ALDERMAN'S HOUSE
117-121 BISHOPSGATE
CITY OF LONDON, EC2

AN ARCHAEOLOGICAL EVALUATION AND WATCHING BRIEF ON GEOTECHNICAL INVESTIGATIONS

LOCAL PLANNING AUTHORITY:
CITY OF LONDON

PCA REPORT NO:R11874
SEPTEMBER 2014

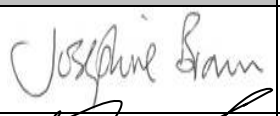
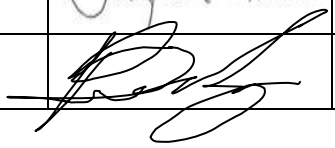
PRE-CONSTRUCT ARCHAEOLOGY

DOCUMENT VERIFICATION

ALDERMAN'S HOUSE, 117-121 BISHOPSGATE CITY OF LONDON, EC2

AN ARCHAEOLOGICAL EVALUATION AND WATCHING BRIEF ON GEOTECHNICAL INVESTIGATIONS

Quality Control

Pre-Construct Archaeology Limited			K3293
	Name & Title	Signature	Date
Text Prepared by:	Peter Boyer		August-September 2014
Graphics Prepared by:	Hayley Baxter		September 2014
Graphics Checked by:	Josephine Brown		September 2014
Project Manager Sign-off:	Tim Bradley		September 2014

Revision No.	Date	Checked	Approved

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

AN ARCHAEOLOGICAL EVALUATION AND WATCHING BRIEF ON GEOTECHNICAL INVESTIGATIONS AT 117-121 BISHOPSGATE, LONDON EC2

Local Planning Authority: City Of London

Planning Refs: 09/00192/FULMAJ, 13/01070/MDC, 13/01199/FULMAJ, 14/00729/MDC

Site Code: BIH14

Central National Grid Reference: TQ 33192 81506

Written by Peter Boyer

Project Manager: Tim Bradley

Commissioning Client: Mills Whipp Projects on behalf of Amsprop Bishopsgate Ltd.

Contractor:

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

Tel: **020 7732 3925**
Fax: **020 7733 7896**
E-mail: **tbradley@pre-construct.com**
Web: **www.pre-construct.com**

PCA Report No: R11874

CONTENTS

ILLUSTRATIONS

1 Abstract

1.1 Pre-Construct Archaeology Ltd. conducted an archaeological evaluation and watching brief in basement areas at 117-121 Bishopsgate, City of London between the 11th and 22nd of August 2014. The excavation of trial trenches and monitoring of geotechnical test pitting revealed that post-medieval activity had heavily truncated earlier deposits, well into Pleistocene gravel towards the north of the site, whilst natural brickearth survived over the gravel in less-truncated areas to the south and east.

1.2 The earliest *in situ* archaeological deposits dated to the Roman period and were associated with waste deposition either in a large cut feature or on a former land surface. There was also a possibility that the burnt surface, on which waste deposits were dumped, had been used for funerary purposes. Other possible Roman deposits were more difficult to define.

1.3 Although some residual medieval artefactual material was recovered from post-medieval contexts, *in situ* medieval deposits were virtually absent from the site, having been extensively truncated by later activity, though possible intact medieval layers were extant at the east of the site and at southern edge of the site below a post-medieval building foundation.

1.4 Evidence of development of the site during the 17th to 18th century was recorded, when a number of sub-basement structures were built on the site at about the same time as a development phase that saw the erection of earlier buildings that covered the same broad footprint as current site structures. The sub-basement structures included brick vaults and a later brick chute, though the functions of these features have not yet been fully ascertained.

1.5 There was further activity in the later 18th and early 19th centuries including modifications to sub-basement features, demolition of earlier structures and rubble deposition and ground-raising. Activity associated with structural redevelopment on the site in the late 1820s was also identified during the course of the investigations, as were further phases of demolition, dumping and ground raising, culminating in the construction of modern basement floor surfaces.

1.6 Overall the investigations have shown that evidence for site development during a number of periods is still extant despite significant truncation in some areas and it is anticipated that proposed further work will enhance the findings of the evaluation and watching brief and those of an earlier watching brief.

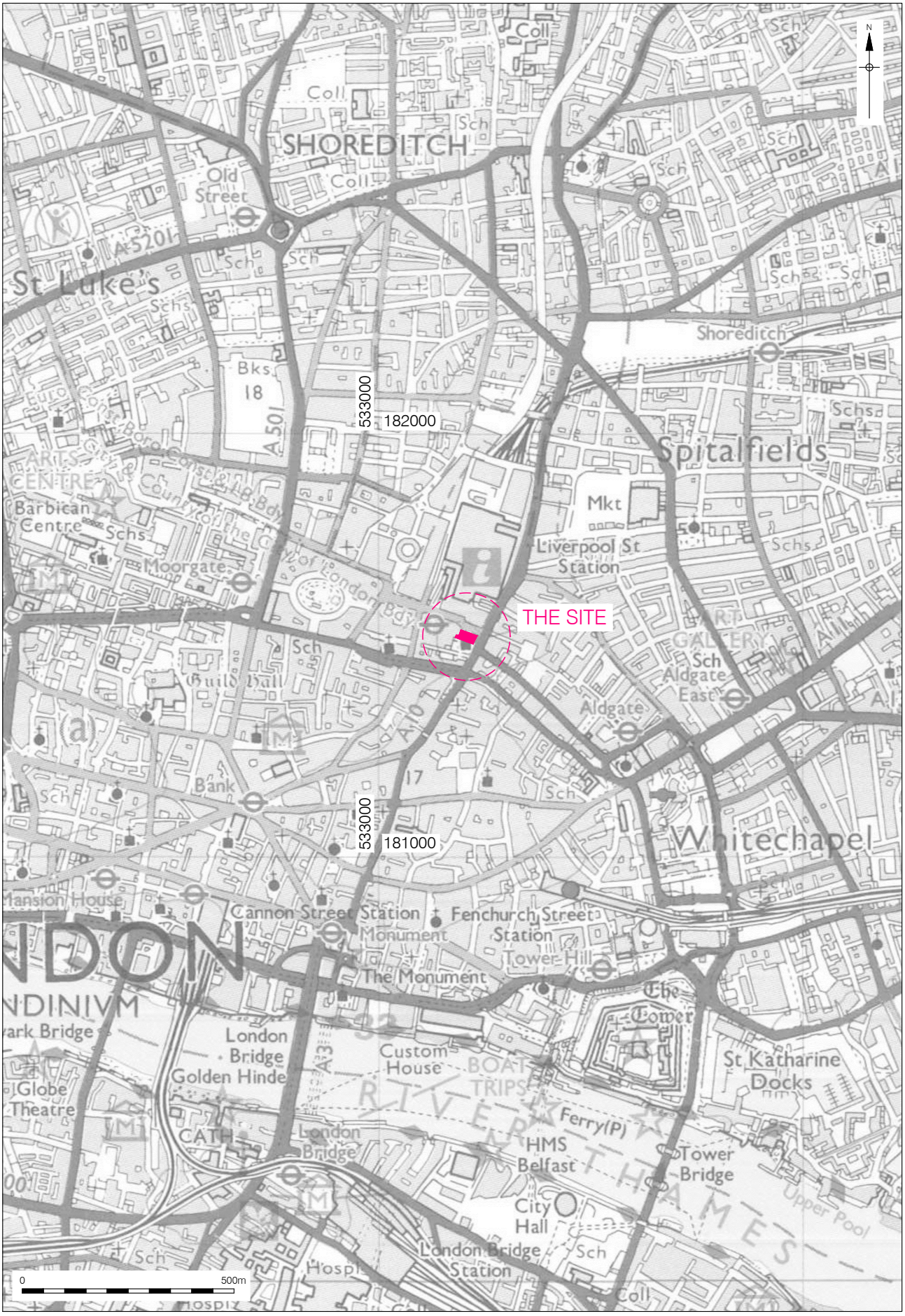
2 Introduction

2.1 Between the 11th and 22nd of August 2014 Pre-Construct Archaeology Ltd. (PCA) carried out an archaeological evaluation and watching brief at 117-121 Bishopsgate and 34-37 Liverpool Street, City of London (Figures 1 & 2).

2.2 It is proposed to redevelop the site for commercial and residential purposes, a planning application for redevelopment having previously been submitted to The City of London and approved with archaeological conditions attached. The evaluation and watching brief were carried out as a secondary phase of archaeological work, following an earlier watching brief in January 2014, in order to inform any likely further work and as part fulfilment of the archaeological conditions.

2.3 The work was commissioned by Mills Whipp Projects on behalf of Amsprop Bishopsgate Ltd. and comprised the excavation of five archaeological trial trenches, two of which were also subject to geotechnical investigation, and archaeological monitoring of the excavation of a further three geotechnical test pits. All of the trial trenches and test pits were located within basements in the eastern half of the site (Figure 2).

2.4 The site is located at National Grid Reference (NGR) TQ 33192 81506 and the project was allocated the site code BIH14**.**



02/09/14 HB

Figure 1
Site Location
1:12,500 at A4

02/09/14 HB

Figure 2
Detailed Site & Test Pit Locations
1:400 at A4

3 Geology and Topography

3.1 The site lies within the City of London, a short distance south of Liverpool Street station and immediately west of Bishopsgate. The site lies at a surface elevation of *c*. 15m AOD on ground that is generally flat with some minor undulations, but has been significantly modified by previous development of the area. South of the site, the current land surface slopes downwards towards the River Thames.

3.2 According to the British Geological Survey (Sheet 256; North London) the underlying geology of the site comprises sand, silt and clay of the Palaeogene (Eocene) London Clay formation, deposited between *c*. 34 and 55 million years ago. This is overlain by Quaternary Taplow Terrace Gravel, the surface of which lies at approximately 10.50m AOD, but slopes downwards to the south and west of the site towards the River Thames and Historic Walbrook valley respectively. The gravel is capped by clay and silt brickearth, which has been variably truncated in the area by historic quarrying activity. An archaeological watching brief during development of part of the site in 1981 recorded the surface of the brickearth at approximately 12.20m AOD (Miller 2007, 8).

3.3 Historically the site occupied numbers 117, 119 and 125 Bishopsgate though the current address is recorded as numbers 117, 119 and 121 Bishopsgate, with a building to the north-west occupying 34-37 Liverpool Street. The site is accessed from Liverpool Street to the north and Bishopsgate to the east via White Hart Court, which bisects the northern and southern parts of the site. There is also pedestrian access from Alderman's Walk to the south.

3.4 The site is bounded to the north by Liverpool Street, to the east by Bishopsgate, to the south by Alderman's Walk and to the west by open pedestrian areas and properties within Liverpool Street Arcade. It is located a little less than 1km north of the tidal River Thames on the eastern side of the upper reaches of the historic Walbrook valley, in an area that may have been crossed in the past by tributary streams of the River Walbrook, itself a tributary of the Thames.

4 Archaeological and Historical Background

4.1 Research into the archaeological and historical background of the site has already been carried out as part of a desk-based assessment of the site (Miller 2007) and it is not necessary to repeat the detail here, though the main points should be highlighted:

4.2 Archaeological evidence for prehistoric activity in the vicinity of the site is limited and for earlier periods (Palaeolithic to Bronze Age) is virtually non-existent, though residual Late Iron Age pottery has been found on sites to the west in the Moorgate/Finsbury area, which has been interpreted as possible evidence for pre-Roman settlement of the city. It is possible that the lack of prehistoric evidence may in part be due to intensive exploitation and truncation in the Roman and later periods, rather than the area being uninhabited during prehistory; there is certainly extensive evidence for later prehistoric exploitation of the Terraces immediately north of the Thames both upstream and downstream of the city.

4.3 *Londinium* was established in the early years following the Roman Conquest, with the city wall constructed around AD 200. The site lies approximately 55m north of the wall and its extensive outer, 'V-shaped' ditch which has been exposed *c*. 100m to the south-west at 90-94 Old Broad Street/63-64 New Broad Street. Although the site lies beyond the Roman city walls, Ermine Street, which ran northwards from the city, followed approximately the same alignment as the present Bishopsgate and therefore passed a short distance east of the site. The road was flanked by an extensive cemetery to the north of the city, which extended at least as far as the modern Spitalfields area. Roman burials, both inhumations and cremations, have been found at a number of locations within the vicinity of the site, the most significant of which, was a 3rd-century interment recorded within the site boundary during an archaeological watching brief on development work in 1981. This burial was east-west aligned and located in the area of the present 34-37 Liverpool Street at a basal level of *c*. 12.00m AOD.

4.4 In addition to lying in the vicinity of an extensive Roman cemetery, the site also lies in an area where there was extensive brickearth quarrying during the Roman period. Quarry pits were recorded during the 1981 watching brief on the western part of the site and further extraction pits have been identified within 100m to the north at 154-170 Bishopsgate and 16 New Street.

4.5 The site lies towards the eastern edge of the Upper Walbrook valley, the river flowing approximately along the line of the present Blomfield Street, west of the site, in the early Roman period. Subsequent development of the area involved ground-raising and reclamation along with canalisation of the river. However, construction of the city wall in the late 2nd century effectively blocked the flow of the river, which resulted in severe drainage problems in the area north of the wall and west of the site,

culminating in abandonment of much of the area by the 4th century. The Moorfields area west of the site had thus become a marshland by the late Roman period and remained as such into the post-Roman era.

4.6 There is no evidence of a continuity of occupation of the city after the Roman withdrawal in the 5th century, Early and Middle Saxon activity becoming focussed in The Strand/Covent Garden area to the west. The walled city was re-occupied during the Late Saxon period but the evidence for activity in the vicinity of the site at this time is very limited.

4.7 The city wall was largely repaired and rebuilt and the ditch widened in the medieval period. Bishopsgate, which runs adjacent to the site on the alignment of the former Roman road was named after the Bishops Gate, which stood opposite Camomile Street to the south of the site and probably had medieval origins. The original church of St Botolph without Bishopsgate, immediately south of the site is first recorded in 1212, whilst the Priory and Hospital of St Mary Bethlehem (later 'Bedlam') was founded to the west in 1247. Two pits of medieval date were recorded on the site during the 1981 watching brief indicating that there was also activity here at this time.

4.8 During the early post-medieval period there was gradual urbanisation of the area north of the city walls, though the site probably remained within an area of largely semi-rural suburbs. The Bishopsgate frontage of the site had however, been built upon by the middle of the 16th century, as demonstrated on Agas' map of *c*. 1562, whilst Faithorne and Newcourt's map of 1658 shows the southern frontage, north of St Botolph's church also developed. Ogilby and Morgan's map of 1676 shows a narrow lane separating the site and church, whilst the site is occupied by a number of small buildings surrounding a yard (shown later as White Hart Yard) accessed from Bishopsgate. The layout of the site appears to have changed little during the 18th century, though the White Hart Inn on the north-east corner apparently has 18th-century origins, whilst other surviving buildings probably date to the early 19th century.

4.9 The 1st edition Ordnance Survey map of 1873 shows the site located some 120m to the south of Broad Street Station, which had opened in 1866. The map shows the public house at the north-east corner of the site with further buildings to the west, fronting Liverpool Street, and shops to the south, fronting Bishopsgate. A large, single building is located within the site, to the rear of the shops and all buildings surround White Hart Court. By 1893 the large, single building had been divided into three single properties, though the layout of buildings remained largely unchanged throughout much of the 20th century.

4.10 The buildings to the north-west of the site were demolished in the early 1980s and replaced with the structures that currently comprise 34-37 Liverpool Street and Alderman's House. The site layout has remained largely static since the 1980s development.

5 Planning Background

5.1 The development of the site is subject to planning guidance and policies contained within the National Planning Policy Framework (NPPF), The London Plan and policies of The City of London, which fully recognises the importance of the buried heritage for which it is the custodian.

5.2 In March 2012, the government published the National Planning Policy Framework (NPPF), which replaced existing national policy relating to heritage and archaeology (Planning Policy Statement 5: Planning for the Historic Environment (PPS5)). In summary, current national policy provides a framework which protects nationally important designated Heritage Assets and their settings, in appropriate circumstances seeks adequate information (from desk based assessment and field evaluation where necessary) to enable informed decisions regarding the historic environment and provides for the investigation by intrusive or non-intrusive means of sites not significant enough to merit *in-situ* preservation. Relevant paragraphs within the NPPF include the following:

128. *In determining applications, local planning authorities should require an applicant to describe the significance of any heritage assets affected, including any contribution made by their setting. The level of detail should be proportionate to the assets' importance and no more than is sufficient to understand the potential impact of the proposal on their significance. As a minimum the relevant historic environment record should have been consulted and the heritage assets assessed using appropriate expertise where necessary. Where a site on which development is proposed includes or has the potential to include heritage assets with archaeological interest, local planning authorities should require developers to submit an appropriate desk-based assessment and, where necessary, a field evaluation.*

129*. Local planning authorities should identify and assess the particular significance of any heritage asset that may be affected by a proposal (including by development affecting the setting of a heritage asset) taking account of the available evidence and any necessary expertise. They should take this assessment into account when considering the impact of a proposal on a heritage asset, to avoid or minimise conflict between the heritage asset's conservation and any aspect of the proposal.*

132. *When considering the impact of a proposed development on the significance of a designated heritage asset, great weight should be given to the asset's conservation. The more important the asset, the greater the weight should be. Significance can be harmed or lost through alteration or destruction of the heritage asset or development within its setting. As heritage assets are irreplaceable, any harm or loss should require clear and convincing justification. Substantial harm to or loss of a grade II listed building, park or garden should be exceptional. Substantial harm to or loss of designated heritage assets of the highest significance, notably scheduled monuments, protected wreck sites, battlefields, grade I and II* listed buildings, grade I and II* registered parks and gardens, and World Heritage Sites, should be wholly exceptional.*

135 . *The effect of an application on the significance of a non-designated heritage asset should be taken into account in determining the application. In weighing applications that affect directly or indirectly non designated heritage assets, a balanced judgement will be required having regard to the scale of any harm or loss and the significance of the heritage asset.*

139. *Non-designated heritage assets of archaeological interest that are demonstrably of equivalent significance to scheduled monuments, should be considered subject to the policies for designated heritage assets.*

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

5.3 The Glossary contained within the NPPF includes the following definitions:

Heritage asset: A building, monument, site, place, area or landscape identified as having a degree of significance meriting consideration in planning decisions, because of its heritage interest. Heritage asset includes designated heritage assets and assets identified by the local planning authority (including local listing).

Archaeological interest: There will be archaeological interest in a heritage asset if it holds, or potentially may hold, evidence of past human activity worthy of expert investigation at some point. Heritage assets with archaeological interest are the primary source of evidence about the substance and evolution of places, and of the people and cultures that made them.

Historic environment: All aspects of the environment resulting from the interaction between people and places through time, including all surviving physical remains of past human activity, whether visible, buried or submerged, and landscaped and planted or managed flora.

Historic environment record: Information services that seek to provide access to comprehensive and dynamic resources relating to the historic environment of a defined geographic area for public benefit and use.

5.4 The London Plan, published July 2011, includes the following policy regarding the historic environment in central London, which should be implemented through the Local Development Framework (LDF) being compiled at the Borough level:

POLICY 7.8 HERITAGE ASSETS AND ARCHAEOLOGY

Strategic

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

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

Planning decisions

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

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

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

LDF preparation

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

5.5 The local planning authority responsible for the study site is the City of London, which is currently developing its Local Plan in line with policies outlined in the NPPF. The Local Plan is due to be adopted in early 2015, meanwhile planning policies saved from the City's Unitary Development Plan (UDP) adopted in April 2002 and the Core Strategy adopted in September 2011 remain current until adoption of the Local plan. Saved UDP Policies include the following relating to the historic environment:

POLICY ARC 1
To require planning applications which involve excavation or groundworks on sites of archaeological potential to be accompanied by an archaeological assessment and evaluation of the site including the impact of the proposed development.

All of the City is considered to have archaeological potential unless it can be demonstrated that archaeological remains have been lost, due to basement construction or other groundworks. The Corporation will indicate the potential of a site, its relative importance, and the likely impact to a developer at an early stage so that the appropriate assessment and design development can be undertaken. Map 11.2 indicates areas of archaeological potential and this information will be updated periodically.

On sites of archaeological potential, which may be affected by development schemes or groundworks, an archaeological assessment will be required to be submitted with the application. This will set out the archaeological potential of the site and impact of the proposals. Where appropriate, this should be supplemented by evaluation, carrying out trial work in specific areas of the site to provide more information and inform consideration of the development proposals by the Corporation, prior to a decision on that application.

POLICY ARC 2
To require development proposals to preserve in situ, protect and safeguard important ancient monuments and important archaeological remains and their settings, and where appropriate, to require the permanent public display and/or interpretation of the monument or remains.

POLICY ARC 3
To ensure the proper investigation, recording of sites, and publication of the results, by an approved organisation as an integral part of a development programme where a development incorporates archaeological remains or where it is considered that preservation in situ is not appropriate.

On sites where important monuments or archaeological remains exist, development proposals should take this fully into account and be designed to enhance physical preservation and avoid disturbance or loss. This can be done by the sympathetic design of basements, raising ground levels, site coverage, and the location of foundations to avoid or minimise archaeological loss and securing their preservation for the future, although they remain inaccessible for the time being.

The interpretation and presentation of a visible or buried monument to the public and enhancement of its setting, should form part of the development proposals. Agreement will be sought to achieve reasonable public access. The Corporation will consider refusing schemes which do not provide an adequate assessment of a site or make no provision for the incorporation, safeguarding or preservation in situ of nationally or locally important monuments or remains, or which would adversely affect those monuments or remains.

In some cases, a development may reveal a monument or archaeological remains which will be displayed on the site, or reburied. Investigation and recording of those features will be required as part of a programme of archaeological work to be submitted to and approved by the Corporation. Where the significance of the remains is considered, by the Corporation, not sufficient to justify their physical preservation in situ and they will be affected by development, archaeological recording should be carried out. A programme of archaeological work for investigation, excavation and recording, and publication of the results, to a predetermined research framework, by an approved organisation, should be submitted to and approved by the Corporation, prior to development. This will be controlled through the use of conditions and will ensure the preservation of those remains by record.

5.6 The Core Strategy contains the following Policy relating to the historic environment:

POLICY CS12: HISTORIC ENVIRONMENT
To conserve or enhance the significance of the City's heritage assets and their settings, and provide an attractive environment for the City's communities and visitors, by:

1. Safeguarding the City's listed buildings and their settings, while allowing appropriate adaptation and new uses.

2. Preserving and enhancing the distinctive character and appearance of the City's conservation areas, while allowing sympathetic development within them.

3. Protecting and promoting the evaluation and assessment of the City's ancient monuments and archaeological remains and their settings, including the interpretation and publication of results of archaeological investigations.

4. Safeguarding the character and setting of the City's gardens of special historic interest.

5. Preserving and, where appropriate, seeking to enhance the Outstanding Universal Value, architectural and historic significance, authenticity and integrity of the Tower of London World Heritage Site and its local setting.

3.12.1 The City's unique townscape of historic buildings, streets and open spaces juxtaposed with contemporary modern buildings creates a varied, attractive and lively environment which attracts companies and visitors who support the services which contribute to its cultural vibrancy. The City contains a large number of heritage assets which include almost 600 listed buildings, 26 conservation areas, 48 scheduled ancient monuments and 4 historic parks and gardens. There are many protected trees in conservation areas and with Tree Preservation Orders. Historic buildings characteristic of the City include notable buildings such as Mansion House, Guildhall and St Paul's Cathedral, livery company halls and a large number of churches. In addition, the Tower of London, which lies just outside the City boundary, is inscribed by UNESCO as a World Heritage Site of universal significance and its protection includes a buffer area which is partly within the City.

3.12.2 The City is the historic core from which the rest of London developed. Its townscape is derived from its historical development and role as a centre of commerce and trade. The street pattern comprises medieval lanes and alleyways, overlain by later, wider streets. The dense nature of development is ameliorated by the many green spaces, including a high number of small open spaces such as former churchyards, as well as larger gardens.

3.12.3 The City is characterised by many historically important buildings and collections of buildings. Its varied townscape includes areas of formal layout, those with a more domestic and small scale character, as well as larger building complexes such as Smithfield and Leadenhall Markets. There is a close proximity of very different historic areas with a common purpose and business function, which contributes to the special character of the townscape. The City can claim to have one of the greatest concentrations of church buildings of outstanding architectural quality in the country, with 42 places of worship, all but one of which are listed. The City also possesses a modern architectural heritage including, for example, the listed Barbican and Golden Lane Estates.

3.12.4 The City is one of the most important areas in the country in terms of archaeology. Its unique archaeological heritage dates back to the Roman settlement and has evolved through Saxon, medieval and later periods. Many Roman, Saxon and medieval remains still survive in the City today, including buried as well as visible remains, such as the Roman amphitheatre below Guildhall, the Roman and medieval London wall and the reconstructed Temple of Mithras in Queen Victoria Street. Archaeological investigation is an important aspect of development proposals.

5.7 There are no Scheduled Ancient Monuments or Statutorily Listed Buildings within the development site but the entirety of the City of London is considered to have archaeological potential and the site lies within the Bishopsgate Conservation Area as defined by The City of London.

5.8 It is now proposed to redevelop the site for commercial and residential purposes, including a three-storey below ground car park, a planning application (Ref. No. 09/00192/FULMAJ) having originally been submitted in 2009 and conditionally approved in March 2012. Archaeological conditions attached to planning consent were as follows:

> 9. No works except demolition to basement slab level shall take place until the developer has secured archaeological evaluation in order to compile archaeological records in accordance with a timetable and scheme of such archaeological work submitted to and approved in writing by the Local Planning Authority before any commencement of archaeological work.
>
> REASON: To ensure that an opportunity is provided for the archaeology of the site to e considered and recorded in accordance with the following policy of the Unitary Development Plan: ARC1.
>
> 10. No works except demolition to basement slab level shall take place until the developer has secured the implementation of a programme of archaeological work to be carried out in accordance with a written scheme of investigation which has been submitted to and approved in writing by the Local Planning Authority. This shall include all work on site, including details of any temporary works which may have an impact on the archaeology of the site and all off site work such as the analysis, publication and archiving of the results. All works should be carried out and completed as approved, unless otherwise agreed in writing by the Local Planning Authority.
>
> REASON: In order to allow an opportunity for investigations to be made in an area where remains of archaeological interest are understood to exist in accordance with the following policies of the Unitary Development Plan: ARC2, ARC3.
>
> 11. No works except demolition to basement slab level shall take place before details of the foundations and piling configuration, to included a detailed design and method statement, have been submitted to and approved in writing by the Local Planning Authority, such details to show the preservation of surviving archaeological remains which are to remain in situ.
>
> REASON: To ensure the preservation of archaeological remains following archaeological investigation in accordance with the following policies of the Unitary Development Plan: ARC2, ARC3.

5.9 A further application for the approval of details reserved by condition (Ref. No. 13/01070/MDC) was submitted in September 2013 and approved in January 2014. This application detailed the methodologies for standing building recording and archaeological works to be carried out on the site and archaeological monitoring of geotechnical investigations was subsequently carried out (Boyer 2014). An application for changes to the original approved planning scheme (Ref. No. 13/01199/FULMAJ) was also submitted in November 2013 and conditionally approved in June 2014. Conditions 9, 11 and 12 placed on planning consent reiterated the archaeological conditions placed on the original application. A further application for the approval of details reserved by condition (Ref. No. 14/00729/MDC) was submitted and approved in 2014. This related to demolition and construction

works associated with the development, and outlined proposed archaeological works on the basis of the earlier archaeological monitoring of geotechnical investigations.

5.10 This report on the excavation and recording of archaeological trial trenches and archaeological monitoring of geotechnical trial pit excavations is the second document detailing pre-development archaeological investigations on the site, and has been produced in order to further inform the archaeological potential of the site and to satisfy the above archaeological conditions. It was carried out according to a written scheme of investigation (Mills 2014) and method statement (Bradley 2014) approved by the City of London.

6 Archaeological Methodology

6.1 The fieldwork comprised the archaeological excavation of five evaluation trial trenches, each measuring *c*. 1.5m by 1.5m, and the archaeological monitoring of the excavation of three smaller geotechnical test pits, which were dug to ascertain the depth of extant building foundations and for the collection of sample materials. The work was carried out within the cellar of the former White Hart public house (121 Bishopsgate) and the basement of the neighbouring Hackett Building (117 Bishopsgate). Surface floor slabs in all locations were broken out mechanically and thereafter all excavation was carried out by hand. The five archaeological trial trenches were excavated archaeologically to the base of archaeological deposits or to a maximum depth of 1.20m below ground level (bgl). The geotechnical pits were hand excavated by contractors with all deposits recorded archaeologically. The bases of all pits were hand augered in order to ascertain the vertical extent of archaeological deposits and the surfaces of natural materials.

6.2 All aspects of the work followed national (IFA 2008) and local (GLAAS 2009) guidelines, and complied with PCA's own fieldwork manual (Taylor and Brown 2009). The fieldwork was carried out according to a written scheme of investigation (Mills 2014) and a method statement prepared by PCA (Bradley 2014) and approved by Kathryn Stubbs on behalf of the City of London.

6.3 It had originally been intended to excavate five archaeological trial pits (ATP1-5), three within the public house and two within the Hackett Building, and five geotechnical test pits (TP4-8), again with three in the public house and two within the Hackett Building. However, due to logistical factors, two of the archaeological and geotechnical test pits were combined, one of the archaeological pits in the Hackett Building was not excavated but a fourth pit was located in the public house, and one of the geotechnical pits was re-located to the south of its original intended position (Figure 2).

6.4 ATP1 was located towards the west of the former cellar bar area of the public house in the position originally suggested in the method statement, whilst the original location of ATP2, in the toilet area of the cellar bar was found to be impractical so it was moved to the north-east and combined with TP4 at the northern edge of the building. ATP3 was located towards the south-west corner of the cellar area of the former public house in the position stated in the method statement, though the suggested position of ATP4 at the western end of the Hackett Building basement was found to be impractical as this lay over a major sewer and the vicinity of numerous other services. This evaluation trench was therefore abandoned. ATP5 was located at the southern edge of the Hackett Building basement, in the position suggested in the method statement. It was combined with TP8, the original location of which, at the

south-east corner of the basement, was found to be impractical. Because of the need to abandon ATP4, a further trial trench, ATP6, was excavated towards the south-east corner of the public house cellar area and west of ATP3.

6.5 The three remaining geotechnical test pits were located along the eastern edge of the site. TP5 was located at the north-east corner of the vaulted cellar in the position originally proposed, whilst it was necessary to reposition TP6 a little further south than its original proposed location due to the presence of a substantial sewer feature. TP7 was located as planned at the eastern end of the Hackett Building basement.

6.6 Basement floor levels in the vaulted cellar varied between 11.67m AOD and 12.08m AOD, whilst those in the basement of the Hackett Building were somewhat higher, varying between 12.89m AOD and 12.93m AOD.

7 Trench Descriptions, Watching Brief Observations and Interpretation of Sequences

7.1 This section records the stratigraphic sequences in each of the archaeological trial trenches and geotechnical test pits and offers some interpretation of the sequences revealed, which have been divided into seven broad chronological phases. Elevations for the tops of sequences are extrapolated from floor levels shown on a plan of the basement areas (Plan 8440.02) produced during a building survey in 2007 and included with documents submitted with the original proposal for redevelopment of the site in 2009.

7.2 **ATP1** (surface level 11.67m AOD)

7.2.1 The basal deposit recorded in this evaluation trench was natural terrace gravel, only found by augering, which suggested an upper elevation of *c*. 9.82m AOD. No natural brickearth was present above the gravel and it appeared that this area had been heavily truncated by post-medieval activity. Directly overlying the gravel was a substantial deposit of mixed material [62] comprised of redeposited brickearth along with grey sandy silt and apparent demolition rubble (Plate 1). The deposit extended across the whole trench and was in excess of 1.2m thick (Figure 3), the surface elevation being recorded at 11.05m AOD. The material probably filled a large depression cut into underlying deposits, possibly a quarry, with recovered ceramic building material (CBM) suggesting a 17th- to 18th-century date of deposition, though residual Roman pottery was also present.

7.2.2 Deposit [62] was overlain by further mixed materials comprising variably compacted, very dark greyish brown to mid/light reddish brown silty sand [57]. This material was again extant across the whole trench and up to 0.72m thick with an upper elevation of 11.40m AOD. It possibly represented further quarry backfilling as well as acting as ground raising and levelling material, a small pottery assemblage suggesting a broad deposition period between 1580 and 1700, though residual medieval material was also present, whilst clay tobacco pipe recovered from the context was dated 1700-1740. If this material was quarry backfill, there is a suggestion that this area of the site may have been open up until the early to mid 18th century. The possible quarry infill was overlain by the modern floor [56], which comprised a rubble bed, upon which was a concrete slab that supported the cellar granite slab floor surface.

7.3 **ATP2/TP4** (surface level 11.67m AOD)

7.3.1 Augering in the base of this trial trench failed to reach natural deposits as the auger could not penetrate deeply-buried demolition rubble, however geotechnical investigation to ascertain the depth of the foundation of the north wall of the public house showed the surface of natural gravel to be at *c.* 9.78m AOD, having again been truncated by post-medieval (and possibly earlier) activity. The earliest

archaeological material recorded was the wall itself [59], which was constructed from red, unfrogged bricks, laid in alternating courses of headers and stretchers and bonded with a light yellowish brown lime mortar. The geotechnical investigation revealed that the wall extended 1.89m bgl to the surviving surface of natural gravel, stepping out to the south at 1.29m bgl (10.38m AOD) and again at the base. It appeared that the wall was a continuation of that in the bar area to the east though for some reason the vaulting, which it had originally supported, had been removed in this more western area. An unexplained gap in the wall towards the eastern edge of the trench had been filled with redeposited brickearth [58] (Figure 5.1).

7.3.2 Abutting against the southern edge of the wall were the remnants of a north to south aligned, brick vaulted structure [55] (Figure 4; Plate 2). The vault had been constructed from red, unfrogged bricks, bonded with light brown lime mortar and laid in alternating courses of headers and stretchers, though the vault had been topped with a mix of broken brick, tile and chalk fragments. A sample of brick taken from the structure suggested a broad date between 1450 and 1700, though construction was probably during the 17th century. Much of the vaulted structure, which was at least 1.64m wide and continued beyond the southern edge of the trench, had been demolished and the vault infilled with a soft, mid to dark, brownish grey, sandy silty clay [53], which contained abundant demolition rubble and a small pottery assemblage dated 1800-1830, though residual Roman and medieval material was also present. Clay tobacco pipe fragments were broadly dateable to the 18th to 19th centuries. Augering through the base of the trench revealed that this material continued to a depth of 1.65m bgl (10.02m AOD) and lay above impenetrable brick rubble, thought to be the collapsed roof of the vault. It is likely that the base of the vault lay at a similar level to the base of the northern external wall, suggesting a height of a little more than 1.5m, the top of the vault having been recorded at 11.31m AOD. The function of the vault was unclear but may have originally been a sub-basement wine cellar or cistern.

7.3.3 At the western edge of the trench the vault backfill had been cut through for the construction of a brick pillar [60], which appeared to have functioned as the support for a later floor (Figure 5.4). The pillar was constructed from yellow stock bricks bonded with hard, light grey lime mortar and irregularly coursed. Elsewhere the infilled vault was sealed by a 0.26m thick deposit of moderately compacted, mid greyish brown sandy silt with clayey lenses [49], which extended across the whole trench and produced a small pottery assemblage suggesting a broad 19th-century date and a fragment of late 19th-century glass, though clay tobacco pipe fragments present were somewhat earlier. This was partly overlain by a deposit of loose, mid greyish brown, sandy silty clay material containing abundant demolition rubble [61] in the area of the demolished vault roof (Figure 5.2). The made ground deposits above the infilled vault were covered by a 0.15m thick deposit of demolition rubble [52] to

11.49m AOD, which was overlain by layers of concrete [51] that supported granite slab floor [50].

7.4 **ATP3** (surface level 12.08m AOD)

7.4.1 Although augering through the base of this trench recorded the surface of natural gravel at *c*. 9.83m AOD, this had clearly been truncated by post-medieval and possibly earlier material but at the southern edge of the trench a narrow band of natural brickearth [101] survived *in situ* to an upper elevation of 10.93m AOD (Figures 9.2 & 9.3). The surface of the brickearth was covered by a 7mm thick layer of hard, dark reddish brown material [97], which appears to have represented *in situ* burning of the brickearth surface. Although the surface of the brickearth appeared generally flat within the trial trench, it is possible that this was the base of a more extensive cut feature, in which there had been intense burning. Alternatively this level may have represented an intensively burnt former surface. The burnt deposit was overlain by a deposit of friable, dark, slightly greenish, greyish brown clayey silt [96], which was up to 0.40m thick and recorded at an upper elevation of 11.36m AOD. Artefactual material recovered from this deposit was all Roman in date and included pottery, CBM and the base of a glass vessel, the more dateable finds suggesting deposition not much later than the middle of the 2nd century AD. It was overlain by up to 0.44m of a firm, very dark greyish brown silt [94], which contained abundant oyster shells along with a moderate, Roman finds assemblage including pottery, CBM, animal bone and a fragment of a small glass vessel. This material also dated no later than the middle of the 2nd century AD and was interpreted as a midden deposit (Plate 3), though it was unclear whether this and the underlying Roman layer were within a cut feature or had been deposited over a former land surface.

7.4.2 The Roman deposits and brickearth were extensively truncated to the north by a substantial, east to west aligned linear or sub-rectangular feature [85] (Figure 6; Plate 4) that had been cut from an apparent level of 11.37m AOD. This extended beyond the eastern and western edges of the trench, was at least 1.25m wide, extending beyond the northern trench edge and up to 1.54m deep, as revealed by augering, which showed that it cut well into the underlying natural gravel. Exposure of the southern edge showed that it had very steeply sloping sides (Figure 9.2) though the form of the base and northern edge were clearly not seen. The main fill of the feature was an extensive deposit of loose, light, slightly yellowish grey, sandy silt [84] up to 1.52m thick that largely contained demolition rubble, including mortar, building stone fragments, bricks and tiles, analysis of the artefactual remains suggesting a late 17th- to early 18th-century date of deposition. It was overlain by a 20mm thick layer of mostly redeposited brickearth [83], which appeared to have been deliberately deposited to seal the lower fill. Given the nature of the main backfilling material and the apparent linear nature of the feature it has been suggested that it may have

represented robbing of a substantial structure that pre-dated the current buildings on the site.

7.4.3 At the eastern edge of the trench the upper levels of the feature fill were cut by a sub-circular small pit or posthole [82] that was 0.46m in diameter and 0.26m deep with steeply sloping, slightly concave sides and a flattish base (Figures 6 & 9.2; Plate 4). Fragments of CBM and lead window came were recovered from the friable, very dark greyish brown, sandy silt fill [81], the former suggesting a broad date of deposition later than 1480. The feature may have represented part of a large timber structure though it is likely that its upper levels had been significantly horizontally truncated.

7.4.4 The backfilled pit/posthole and robber trench were sealed by a compact layer [76], which comprised a series of heavily rammed gravel lenses that formed a hard surface, though it was not clear whether this had originally been located within or external to a building. The surface was up to 0.24m thick with an upper elevation of 11.51m AOD and extended across much of the trench, though had been extensively truncated by a later pit to the west. Although apparently deliberately laid as a surface deposit, the material contained a varied finds assemblage including pottery, glass, CBM, clay tobacco pipe and animal bone, the clay tobacco pipe being dated 1680-1710.

7.4.5 Lying above the gravel surface was a 0.23m thick layer of friable, dark greyish brown silty sand [65] that contained a significant demolition rubble element, with a small pottery assemblage suggesting a broad deposition period between 1760 and 1830, clay tobacco pipe dated 1700-1740 and a post-1640 wine bottle fragment. This material may have been laid to deliberately raise ground level. The maximum surface elevation of the deposit was recorded at 11.72m AOD but it had been heavily truncated to the west by a large pit [75] (Figure 7; Plate 4). The pit, which extended beyond the north, west and south edges of the trench, measured at least 1.38m across and was more than 1m deep; augering through the base of the trench indicating that it cut right down into the backfill of robber cut [85]. The pit was sub-circular in plan with generally very steeply sloping, straight sides, though there was a more gentle slope towards the south. It was filled with a single deposit of loose, dark greyish brown sandy silt [74] that contained a moderate finds assemblage including animal bone, pottery, which suggested deposition between *c.* 1805 and 1830, post-1740 glass, CBM and clay tobacco pipe, broadly dated 1580-1740, though the original function of the pit was unclear.

7.4.6 Layer [65] was also truncated by a much smaller pit [67] in the south-east corner of the evaluation trench. This pit was sub-rectangular in shape with near-vertical, straight sides and a flat base (Figure 7). It measured 0.54m east to west by 0.28m north to south and was 0.29m deep. Three glass bottles had been deliberately placed in an upright position on the base of the pit, two of which were virtually intact at the

time of excavation. The pit had then been backfilled with a loose, very dark greyish brown, sandy silt [66] that also contained fragments of clay tobacco pipe. The finds suggested a late 18th- to early 19th-century date but the actual function of the pit and the reason for placing the bottles were unclear.

7.4.7 Layer [65] and the backfilled features cut into it were covered by a brick floor [64], which extended across the full area of the evaluation trench (Figure 8; Plate 5), the surface elevation varying between 11.82m AOD and 11.70mAOD. The floor was constructed from lightly frogged, red and yellow bricks and part bricks laid edge on in irregular courses and unbounded. It appears to have represented the 19th-century floor surface in this area of the public house basement, a similar surface also being recorded in ATP6 to the east (see below). The brick floor was sealed by the modern concrete slab [63], which was up to 0.37m thick and provided a far more level surface than the bricks had done.

7.5 **ATP5/TP8** (surface level 12.93m AOD)

7.5.1 Augering through deposits in the base of this trench revealed that the surface of natural gravel lay at *c*. 10.88m AOD and was overlain by more than 1m of brickearth [91], the surface of which was recorded at a maximum elevation of 12.21m AOD, where it lay undisturbed below the Hackett Building south foundation exposed at the southern edge of the trench (Figure 11.1). Lying above the brickearth was an 80mm thick deposit of friable, light greyish brown, silt [90] that contained charcoal fragments and flecks and appeared to be a thin layer of disturbed brickearth. No finds were present but the deposit may have been of Roman date. It lay at an upper elevation of 12.28m AOD and was overlain by a more substantial deposit of compacted, mid brown, clayey silty sand [89], up to 0.38m thick and extending to an upper elevation of 12.63m OD. Few inclusions were present but a large sherd of Roman mortaria was recovered and the deposit appeared to be a relatively undisturbed layer of Roman or medieval date.

7.5.2 Directly overlying layer [89] was the foundation [88] for the south wall of the Hackett Building. The base of the foundation comprised roughly dressed, small, medium and large blocks of chalk within a light brown lime mortar and bricks above. This supported the southern wall of the current building but may originally have been associated with an earlier structure. Lying immediately to the north of the wall was a south-west to north-east aligned structure (Figure 10), which comprised single brick-width walls constructed from unfrogged red bricks to the north-west [77] and south-east [78] (Plate 6), which diverged away from the wall and a brick base between [80], which sloped down to the north-east and was covered with an accumulation of chalky material. The structure as a whole appears to have been a chute for the delivery of some type of material from ground level at the southern edge of the building to a lower basement storage area within. The basement storage structure probably lay

beyond the northern edge of the trench but given the vertical extent of the chute, probably lay at a similar level to other sub-basement structures recorded in ATP2 (see above) and ATP6 (see below); augering below the base of the trench indicating a possible brick floor at *c*. 10.78m AOD. The chute was probably constructed at a later date than the other sub-basement structures in ATP 2 and ATP6, bricks sampled from the various elements exhibiting signs of re-use.

7.5.3 The backfill [86] of the construction cut [87] for the structure comprised a friable, mixed sand deposit with some demolition rubble, whilst the structure was backfilled with a loose, mid greyish brown, very mixed sand and silt deposit [79]. These backfilling deposits were recorded at upper elevations of 12.25m AOD and 12.23m AOD respectively. Clay tobacco pipe recovered from [79] was broadly dated 1730-1910. The backfilling deposits were overlain by a loose, mid greyish brown, very mixed silt and sand deposit [73] that included a great deal of demolition rubble. The deposit covered the whole trench, was up to 0.50m thick and was recorded at an upper elevation of 12.59m AOD. A quantity of finds was recovered, including animal bone, pottery, glass, CBM and clay tobacco pipe, which together suggested deposition in the second half of the 19th century. This material was overlain by the concrete basement slab of the Hackett Building [72].

7.6 **ATP6** (surface level 12.07m AOD

7.6.1 A small area of undisturbed natural deposits was exposed at the eastern edge of this trench, augering indicating that the surface of natural gravel lay at *c*. 10.68m AOD, above which was up to 0.59m of *in situ* brickearth [104], recorded at an upper elevation of 11.30m AOD (Figure 13). The surviving brickearth at the east of the trench had been truncated by a substantial cut feature [103] which was the construction cut for a vaulted brick feature [100] (Figure 12; Plate 7). The vault was aligned east to west and constructed from unfrogged red bricks and chalk blocks bonded with a yellowish brown lime mortar. It appeared to have been contemporary with the vault in ATP2/TP4 but unlike the feature that abutted the north foundation of the public house, this structure appeared to be free-standing within the basement, the eastern end wall being located some distance away from the eastern wall of the building. The northern wall of the structure was also present within the trench and supported the vaulted roof which sprang from it, though the full width of the structure could not e measured as it extended beyond the southern edge of the trench. The structure also continued beyond the western edge of the trench, though did not extend the full length of the room in which the trench was located as it was not present in ATP3 to the west. It was at least 0.42m high though the base was not reached during the course of excavation as the rubble backfill was impenetrable to the auger.

7.6.2 The construction cut to the east and north of the vault was filled with moderately soft, mid greyish brown, clayey sandy silt [102] that contained a small assemblage of pottery and CBM, suggesting a broad deposition date between the late 16th and late 19th centuries. The actual intended function of the vault was unclear but it appears to have undergone some later modification as two fragments of brickwork [98] and [99] overlying the upstanding walls to the north and east respectively, still survived.

7.6.3 All of the deposits and structural remains were overlain by a layer of quite loose, mixed rubble [95], which also partly infilled the vault where the roof had been damaged. The surface of this deposit, which appears to have been associated with nearby structural demolition, was recorded at 11.64m AOD and contained a mixed artefact assemblage, the pottery suggesting a broad 19th-century date of deposition, though earlier material was present, including two clay tobacco pipe bowls dated *c*. 1680. This was capped by an 80mm thick deposit of sandy silt gravel [93] that also contained a demolition rubble element. Finds suggested a broad, later post-medieval date and the deposit acted as bedding for a brick floor [92] (Plate 8), the surface of which was recorded between 11.93m AOD and 11.80m AOD. This was a little higher than the floor level to the west in ATP3 though similar bricks had been used in construction, albeit mostly laid flat rather than on edge. The brick floor was covered by the same concrete slab [63] as that in ATP3, the surface elevation varying by only approximately 10mm between the eastern and western ends of the room in which the trenches were located.

7.7 **TP5** (upper level 11.67m AOD; Figure 14.1; Plate 9)

0 – 0.05m: Modern granite floor slab [42]
0.05 – 0.12m: Friable, light reddish brown sand [43] (bedding for slab)
0.12 – 0.21m: Concrete slab [44]
0.21 – 0.40m: Friable, dark greyish brown, silty sand [45] (demolition rubble)
0.40 – 0.60m: Friable, dark greyish brown, sandy silt [46] (demolition rubble)
0.60 – 0.68m: Friable, dark greyish brown silt [47] (made ground)
0.68 – 0.92m: Natural brickearth [48]
0.92m+: Terrace gravel

7.7.1 The earliest deposit found by augering the base of this test pit was natural gravel, recorded at a surface elevation of *c*. 10.75m AOD. It was overlain by 0.24m of natural brickearth [48] to a surface elevation of 11.19m AOD, indicating that there had been far less truncation of underlying deposits at the eastern end of the public house cellar compared with the sequences to the west, the base of the wall foundation here being recorded at *c*. 11.19m AOD. Given the small area exposed in the test pits it was difficult to interpret the layers above the brickearth and the thin deposit [47] above contained no artefactual material so could not be accurately dated, though it has tentatively phased to the 18th-/19th-century period. The more substantial demolition

deposits [46] and [45] above this have been phased to the 19th-/20th-century period and were probably associated with relatively recent development in the cellar area, wine bottle fragments from [45] being broadly dated 1740-1900, whilst the upper deposits [44], [43] and [42] were clearly associated with construction of the modern floor

7.8 **TP6** (upper level 11.85m AOD; Figure 14.2; Plate 10)

0 – 0.10m: Concrete floor [37]
0.10 – 0.38m: Friable, dark reddish brown, sandy silt [38] (demolition rubble)
0.38 – 0.60m: Friable, mid reddish brown, sandy silt [39] (demolition rubble)
0.60 – 1.04m: Soft, mid reddish brown silt [40] (redeposited brickearth)
1.04 – 1.22m: Natural brickearth [41]
1.22m+: Terrace gravel

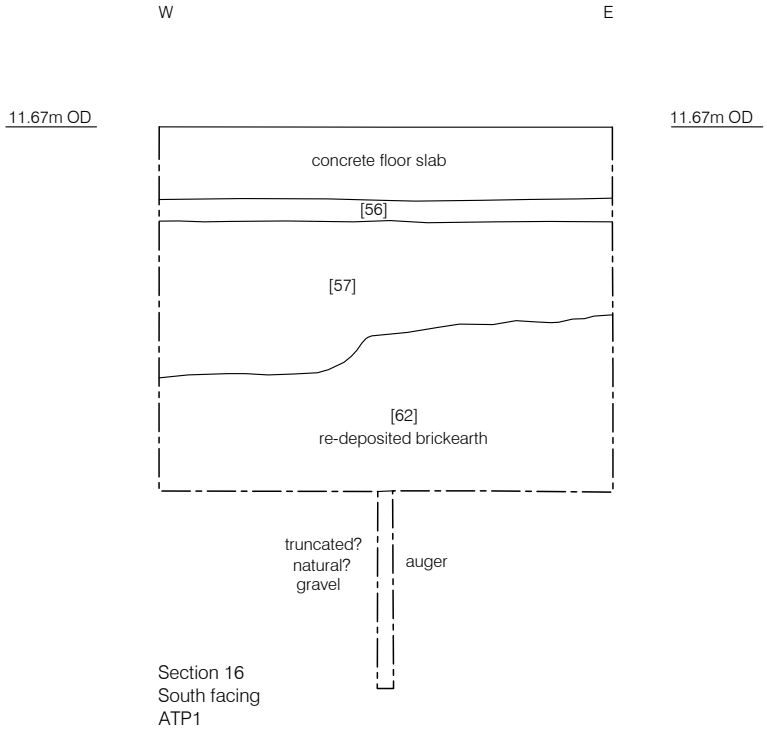
7.8.1 The earliest deposit found by augering the base of this test pit was natural gravel, recorded at a surface elevation of *c*. 10.63m AOD. It was overlain by 0.18m of natural brickearth [41] to a surface elevation of 10.81m AOD. In contrast to the sequence in TP5 a further 0.44m of redeposited brickearth [40] was present above the natural brickearth, and contained small CBM fragments of medieval date. The upper level of this was recorded at 11.25m AOD, whilst the wall foundation at this location penetrated to a basal level of 11.13m AOD and did not truncate natural deposits. The redeposited brickearth was overlain by 19th-/20th-century demolition deposits [39] and [38] similar to those recorded in TP5 and the sequence was capped by the modern concrete floor slab [37].

7.9 **TP7** (upper level 12.89m AOD; Figure 14.3; Plate 11)

0 – 0.24m: Concrete floor [68]
0.24 – 0.58m: Soft, mid greenish/greyish brown, sandy silt [69]
0.58 – 0.93m: Moderately firm, mid greyish brown, sandy clayey silt [70]
0.93 – 1.74m: Natural brickearth [71]
1.74m +: Terrace gravel

7.9.1 The earliest deposit found by augering the base of this test pit was natural gravel, recorded at a surface elevation of *c*. 11.15m AOD. It was overlain by 0.80m of natural brickearth [71] to a surface elevation of 11.96m AOD, indicating the extensive survival of early deposits towards the south-east corner of the Hackett Building. The natural brickearth was overlain by a possible disturbed soil horizon [70] that included redeposited brickearth and was recorded at an upper elevation of 12.32m AOD. A small quantity of Roman pottery and brick was recovered, giving an indication of the likely date. A further possible soil horizon [69] above this also contained Roman pottery and it was noticeable that no apparent demolition rubble was present within this sequence, in contrast to other sequences to the north and west, indeed the

foundation of the east wall of the Hackett Building barely penetrated beneath the base of the concrete floor [68] that capped the sequence. There was thus a strong likelihood of undisturbed Roman deposits in this area.

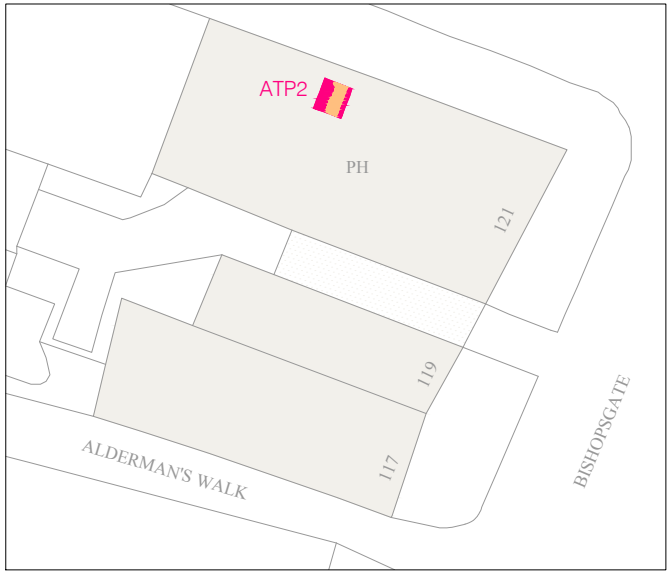


Section 16
South facing
ATP1

0 1m

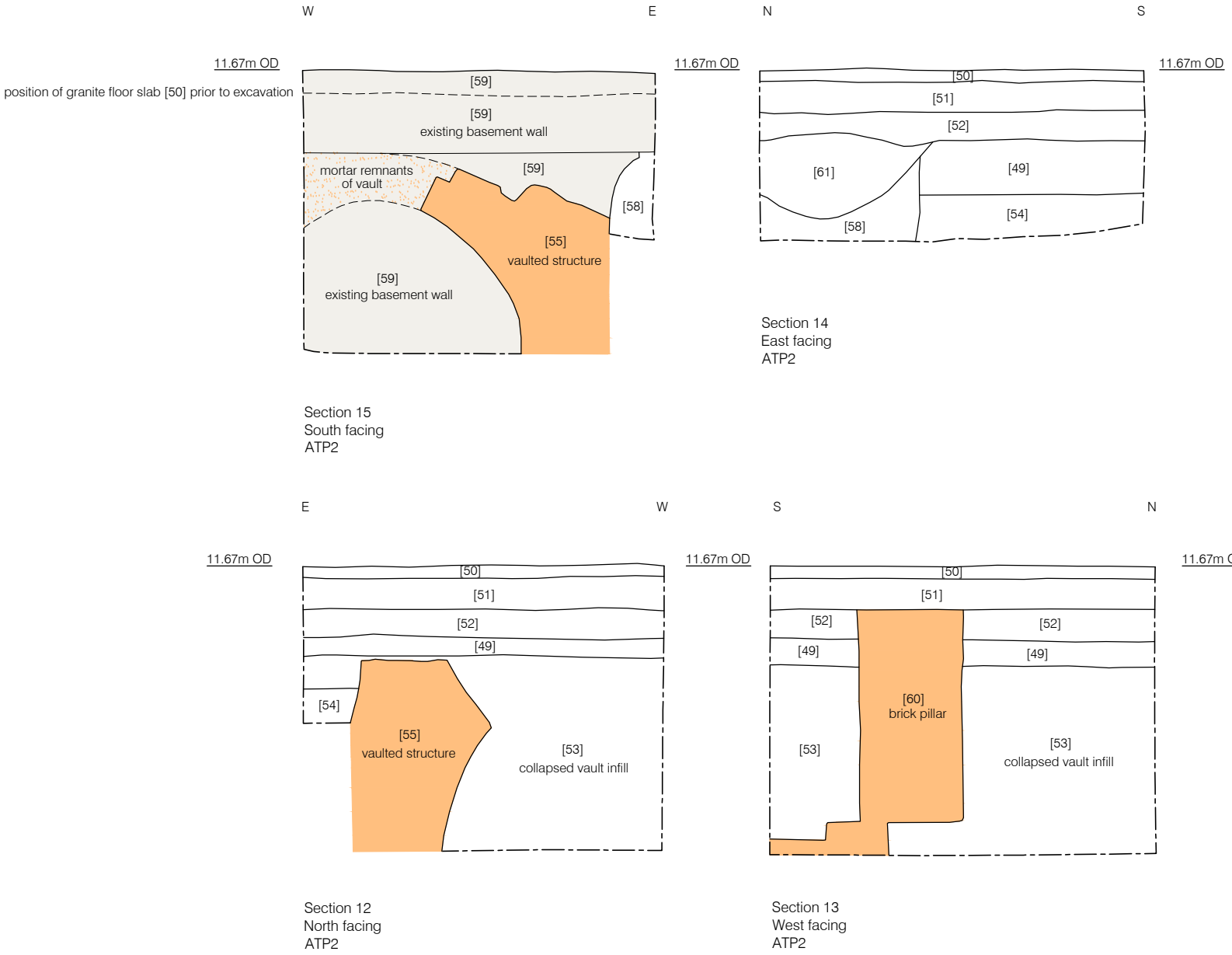
29/08/14 HB

Figure 3
ATP1 Section
1:25 at A4



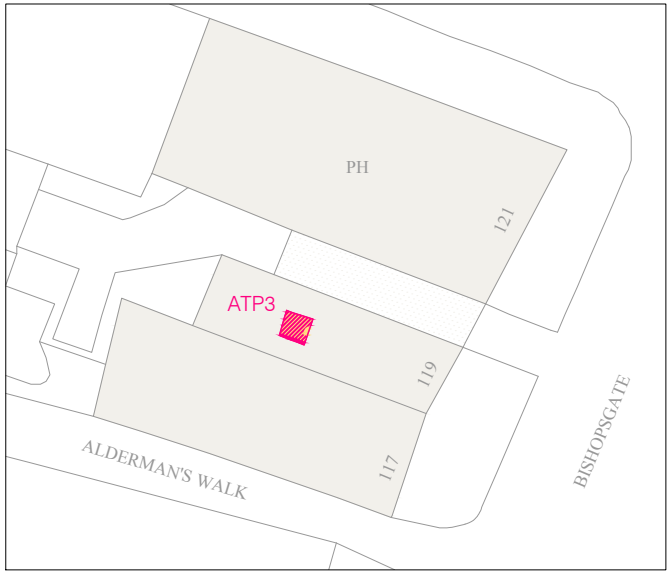
29/08/14 HB

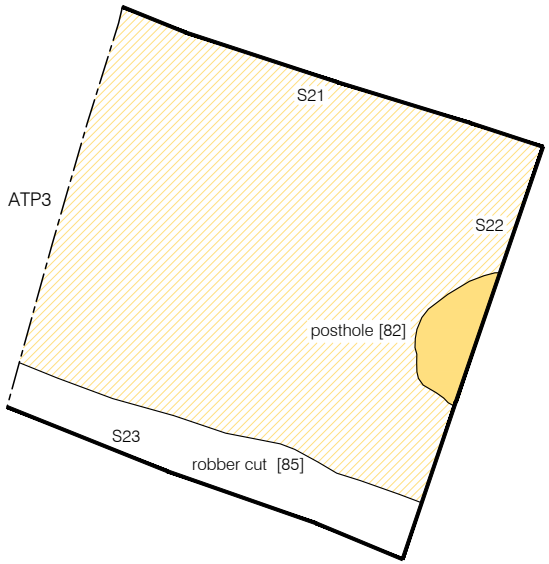
Figure 4
ATP2 Plan
Vaulted Structure [55]
1:25 at A4



29/08/14 HB

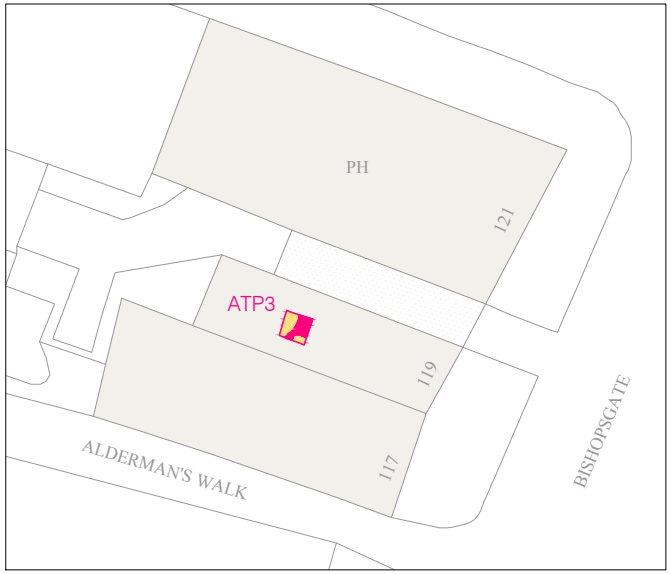
Figure 5
ATP2 Sections
1:25 at A4

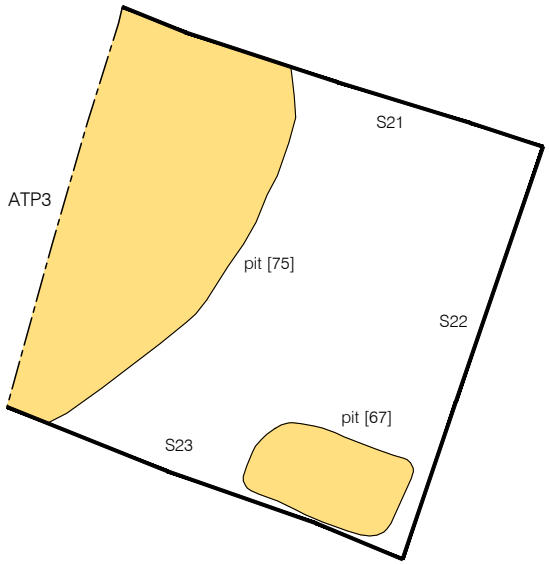




29/08/14 HB

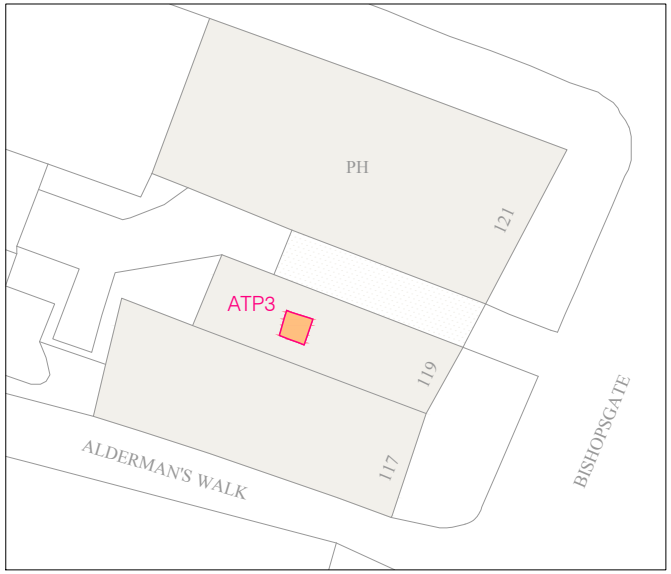
Figure 6
ATP3 Plan
Posthole [82] and Robber Cut [85]
1:25 at A4

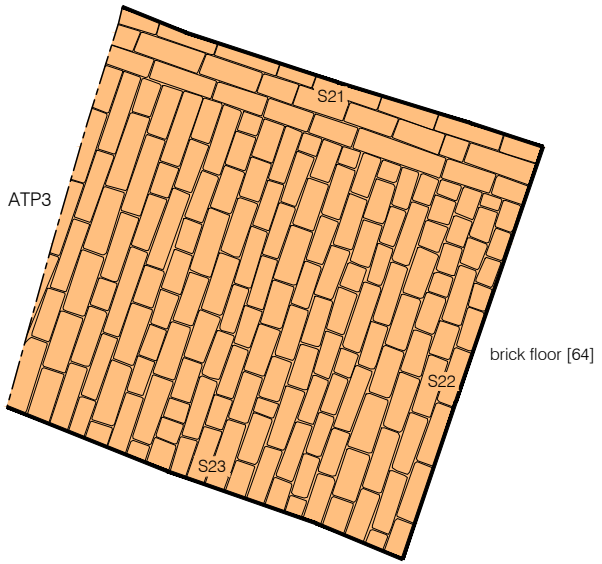




29/08/14 HB

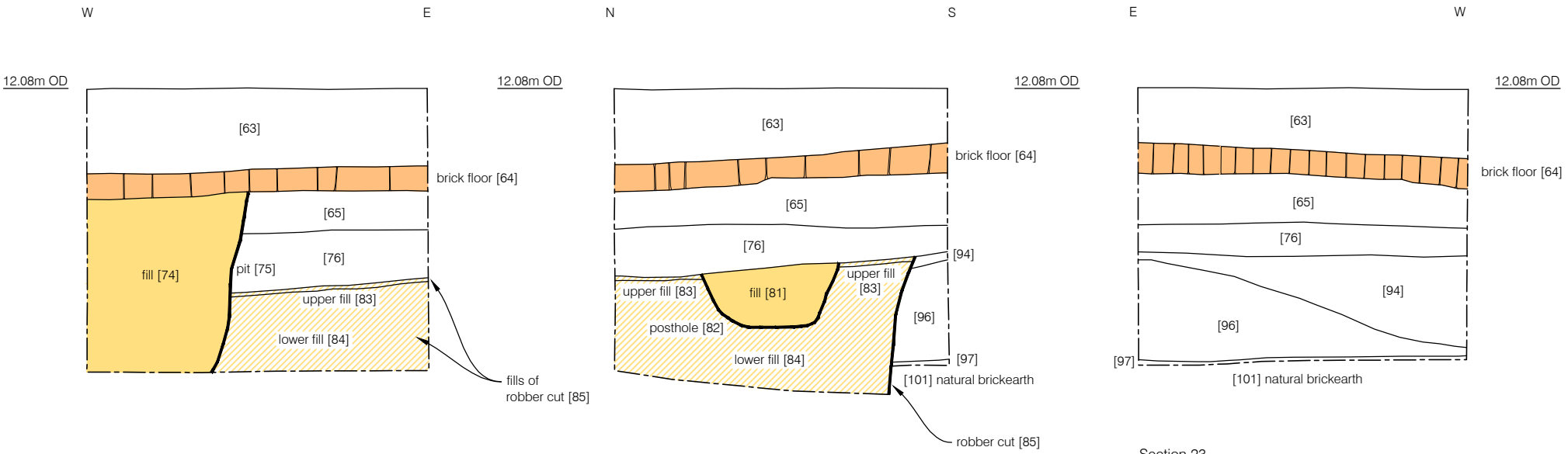
Figure 7
ATP3 Plan
Pits [67] & [75]
1:25 at A4





29/08/14 HB

Figure 8
ATP3 Plan
Brick Floor [64]
1:25 at A4



Section 21
South facing
ATP3

Section 22
West facing
ATP3

Section 23
North facing
ATP3

Brickwork

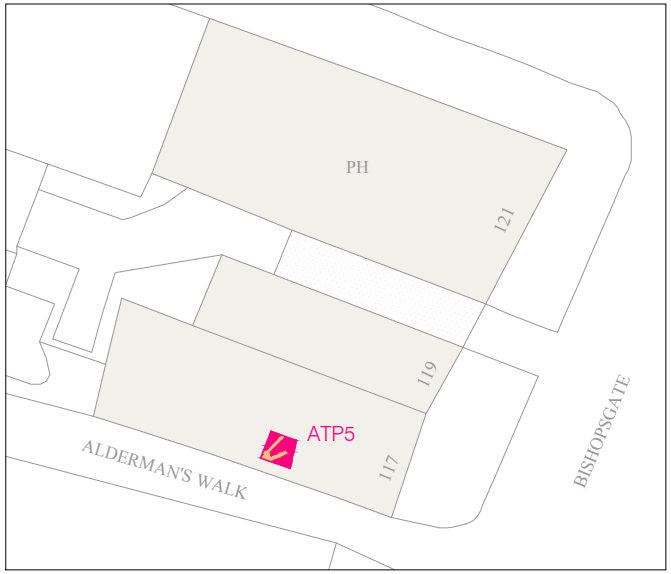
Cut feature

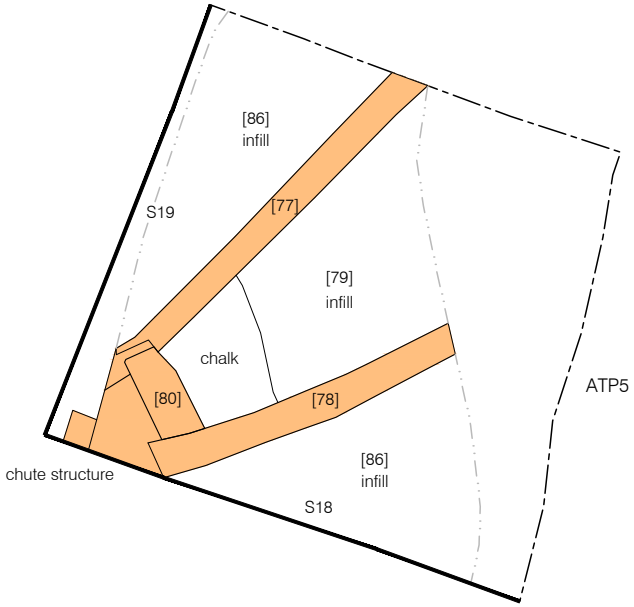
Robber Cut

0 1m

29/08/14 HB

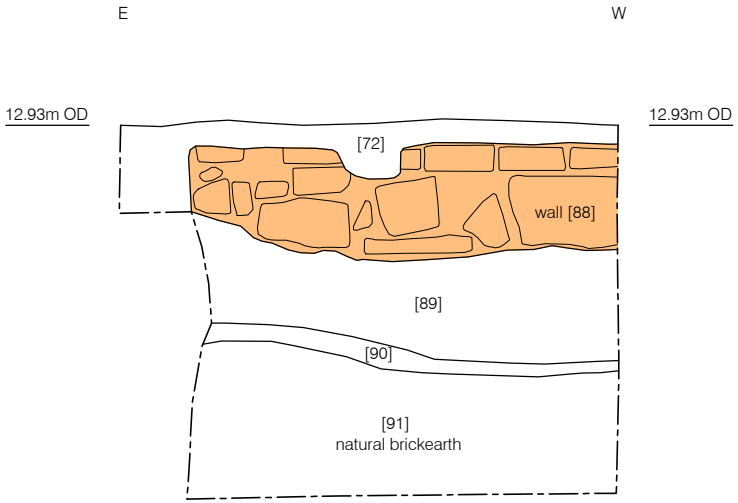
Figure 9
ATP3 Sections
1:25 at A4



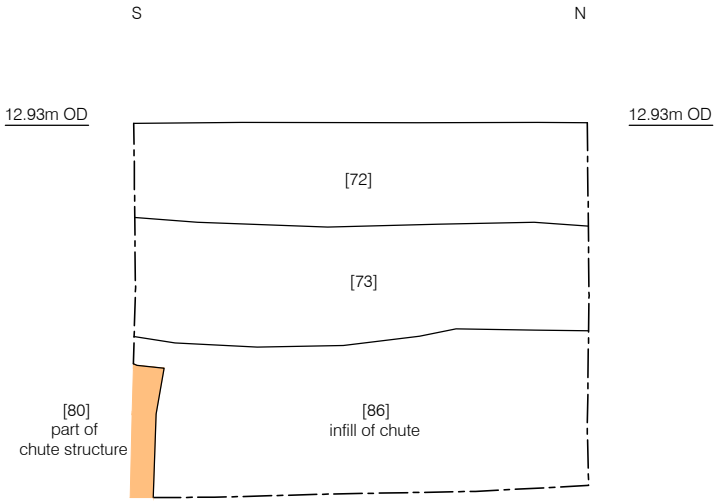


02/09/14 HB

Figure 10
ATP5 Plan
Chute Structure [77];[78] & [80]
1:25 at A4



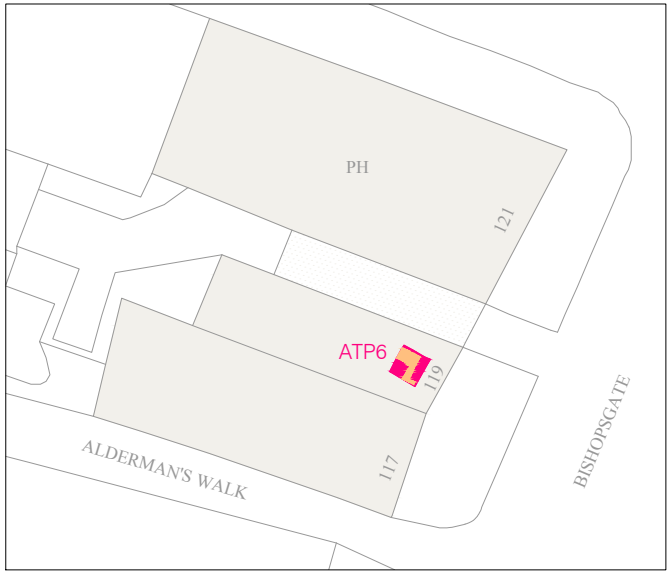
Section 18
North facing
ATP5



Section 19
East facing
ATP5

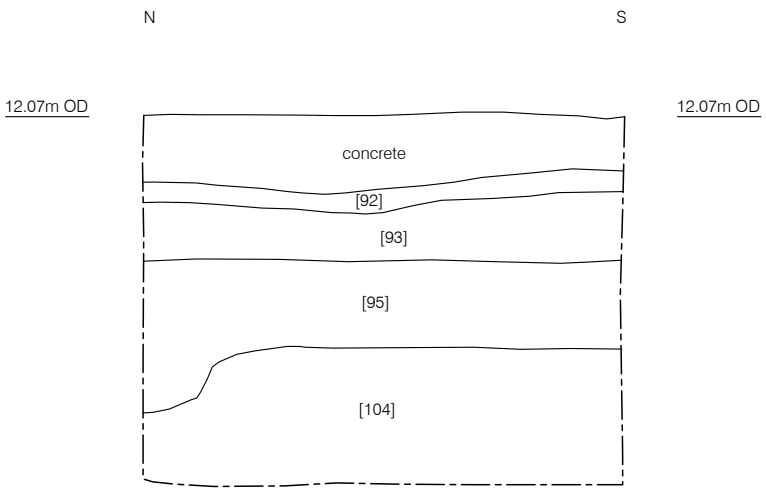
02/09/14 HB

Figure 11
ATP5 Sections
1:25 at A4



02/09/14 HB

Figure 12
ATP6 Plan
Vaulted Structure [98]; [99] & [100]
1:25 at A4

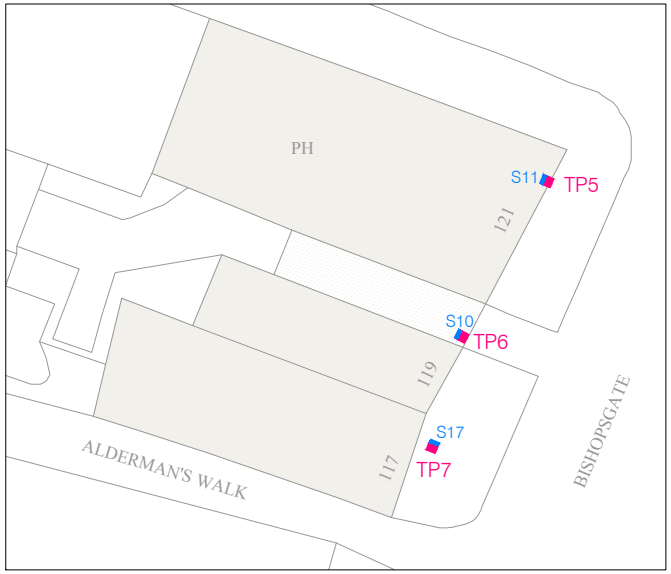


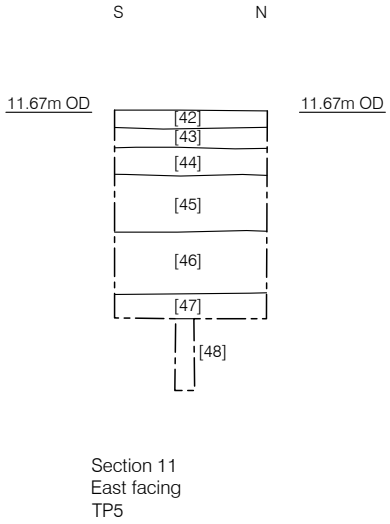
Section 20
West facing
ATP6

0 1m

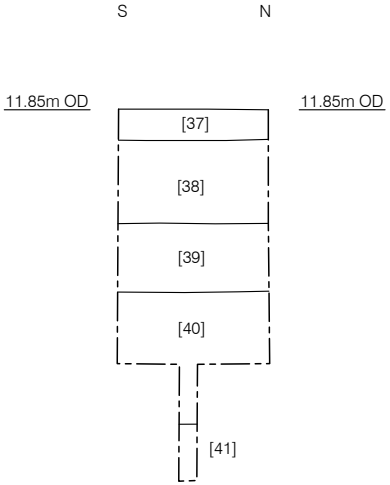
02/09/14 HB

Figure 13
ATP6 Section
1:25 at A4

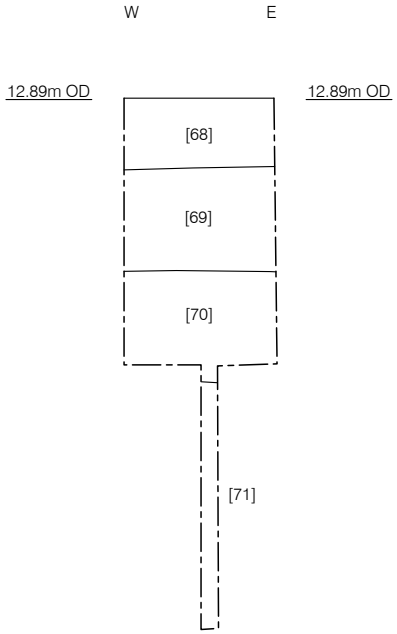




Section 11
East facing
TP5



Section 10
East facing
TP6



Section 17
South facing
TP7

0 1m

02/09/14 HB

Figure 14
Test Pit Sections
1:25 at A4

8 Phased Archaeological Sequence

8.1 Phase 1: Natural Deposits

8.1.1 The earliest deposits encountered, albeit mostly by augering, were natural terrace gravels, which were recorded in all sequences. Where this was overlain by brickearth and therefore not truncated by later activity, it was recorded at surface elevations between 10.63m AOD and 11.15m AOD, though there was no real pattern of a slope in the surface in any particular direction. In areas where there had been significant disturbance of underlying deposits by post-medieval activity, the surface of the gravel was generally truncated down to a consistent level of *c*. 9.8m AOD.

8.1.2 The terrace gravel was overlain by natural brickearth in parts of six of the excavated pits/trenches. The surface of this had probably experienced varying levels of truncation from the Roman to post-medieval periods, though at the south of the site in ATP5/TP8 and TP7 the surface elevation was recorded at 12.21m AOD and 11.96m AOD respectively. Elsewhere the surface elevation varied between 10.81m AOD and 11.30m AOD. Only in ATP1 and ATP2/TP4 towards the north of the site had the natural brickearth been fully removed by post-medieval (and possibly earlier) activity.

8.2 Phase 2: Roman

8.2.1 Although residual Roman artefactual material was recovered from all areas of the site, *in situ* deposits of this date appeared to have been largely removed by later truncation. However, *in situ* Roman deposits were present at the southern edge of ATP3. The clearly Roman materials here appeared to have been associated with the deliberate deposition of waste materials over either a former land surface or within a large cut feature. Interestingly the surface over which the material had been deposited was heavily burnt, and given that Roman burials are known from the surrounding area, it has been suggested that this may have been the location of a funeral pyre, though no Roman artefactual material was recovered from the burnt deposit.

8.2.2 *In situ* Roman material also appears to have been present within ATP5/TP8, though only in section at the southern edge of the trench beneath the southern foundation of the Hackett Building. The nature of potential Roman deposits was unclear but artefactual materials recovered strongly suggested intact deposits of this date were present. Materials in TP7 also appear to have been *in situ* Roman deposits and it is apparent that the south-east corner of the site was not as significantly impacted upon by post-medieval development as other areas.

8.3 Phase 3: Medieval

8.3.1 Although a small amount of medieval artefactual evidence was recovered from deposits in various locations, there was very little, if any evidence of surviving *in situ*

medieval deposits on the site. The possible exceptions were a layer beneath the Hackett Building southern foundation in ATP5/TP8, though this did not produce a particularly convincing artefactual assemblage to suggest a medieval date of deposition, and redeposited brickearth in TP6. That there was medieval activity in the area is without doubt but in most areas of the site examined, *in situ* deposits of this date appeared to have been removed by later truncation.

8.4 Phase 4: 17th/18th Century

8.4.1 One of the more prevalent, and at present, least understood phases of activity recorded on the site was during the earlier post-medieval period, probably the 17th to 18th centuries. External wall foundations to the north and south of the site appeared to date to this period, but broadly contemporary with these were a number of sub-basement brick-built structures. Structures recorded in ATP2/TP4 and ATP6 appeared to be secondary vaults below the cellar level in these locations, the example in ATP2/TP4 clearly abutting the northern foundation of the former public house building, whilst that in ATP6 appeared to be free standing. The function of these perpendicular aligned structures is unclear, though wine storage has been suggested as a possible use. Further, somewhat enigmatic evidence for apparent activity at this time came from ATP1, where there was apparent quarry infilling.

8.5 Phase 5: 18th/19th Century

8.5.1 There appears to have been further activity in the later 18th and early 19th century on the site subsequent to building of the sub-basement vaults. A further sub-basement structure of this date was the apparent brick chute in ATP5/TP8 at the southern edge of the site. This may have been associated with a feature on the southern wall of the building in the room immediately to the west of that in which the trial trench was located, though it is unclear what type of material was being transferred into the sub-basement via the chute. Material associated with the victualling trade may be a possibility. Other activity of this date is likely to have been associated with demolition and deposition of demolished materials and most clearly evidence in ATP3 where a large robber cut backfilled with demolition rubble appears to have been the location of an earlier, substantial foundation structure that was removed at about the same time the sub-basement vaults were erected. It is even possible that materials were removed from the redundant foundation for re-use in the construction of later sub-basement features. Material of this date was present in most sequences and later modifications to the vault identified in ATP6 may also have been contemporary. Activity towards the end of this phase is likely to have been associated with major developments on the site that took place in the late 1820s.

8.6 Phase 6: 19th/20th Century

8.6.1 Further activity took place on and around the site during the mid to later 19th century and a number of deposits recorded in all sequences, with the likely exception of that in TP7, appear to have been associated with demolition, dumping and ground raising during this phase. The brick floors exposed in TP3 and TP6 also indicate a re-flooring of this part of the public house cellar in the 19th century. Some activity also continued into the 20th century.

8.7 Phase 7: Modern

8.7.1 Deposits associated with modern site development comprised the granite paving floor and bedding deposits recorded in ATP1, ATP2/TP4 and TP5 in the former public house cellar at the north of the site and the various concrete floors and associated bedding deposits recorded in all other areas of the former public house and Hackett Building basements.

9 Discussion and Conclusions

9.1 Further to the watching brief carried out in January 2014 (Boyer 2014), which identified the presence of some earlier material on the site but also extensive post-medieval truncation, the evaluation/watching brief recorded that some *in situ* deposits dating as early as the Roman period survived towards the south and east of the site, whilst some activities that truncated earlier deposits were of archaeological and historic interest themselves.

9.2 Natural deposits had been significantly truncated across some areas of the site though they did survive to some degree at a number of locations, particularly towards the south and east; brickearth, truncated to varying degrees being extant in six of the eight trenches/test pits. In at least two of the sequences it was directly overlain by Roman material, which was most extensively exposed in ATP3. There is a slight possibility that activity associated with a funeral pyre may have occurred here, but it is more certain that quantities of rubbish were deposited in this area during the Roman period. Likely Roman deposits were also identified in ATP5/TP8 and TP7 but the overall pattern of activity in the Roman period has been difficult to ascertain. Given the location of the site close to a Roman road and records of Roman burials in the vicinity, it is most likely that activity will have been associated with roadside settlement and/or funerary activity.

9.3 The recovery of residual medieval pottery from post-medieval contexts has indicated that there was a presence in the area during the medieval period, though there is little evidence for *in situ* medieval deposits. This is most likely a result of later activity, which will have largely removed evidence of medieval occupation.

9.4 Early post-medieval development of the site is of some interest as structural remains as well as extensive evidence of demolition and site modification date to this period, probably more specifically to the late 17th to early 18th century and therefore pre-dating some of the standing buildings on the site which date to *c.* 1829, though 117 Bishopsgate dates to the 18th century. Two sub-basement brick vaults located on perpendicular alignments at different locations below the former public house were most likely contemporary with one another and probably performed a similar function, possibly storage. A third but later sub-basement structure, an apparent chute for transferring material from an external, ground level location to a storage area below the basement was located below a different property from the two vaults, but it is possible that when constructed, all three features belonged to a single property, indeed a bricked-up arch in the basement area appears to have originally permitted access between the White Hart and Hackett Building basement areas. Although the current White Hart public house building dates to *c.* 1829, a public house is thought to

have occupied the site for a considerable time before this and it seems likely that the vaults and probably the chute were associated with earlier phases of the public house

9.5 In order to gain some understanding of the layout of earlier buildings it is necessary to consult documents that pre-date the developments on the site in the 1820s. Historic cartographic documents indicate that the site had been at least partly built upon by the mid 16th century. The extent of building is not entirely clear on the Agas map of 1562 but it does appear to show east to west and north-to south aligned buildings adjacent to "Bedlem gate" (now Bishopsgate), north of St Botolph's Church. The smaller scale Braun and Hogenberg image of 1572 also shows buildings adjacent to Bishopsgate in the vicinity of the site but with no clear detail. A little more detail is illustrated on the Faithorne and Newcourt map of 1658, though it is unclear whether this shows buildings on the site or not. The far more detailed Ogilby and Morgan image of 1676, however, clearly shows buildings across much of the site, fronting onto what are now Liverpool Street and Alderman's Walk, with three structures also bounding the west side of Bishopsgate. Subsequent maps up to the early 19th century appear to show a broadly similar layout of buildings on the site, which contrasts significantly with that of today. An engraving produced in the 1820s (Miller 2000, Fig. 8) also illustrates the previous layout of buildings facing Bishopsgate, as seen from ground level.

9.6 Further archaeological work and detailed analysis of historic maps may permit a comparison between recorded archaeological features and former building layouts. However, the cartographic evidence does have its limitations; firstly it generally only gives an indication of structures at ground level rather than below this, and general maps such as those so far consulted, do not normally give details of building function. For this information, more detailed documentary evidence is required. Goad fire insurance maps would be an ideal source of information but only date back to the later 19th century, however a number of documents relating to earlier insurance policies, including those associated with former premises on the site, are held by the London Metropolitan Archives. An initial search of policies issued by the Sun Insurance Office Limited in the 1790s for White Hart Court, for example, has shown various trades represented in the area including, merchant, tailor and hairdresser. Further study of these will be particularly useful at a later stage when the archaeological remains are better understood.

9.7 Further evidence for apparent early to mid 18th-century activity came from ATP1 and was somewhat enigmatic as the possible quarry infilling suggested here would indicate an open area, whereas historic maps clearly indicate that this area was built upon before this date. Rather than representing quarry infilling therefore, it is possible that the extensive deposits recorded in this trench represent an intermediate phase of

sub-basement infilling subsequent to building of the structures to the west and south and prior to their demolition and infilling in the 19th century.

9.8 The redevelopment of the site in the late 1820s also appears to have had below-ground impacts as well as changing building layouts above ground. Demolition and infilling of the earlier sub-basement structures appears to have been broadly contemporary with the redevelopment, with further modifications to the basement areas taking place later in the 19th century, including laying of the brick floors recorded in ATP3 and ATP6. The archaeological investigations recorded little further activity in the basement areas, other than the relatively recent raising and levelling of the basement floors and laying of concrete and paving surfaces.

9.9 The archaeological method statement produced prior to commencement of the evaluation/watching brief outlined a number of objectives that the work should address (Bradley 2014, 4):

- Assess the level of truncation from modern activity on the site
- Assess the interface of the soil deposits with the natural drift geology for archaeological features
- Assess the site for prehistoric, Roman, Saxon and medieval archaeology

9.10 The work has addressed all of the objectives: The level of truncation from modern activity is actually quite limited in the areas evaluated; rather, significant truncation in these areas appears to have mostly occurred in the 19th century, broadly contemporary with site redevelopment. Earlier truncations were associated with activities that were of significant archaeological interest. The interface between natural and archaeological deposits is very variable across the site because of the different levels of truncation from predominantly post-medieval developments. In most areas, there had been significant down cutting through natural deposits for structural development and possibly also quarrying. However, at the eastern and southern edges of the site and at other restricted locations, *in situ* brickearth survived to varying degrees, indicating much less truncation during all archaeological periods. The lack of truncation indicated that Roman deposits and possibly those of later date, lay directly above natural deposits in some parts of the site. No evidence for prehistoric activity was identified on the site, whilst *in situ* Roman remains were restricted to a limited number of locations, but nevertheless indicated definite activity on the site. The was no evidence for Saxon activity on the site, whilst medieval activity was mostly restricted to residual finds because of significant truncation by later development. However, there was extensive and significant post-medieval archaeology on the site.

9.11 Given the extensive archaeological remains present on the site, as identified by the evaluation/watching brief, there will be further archaeological work on the site as

development continues and as practical factors permit. The results of the most recent work have identified a number of objectives for subsequent investigations including a further assessment of the survival and nature of Roman remains; assessment of the likelihood for survival of any in situ medieval remains; further investigation of the date, extent, nature and function of post-medieval developments, particularly sub-basement structures; and the extent of changes following redevelopment of the site in the 1820s.

10 Acknowledgements

10.1 Pre-Construct Archaeology Ltd. would like to thank Peter Mills of Mills Whipp Projects for commissioning the work on behalf of Amsprop Bishopsgate Ltd.; the staff of ISG Ltd., RSK Environment and Keltbray Ltd. for enabling the works and assistance on site; and Kathryn Stubbs who monitored the project on behalf of the City of London.

10.2 The author wishes to thank Tim Bradley for project management and editing this report, Dougie Killock and Ian Cipin for their invaluable assistance on site, Kevin Haywood, Chris Jarrett, Kevin Rielly and Berni Sudds for reporting on the finds and Hayley Baxter for preparing the illustrations.

11 Bibliography

Boyer, P. 2014 *An Archaeological Watching Brief on Geotechnical Investigations at 117-121 Bishopsgate, City of London*, Pre-Construct Archaeology Ltd. unpublished report.

Greater London Archaeological Advisory Service (GLAAS) 2009 *Archaeological Guidance Papers 3: Standards and Practices in Archaeological Fieldwork in London*, London: English Heritage.

Bradley, T. 2013 *Method Statement for an Archaeological Evaluation at Alderman's House, 117, 119 & 121 Bishopsgate, 34 – 37 Liverpool Street, London EC2*, Pre-Construct Archaeology Ltd. unpublished report.

IFA 2008 *Standard and Guidance for Archaeological Field evaluations,* Institute For Archaeologists.

Miller, P. 2007 *117, 119 and 125 Bishopsgate Street, London EC2, City of London: Archaeological Desk-Based Assessment*, MoLAS unpublished report.

Mills, P. 2014 *Alderman's House, 117, 119 & 121 Bishopsgate, 34 – 37 Liverpool Street, London EC2: Written Scheme of Investigation for Archaeological Evaluation*, Mills Whipp Projects unpublished report.

Taylor, J. and Brown, G. 2009 *PCA Fieldwork induction manual, (Operations Manual I)*, London: Pre-Construct Archaeology Ltd.

12 APPENDIX 1: PLATES

Plate 1: ATP1 Excavated to 1,2m bgl, Looking West (Scale: 1m)

Plate 2: Structure [55] in ATP2/TP4, Looking North (Scale: 1m)

Plate 3: Roman Midden Overlying Brickearth in ATP3, Looking South (Scale:1m)

Plate 4: Pit [75], Robber Trench [85] & Posthole [82] in ATP3, Looking East (Scale: 1m)

Plate 5: Brick Floor [64] in ATP3, Looking North (Scale: 1m)

Plate 6: Brick Chute Structure [77]/[78] in ATP5/TP8, Looking South (Scale: 1m)

Plate7: Brick Vault [100] in ATP6, Looking East (Scale: 1m)

Plate 8: Brick Floor [92] in ATP6, Looking South (Scale: 1m)

Plate9: TP5, Looking East (Scale: 0.5m)

Plate 10: TP6 Original (left) and Relocated (right) Positions, Looking South-East

Plate 11: TP7, Looking North (Scale: 1m)

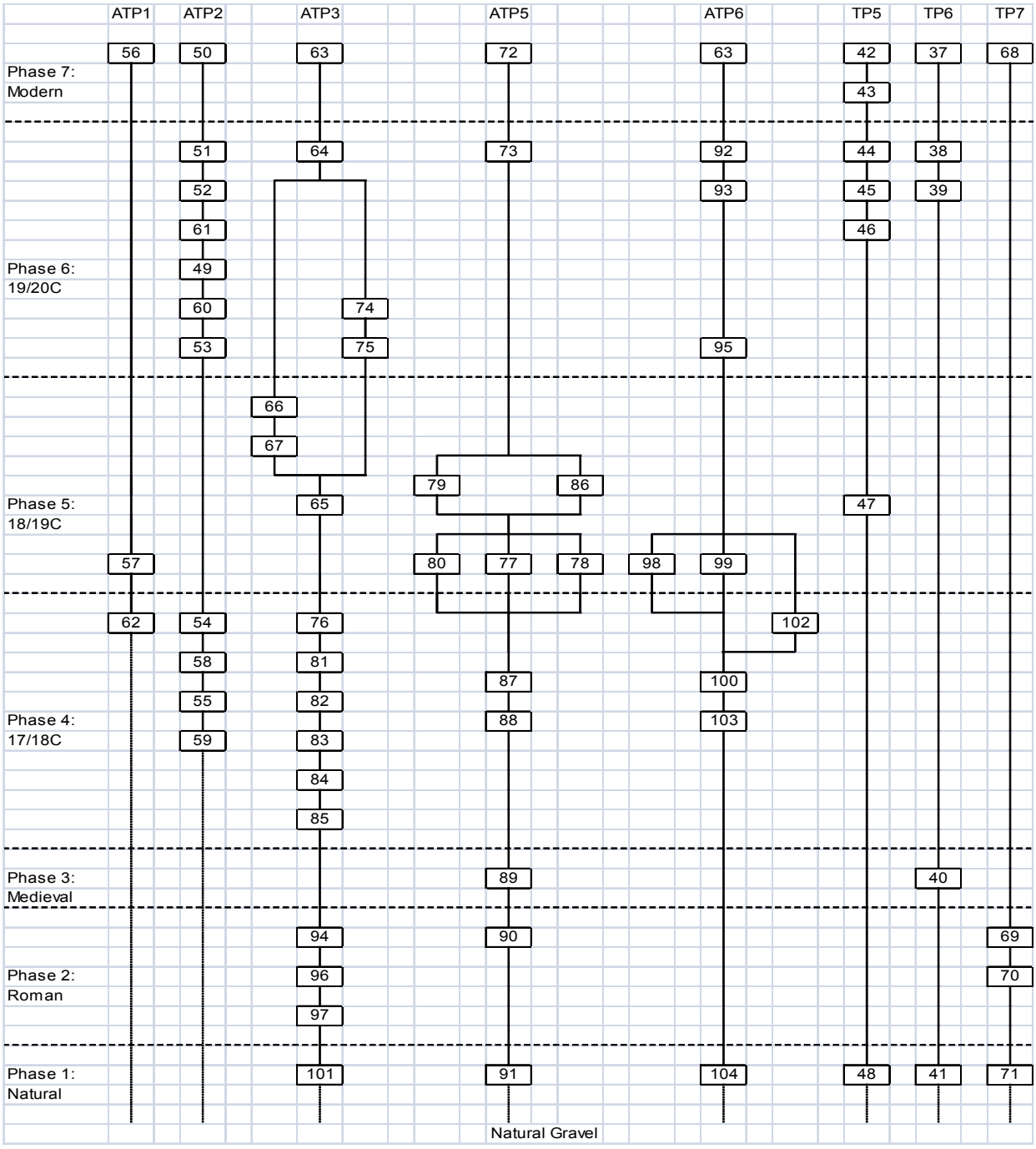
13 APPENDIX 2: CONTEXT INDEX

Context numbers 1-36 used in earlier watching brief (Boyer 2014)

Site Code	Context	Type	ATP/TP	Description	Date	Phase
BIH14	37	Layer	TP6	Concrete floor	Modern	7
BIH14	38	Layer	TP6	Demo rubble/made grnd	19/20C	6
BIH14	39	Layer	TP6	Demo rubble/made grnd	19/20C	6
BIH14	40	Layer	TP6	Redeposited brickearth	Medieval	3
BIH14	41	Layer	TP6	Natural brickearth	Natural	1
BIH14	42	Layer	TP5	Granite floor slab	Modern	7
BIH14	43	Layer	TP5	Bedding for slab	Modern	7
BIH14	44	Layer	TP5	Concrete slab	19/20C	6
BIH14	45	Layer	TP5	Demo rubble/made grnd	19/20C	6
BIH14	46	Layer	TP5	Demo rubble/made grnd	19/20C	6
BIH14	47	Layer	TP5	Made ground	18/19C	5
BIH14	48	Layer	TP5	Natural brickearth	Natural	1
BIH14	49	Layer	ATP2	Made ground	19/20C	6
BIH14	50	Layer	ATP2	Granite floor slab	Modern	7
BIH14	51	Layer	ATP2	Concrete slab	19/20C	6
BIH14	52	Layer	ATP2	Rubble/hardcore	19/20C	6
BIH14	53	Layer	ATP2	Collapsed vault infill	19/20C	6
BIH14	54	Layer	ATP2	Vault const. cut backfill	17/18C	4
BIH14	55	Brickwork	ATP2	Vaulted structure	17/18C	4
BIH14	56	Layer	ATP1	Cellar floor deposits	Modern	7
BIH14	57	Layer	ATP1	Mixed dumped deposit	18/19C	5
BIH14	58	Layer	ATP2	Redeposited brickearth	17/18C	4
BIH14	59	Brickwork	ATP2	Northern pub wall	17/18C	4
BIH14	60	Brickwork	ATP2	Brick pillar	19/20C	6
BIH14	61	Layer	ATP2	Infill deposit	19/20C	6
BIH14	62	Layer	ATP1	Backfill/levelling	17/18C	4
BIH14	63	Layer	ATP3	Concrete floor	Modern	7
BIH14	64	Brickwork	ATP3	Brick floor	19/20C	6
BIH14	65	Layer	ATP3	Demo rubble/made grnd	18/19C	5
BIH14	66	Fill	ATP3	Fill of [67]	18/19C	5
BIH14	67	Cut	ATP3	Small pit	18/19C	5
BIH14	68	Layer	TP7	Concrete floor	Modern	7
BIH14	69	Layer	TP7	Possible soil horizon	Roman	2
BIH14	70	Layer	TP7	Disturbed soil horizon	Roman	2
BIH14	71	Layer	TP7	Natural brickearth	Natural	1
BIH14	72	Layer	ATP5	Concrete floor	Modern	7
BIH14	73	Layer	ATP5	Demo rubble/made grnd	19/20C	6
BIH14	74	Fill	ATP3	Fill of [75]	19/20C	6
BIH14	75	Cut	ATP3	Large pit	19/20C	6
BIH14	76	Layer	ATP3	Composite gravel surface	17/18C	4
BIH14	77	Brickwork	ATP5	Part of chute structure	18/19C	5
BIH14	78	Brickwork	ATP5	Part of chute structure	18/19C	5
BIH14	79	Fill	ATP5	Infill of chute structure	18/19C	5
BIH14	80	Brickwork	ATP5	Part of chute structure	18/19C	5
BIH14	81	Fill	ATP3	Fill of [82]	17/18C	4
BIH14	82	Cut	ATP3	Pit/posthole	17/18C	4
BIH14	83	Fill	ATP3	Upper fill of [85]	17/18C	4

Site Code	Context	Type	ATP/TP	Description	Date	Phase
BIH14	84	Fill	ATP3	Lower fill of [85]	17/18C	4
BIH14	85	Cut	ATP3	Large E-W robber cut	17/18C	4
BIH14	86	Fill	ATP5	Infill of chute structure	18/19C	5
BIH14	87	Cut	ATP5	Chute const. cut	17/18C	4
BIH14	88	Brickwork	ATP5	S. wall of building	17/18C	4
BIH14	89	Layer	ATP5	Gravelly layer below [88]	Medieval?	3
BIH14	90	Layer	ATP5	Disturbed brickearth	Roman?	2
BIH14	91	Layer	ATP5	Natural brickearth	Natural	1
BIH14	92	Brickwork	ATP6	Brick floor	19/20C	6
BIH14	93	Layer	ATP6	Demo rubble/made grnd	19/20C	6
BIH14	94	Layer	ATP3	Midden deposit	Roman	2
BIH14	95	Layer	ATP6	Demo rubble/made grnd	19/20C	6
BIH14	96	Layer	ATP3	Rubbish deposit	Roman	2
BIH14	97	Layer	ATP3	Burnt brickearth layer	Roman	2
BIH14	98	Brickwork	ATP6	Brickwork fragment	18/19C	5
BIH14	99	Brickwork	ATP6	Brickwork fragment	18/19C	5
BIH14	100	Brickwork	ATP6	Vaulted structure	17/18C	4
BIH14	101	Layer	ATP3	Natural brickearth	Natural	1
BIH14	102	Fill	ATP6	Const. cut backfill	17/18C	4
BIH14	103	Cut	ATP6	Vault const. cut	17/18C	4
BIH14	104	Layer	ATP6	Natural brickearth	Natural	1

14 APPENDIX 3: SITE MATRICES



15 APPENDIX 4: ROMAN POTTERY

Roman Pottery Spot Dates

Katie Anderson

Context	Context Spotdate
53	AD50-120
57	AD150-400
62	AD50-300
62	AD70-120
65	AD70-120
69	AD50-100
69	AD100-140
70	AD70-150
73	AD50-100
76	AD70-150
79	AD50-150
89	AD70-200
93	AD50-120
94	AD70-150
96	AD70-150
98	AD70-150
102	AD70-150

16 APPENDIX 5: POST-ROMAN POTTERY

Post-Roman Pottery Spot Dating Index

Chris Jarrett

Introduction

A small assemblage of pottery was recovered from the evaluation/watching brief and the previous watching brief (64 sherds/59 estimated number of vessels (ENV)/1,806kg) and none of this was unstratified. The pottery is in a good condition, although it is present as mostly sherd material, with only one item having a complete profile. Only eight sherds were deemed to be residual and therefore the assemblage was mostly deposited fairly rapidly after breakage or its discard. The pottery dates from the medieval and post-medieval periods and was recovered from ten contexts.

Spot Dating Index

Context [6], spot date: 19th century

Coarse Surrey-Hampshire border ware (CBW), 1270-1500, one sherd/1 ENV/24g, form: unidentified.

English porcelain with under-glaze blue transfer-printed decoration (ENPO UTR), 1760-1900, one sherd/1 ENV/6g, form: possible bowl

Miscellaneous unsourced post-medieval pottery (MISC), as a glazed, coarse red earthenware, 1480-1900, one sherd/1 ENV/7g, form: unidentified.

Transfer-printed refined whiteware (TPW), 1780-1900, one sherd/1 ENV/1g, form: unidentified.

Total: four sherds/4 ENV/38g

Context [13], spot date: 1240-1400

Kingston-type ware (KING), 1240-1400, one sherd/1 ENV/8g, form: probable cooking pot.

Context [49], spot date: 19th century

London stoneware (LONS), 1670-1926, 1 sherd/1 ENV/7g, form: unidentified.

London-area post-medieval redware (PMR), 1580-1900, 1 sherd/1 ENV/33g, form: rounded jar.

Surrey-Hampshire border redware (RBOR), 1550-1900, 1 sherd/1 ENV/12g, form: unidentified.

London tin-glazed ware with pale blue glaze and dark blue decoration (Orton and Pearce style H) (TGW H), 1680-1800, 1 sherd/1 ENV/19g, form: plate (simple shape).

Refined whiteware with under-glaze transfer-printed decoration (TPW), 1780-1900, 1 sherd/1 ENV/3g, form: unidentified.

Total: five sherds/5 ENV/74g

Context [53], spot date: 1800-1830

Cheam whiteware (CHEA), 1350-1500, 1 sherd/1 ENV/9g, form: jar.
Chinese blue and white porcelain (CHPO BW), 1590-1900, 1 sherd/1 ENV/4g, form: bowl
Chinese Imari porcelain (CHPO IMARI), 1680-1900, 1 sherd/1 ENV/12g, form: medium rounded bowl.
Creamware with developed pale glaze (CREA DEV), 1760-1830, 4 sherds/3 ENV/38g, form: bowl or dish and dinner plate.
Pearl ware with under-glaze blue-painted decoration (PEAR BW), 1770-1820, 1 sherd/1 ENV/9g, form: dinner plate.
London-area post-medieval redware (PMR), 1580-1900, 4 sherds/3 ENV/271g, form: flared bowl.
South Hertfordshire-type greyware (SHER), 1170-1350, 1 sherd/1 ENV/20g, form: jar.
London tin-glazed ware with pale blue glaze and dark blue decoration (Orton and Pearce style H) (TGW H), 1680-1800, 1 sherd/1 ENV/17g, form: plate.
Total: fourteen sherds/12 ENV/380g

Context [57], spot date: 1580-1700
Early medieval sandy ware with calcareous inclusions (EMCALC), 1000-1150, 1 sherd/1 ENV/5g, form: unidentified.
Frechen stoneware (FREC), 1550-1700, 1 sherd/1 ENV/8g, form: jug.
London-type ware (LOND), 1080-1350, 1 sherd/1 ENV/12g, form: jug.
Essex-type post-medieval fine redware (PMFR), 1580-1700, 1 sherd/1 ENV/3g, form: unidentified.
Total: four sherds/4 ENV/28g

Context [65], spot date: 1760-1830
Creamware (CREA), 1740-1830, 1 sherd/1 ENV/29g, form: dinner plate.
London-area post-medieval redware (PMR), 1580-1900, 1 sherd/1 ENV/7g, form: unidentified.
London tin-glazed ware with plain white glaze (Orton style C) (TGW C), 1630-1846, 1 sherd/1 ENV/5g, form: cylindrical jar.
London tin-glazed ware with blue-or polychrome-painted decoration and external lead glaze (Orton style D) (TGW D), 1630-1680, 1 sherd/1 ENV/30g, form: albarello.
Westerwald stoneware (WEST), 1590-1900, 1 sherd/1 ENV/8g, form: seltzer bottle.
Total: five sherds/5 ENV/79g

Context [73], spot date: 1830-1900
Creamware with developed pale glaze (CREA DEV), 1760-1830, 5 sherds/4 ENV/82g, form: bowl or dish and dinner plate.
English brown salt-glazed stoneware (ENGS), 1700-1900, 1 sherd/1 ENV/50g, form: unidentified.

English stoneware with Bristol glaze (ENGS BRST), 1830-1900, 2 sherds/2 ENV/226g, form: unidentified.
Pearl ware with transfer-printed decoration (PEAR TR), 1770-1840, 1 sherd/1 ENV/3g, form: plate.
London-area post-medieval redware (PMR), 1580-1900, 2 sherds/2 ENV/215g, form: chimney pot.
Surrey-Hampshire border redware (RBOR), 1550-1900, 1 sherd/1 ENV/14g, form: paint pot.
Refined white earthenware (REFW), 1805-1900, 2 sherds/2 ENV/7g, form: saucer.
Total: fourteen sherds/13 ENV/597g

Context [74], spot date: 1805-1830
Chinese blue and white porcelain (CHPO BW), 1590-1900, 2 sherd/1 ENV/10g, form: dinner plate.
Creamware with developed pale glaze (CREA), DEV), 1760-1830, 1 sherd/1 ENV/12g, form: dinner plate.
Refined white earthenware (REFW), 1805-1900, 1 sherd/1 ENV/3g, form: unidentified.
Total: four sherds/3 ENV/25g

Context [95], spot date: 19th century
Surrey-Hampshire border whiteware with green glaze (BORDG), 1550-1700, 1 sherd/1 ENV/6g, form: unidentified.
Creamware with developed pale glaze (CREA DEV), 1760-1830, 1 sherd/1 ENV/6g, form: medium rounded bowl.
Frechen stoneware (FREC), 1550-1700, 1 sherds/1 ENV/128g, form: bartmannen.
Pearl ware with under-glaze blue transfer-printed stipple and line decoration (PEAR TR2), 1807-1840, 2 sherds/1 ENV/15g, form: flared bowl.
Essex-type post-medieval black-glazed redware (PMBL), 1580-1700, 1 sherd/1 ENV/10g, form: unidentified.
London-area post-medieval redware (PMR), 1580-1900, 4 sherds/4 ENV/330g, form: tall rounded jar.
Surrey-Hampshire border redware (RBOR), 1550-1900, 1 sherd/1 ENV/36g, form: jar.
London tin-glazed ware with blue-or polychrome-painted decoration and external lead glaze (Orton style A) (TGW A), 1570-1650, 1 sherd/1 ENV/38g, form: charger.
Total: twelve sherds/11 ENV/569g

Context [102], spot date: 1580-1900
London-area post-medieval redware (PMR), 1580-1900, 1 sherd/1 ENV/8g, form: unidentified.

Significance, potential and recommendations for further work

The pottery has some significance at a local level and consists of pottery types frequently found in the London area. Although the medieval pottery mostly occurs as residual material its presence in the assemblage indicates activity for this period, particularly as late medieval

wares. The post-medieval pottery indicates activity mostly dating to the 17th century and late 18th-early 19th century. The pottery has the potential to date the contexts it was recovered from and the post-medieval groups are more than likely to infer upon activities associated with the study area. There are no recommendations for further work on the material at this stage, although its importance should be reviewed with any ceramics recovered from future work on the site.

17 APPENDIX 6: CERAMIC AND STONE BUILDING MATERIAL

Ceramic and Stone Building Material

Berni Sudds and Kevin Hayward

Introduction

Quantity: 12 boxes of loose material (73kg) and 30 brick and stone samples

The ceramic and stone building material recovered from site is catalogued and provisionally dated below in Tables 1 and 2. The assemblage is comprised of brick, stone and mortar samples taken from in-situ brickwork and fragments of loose brick, tile and stone retrieved from the test pits.

The material was examined under magnification (x20) and is described and quantified by number and weight (loose material only). The assemblage has been recorded using the London system of classification. A fabric number is allocated to each object, specifying its composition, form, method of manufacture and approximate date range. Examples of the fabrics can be found in the archives of PCA and/or the Museum of London.

The ceramic building material

The ceramic building material recovered includes material of Roman, medieval and post-medieval date. A description and quantification of the assemblage is presented by context below (Table 1). The date range of material in the context is given, along with the latest dated type and a context considered date. The latter is based upon the date ranges given but also takes other attributes into consideration such as form, re-use and mortar types used.

Cxt	Fabrics	Forms	No	Weight	Date range of the material		Latest dated type		Context considered date
40	2271	Peg tile	1	10	1180	1500	1180	1500	1180 – 1500
45	2276; 3033; 3034	Peg tile, unfrogged and frogged brick	3	290	1450	1900	1666	1900	1750 – 1900
49	2271; 2850L; 3033; 3046; Tin-glazed ware	Peg tile, floor tile, unfrogged brick; polychrome tin-glazed tile	6	2580	1180	1800	1618	1650	1618 - 1650
53	2271; 2276; 3033; 3032nr3033; 3034nr3039	Peg tile, unfrogged brick	6	1145	1180	1900	1664	1725	1750 – 1900(re-use and late mortar with brick and charcoal)
55	3033	Unfrogged brick (thin, early place bricks)	2	-	1450	1700	1450	1700	1450 – 1700
57	3023; 2199; 2276; 3033; 3032nr3033	Roman brick; Westminster floor tile; unfrogged brick	11	3454	50	1900	1664	1725	1664 – 1725
62	2452; 2452; 2459B; 2271; 2587; 2276; 3046;	Roman brick and tegula; peg tile; unfrogged brick	13	2611	50	1900	1664	1725	1664 – 1725

Cxt	Fabrics	Forms	No	Weight	Date range of the material		Latest dated type		Context considered date
	3032nr3033								
64	3032; 3034	Frogged bricks	2	-	1666	1900	1666	1900	1780 - 1900
65	2452; 3006; 2271; 2276; 3033; 3032nr3033; 3032nr3039; 3032; 3034; 3035	Roman tile; peg tile; unfrogged and frogged brick	24	4972	50	1940	1770	1940	1770 – 1940
70	2452	Roman brick	1	796	55	160	55	160	55 – 160
73	2586; 3033; 3032; Stoneware	Peg tile; unfrogged brick; stoneware drainpipe	4	1876	1180	1950	1840	1950	1840 – 1950
74	2271; 2276; 3090;	Peg tile; frogged brick	6	1226	1180	1900	1666	1900	1750 – 1900
76	2892; 2276; 3033	Westminster floor tile; peg tile; unfrogged brick	5	518	1225	1900	1480	1900	1480 – 1700+ (reuse)
77	3033	Unfrogged brick	2	-	1450	1700	1450	1700	1450 – 1700+ (reuse)
78	3033	Unfrogged brick	2	-	1450	1700	1450	1700	1450 – 1700+ (reuse)
79	2273; 2586; 2279; 3094; 3033; 3032; 3035	Early medieval roof tile; peg tile; pantile; unfrogged and frogged brick	9	3534	1135	1940	1770	1940	1796 – 1914 (Roman cement mortar)
80	3033	Unfrogged brick	2	-	1450	1700	1450	1700	1750 – 1900 (reuse and late mortar with brick and charcoal)
81	2276; 3046	Peg tile; unfrogged brick	2	207	1450	1900	1480	1900	1480 – 1700
83	2276	Peg tile	3	176	1480	1900	1480	1900	1480 – 1900
84	2452; 2459A; 3006; 3060; 2318E; 2850E; 2271; 2276; 3033; 3046; 3032nr3033; Tin-glazed ware	Roman brick, tile and tegula; Flemish floor tile; peg tile; unfrogged brick; polychrome tin-glazed tile	41	7880	50	1900	1664	1725	1664 – 1725
86	2318E; 1977L; 2276	Flemish floor tile; peg tile	4	1405	1180	1900	1600	1800	1600 – 1800
92	3033; 3034	Unfrogged and frogged brick	3	-	1450	1900	1666	1900	1780 - 1900
93	2199; 2271; 3090; 3046	Westminster floor tile; peg tile; unfrogged brick	7	1364	1180	1800	1450	1700	1450 – 1700
94	2452; 2459A; 3006; 2454; 3022; 3023	Roman brick, tegula and imbrex	12	2158	50	160	55	160	55 – 80
95	3006; 2276; 3032; 3035; Imported tin-glazed ware	Roman tegula; peg tile; frogged brick; Flemish polychrome tin-glazed tile	5	1656	50	1940	1770	1940	1780 - 1940
96	2452; 3500	Roman brick and imbrex	2	169	50	400	55	160	55 – 160
98	3033	Unfrogged brick	2	-	1450	1700	1450	1700	1750 – 1900 (reuse and

Cxt	Fabrics	Forms	No	Weight	Date range of the material		Latest dated type		Context considered date
									late mortar with brick and charcoal)
99	3032nr3033	Unfrogged brick	1	-	1664	1725	1664	1725	1750 – 1900 (reuse and late mortar with brick and charcoal)
100	3033	Unfrogged brick	1	-	1450	1700	1450	1700	1450 – 1700
102	2273; 2586; 2318E	Early medieval roof tile; peg tile; Flemish floor tile	3	497	1135	1800	1450	1900	1450 – 1600

Table 1: Ceramic building material by context

The ceramic building material, of all periods, can be well-paralleled in the City. The small Roman assemblage is comprised of fabrics and forms typically identified in the vicinity, with local sandy 2815 fabrics occurring most frequently, alongside regional imports from north Kent (Eccles) and Hertfordshire (Radlett). Much, if not all of this material demonstrates clear evidence of re-use in later structures. No specialised form types were identified, although one brick (fabric 3023 from Radlett, context [57]) depicts an animal paw print, likely made by a dog.

The medieval assemblage is also small and comprised of well-represented types, primarily fine and sandy peg tiles (fabrics 2271; 2586). A small number of early roof tiles were also recovered, dating from *c.*1135 to 1220 (fabric 2273), and a small collection of decorated medieval Westminster floor tiles (fabrics 2199; 2892). Two plain green glazed examples were recovered from [57] and a heavily worn example from [76] with an indeterminate design. The last Westminster type, from [93], is also heavily worn but depicts four radiating fleur-de-lys motifs (W.95, p.57 Betts 2002). These tiles were made between *c.* AD 1225 and 1275, and although evidently reused, originally derived from a structure, or structures, of some status.

The largest proportion of the assemblage dates to the post-medieval period. The majority of the brick samples and loose brick fragments are unfrogged reds (fabrics 3033; 3046), typical of pre-Great Fire London. The earliest examples were recovered from walls [55] and [100]. Many others demonstrate uneven bases and sunken margins, indicating a pre-1700 date, but are evidently reused with mortar over broken edges and diagnostically late mortar types. A smaller number of frogged examples were also sampled, dating from the mid to late 18th to 19th century. These include the post-Great Fire clinker rich purple bricks (fabrics 3032; 3034) and yellow 3035's, often referred to as 'London stocks'.

Peg tiles in the local fine 2276 fabric represent the most commonly identified post-medieval roofing material. Sandy and iron oxide fabrics were also recovered (fabrics 2586 and 3090) in addition to a small number of pantiles, dating from *c.*1630 to 1850. As with the medieval assemblage, the small collection of floor and wall tiles present are likely to have originated

from well-appointed structures in the vicinity. These include silty Flemish floor tiles, both early post-medieval slipped and glazed examples and at least one later unglazed example, and three polychrome tin-glazed tiles. The earliest of the tin-glazed tiles ([95]), depicting a geometric pattern with elaborate floral decoration in blue, green, yellow and brown, dates to *c*.AD 1550 and was probably made in Antwerp. A virtually identical example was found at Bishopsgate (Betts and Weinstein 2010; No.28 p.94-5). The other two examples date from *c*.1618 to 1650 and were made in London, probably at the Pickleherring pothouse. One has a blue and yellow medallion border. Little of the central image survives but appears to depict a sky, indicating perhaps a figure or animal scene ([49], Betts and Weinstein 2010, p.15, 100-101). The second has a yellow diamond border, perhaps also surrounding a figure, animal or landscape scene, and has a stylised blue geometric foliate/ floral design to the corners ([84], Betts and Weinstein 2010, p.114-5. NO.135).

The stone

The stone is identified below in Table 2.

Context	Stone code	Description	No	Weight	Comments/ date
49	3112	Upper Jurassic (Purbeckian) Isle of Purbeck Dorset paving slabs	2	237	Medieval or post-medieval.
53	3105; 3107; 3112	Kent Ragstone paving; Burnt Reigate stone ashlar; Sawn and worn Purbeck limestone blocks.	5	32,900	Reused part worked block of Reigate stone (glauconitic limestone – Cretaceous Upper Greensand)
62	3123	Niedermendig Lava, fragments	2	334	
79	3118	Tufa	1	250	
93	3107	Reigate stone roll holl	1	350	Traces of plaster. Medieval.

Table 2: Building stone by context

Most of the assemblage consists of slabs of Purbeck limestone a common paving material from the post-medieval period. It is unlikely that any of the slabs are of Roman date, in part due to the rock type, but also because a large slab from [53] has clear saw marks, indicative of a Victorian or later date.

The Reigate stone ashlar and the Kentish ragstone paving may derive from earlier medieval buildings. Two items of interest are the piece of Tufa from [79], a Roman-Norman material that is certainly early, and a roll holl moulding made from Reigate stone with some remnant plaster from [93]. The plaster was probably intended as an undercoat for paint. This is certainly medieval, possibly 11th to 13th century in date, when painted moulds were commonplace.

References

Betts, I. M., 2002. *Medieval "Westminster" floor tiles.* MoLAS Monograph 11

Betts, I. M., and Weinstein, R. I., 2010. *Tin-glazed tiles from London*, MoLA

18 APPENDIX 7: GLASS

Glass Spot Dating Index

Chris Jarrett

Introduction

The glass recovered from the archaeological investigation consists of 24 fragments, representing 18 estimated number of vessels (ENV) and weighing 2.908kg. The glass dates to the Romano-British (two fragments/2 ENV/22g) and particularly the post-medieval (22 fragments/16 ENV/2.886kg) periods. The condition of the material is good, although often fragmentary, except for one intact post-medieval bottle and another example which is nearly so. Therefore the material appears to have been deposited fairly rapidly after breakage or being discarded. The glass was recovered from eleven contexts.

Spot dating index

Context [45], spot date: 1740-1900

English wine bottle: pale olive green natural glass, free-blown body sherd, one fragment/1 ENV/10g. 1640 onwards.

English wine bottle: cylindrical, early type: olive green natural glass, free-blown, slightly splayed base and conical kick, straight-sided wall, two fragments/1 ENV/488g. 1740-1900.

Total: three fragments/2 ENV/498g

Context [49], spot date: late 19th century

Closed vessel form, opaque white/blue glass consisting of an opaque white body with a layer of external blue with applied horizontal band of finely moulded leaves and berries, one fragment/1 ENV/4g. Late 19th century.

Context [65], spot date: 1640-1900

English wine bottle: pale olive green natural glass, free-blown body sherd, one fragment/1 ENV/2g. 1640 onwards.

Context [66], spot date: late 18th-early 19th century

Wide mouthed/utility bottle: olive green natural glass, free-blown, 1 of 2. Intact, with an applied rounded string rim finish, slightly flaring cylindrical neck with rounded shoulder, straight sided wall and a conical kicked base, one fragment/1 ENV/593g. 18th-19th century

Wide mouthed/utility bottle: olive green natural glass, free-blown, 2 of 2. Nearly intact, with an applied rounded, narrow, straight sided string rim finish flaring cylindrical neck (narrower and deeper than the other example in this context) with rounded shoulder, straight sided wall splayed towards the base, which has a conical kick, one fragment/1 ENV/612g. 18th-19th century.

English wine bottle: cylindrical and ‘wide mouthed’, early type: olive green natural glass, free-blown, not dissimilar to the wide mouthed bottles in this context. Probably intact before

excavation. String rim finish of a c.1780-90 date applied rounded top above a straight-sided cordon with an incised line. Short cigar shaped neck with tooling marks, rounded shoulder, straight sided wall, slightly splayed base, rounded kick, two fragments/1 ENV/660g.. c.1780-90

English wine bottle: olive green natural glass, free-blown shoulder fragment/1 ENV/7g. 1640 onwards.

Total: four fragments/4 ENV/1.872g

Context [73], spot date: 1740-1900

English wine bottle: pale olive green natural glass, free-blown wall fragment/1 ENV/9g. 1640 onwards.

English wine bottle: cylindrical, early type: olive green natural glass, free-blown, slightly splayed base and rounded kick, straight-sided wall, shoulder two fragments/1 ENV/303g. 1740-1900.

Total: three fragments/2 ENV/312g

Context [74], spot date: 1740-1900

English wine bottle: pale olive green natural glass, free-blown wall fragment/1 ENV/23g. 1640 onwards.

English wine bottle: pale olive green natural glass, free-blown, two wall fragments/1 ENV/13g. 1640 onwards.

Total: four fragments/2 ENV/36g

Context [76], spot date: post-medieval

Vessel glass: pale olive green natural glass, free-blown, weathered, one fragment/1 ENV/1g. post-medieval

Context [93], spot date: 1740-1900

English wine bottle, cylindrical: olive green natural glass, free-blown wall fragment/1 ENV/8g. 1740 onwards.

Context [94]: spot date: 50-400 AD

Bottle or flask: pale blue natron glass, free-blown, everted rim with a rounded string finish, conical neck with tool marks, one fragment/1 ENV/2g. 50-400 AD

Context [95], spot date: 1740-1900

Case bottle: olive green natural glass, optically-blown, wall and shoulder, three fragments/1 ENV/80g. 1550 onwards.

English wine bottle, cylindrical: olive green natural glass, free-blown wall fragment/1 ENV/73g. 1740 onwards.

Total: four fragments/4 ENV/153g

Context [96]: spot date: 50-400 AD

Vessel: aquamarine coloured natron glass, optically blown, base fragment (6mm thick) with three feint concentric lines, one fragment/1 ENV/20g. 50-400 AD

Significance, potential and recommendations for further work

The glass has some significance at a local level and indicates Roman and certainly post-medieval activity on the site. Much of the glass assemblage consists of post-medieval glass bottles, which may relate to alcohol serving and ultimately consumption in domestic households, although equally some of this material may have been derived from entertainment or drinking establishments located on the site. Of interest were the three uncommon and very similar 'wide mouthed' bottles, described as utility bottles by the Society of Historical Archaeology Historic Glass Bottle Identification & Information Website (http://www.sha.org/bottle/household.htm#Utility Bottles) recovered from context [65]. Documentary evidence may link these items to a shop or other retail premise located on the site during the late 18th-early 19th century. The main potential of the glass is to date the contexts it was recovered from, in addition to informing upon activities on the study area, which may be further supported by the documentary evidence. At this stage there are no recommendations for further work on the glass assemblage, although in the event of further archaeological investigation of the site, then the glass from this phase of work should be reviewed alongside any future excavated material.

19 APPENDIX 8: CLAY TOBACCO PIPE

Clay Tobacco Pipe Spot Dating Index

Chris Jarrett

Introduction

A small sized assemblage of clay tobacco pipes was recovered from the site (one box). All of the fragments are in a good condition, indicating fairly rapid deposition after breakage. Clay tobacco pipes occur in ten contexts as small (under 30 fragments) sized groups. All of the clay tobacco pipes (87 fragments, comprised of 27 bowls, 55 stems and five nibs (mouth parts), none of which are unstratified) were classified by Atkinson and Oswald's (1969) typology (AO), while 18th-century bowls are according to Oswald (1975).

Spot dating Index

Context [49], spot date: 1580-1740
Nib: x1 fragment, bevelled end, medium thickness and a wide bore
Stem: x6 fragments, medium and thin thicknesses, wide bores
Total: seven fragments

Context [53], spot date: 18th-19th century
Bowl: x1 AO15, 1660-1680, probably residual
Bowl: x1 AO18, 1660-1680, probably residual
Stem: x4, thin thickness, fine bores
Total: six fragments

Context [57], spot date: 1700-1740
Bowl: x2 heels either of AO18 or AO22 types
Bowl: x1 AO7, 1610-1640
Bowl: x1 OS10, 1700-1740, initialled ?T D (SF17)
Bowl: x1 OS10, 1700-1740, initialled T W (SF16), see Oswald (1975, 149) for the numerous pipe makers who could have made this bowl.
Nib: x1, medium thickness, fine bore
Stem: x1 fragment, medium thickness, fine bore
Total: seven fragments

Context [65], spot date: 1700-1740
Bowl: x2 OS10, 1700-1740, one bowl with crowned flower marks on the heel (SF2) and another bowl with uncertain marks on each side of the heel and on each side of the bowl there are possible glue marks (indicated by a rust coloured deposit) for applied designs in the form of an on edge heart-shape (left side) and a possible bird (right side) (SF3)
Stems: x22 fragments, thick or medium thickness with wide or medium bores

Total: 24 fragments

Context [66], spot date: 18th-19th century

Bowl: x1 front of bowl fragment, 18th, possibly 19th century in date

Nib: x1fragment, bevelled, medium thickness and a wide bore

Total: two fragments

Context [73], spot date: 1840-1880

Bowl: x2, one plain fragment and one damaged bowl surviving as the back of male head with a possible laurel wreath (SF15)

Bowl: x1 AO28, 1820-1860, initialled S C and with oak leaf and grass borders (SF14), probably made by Samuel Clark, 1848, Bishopsgate

Bowl: x2 AO29, 1840-1880, with their heels missing (SF12 and SF13)

Bowl: x8 AO29, 1840-1880, initialled S C and with oak leaf and grass borders (SF4, SF5, SF6, SF7, SF8, SF9, SF10 and SF11), probably made by Samuel Clark, 1848, Bishopsgate (Oswald 1975, 134)

Nib: x2, one with a bevelled finish and another with a rounded finish, both thin in thickness and with fine bores

Stem: x10 fragments, two are medium thick with fine or medium bores (one of which has a mortar deposit) and eight stem fragments with thin thickness with and fine bores

Total: 25 fragments

Context [74], spot date: c. 1580-1740

Stems: x2 fragments, medium thickness and medium sized bores

Context [76], spot date: 1680-1710

Bowl: x1 fragment

Bowl: x1 AO20, 1680-1710

Stems: x8 fragments, thick, medium and thin thicknesses with medium sized bores

Total: ten fragments

Context [79], spot date: c.1730-1910

Stems: x2 fragments, medium/thin thickness and both have fine bores

Context [95], spot date: c.1680

Bowl: x1 AO15, 1660-1680

Bowl: x1 AO18, 1660-1680, tall variant in transition with the later AO22 type

Total: two fragments

Significance, potential and recommendations for further work

The assemblage has some significance at a local level and at least one local clay tobacco pipe maker is represented in the material. The early 18th-century bowl (SF3) recovered from context [65] is of interest for appearing to have decoration stuck to each side of the bowl and if this is the case then it represents a very rare, unusual item. Of interest is the group of mid 19th-century clay tobacco pipes recovered from context [73] where all of the bowls surviving with initials, appear to have been made by one clay tobacco pipe maker. This may possibly infer a drinking or entertainment establishment located on the site and that this pipe maker had a contract to supply the premises with his product. There are no recommendations for further work on the assemblage at this stage, however if further archaeological work is undertaken on the site then the significance of this material should be reviewed with that future excavated clay tobacco pipes. Certainly, SF3 merits illustration and research is required on the bowl to determine if other 18th-century examples were decorated in the same style.

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.

20 APPENDIX 9: ANIMAL BONE

Evaluation of the Animal Bone

Kevin Rielly

Introduction

The site is located just north of the medieval city limits near Liverpool Street Station. Excavations were undertaken within a series of test pits, these generally providing a broad stratigraphic sequence:- natural deposits (Phase 1) overlain by Roman dump levels (Phase 2) and some indication of medieval occupation (Phase 3); followed by a substantial post-medieval development, starting with a series of 17th/18th century sub-basement structures (Phase 4), some modification of existing structures and ground raising in the 18th/19th centuries (Phase 5), further development in the 19th/20th centuries, particularly dated to the late 1820s (Phase 6) and culminating with the construction of modern basement floors (Phase 7).

Animal bones were found throughout the various incursions and within deposits dated throughout the archaeological sequence i.e in the Roman and all but the latest post-medieval phases (Table 1). The bones were all hand recovered and the great majority were well preserved with no evidence for gross fragmentation.

Phase:	**2**	**4**	**5**	**6**	**Total**
Trench					
ATP1		5	10		15
ATP2				23	23
ATP3	42	22	18	3	85
ATP4			1		1
ATP5			2	9	11
ATP6		11		7	18
TP7		3	1		4
Total	**42**	**41**	**32**	**42**	**157**

Table 1. Distribution of animal bones by trench and phase

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.

Description of faunal assemblage

The site provided a hand recovered total of 156 animal bones, as shown in Table 1, with notable concentrations in ATP2 and ATP6 and especially in ATP3. The latter test pit provided all of the Roman (Phase 2) collection and a large proportion of the 17th/18th (Phase 4) and

18th/19th (Phase 5) century collections, while most of the 19th/20th (Phase 6) century assemblage was found in ATP2.

Phase:	**2**	**4**	**5**	**6**
Species				
Equid		1		1
Cattle	17	2	6	4
Cattle-size	11	3	4	7
Sheep/Goat		8	4	9
Pig	9	4	2	4
Sheep-size	4	19	6	10
Dog			1	
Cat				1
Rabbit			5	1
Chicken	1	4	2	2
Chicken-size			2	
Goose				1
Uniden fish				2
Grand Total	**42**	**41**	**32**	**42**

Table 2. Distribution of animal bones by phase

Dividing the phase data by species (see Table 2), reveals a Roman collection largely dominated by cattle and cattle-size fragments with a shift towards sheep/goat and sheep-size predominance or parity against cattle and cattle-size within the post-medieval phase assemblages. Pig is rather poorly represented throughout and additional though minor contributions were made to the meat diet by poultry (chicken and goose) and wild game (rabbit). There is some indication of fish consumption but obviously the use of this commodity is difficult to assess without any sieved collections. The non-edible component includes one fragment each of cat and dog, the latter being a femur from Phase 5 deposit [79] belonging to a young puppy. There were two equid bones, both from post-medieval deposits, a loose tooth from Phase 6 deposit [49] and a complete tibia from [84] Phase 6. This provided a lateral length of 298.2mm which translates into a shoulder height of 1300.1mm.

Other salient features include a general spread of anatomical parts within the domesticate collections signifying general dumps of processing and food waste. The plethora of butchery marks attests to the latter usage. In addition, there are late post-medieval indicators amongst a selection of Phase 5 and Phase 6 deposits, with notably large cattle and sheep-size ribs from [49] and [73] (both Phase 6) and two sawn bones, a sheep/goat femur from [49] (Phase 6) and a cattle-size vertebra from [65] (Phase 5). The former are likely to represent one or other of the improved cattle and sheep entering the London meat markets by the early 19th century; while the introduction of the saw as a butchery tool clearly dates from the very end of the 18th century (Rixson 2000, 215 and Albarella 2003, 74). The first of the sawn bones represents a shaft piece, sawn twice to produce a 6-8mm sectioned 'ring' – probably intended as a 'soup' or 'stew' bone. Another probable late development, at least in London, is a greater quantity of bones with rodent gnawing – with such marks noticed on 6 bones from Phase 5

and 6 contexts. It is unclear why this should be date related unless it corresponds to the near complete replacement of black rats by brown rats through the 19th century in urban areas (Yalden 1999, 183) with perhaps a subsequent and visible change in the frequency of bone gnawing. Similar late post-medieval increases in rodent gnawing has been seen at 6-7 Stoney Street, Southwark, dating to the 19th century (Rielly 2012).

Finally it should be stated that two human bones were retrieved from these deposits, a humerus from [62] (Phase 4) and a furcula from [675] (Phase 6), these clearly denoting a certain level of redeposition within these later levels.

Conclusion and recommendations

The animal bone collections from these test pits are clearly well preserved and relatively numerous. Concentrations of bones were found in particular areas of the site, suggesting perhaps were future excavation should be prioritized. The quantities are sufficient to suggest a good potential for the recovery of notable collections allowing for a thorough analysis of domesticate usage, with an obvious focus towards Roman and post-medieval occupation. Providing soil samples for sieving will obviously be of some importance regarding in particular the recovery of fishbones. Some poultry and small game species were taken by hand from the present excavations but their recovery would also benefit from an organised (focused) sieving programme.

References

Albarella, U. 2003 Tawyers, tanners, horn trade and the mystery of the missing goat, in Murphy, P. and Wiltshire, E.J. *The Environmental Archaeology of Industry.* Symposia of the Association for Environmental Archaeology No.20, Oxbow Books, 71-86

Rielly, K. 2012 Assessment of animal bone recovered from 6-7 Stoney Street, London Borough of Southwark (BVT09 and BVE11); Thameslink Archaeological Assessment #6, PCA Unpublished Report

Rixson, D. 2000 *The History of Meat Trading,* Nottingham University Press

21 APPENDIX 10: HUMAN BONE

Assessment of the Human Bone

James Young Langthorne

Introduction

The following report details the results of an assessment of the disarticulated human remains from the archaeological investigation at 117-121 Bishopsgate.

Disarticulated Bone

Disarticulated human bone was recovered from two contexts that comprised a minimum of 1 individual per context respectively. The bone originated from contexts [62] and [65] and is presumed to be residual in character.

Context no.	Skeletal Element	No. of fragments	Condition	MNI for each context	Sex	Age
62	Humerus (mid-distal shaft)	1	Good-Moderate	1	?	Adult?
65	Clavicle (midshaft left)	1	Moderate	1	?	?

Table 1: Disarticulated Human Bone

No pathological features or distinctively demographic traits were encountered during the osteological assessment.

Recommendations for further work

No further work is recommended on the disarticulated material from Bishopsgate.

22 APPENDIX 11: OASIS FORM

OASIS ID: preconst1-188957

Project details	
Project name	117-121 Bishopsgate
Short description of the project	The excavation of trial trenches and monitoring of geotechnical test pitting revealed that post-medieval activity had heavily truncated earlier deposits, well into Pleistocene gravel towards the north of the site, whilst natural brickearth survived over the gravel in less-truncated areas to the south and east. The earliest in situ archaeological deposits dated to the Roman period and were associated with waste deposition either in a large cut feature or on a former land surface. There was also a possibility that the burnt surface, on which waste deposits were deposited, had been used for funerary purposes. Other possible Roman deposits were more difficult to define. Although some residual medieval artefactual material was recovered from post-medieval contexts, in situ medieval deposits were virtually absent from the site, having been extensively truncated by later activity, though a possible intact medieval layer was extant at the southern edge of the site below a post-medieval building foundation. A significant phase of development on the site came during the 17th to 18th century, when a number of sub-basement structures were built on the site at about the same time as a significant development phase that saw the erection earlier buildings that covered the same broad footprint as current site structures. The sub-basement structures included brick vaults and a brick chute, though the functions of these features has not yet been fully ascertained. There was further activity in the later 18th and early 19th centuries including modifications to sub-basement features, demolition of earlier structures and rubble deposition and ground-raising. Activity associated with structural redevelopment on the site in the late 1820s was also identified during the course of the investigations, as were further phases of demolition, dumping and ground raising, culminating in the construction of modern basement floor surfaces.
Project dates	Start: 11-08-2014 End: 22-08-2014
Previous/future work	Yes / Yes
Any associated project reference codes	BIH14 - Sitecode
Any associated project reference codes	preconst1-170024 - OASIS form ID
Type of project	Field evaluation
Site status	Conservation Area
Current Land use	Industry and Commerce 3 - Retailing
Monument type	WALL Post Medieval
Monument type	VAULTED STRUCTURE Post Medieval
Monument type	CHUTE Post Medieval
Monument type	BRICK FLOOR Post Medieval
Significant Finds	POTTERY Roman
Significant Finds	BRICK Roman

Significant Finds	TILE Roman
Significant Finds	POTTERY Medieval
Significant Finds	GLASS Roman
Significant Finds	POTTERY Post Medieval
Significant Finds	BRICK Post Medieval
Significant Finds	TILE Post Medieval
Significant Finds	GLASS Post Medieval
Significant Finds	CLAY TOBACCO PIPE Post Medieval
Significant Finds	ANIMAL BONE Post Medieval
Significant Finds	TILE Medieval
Significant Finds	ANIMAL BONE Roman
Methods & techniques	'"Augering"',"'Sample Trenches"',"'Test Pits"'
Development type	Urban commercial (e.g. offices, shops, banks, etc.)
Prompt	National Planning Policy Framework - NPPF
Position in the planning process	After full determination (eg. As a condition)
Project location	
Country	England
Site location	GREATER LONDON CITY OF LONDON CITY OF LONDON 117-121 Bishopsgate
Postcode	EC2
Study area	900.00 Square metres
Site coordinates	TQ 33192 81506 51.5162555635 -0.0802099929595 51 30 58 N 000 04 48 W Point
Height OD / Depth	Min: 9.78m Max: 12.21m
Project creators	
Name of Organisation	Mills Whipp
Project brief originator	Kathryn Stubbs
Project design originator	Mills Whipp
Project director/manager	Tim Bradley
Project supervisor	Peter Boyer
Type of sponsor/funding body	Developer
Name of sponsor/funding body	Amsprop Bishopsgate Ltd

Project archives	
Physical Archive recipient	LAARC
Physical Contents	"Animal Bones","Ceramics","Environmental","Glass","Metal","Worked bone","Worked stone/lithics"
Digital Archive recipient	LAARC
Digital Contents	"Animal Bones","Ceramics","Glass","Stratigraphic"
Digital Media available	"Images raster / digital photography","Spreadsheets","Text"
Paper Archive recipient	LAARC
Paper Contents	"Stratigraphic"
Paper Media available	"Context sheet","Correspondence","Diary","Drawing","Map","Plan","Section","Unpublished Text"
Project bibliography 1	
Publication type	Grey literature (unpublished document/manuscript)
Title	An Archaeological Evaluation and Watching Brief on Geotechnical Investigations at 117-121 Bishopsgate, London EC2
Author(s)/Editor(s)	Boyer, P.
Date	2014
Issuer or publisher	Pre-Construct Archaeology Ltd.
Place of issue or publication	London
Description	MAP2/MoRPHE Report
Entered by	Peter Boyer (pboyer@pre-construct.com)
Entered on	9 September 2014

P C A

PCA SOUTH
UNIT 54
BROCKLEY CROSS BUSINESS CENTRE
96 ENDWELL ROAD
BROCKLEY
LONDON SE4 2PD
TEL: 020 7732 3925 / 020 7639 9091
FAX: 020 7639 9588
EMAIL: info@pre-construct.com

PCA NORTH
UNIT 19A
TURSDALE BUSINESS PARK
DURHAM DH6 5PG
TEL: 0191 377 1111
FAX: 0191 377 0101
EMAIL: info.north@pre-construct.com

PCA CENTRAL
THE GRANARY, RECTORY FARM
BREWERY ROAD, PAMPISFORD
CAMBRIDGESHIRE CB22 3EN
TEL: 01223 845 522
FAX: 01223 845 522
EMAIL: info.central@pre-construct.com

PCA WEST
BLOCK 4
CHILCOMB HOUSE
CHILCOMB LANE
WINCHESTER
HAMPSHIRE SO23 8RB
TEL: 01962 849 549
EMAIL: info.west@pre-construct.com

PCA MIDLANDS
17-19 KETTERING RD
LITTLE BOWDEN
MARKET HARBOROUGH
LEICESTERSHIRE LE16 8AN
TEL: 01858 468 333
EMAIL: info.midlands@pre-construct.com