the site. This alluvial material was encountered at a maximum height of 14.31m OD in Trench 11 and at a minimum level of 13.75m OD in Trench 8.

9.2.2 No evidence of a gravel eyot was encountered. Instead thick man-made deposits indicative of land reclamation in the medieval and post-medieval periods (Phases 3 and 4) was encountered at the base of the archaeological sequence in the remaining trenches that occupied the far north and west portions of the site. In those instances the underlying natural deposits were evidently stratified at too great a depth to be reached safely.

9.3 To establish the presence or absence of prehistoric activity, particularly Mesolithic occupation as suggested by the lithic scatter recorded close by.

9.3.1 No evidence of Prehistoric activity was identified during the evaluation.

9.4 To establish the presence or absence of Roman activity, in particular, road side development and chronology, characterisation of occupation type, date of abandonment

9.4.1 Three probable *in situ* late Roman features were encountered in Trenches 1 and 4 (Phase 2), as well as large amounts of residual Roman material (retrieved from later features scattered across much of the site). The *in situ* evidence took the form of a curvilinear cut, [57], in Trench 1, gully [65] in Trench 4 and ditch or pit [62], also in Trench 4. These features were cut into the natural alluvium at a level of 13.95m OD in Trench 1 and 14.04m OD in Trench 4.

9.5 To establish the presence or absence of medieval activity, particularly of burgage plots and road side structural development extending back from the High Street.

9.5.1 Evidence of medieval land reclamation in the form of thick dump layers was encountered in Trenches 1, 5, 6, 12–15 and 18 (Phase 3); this material sealed the probable Roman features that was identified in Trench 1. Most probably deposited during the late 12th to 13th century (a date attested to by the finds that were recovered), these dump layers were no doubt lain down in order to create a drier horizon from which subsequent medieval activity could take place. This would have been necessary given the historic occurrence of flooding across the site as attested to by the natural alluvium that was encountered thanks to the

proximity of the site to two water courses (i.e. the Thames and Sweeps Ditch). The deposition of this horizon raised the surface of the site to a maximum height of 14.80m OD in Trench 1 and to a minimum height of 14.06m OD in Trenches 13 and 15.

9.5.2 Pits, ditches and gullies, most probably dating to the latter half of the medieval period, were then created, as observed in Trenches 2, 6–8 and 10 (Phase 3). These likely represent drainage features and rubbish pits as well as boundary ditches that separated the burgage plots, sub-plots and backlots that would have characterised the land to the rear of the properties that fronted Staines High Street from the medieval period onwards.

9.6 To establish the presence or absence of post-medieval activity at the site, in particular whether further 16/17th building remains exist along the High Street frontage, and to characterise the type of use such buildings were put.

9.6.1 Whilst no footings associated with early post-medieval buildings were found, evidence of continued activity in the burgage plots to the rear of Staines High Street was discovered (Phase 4). This took the form of a second layer of made ground, which would have further consolidated this boggy tract of land (as observed in Trenches 1, 8, 10, 16–18 and 20). Dating evidence suggests that this dumping episode may have taken place in the latter half of the 17th century.

9.6.2 No features of 16th to 17th century date were discovered, however later industrial structures indicative of manufacturing and artisan activity including tanning was found in Trenches 5, 9, 13 and 14 (Phase 4). These features most probably date from the 18th century to the late 19th century, suggesting prolonged use of the burgage plots.

9.7 To establish the nature, date and survival of activity relating to any archaeological periods at the site.

9.7.1 As described in detail above, evidence of late Roman, mid to late medieval and post-medieval ground raising activity and occupation was found during the evaluation. These archaeological horizons were well preserved having suffered little horizontal truncation. Vertical modern truncation was also limited, consisting mainly of shallow intrusions such as drains and service runs.

9.8 To establish the extent of all past post-depositional impacts on the archaeological resource.

9.8.1 The impact of the all past post-depositional impacts of the level of archaeological features is minimal. It is interpreted that the area was not lived on in the Roman and Medieval periods, and was built up in the Post-Medieval period because of the wet nature of the area. The buildings that were constructed had very shallow footings and an archaeological watching brief was undertaken to prevent searching for foundations or obstructions to a depth that would have destroyed the archaeological horizon.

9.9 Impact Conclusions

9.9.1 The full impact assessment is set out in Chapter 8 of this report. The landscaping and surface drainage works and pile caps will have no impact on the archaeology surviving archaeological horizon. A concentration of piles in the southeastern part of the site, together with the locations of the lift pits and manholes sumps will have an impact on the archaeology. The concentration of services along the southwestern boundary will have an impact on the archaeology. An area with four pile caps in the south central area will impact the archaeology.

9.9.2 It is therefore recommended that three areas of archaeological excavation are undertaken to mitigate the construction impact (Figure 14).

10 ACKNOWLEDGEMENTS

10.1 Pre-Construct Archaeology Limited would like to thank Jo Cawdell and Mark Alfandary of Litchford Consulting for commissioning the project on behalf of Property Partners (Two Rivers) Limited and for their help throughout. We would also like to thank Geoff Barlex, Mark Walsh and the staff of Squib Demolition, who managed the site in a way that was efficient and amicable.

10.2 The authors would also thank Nigel Randal (Surrey County Council), for monitoring the project on behalf of Spelthorne Borough Council and Peter Moore for his project management. Additionally, thanks go out to Kevin Hayward, Chris Jarrett, Kevin Rielly and Märit Gaimster for analysing the finds and producing the specialist reports presented in the appendices of this document and Charlotte Faiers for producing the illustrations. The project manager would also like to thank Becky Haslam and Charlotte Faiers for their tremendous help in getting this report out.

11 BIBLIOGRAPHY

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McKinley et al., 2004, 'Welcome to Pontibus…gateway to the West', In: *Surrey Archaeological Collections* ***91***, pp1-69

Moore, P 2016 "90 To 106 High Street, Staines-Upon Thames, Surrey: Written Scheme of Investigation", Pre-Construct Archaeology Limited unpublished report.

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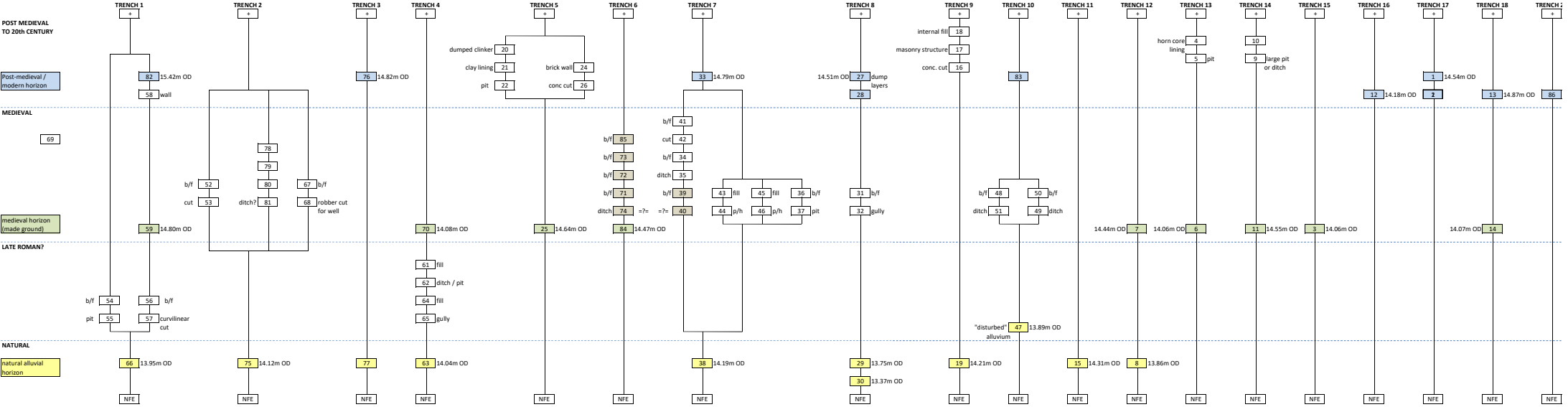
12 APPENDIX 1: CONTEXT INDEX & MATRICIES

Context	Trench	Section No	Plan No	Context Type	Highest Level	Lowest Level	Phase	Date	Interpretation
76	3	20	3	Layer	14.82	14.82	4	Post-Medieval	Dump layer; not excavated
1	1	18, 1	1, 17	Layer	14.6	14.23	4	Post-Medieval	Layer of modern made ground
1	17	18, 1	1, 17	Layer	14.54	14.26	4	Post-Medieval	Layer of modern made ground
2	17	1	17	Layer	14.42	14.18	4	Post-Medieval	Silty sandy clay greenish grey dump layer
3	15	2	15	Layer	14.38	14.38	3	Medieval	Horn core lining of probable tanning pit
4	13			Fill	14.08	14.02	4	Post-Medieval	Cut of a probable tanning pit with horn core lining
5	13	3	13	Cut	14.06	14.06	4	Post-Medieval	Greyish green dump layer
6	13	3	13	Layer	14.06	14.01	3	Medieval	Greyish green dump layer
7	12	4	12	Layer	14.44	14.44	3	Medieval	Natural alluvial clay
8	12	4	12	Layer	13.86	13.86	1	Holocene Alluvium	Ditch orientated northwest-southeast
9	14	5	14	Cut	14.49	13.95	4	Post-Medieval	Dark greyish brown dumped backfill
10	14	5	14	Fill	14.6	14.6	4	Post-Medieval	Dumped backfill of large pit or ditch
11	14	5, 5	14	Layer	14.6	14.6	4	Post-Medieval	Silty sandy clay dump layer
12	16	6, 6	16	Layer	14.7	14.56	4	Post-Medieval	Natural alluvial material
13	18	7	18	Layer	13.97	13.93	1	Holocene Alluvium	Dark greenish gray sandy clayey dump layer
14	18	7	18	Layer	13.97	13.97	3	Medieval	Natural alluvial material
15	11	8	11	Layer	14.35	14.05	1	Holocene Alluvium	Construction cut for an industrial masonry structure. Partially excavated; continues into east facing section.
16	9	9	9	Cut	14.26	14.16	4	Post-Medieval	Square or rectangular masonry lined sunken industrial structure
17	9		9	Masonry	14.25	14.25	4	Post-Medieval	Dumped deposit of industrial waste rich in clinker
18	9		9	Fill	14.16	14.16	4	Post-Medieval	Naturally deposited alluvial layer
19	9	9	9	Layer	15.73	14.19	1	Holocene Alluvium	Clinker rich fill of clay lined pit; most probably produced by an industrial process
20	5	10	5	Fill	14.64	14.64	4	Post-Medieval	Clay lining within a large pit that may have had an industrial purpose
21	5	10	5	Fill	14.89	13.89	4	Post-Medieval	Cut of clay lined pit that may have had an industrial purpose
22	5	10	5	Cut	14.64	13.89	4	Post-Medieval	Brick wall foundation, late post-medieval or modern, observed in the side of the trench
24	5	10		Masonry	14.89	14.89	4	Post-Medieval	Dumped deposit of made ground
25	5	10	5	Layer	14.64	14	3	Medieval	Construction cut for wall [24]
26	5	10		Cut	14.89	14.36	4	Post-Medieval	Greyish brown dump layer
27	8	11	8	Layer	14.51	14.51	4	Post-Medieval	Modern dump layer
28	8	11	8	Layer	14.18	14.18	4	Post-Medieval	Alluvially deposited material
29	8	11	8	Layer	13.75	13.75	1	Holocene Alluvium	Alluvially deposited material
30	8	11	8	Layer	13.75	13.75	1	Holocene Alluvium	Naturally deposited alluvium
31	8		8	Fill	13.94	13.94	3	Medieval	Ditch orientated northwest-southeast
32	8		8	Cut	13.94	13.81	3	Medieval	Modern made ground
33	7	12	7	Layer	14.79	14.41	4	Post-Medieval	Dumped backfill
34	7	12	7	Fill	14.21	14.01	3	Medieval	Possible boundary ditch orientated north-south
35	7	12	7	Cut	14.21	13.53	3	Medieval	Dumped fill of shallow pit
36	7	12	7	Fill	14	14	3	Medieval	Shallow pit
37	7	12	7	Cut	14.16	13.91	3	Medieval	Alluvial layer, not fully excavated
38	7	12	7	Layer	14.19	14	1	Holocene Alluvium	Dumped silty clay fill
39	7		7	Fill	14	14	3	Medieval	Possible boundary ditch; not excavated
40	7		7	Cut	14	14	3	Medieval	Dumped fill of pit
41	7		7	Fill	14.01	14.01	3	Medieval	Pit or ditch terminus, continuing beyond the limit of the excavation; not excavated
42	7		7	Cut	14.01	14.01	3	Medieval	Humic rich fill of posthole composed of degraded wood. Not excavated. Associated with posthole [46].
43	7		7	Fill	14	14	3	Medieval	Cut of posthole forming part of a fenceline or revetment that ran parallel with ditch [35]. Associated with posthole [46]. Not excavated.
44	7		7	Cut	14	14	3	Medieval	Fill of posthole composed of degraded wood. Associated with posthole [44]. Not excavated
45	7		7	Fill	14	14	3	Medieval	Posthole forming part of a fence or revetment along the side of ditch [35]. Not excavated.
46	7		7	Cut	14	14	3	Medieval	Layer of alluvium that has been disturbed, possibly by ploughing in either the Roman or the medieval period. Not excavated.
47	10		10	Layer	13.89	13.89	2	Late Roman	Dark greyish brown fill of a north-south orientated ditch. It may have accumulated via natural silting.
48	10	13, 14	10	Fill	13.96	13.96	3	Medieval	Ditch orientated north-south
49	10	13, 14	10	Cut	13.96	13.7	3	Medieval	Silty infill of possible drainage ditch that may have accumulated via natural silting
50	10	13, 15	10	Fill	13.9	13.89	3	Medieval	Possible drainage ditch; not excavated
51	10	13, 15	10	Cut	13.9	13.9	3	Medieval	Dumped fill of ditch
52	2	16	2	Fill	14.23	14.23	3	Medieval	Curvilinear ditch orientated northwest-southeast
53	2	16	2	Cut	14.23	13.69	3	Medieval	Dumped fill of substantial ditch or pit orientated north-south
54	1	18	1	Fill	13.64	12.98	2	Late Roman	Circular pit

55	1	18	1	Cut	16.84	14.31	2	Late Roman	Dumped fill of ditch
56	1	18	1	Fill	13.95	13.95	2	Late Roman	Ditch orientated northeast-southwest
57	1	18	1	Cut	13.95	13.95	2	Late Roman	Brick wall orientated east-west
58	1	18	1	Masonry	15.6	14.8	4	Post-Medieval	Loose gravelly silty clay dump layer; not excavated
59	1	18	1	Layer	14.8	14.23	3	Medieval	Dark greyish brown silty clay fill of ditch, probably deliberately dumped. Not fully excavated.
61	4	19	4	Fill	14.02	13.6	2	Late Roman	Ditch orientated northeast-southwest
62	4	19	4	Cut	14.02	13.6	2	Late Roman	Alluvially deposited material; not excavated
63	4		4	Layer	14.04	14.04			Dumped backfill of gully
64	4	19	4	Fill	14.04	14.04	2	Late Roman	North-south gully
65	4		4	Cut	14.04	13.79	2	Late Roman	Dumped fill of probable robber cut for an earlier well
67	2		2	Fill	13.94	13.94	3	Medieval	Most probably dug to rob masonry from a well.
68	2		2	Cut	13.94		3	Medieval	
69				Void					Dump layer forming an horizon of made ground
70	4	19	4	Layer	14.08	13.79	3	Medieval	Firm, blackish brown sandy silty clay dumped deposit; primary fill
71	6	21	6	Fill	14.37		3	Medieval	Light to darkish grey silty clay dumped deposit; secondary fill.
72	6	21	6	Fill	14.47	13.82	3	Medieval	Firm dark to lightish brown sandy silty clay; tertiary fill
73	6	21	6	Fill	14.57	13.87	3	Medieval	Probable boundary ditch
74	6	21	6	Cut	14.57	13.09	3	Medieval	Alluvial layer; not excavated
75	2		2	Layer	14.12	13.92	1	Holocene Alluvium	Modern made ground
77	3	20	3	Layer	13.74	13.71	1	Holocene Alluvium	Alluvially deposited material
78	2	16	2	Layer	13.96	13.96	3	Medieval	Dark brown clayey silt dumped fill
79	2	16, 16		Fill	13.81	13.56	3	Medieval	Compact reddish brown dumped fill
80	2	16, 16		Fill	13.54	13.54	3	Medieval	Dumped fill of ditch
81	2	16	2	Cut	15.42	15.22	3	Medieval	Ditch orientated northwest-southeast
82	3	16	3	Layer	15.42	15.22	3	Medieval	Dump layer, the top of which forms an occupation horizon; made ground
83	10	13	10	Layer	14.03	14.05	4	Post-Medieval	Dark greyish brown dump layer
84	6	21	6	Layer	14.47	13.09	3	Medieval	Dump layer, the top of which forms an occupation horizon
85	6	21	6	Fill	14.57	14.57	3	Medieval	Dumped backfill within ditch; quaternary fill


POST MEDIEVAL TO 20th CENTURY
MEDIEVAL
LATE ROMAN?
NATURAL
Post-medieval / modern horizon
medieval horizon (made ground)
natural alluvial horizon
TRENCH 1
TRENCH 2
TRENCH 3
TRENCH 4
TRENCH 5
TRENCH 6
TRENCH 7
TRENCH 8
TRENCH 9
TRENCH 10
TRENCH 11
TRENCH 12
TRENCH 13
TRENCH 14
TRENCH 15
TRENCH 16
TRENCH 17
TRENCH 18
TRENCH 19
82 15.42m OD
58 wall
76 14.82m OD
33 14.79m OD
14.51m OD 27 dump layers
28
83
1 14.54m OD
12 14.18m OD
2
13 14.87m OD
86
69
78
79
b/f 52
cut 53
80
ditch? 81
67 b/f
68 robber cut for well
41
b/f 85
cut 42
b/f 73
b/f 34
b/f 72
ditch 35
b/f 71
b/f 39
ditch 74 =?= =?= 40
43 fill
44 p/h
45 fill
46 p/h
36 b/f
37 pit
31 b/f
32 gully
b/f 48
ditch 51
50 b/f
49 ditch
59 14.80m OD
70 14.08m OD
25 14.64m OD
84 14.47m OD
14.44m OD 7
14.06m OD 6
11 14.55m OD
3 14.06m OD
14.07m OD 14
61 fill
62 ditch / pit
64 fill
65 gully
b/f 54
pit 55
56 b/f
57 curvilinear cut
"disturbed" alluvium 47 13.89m OD
66 13.95m OD
75 14.12m OD
77
63 14.04m OD
38 14.19m OD
29 13.75m OD
30 13.37m OD
19 14.21m OD
15 14.31m OD
8 13.86m OD
NFE
dumped clinker 20
clay lining 21
pit 22
brick wall 24
conc cut 26
internal fill 18
masonry structure 17
conc. cut 16
horn core lining 4
5 pit
10
9 large pit or ditch

13 APPENDIX 2: SPECIALIST REPORTS

13.1 THE ANIMAL BONE

Kevin Rielly, January 2016

13.1.1 Introduction

This site was situated in the central part of Staines, on the western part of the junction of the High Street and Mustard Mill Road. A large number of evaluation trenches were excavated within an area measuring some 50 by 100m. The finds assemblage includes a range of Roman, medieval and post-medieval potsherds. While there would appear to be some Roman activity/occupation in this area, the material evidence is clearly indicative of a medieval presence in particular with some post-medieval usage. The animal bone evidence essentially follows this pattern.

All of the bones were hand collected and were generally in good condition and while fragmented, there is no reason to suggest that they had undergone more than moderate levels of post-deposition breakage.

13.1.2 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.

13.1.3 Description of faunal assemblage

This site provided hand collected total of 118 fragments, scattered amongst 20 deposits, these dated from the Roman through to the medieval and post-medieval eras. The Roman collections are as yet ill-defined, and are therefore limited to a broad 1st to 4th century date. There are more accurate dates available for the medieval period, tending towards the 11th/12th centuries and later, here defined as Early medieval (EM) and Later medieval (LM); and also for the post-medieval era, divided into Early post-medieval (EPM) dated to the 16th/17th centuries and Late post-medieval (LPM) – 18th/19th centuries. There are also a few deposits which must at present remain undated and therefore unphased, these designated as U (see Table 1). It should be stated that these ‘phases’ are entirely defined by the dating evidence and following a review of the straigraphy it is highly possible that some of these deposits may move up or down this sequence. In addition no account has been made of the clear mixing of datable materials within certain contexts, as for example the medieval deposit [13], which has Roman potsherds. Obviously the effects of redeposition must be taken into account regarding any final phasing.

Pot Phase:	Roman	EM	LM	EPM	LPM	U
Species						
Cattle	7	2	16		17	3
Equid	3		2			1
Cattle-size	8	5	19		2	
Sheep/Goat	6	2	7	1	1	1
Pig			3			1
Sheep-size			1			1
Dog		6	1		1	
Duck	1					
Grand Total	25	15	49	1	21	7

Table 1. Distribution of hand collected bones by pottery phase (see text for definition of phases)

Context:	**2**	**3**	**4**	**6**	**7**	**10**	**12**	**13**	**14**	**25**	**31**
Pot Phase:	**U**	**EM**	**LPM**	**EM**	**EM**	**U**	**EPM**	**LM**	**EM**	**LM**	**LM**
Species											
Cattle	2	1	17		1	1		1			
Equid	1										
Cattle-size		3	2						1		
Sheep/Goat	1			2			1	2			2
Pig	1							1		1	
Sheep-size	1										
Dog		3	1	3							1
Duck											
Grand Total	**6**	**7**	**20**	**5**	**1**	**1**	**1**	**4**	**1**	**1**	**3**
Context:	**34**	**50**	**52**	**56**	**61**	**64**	**67**	**69**	**78**		**Total**
Pot Phase:	**LM**	**EM**	**LM**	**R**	**R**	**R**	**R**	**LPM**	**R**		
Species											
Cattle	3		12	1	2		3		1		45
Equid			2			1			2		6
Cattle-size	1	1	18				3		5		34
Sheep/Goat			3					1	6		18
Pig			1								4
Sheep-size			1								2
Dog											8
Duck									1		1
Grand Total	**4**	**1**	**37**	**1**	**2**	**1**	**6**	**1**	**15**		**118**

Table 2. Distribution of hand collected animal bones by context and pottery phase

The Roman bones, which were mainly taken from [78] (15 bones out of 25), largely consist of cattle/cattle-size and sheep/goat, these representing a mix of processing and food waste, all derived from adult individuals. AS well as the mammalian domesticates there is a single duck ulna, presumably domestic although it may also represent wild game. The few equid bones also reveal themselves to be adults, with one mandible exhibiting a very worn incisor row indicative of an age in excess of 15 years (after Goody 2008, 100-103). There is also a complete equid radius with a greatest length of 342mm and a lateral length of 323mm, the latter allowing for the calculation of a shoulder height of 1401.8mm (after von den Driesch and Boessneck 1974), this suggestive of a medium-sized pony.

Cattle and sheep/goat feature amongst the Early medieval collection alongside a notable proportion of canid remains, with 3 bones each from [3] and [4]. The former group is clearly part of the same adult individual, comprising a lumbar vertebra, a sacrum and the left pelvis. A somewhat larger collection was found amongst the Later medieval levels with a predominance of cattle and cattle-size bones compared to sheep/goat and pig (making its earliest appearance). The is a general mix of skeletal parts amongst a generally adult collectin apart from one juvenile pig bone and a cattle bone from a subadult animal. There is again evidence for old equids, a loose heavily worn incisor taken from an animal in excess of 20 years.

Turning to the post-medieval collections, there is a single bone, a cattle scapula, from Early post-medieval deposit [12], in sharp contrast to the notable assemblage uncovered from late 18th century [4] and late 19th century [69]. Cattle scapulas also feature amongst these two deposits, a single example occurring in each deposit, with the remainder of the [4] collection entirely composed of cattle horncores. Most of these (a total of 16 fragments) were shaft pieces but there were also 2 complete and 2 bases. The complete items are clearly female, as indeed is one of the bases, the other just as clearly being a bull. One of the basal fragments and one of the whole horncores also provided a nuchal profile thus providing evidence for ‘type’, alongside the information available from the size and shape of the horncores. The two complete specimens can be categorised as a shorthorn (length of 200mm) and a mediumhorn (320mm) – after Armitage (1982), while the latter ‘type’ may also be represented by the two bases.

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13.1.4 Conclusions and statement of potential

These collections are undoubtedly in good condition and certainly derive from well dated deposits. There is, as mentioned, further work to be done on the ‘phasing’, in particular the stratigraphic analysis, however, the pottery phasing does appear to show a clear delineation from Roman an then medieval through to post-medieval occupation. None of these ‘phase’

collections is sufficiently large at this stage to provide much more than 'face value' information concerning animal usage throughout the occupation sequence. However, the bones recovered so far alongside these positive attributes do provide a high potential for the retrieval of more of the same following further excavation in this area. Of particular interest is the concentration of bones dated to the later medieval period, signifying a major use of this area for general waste deposition, and the collection of cattle horncores dating to the 18th century. Apart from the information these bones can impart concerning the 'type' of cattle imported to this town during this period, this obvious concentration may also be indicative of a local craft industry - perhaps tanning and/or hornworking.

In conclusion there is certainly scope for Roman, medieval and post-medieval studies following further excavation with the greatest potential perhaps related to the late medieval occupation and late post-medieval craft industries. Finally, considering the good condition of the bones, it is highly likely that the bones of smaller species, as fish and birds, should be well preserved. It is therefore recommended that further excavation should include a sampling programme.

13.1.5 References

Armitage, P L, 1982 A system for ageing and sexing the horn cores of cattle from British post-medieval sites (17th to early 18th century) with special reference to unimproved British Longhorn cattle, in Wilson, B, Grigson, C & Payne, S (eds), *Ageing and sexing animal bones from archaeological sites*, BAR Brit ser 109, Oxford, 37-54

Driesch, A, von den and Boessneck, J A, 1974 Kritische Anmerkungen zur Widerristhöhenberechnung aus Längenmaßen vor- und frühgeschichtlicher Tierknochen, *Saugetierkundliche Mitteilungen* 22, 325-348

Goody, P C, 1983 Horse anatomy. A pictorial approach to equine structure, London

13.2 THE BUILDING MATERIALS

Kevin Hayward

13.2.1 Introduction and Methods

This small building material assemblage (88 examples 11.7 kg) recovered from an evaluation in the centre of Staines (High Street), was reviewed to determine its overall character, and to provide a list of spot dates.

The application of a 1kg masons hammer and sharp chisel to each example ensured that a small fresh fabric surface was exposed. The fabric was examined at x20 magnification using a long arm stereomicroscope or hand lens (Gowland x10). . Matches were then made with the London fabric collection as there was found to be great similarity in fabrics. Fabrics unique to Staines were prefixed with STA, thus *STA..1* .

13.2.2 Fabrics and Forms

The assemblage was dominated (88% number of fragments) by a large quantity of Roman ceramic building material, often in a broken up or fragmentary condition with much smaller amounts of medieval roofing (peg tile and curved tile) and the occasional post medieval brick and pan tile.

Roman 74 examples 8kg
Medieval 71 examples 0.7kg
Post Medieval 5 examples 2.9 kg

13.2.3 Roman

The Roman assemblage from High Street Staines is largely fragmentary and is the only building material to be found from [31] to [80].

There are a number of characteristics which mark out this assemblage. First is the near total dominance of the common London sandy *2815* group (50-160). including sub-fabrics 2452*; 2459a and 3006.*The use of the fabric so far out of central London can only be attributed to the transportation of tile and brick by barge or boat upstream along the Thames. This fabric clearly has precedence over local clays, which are only represented in small quantity by two silty materials STA 1 and STA 2 [14] [31] [34]. Other fabrics seen in London that are present here are an Eccles tile and a Hampshire Grog brick both from [79].

Second is evidence of early bath-house material in the form of a knife scored box flue tile [67], common in the mid to late first century in central London and a possible roller stamped die [78] which cannot be matched with the existing catalogue (Betts & Black 1997).The fact that cream Eccles fabric (AD50-80) also turns up [79] would support this. This would suggest it lies close by.

13.2.4 Medieval

Medieval Peg tile and curved roofing tile with coarse moulding sand are occasionally found at [2] [13] [67] [72], they are made from fabrics that appear similar to established London groups 2271 (1180-1450) and 2587 (1240-1450) 2272 (1135-122) but are made from local clays

13.2.5 Late Post Medieval

The sole brick feature [17] is made from a locally produced wide frogged brick that has a form and sharp arises typical of Victorian or even Edwardian build 1825-1915.There are occasional pan [10] and peg tile [85] fragments.

13.2.6 Distribution

Context	Fabric	Form	Size	Date range of material		Latest dated material		Spot date	Spot date with mortar
0	2452	Abraded Roman Brick	1	55	160	55	160	55-160	No mortar
2	2271l; 2587L	Local medieval variants of medieval London peg tiles	6	1180	1800	1180	1800	1240-1500	No mortar
10	2279	Pan Tile	2	1630	1850	1630	1850	1600-1850+	No mortar
13	2271L; 2815	Local medieval curved tile roman Tile	2	50	1800	1180	1800	1180-1450+	No mortar
14	STA1	Silty local Tegulae low flange profile so possibly later	1	50	400	50	400	50-400	No mortar
17	3046	Well made wide frog local red Victorian no mortar	1	1450	1900	1450	1900	1825-1900	No mortar
31	2452; 3104; STA1	Roman tIle sandy and local silty fabric, opus signinum	3	50	400	55	400	55-400	50-400
34	STA2; 2815	Roman Tile sandy an imbrex also a local clay inclusion rich tile fabric	3	50	400	50	400	50-400	No mortar
52	2452; 2459a; 3102	Daub, Roman tile brick, imbrex and a combed box flue tile	25	1500bc	1600	1500bc	1600	55-160+	No mortar
56	3104; 2815	Opus signinum and Roman Tile and Tegulae small flange profile	4	50	160	50	160	55-160+	50-400
61	2815	Roman Tile	3	50	160	50	160	50-160+	No mortar
64	2815;3006	Roman tile and imbrex	5	50	160	50	160	50-160+	No mortar

67	2815; 3006; 2452; 3104; 2271	Imbrex, Scored box flue, Brick and tile; opus sig attached medieval peg tile	5	50	1800	1180	1800	1180-1450	50-400 Residual
69	2452	Imbrex	1	55	160	55	160	55-160	No mortar
72	2272	Early medieval peg tile	1	1135	1220	1135	1220	1135-1220+	No mortar
78	2815; 3006; 3116; 3104	Lump of chalk rubble, early sandy tile, brick, Tegulae and imbrex as wel as a very unusual possible roller stamped die for a box flue tile	8	50	160	50	160	50-160+	50-40
79	2815; 2459a; 2454; 3054; 3006	Mixed fabric grouping of early sandy, one Eccles and Hampshire Grog Roman tile, brick, imbrex. Box Flue	12	50	160	55	160	70-160	50-400
80	2452	Sandy Tegula and tile	2	55	160	55	160	55-160	No mortar
85	2276	Early post medieval peg tile	2	1480	1900	1480	1900	1480-1700	No mortar

13.2.7 Review

The value of this small building material assemblage (88 examples 11.4kg) from the evaluation at High Street, Staines lies partly in its ability to date the early Roman, medieval and post medieval layers. The dominance of Roman Ceramic Building Material (>85%) largely reflects Staines importance as a small Roma town by the Thames. The great similarity in fabrics between Staines and Londinium would suggest that river transportation of tile and brick was important. What is more there are a number of items of early bath-house or heated room cavity walling including an early scored box flue tie and a roller stamped design suggesting proximity to such a structure.

13.2.8 Recommendations

67	2815; 3006; 2452; 3104; 2271	Imbrex, Scored box flue, Brick and tile; opus sig attached medieval peg tile	5	50	1800	1180	1800	1180-1450	50-400 Residual
69	2452	Imbrex	1	55	160	55	160	55-160	No mortar
72	2272	Early medieval peg tile	1	1135	1220	1135	1220	1135-1220+	No mortar
78	2815; 3006; 3116; 3104	Lump of chalk rubble, early sandy tile, brick, Tegulae and imbrex as wel as a very unusual possible roller stamped die for a box flue tile	8	50	160	50	160	50-160+	50-40
79	2815; 2459a; 2454; 3054; 3006	Mixed fabric grouping of early sandy, one Eccles and Hampshire Grog Roman tile, brick, imbrex. Box Flue	12	50	160	55	160	70-160	50-400
80	2452	Sandy Tegula and tile	2	55	160	55	160	55-160	No mortar
85	2276	Early post medieval peg tile	2	1480	1900	1480	1900	1480-1700	No mortar

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13.2.8 Recommendations

The building material assemblage very much reflects the development of Roman Staines. This includes examples of early Bath-House Material with one item of particular intrinsic interest namely a roller stamped design box flue where no match could be made with Black and Betts Corpus (1997). This snapshot of Roman Staines has also revealed a great deal about the fabrics in circulation, with London sandy fabrics prevalent this far west of the provincial capital. Further investigation from this area is bound to reveal a large quantity of Roman building material some of it of high status. All of the Roman material should be retained mainly for the reason of comparing it with existing reference collections for Staines.

13.2.9 References

Betts, I.M., Black, E.W. & Gower, J.L. (1997). A Corpus of Relief-Patterned Tiles in Roman Britain. Journal of Roman Pottery Studies: 7, Oxbow Books.

13.3 THE CLAY TOBACCO PIPE

Chris Jarrett

13.3.1 Introduction

A small sized assemblage of clay tobacco pipes was recovered from the site. All of the fragments are in a fairly good condition, indicating rapid deposition. Clay tobacco pipes occur in two contexts as small (under 30 fragments) sized groups. All of the clay tobacco pipes (five fragments and present as three bowls, one mouthpart and one stem, of which one bowl and a stem are unstratified) were classified by Atkinson and Oswald's (1969) typology (AO). The material is discussed by their types and distribution.

13.3.2 Bowl types

1660–1680

AO13: one heeled bowl with a rounded profile (in this case with a noticeable 'overhang' on the front) and has an average quality of burnishing and a quarter milling of the rim, the latter being poorly executed. Context [2]

1820–1860

AO28: one spurred, tall bowl with a rounded front and a straight back and poorly moulded initials M N on the spur. Probably made by Mary and Anne Norwood, 1847-77, Eton (Oswald 1975, 161). Unstratified, Trench 6.

1840–1910

AO30: one rounded bowl without a heel or spur and decorated with scrolls around the rim which are above rounded flutes with surrounds on the lower body and these continue on to the stem stopping at a rounded cordon. Additionally, the stem has incuse *sans serif* stamps dated to the c. 1870's of 'NORWOOD' on the left side and 'ETON' on the right side. Probably made by either Mary and Anne Norwood, 1847-77, Eton, or Richard Norwood, 1839-1903, Eton (Oswald 1975, 161). Context [69].

13.3.3 Distribution

The distribution of the clay tobacco pipes is shown in Table 1 which records the phase, size and number of fragments, the date range of the latest bowl, the types of bowls present and maker's marks, together with a spot date for each context the material occurs in.

Context	Size	No. of Fragments	Context ED	Context LD	Bowls etc. (makers)	spot date
2		1	1660	1680	X1 AO13	1660–1680
69		2	1840	1880	X1 AO30 ('Norwood' and 'Eton')	1870's

Table 1. SMMR16: Distribution of clay tobacco pipes.

13.3.4 Significance, potential and recommendations for further work

The assemblage has some significance at a local level as it contains marked tobacco pipe bowls that were marketed from Eton, Buckinghamshire. The range of clay tobacco type shapes are what would be expected for South East England. The main potential of the clay tobacco pipes is to date the contexts it was recovered from. Additionally the assemblage also relates to activities associated with the study area and complements an understanding of the activities associated with the pottery and glass finds recovered from deposit [69]. There are no recommendations for further work on the assemblage at this stage, although its importance should be further reviewed in the event of new finds being recovered from future archaeological work on the site.

13.3.5 References

Atkinson D. and Oswald. A., 1969, 'London clay tobacco pipes'. *Journal of British Archaeology Association*, 3rd series, Vol. 32, 171-227.

Oswald, A. 1975, Clay pipes for the Archaeologist, British Archaeological Reports, British series, No.14.

13.4 THE GLASS

Chris Jarrett

The assemblage of glass consists of 23 fragments, representing 21 Minimum Number of vessels (MNV) and weighs (3.670kg), of which five fragments, 5 MNV, 714g are unstratified. All of the glass dates to the post-medieval period and particularly the 19th century and the material was recovered from two contexts. The glass is in a largely fragmentary state, although it survives as large, diagnostic shards that can be assigned to vessel shapes, while one unstratified item is intact. The glass is not abraded or worn and was likely to have been discarded quickly after its disuse or breakage and was deposited under secondary circumstances. The glass is discussed as a list of forms and its distribution is shown in Table 1.

13.5 The forms

Bottle: 1 fragment, 1 MNV, 36g. Greenish blue soda glass, moulded. Rim sherd with a mineral or double oil applied rim (noticeably bevelled), deep conical neck and a rounded shoulder. Mid-late 19th century. Context [69].

Bottle, octagonal section: 6 fragments, 6 MNV, 395g. Clear, blue and green tinted moulded glass. Basal fragments with concave undersides. Three examples have embossed dosage marks (green tinted glass: context [69]), while two unstratified blue tinted examples additionally have Roman numerals. Mid-late 19th century

Bottle, octagonal section, flat: 2 fragments, 2 MNV, 270g. Pale olive green high-lime low-alkali (HLLA) glass, moulded. Rim sherd, mineral or double oil applied type (noticeably bevelled), a deep conical neck, rounded shoulder and arcaded wall panels, wider at the front and back. Pale green soda glass, moulded. Base with a concave underside, flat octagonal section with wide front and back panels. The external surfaces are dichromic (blue-grey and lavender). Mid-late 19th century. Context [69]

Bottle, oval section: 1 fragment, 1 MNV, 124g. Greenish blue soda glass, moulded. Near complete profile with a preparation-type rim finish, cylindrical neck, rounded shoulder, oval

section body, with seams on the sides of the bottle and the base is missing. Mid-late 19th century. Context [69]

Bottle, square-section: 1 fragment, 1 MNV, 279g. Bluish-green soda glass, moulded. Base, concave underside, thick walled with rounded sides showing seam marks. Probable case bottle. Mid-late 19th century. Context [69]

Codd bottle: 1 fragment, 1 MNV, 405g. Green tint HLLA glass, moulded. Intact, with the internal rubber washer and marble in place. On each side of the marble chamber is embossed 'TRADE MARK' and on the wall is embossed 'TAYLOR & Co' above a merman holding aloft a probable fountain and 'TRADE' and 'MARK' either side, over 'STAINES'. The reverse side has `RELAINCE PATENT/SOLE MAKER/DAN RYLANDS/BARNSLEY' in an oval pattern. Concave base underside. *C*. 1870+. Unstratified
Taylor & Co.'s mineral-water factory was established in 1849 and may have survived into the late 20th century.

English wine bottle, cylindrical, early type: 7 fragments, 5 MNV, 1.872kg. Pale olive and dark olive green HLLA glass, free-blown. Rim sherds with early 19th century dated applied finish rims, cigar-shaped necks and splayed bases with mostly round, kicked undersides. Early 19th century. Unstratified and context [69], with a rim/wall fragment (unstratified) conjoining a basal fragment from context [69]

French wine bottle: 2 fragments, 2 MNV, 257g. Pale green soda glass, free-blown. Rim sherds with champagne-type finishes (applied, relatively deep, straight-sided, squared narrow collars), slightly conical necks and rounded shoulders. *C*. 1850. Context [20]

Phial: 1 fragment, 1 MNV, 24g. Clear soda glass, moulded. Base with a convex underside and embossed on the wall is '...LL/...ERLAP&/...AD'. Mid-late 19th century. Context [69]

Window quarry, diamond-shaped: 1 fragment, 1 MNV, 8g. Clear soda glass, cylinder made. Apex of a diamond -shaped quarry, thin walled. The shadow of the missing lead cames are evident. Weathered. Post-medieval. Context [20]

13.5.1 Distribution

The distribution of the glass is shown in Table 1, which shows for each context the material was recovered from the number of fragments, MNV and weight present and the range of vessels. A spot date is given for each context based upon the forms present and their manufacturing technique.

Context	No. of fragments	MNV	Wt	Forms	Spot date
20	2	2	257	French wine bottle	*c*. 1850
69	16	14	2.699	Bottle: octagonal section; flat, oval section, square-section, English wine bottle: cylindrical, early, phial, window quarry: diamond-shaped	Mid-late 19th century

Table 1. SMMR16: distribution of the glass showing for each context the material was recovered from the number of fragments, the vessel types and a considered deposition date.

13.5.2 Significance, potential and recommendations for further work

The glass has some significance at a local level and despite being of a late date, and recorded as commonplace 19th-century forms, the material is complementary to the pottery and glass also recovered from context [69]. The main potential of the glass is to date the features it was found in. There are no recommendations for further work at this time, although the importance of the assemblage should be reviewed if new glass is recovered from future archaeological work on the site.

13.6 THE POST-ROMAN POTTERY

Chris Jarrett

13.7 Introduction

The archaeological work produced a total of 159 sherds of post-Roman pottery, representing 119 estimated number of vessels (ENV) and weighing 10.901kg, of which 26 sherds/17 ENV/4.471kg are unstratified. The pottery dates to the medieval period (61 sherds, 50 ENV, 1.037kg) and the post-medieval period (98 sherds, 69 ENV, 9.864kg) and was found in 26 contexts as mostly small sized groups (30 sherds or less), except for two medium sized groups (31–100 sherds). The assemblage consists of mostly sherd material, although the post-medieval wares include examples with a complete profile, while eight unstratified 19th-century stoneware ginger beer and a stratified ink bottle are intact. The material is generally in a very good condition, and despite residual material being present,

the majority of the pottery was deposited soon after breakage or discard and under secondary circumstances. The pottery was quantified by sherd count, estimated number of vessels (ENV) and weight and the medieval pottery was classified according to Jones (1998), while the post-medieval wares are according to the Museum of London Archaeology (MOLA 2014). The assemblage is discussed by its types and forms and distribution.

13.8 Pottery types

Medieval

Ironstone sandy ware (IQ), 1050–1150, 6 sherds, 6 ENV, 54g, forms: cooking pot/jar

Orange sandy ware (OQ), 1150–1400, 2 sherds, 2 ENV, 14g, forms: unidentified

Orange sandy ware, coarse (OQ2), 1150–1400, 1 sherd, 1 ENV, 15g, forms: cooking pot/jar

Grey/brown sandy ware (Q1), 1150–1300, 18 sherds, 15 ENV, 364g, forms: bowl, handled, cooking pot/jar

Grey/brown sandy ware, with flint (QfL1), 1150–1300, 1 sherd, 1 ENV, 17g, forms: unidentified

Grey/brown sandy ware, with flint, coarse (QfL2), 1150–1300, 1 sherd, 1 ENV, 13g, forms: cooking pot/jar

Sandy shelly ware (S2), 1140–1300, 1 sherd, 1 ENV, 10g, form: jar

Coarse border ware (WW1A), 1270–1500, 1 sherd, 1 ENV, 9g, forms; cooking pot/jar

Kingston-type ware (WW1B), 1240–1400, 31 sherds, 23 ENV, 545g, forms: cooking pot/jar, jug (includes highly decorated examples); rounded, spouted (includes highly decorated examples)

Post-medieval

Glazed black basalt ware (BBASG), 1770-1880, 1 sherd, 1 ENV, 148g, form: cream or milk jug

Bone china (BONE), 1794-1900, 1 sherd, 1 ENV, 30g, form: unidentified

Bone china with under-glaze painted decoration (BONE PNTD), 1794-1900, 2 sherds, 2 ENV, 90g, form: porringer-shaped tea cup, vase

Bone china with under-glaze blue transfer-printed decoration (BONE TR), 1807-1900, 5 sherds, 2 ENV, 231g, form: rounded dish, dessert plate

Surrey-Hampshire border whiteware with clear (yellow) glaze (WWBORDY), 1550–1700, 1 sherd, 1 ENV, 23g, form: bowl or dish

Chinese blue and white porcelain (CHPO BW), 1590-1900, 1 sherd, 1 ENV, 43g, form: flared dish (patty pan)

Creamware (CREA), 1740-1830, 6 sherds, 4 ENV, 245g, form: shallow rounded bowl, chamber pot,dessert plate

Creamware with over-glaze transfer-printed decoration (CREA OTR), 1760-1830, 1 sherd, 1 ENV, 45g, form: dinner plate

English brown salt-glazed stoneware (ENGS), 1700-1900, 10 sherds, 10 ENV, 4.419kg, form: ginger beer bottle, all made for R. White, London and two different stamps, spouted ink bottle

English stoneware with Bristol glaze (ENGS BRST), 1830-1900, 2 sherd, 2 ENV, 117g, form: ginger beer bottle, cylindrical bottle

Pearlware (PEAR), 1770-1840, 1 sherd, 1 ENV, 184g, form: medium flared bowl,

Pearlware with under-glaze blue-painted decoration (PEAR BW), 1770-1820, 7 sherds, 2 ENV, 483g, form: dinner plate, saucer

Pearlware with under-glaze polychrome-painted decoration in 'earth' colours (PEAR ERTH), 1790-1820, 2 sherds, 1 ENV, 18g, form: cylindrical mug

Pearlware with slip decoration (PEAR SLIP), 1775-1840, 3 sherds, 2 ENV, 231g, form: cylindrical mug, tankard

Pearlware with under-glaze brown or black transfer-printed decoration (PEAR TR3), 1810-1840, 1 sherd, 1 ENV, 6g, form: jug

Post-medieval fine redware (PMFR), 1580-1700, 1 sherds, 1 ENV, 34g, form:

London-area post-medieval redware (PMR), 1580-1900, 1 sherds, 1 ENV, 24g, form: jar

Surrey-Hampshire border redware (RWW/RBOR), 1550–1900, 2 sherds, 2 ENV, 237g, form: pipkin

Surrey-Hampshire border redware with green glaze (RWW/RBORG), 1580-1900, 2 sherds, 1 ENV, 94g, form: colander

Refined white earthenware (REFW), 1805-1900, 2 sherds, 2 ENV, 395g, form: cylindrical jars

Refined white earthenware with under-glaze polychrome-painted decoration in 'chrome' colours (REFW (CHROM), 1830-1900, 3 sherds, 3 ENV, 126g, form: rounded dish, medium rounded bowl, dinner plate

White salt-glazed stoneware (SWSG), 1720-1780, 1 sherd, 1 ENV, 8g, form: plate

English tin-glazed ware (TGW), 1570-1846, 1 sherd, 1 ENV, 24g, form: charger

London tin-glazed ware with pale blue glaze and dark blue decoration (Orton and Pearce style H) (TGW H), 1680-1800, 4 sherds, 2 ENV, 65g, form: albarello, plate

Refined whiteware with under-glaze transfer-printed decoration (TPW), 1780-1900, 17 sherds, 7 ENV, 1.191kg, form: medium carinated bowl, small cylindrical mug, dinner plate, soup plate

Refined whiteware with under-glaze transfer-printed 'flow blue' decoration (TPW FLOW), 1830-1900, 4 sherds, 3 ENV, 196g, form: cream or milk jug porringer-shaped tea cup

Refined whiteware with under-glaze blue transfer-printed stipple and line decoration (TPW2), 1807-1900, 1 sherd, 1 ENV, 103g, form: cylindrical mug

Refined whiteware with under-glaze brown or black transfer-printed decoration (TPW3), 1810-1900 2 sherds, 1 ENV, 39g, form: dessert plate

Refined whiteware with under-glaze colour transfer-printed decoration (green, mulberry, grey etc) (TPW4), 1825-1900, 3 sherds, 2 ENV, 104g, form: dessert plate, porringer-shaped tea cup

Refined whiteware with under-glaze transfer-printed and over-glaze painted decoration (TPW6), 1810-1900, 1 sherd, 1 ENV, 34g, form: small cylindrical mug

Yellow ware (YELL), 1820-1900. 2 sherds, 2 ENV, 190g, form: medium and rounded bowls

Yellow ware with slip decoration (YELL SLIP), 1820-1900, 7 sherds, 6 ENV, 687g, form: shallow carinated and rounded bowls, rounded jug, cylindrical mug

13.8.1 Distribution

The distribution of the post-Roman pottery is shown in Table 1, which shows the contexts containing pottery, the size/number of sherds, ENV and weight, the pottery types present and a spot date for the group.

Context	Size	SC	ENV	Wt (g)	Fabric (forms)	Spot date
2	S	2	2	58	PMFR, TGW D (charger)	1630–1680
3	S	1	1	6	IQ (cooking pot/jar)	1050–1150
4	S	3	3	148	CREA (chamber pot), TGW H (albarello), WW1B	1760–1800
6	S	2	2	13	IQ (cooking pot/jar)	1050–1150/1200
7	S	1	1	13	QfL2 (cooking pot/jar)	12th century
10	S	3	2	118	PMR (jar), RWW/RBOR (colander)	17th century
11	S	1	1	4	WW1B (cooking pot/jar)	1270–1350

12	S	2	2	35	WW1B (jug), WW3B (bowl or dish)	1550–1700
13	S	1	1	9	WW1A	1270–1500
14	S	1	1	17	IQ (jar)	1050–1150
18	S	1	1	36	ENGS BRST (cylindrical bottle)	1830–1900
20	S	1	1	23	REFW (cylindrical jar)	Late 19th-20th century
25	S	8	6	152	OQ, QfL1, S2 (jar), WW1B (jug: highly decorated)	1240–1300
31	S	3	3	38	OQ, Q1 (cooking pot/jar)	13th century
34	M	34	25	584	Q1 (cooking pot/jar), W1b (cooking pot/jar, jug: rounded, spouted; highly decorated)	1240–1300
50	S	1	1	8	IQ	1050–1150/1200
52	S	2	2	24	IQ (cooking pot/jar), WW1B (jug)	1240–1400

69	m	59	40	3525	BBASG (cream or milk jug), BONE (Adelaide shape tea cup), BONE PNTD (porringer-shaped teacup, vase), BONE TR (rounded dish, dessert plate), CHPO BW (flared dish/patty pan), CREA (shallow rounded bowl, dessert plate), CREA OTR (dinner plate), ENGS (spouted ink bottle), LONS (ginger beer bottle), PEAR (medium flared bowl), PEAR BW (dinner plate, saucer), PEAR ERTH (cylindrical mug), PEAR SLIP (cylindrical mug, tankard), PEAR TR3 (jug), REFW CHROM (medium rounded bowl, rounded dish, dinner plate), RWW/RBOR (pipkin), SWSG (plate), TGW H (plate), TPW (medium carinated bowl ,small cylindrical mug, dinner plate), TPW2 (cylindrical mug), TPW3 (dessert plate), TPW4 (dessert plate), YELL (medium and deep rounded bowls), YELL SLIP (rounded and shallow carinated bowls, chamber pot, jug)	1850–1900
71	S	1	1	113	Q1 (handled bowl)	13th century
80	S	2	2	20	OQ2 (cooking pot/jar), (cooking pot/jar)	1240–1400
84	S	1	1	12	WW1b	1240–1400

Table 1. SMMR16: Distribution of the pottery types showing individual contexts containing pottery, the size of the group, the number of sherds (SC), ENV and weight (Wt g) and a suggested deposition (spot) date.

13.8.2 Significance and potential of the assemblage and recommendations for further work

The pottery has some significance at a local level. The medieval pottery indicates activity dating mostly between the period *c*. 1050–1300. Early medieval deposits appear to be dominated by the ironstone sandy wares. The 13th-century groups are notable for the occurrence of the Surrey Whiteware from Kingston, found as cooking pots and jugs, besides the Surrey grey/brown wares producing mostly cooking pots or jars. Of interest is a grey/brown ware internally glazed handled bowl found in deposit [71] and this item adds to the very limited range of forms in this ware found on the site. Additionally of note is a highly decorated Kingston-type ware jug with a bridge spout and decoration consisting of columns of point stabbing: the item is dated *c*. 1240–1300 and was found in context [50]. The large group of pottery recovered from deposit [69] was deposited during the late 19th century, although the pottery group consists of mostly mid 19th-century items and includes a small number of nursery wares and a notable number of ginger beer bottles (the unstratified

examples may also be derived from this context), which may relate to a retailing premises. Comparable assemblages of medieval pottery are known from elsewhere in Staines, *e.g.* Jones (1982). The pottery has the potential to date the context it was found in. Additionally the pottery indicates medieval and post-medieval activity on the study area and is important for informing upon different site activities. There are no recommendations for further work on the post-Roman pottery assemblage at this stage, although its importance should be reviewed if further archaeological work is undertaken on the study area and new material is recovered. .

13.8.3 References

Jones, P. 1982, 'Saxon and early medieval Staines', *Trans London Middlesex Archaeol Soc,* 33,' 186-213.

Jones, P. 1998, 'Towards a type series of medieval pottery in Surrey' *Surrey Archaeol Coll* 85, 211–238.

MOLA, 2014. Medieval and post-medieval pottery codes. Accessed October 24th, 2016. <http://www.mola.org.uk/resources/medieval-and-post-medieval-pottery-codes>.

13.9 THE ROMANO-BRITISH POTTERY

Eniko Hudak

The evaluation at High St Staines, Surrey (SMMR16) produced a small assemblage of Romano-British pottery totalling at 157 sherds (3.343kg, 3.33 EVEs). The pottery was recovered from 20 individually numbered contexts, but only nine contexts contained Roman pottery only: more than half of the assemblage, 90 sherds (1.513kg, 1.40 EVEs), is residual. There is a restricted range of fabrics represented in the assemblage, the majority of which are typical Late Roman wares (3rd-4th century AD), in fact, all but one of the Roman-only contexts can be dated to AD350-400. The late products of the Alice Holt potteries dominate the assemblage including a Lyne and Jefferies (1979) type 1B6 flask with cordon and combed wavy line decoration dated to AD330-420 (64). BB1, Portchester D, products of the Oxfordshire potteries, and Nene Valley colour-coated wares are also well represented. There was a single sherd of Terra Sigillata, most likely to be residual, and a single sherd of Baetican amphora in the assemblage. The small size of the assemblage and the high degree of residuality limit discussion, but the pottery provides evidence for late 4th century activity.

Lyne, M.A.B. and Jefferies, R.S. (1979) *The Alice Holt/Farnham Roman Pottery Industry,* CBA Research Report No. 30.

Context	SC	Wt(g)	EVEs	Spotdate	Notes
2	4	65		AD250-300	all residual
13	2	35		AD250-400	all residual

14	3	20		AD250-400	all residual
25	1	3		AD250-400	all residual
31	12	172	0.17	AD250-400	all residual
34	8	212		AD270-300	all residual
48	1	20		AD180-400	single sherd
50	3	107		AD250-300	all residual
52	54	814	1.23	AD350-400	all residual
54	1	13		AD350-400	single sherd
56	14	417	0.55	AD350-400	
61	8	97	0.09	AD350-400	
64	13	263	0.27	AD350-400	
67	13	642	0.43	AD350-400	
69	1	31		AD250-400	single sherd, residual
72	1	42		AD350-400	single sherd
78	12	130	0.05	AD350-400	
79	4	206	0.54	AD350-400	
80	1	41		AD250-400	single sherd
85	1	13		AD250-400	single sherd
TOTAL	157	3343	3.33		

Table 1 – Spotdates and quantification of all Roman pottery by context

Fabric	SC	Wt(g)	EVEs
AHFA	87	2027	1.79
BAET	1	4	
BB1	35	632	0.75
BB2	1	10	
BUFF	1	6	
MARB	1	90	0.33
MHAD	1	24	
NVCC	3	41	0.09
OXRC	3	35	
OXWW	2	34	
PORD	10	193	0.37
SAM	1	5	
SAND	8	224	
TSK	1	3	

TSK?	2	15	
TOTAL	157	3343	3.33

Table 2 – Quantification by fabric

POST-MEDIEVAL SMALL FINDS

Märit Gaimster

Three post-medieval objects were recovered from context [69], associated with pottery dating from *c.* 1850–1900 (see Jarrett, this report). A finely lathe-turned bone implement consists of a slightly tapering and moulded stem, with a separate lathe-turned disc fitted around 3/5 up from the base (SF 4). The base is hollow, indicating the stem was fitted onto a base. The disc is placed with the flat side up, and is furnished with small circular perforations evenly around the edge. Parallels suggest this may be part of a 'sewing tree', a Victorian textile-working kit that was formed by a base with stems or pins along the perimeter for holding thread reels and spools, and with a central pin cushion. A near-complete tapering and circular-section hone of York stone (SF 5) would have been used to sharpen knives and tools. A heavily corroded copper-alloy disc (SF 6) is likely a 19th-century penny or halfpenny

13.9.1 Significance of the finds and recommendations for further work

The three post-medieval objects reflect the presence of households on site in the early 19th century. Of particular interest is the lathe-turned implement, which is likely part of a textile-working kit and reflect the widespread use of bone as a raw material before the development of synthetics. Metal and small finds form an integral component of the finds and should, where relevant, be included in any further publication of the site. For the purpose of further work it is recommended that the corroded copper-alloy disc is x-rayed to establish identification. Parallels to the bone implement should also be sought.

context	SF	description	pot date	recommendations
69	4	Implement of finely lathe-turned bone; tapering pin with hollow base; separate lathe-turned threaded disc fitted 3/5 up from the base, with flat side up and circular perforations evenly along edge; L 85mm; gauge 6–10mm; disc diam. 28mm; ?thread reel/spool holder	1850–1900	Further identification and parallels

	5	Hone of York stone; near-complete tapering form with circular section; L 135mm; diam. 30–45mm.	1850–1900	
	6	Copper-alloy ?coin; heavily corroded disc; diam. 32mm; likely Victorian penny or halfpenny	1850–1900	x-ray

Table showing the distribution of post-Roman small finds by context

13.10 THE ROMAN SMALL FINDS

Chris Faine

Three Roman small finds were recovered from the evaluation. Finds were recorded using standard catalogues (Crummy 1983), and entered on a Microsoft Excel spreadsheet. Aside from cleaning no conservation was carried out, although each object was assessed for potential to be x-rayed or for further conservation/illustration. Two coins were recovered. SF 1 is an illegible copper alloy 4th century issue. SF 2 is a copper alloy radiate dating from the Late 3rd Century (270-298 AD). Although in poor condition, the design is suggestive of a Britannic issue. One non-metallic find was recovered in the form a short barrel bead in turquoise frit (SF 3). It recommenced SF 2 is conserved to aid in its identification otherwise no further work is required.

13.10.1 References

Abdy,R. E.Besly and F.López-Sánchez. 2010. The Gloucester Hoard and Other Coin Hoards of the Britannic Empire. *Coin Hoards from Roman Britain XIII*

Crummy, N. 1983 *The Roman Small Finds from excavations in Colchester 1971-9*. Colchester, Colchester Archaeological Report 2

14 APPENDIX 3: OASIS DATA COLLECTION FORM

Project details	
Project name	90-100 High Street, Staines-upon-Thames, Surrey: An archaeological evaluation
Short description of the project	This archaeological evaluation was carried out following the demolition of the buildings occupying 90-106 High Street, Staines in Surrey (central National Grid Reference: TQ 0362 7171; Figure 1). The work was undertaken by Pre-Construct Archaeology Ltd. and was commissioned by the Property Partners (Two Rivers) Limited. A number of phases of archaeological activity were recorded, which included evidence of Roman activity within the confines of the site followed by ground consolidation, pitting and ditch digging within the burgage plots that formerly occupied land to the rear of Staines High Street during medieval and post-medieval times.The finds recovered during the evaluation were dominated by 12-13th century remains, however three probable Roman features were also discovered along with a scatter of residual Roman material. Post-medieval to 20th century finds were also uncovered, demonstrating prolonged occupation in this area of Staines.
Project dates	Start: 14-11-2016 End: 24-01-2017
Previous/future work	No / Not known
Any associated project reference codes	SMMR16 - Sitecode
Type of project	Field evaluation
Site status	Area of Archaeological Importance (AAI)

Current Land use	Industry and Commerce 3 - Retailing
Monument type	DITCH Roman
Monument type	PIT Medieval
Monument type	DITCH Medieval
Monument type	DITCH Post Medieval
Monument type	PIT Post Medieval
Significant Finds	POTTERY Roman
Significant Finds	POTTERY Medieval
Significant Finds	POTTERY Post Medieval
Significant Finds	CLAY TOBACCO PIPE Post Medieval
Significant Finds	ANIMAL BONE Medieval
Significant Finds	ANIMAL BONE Post Medieval
Significant Finds	CLAY BUILDING MATERIAL Roman
Significant Finds	CLAY BUILDING MATERIAL Medieval
Significant Finds	CLAY BUILDING MATERIAL Post Medieval
Significant Finds	GLASS Post Medieval
Significant Finds	COIN Post Medieval
Significant Finds	COIN Roman
Methods & techniques	''Sample Trenches''
Development type	Car park (flat)
Development type	Urban commercial (e.g. offices, shops, banks, etc.)

Prompt	Direction from Local Planning Authority - PPS
Position in the planning process	Not known / Not recorded

Project location	
Country	England
Site location	SURREY SPELTHORNE STAINES 90-100 High Street, Staines-Upon-Thames
Postcode	TW18 4PQ
Study area	4376.59 Square metres
Site coordinates	TQ 0362 7171 51.434405110727 -0.509148518559 51 26 03 N 000 30 32 W Point
Height OD / Depth	Min: 13.75m Max: 14.31m

Project creators	
Name of Organisation	Pre-Construct Archaeology Ltd
Project brief originator	Surrey County Council
Project design originator	Pre-Construct Archaeology Ltd
Project director/manager	Peter Moore
Project supervisor	Alexis Haslam
Project supervisor	Matt Edmonds
Project supervisor	Paw Jorgensen
Type of sponsor/funding	Developer

body	
Name of sponsor/funding body	Property Partners (Two Rivers) Limited
Project bibliography 1	
Publication type	Grey literature (unpublished document/manuscript)
Title	90-100 High Street, Staines-upon-Thames, Surrey, TW18 4DP: An Archaeological Evaluation
Author(s)/Editor(s)	Haslam, R., Jorgenson, P., Moore, P.
Date	2017
Issuer or publisher	Pre-Construct Archaeology Ltd
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