## **STATEMENT SUMMARISING**

AN ARCHAEOLOGICAL WATCHING

**BRIEF AT** 

ONE LOTHBURY, CITY OF LONDON

**OCTOBER 2007** 

# Statement Summarising an Archaeological Watching Brief at One Lothbury, City of London

Site code: OLO 06

Central National Grid Reference: TQ 53261 18125

Registered Planning Number 06/00500/FULL

Written by Chris Mayo

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#### 1 ABSTRACT

- 1.1 This statement details the results of an archaeological watching brief conducted by Pre-Construct Archaeology Ltd during formation works associated with the redevelopment of One Lothbury in the City of London.
- 1.2 The proposed development involves the demolition of the existing buildings interior, and then its reconstruction within the retained façade. The installation of temporary support works for the façade retention formed the basis for the watching brief reported upon here.
- 1.3 Previous archaeological work at One Lothbury, for example a Desk-Based Assessment (Bull 2006) and geotechnical watching brief (Sudds 2006) have suggested that no archaeological features or deposits survive at the site of One Lothbury, owing to the methodology by which the existing building was constructed in the 1940s. The latest watching brief, which monitored works at basement level, concurs with those previous suggestions.
- 1.4 In light of the work that has now been undertaken at One Lothbury, and owing to not only the lack of archaeological survival but indeed the documentary evidence for its full-scale removal in the 1950s, it is recommended that no further mitigation is necessary.

#### 2 INTRODUCTION

- 2.1 Between 2<sup>nd</sup> April and 19<sup>th</sup> June 2007 Pre-Construct Archaeology Ltd undertook a watching brief during formation works associated with façade support works at One Lothbury, City of London. The site is located at central National Grid Reference TQ5326118125, at the eastern corner between Lothbury and Old Jewry, EC2.
- 2.2 The work was commissioned by Total Project Integration on behalf of One Lothbury Limited. The project was managed and the watching brief conducted for Pre-Construct Archaeology Ltd by the author.
- 2.3 An archaeological desk-based assessment was undertaken of the site in 2006 by MoLAS. That report stated that:

The site lies in an area of limited archaeological potential due to the impact of the construction of the existing building. The original level of natural gravel across the site is uncertain but may be between c 8.5–10.0m OD (possibly as high as c 13m OD). The existing sub basement lies at 6.86–6.99m OD, while archive drawings indicate excavations for pad footings between 1½ft (0.46m) and 25½ft (7.77m) beneath the sub basement level. (Bull 2006, iv)

2.4 Between May and June 2006 Pre-Construct Archaeology Ltd conducted a watching brief during a geotechnical investigation at the site, which comprised test pits and boreholes within the basement and boreholes at street level. This investigation revealed that:

Upon excavation it became clear that the trial pits and cable percussion boreholes were located within the construction cut for the extant 1947-50 double basemented bank building forming the focus of redevelopment. With the exception of a truncated late 18th or 19th century brick barrel vault no archaeological remains were identified. The trial pits and cable percussion boreholes revealed modern services, made ground, foundations and concrete rafts relating to the bank's construction to a maximum depth of 5.06m OD (8.20 below pavement level). Below this level the natural ground was encountered, recorded as London Clay.

The boreholes sunk within the basement and sub-basement revealed further evidence of the buildings construction including made ground and concrete. In all boreholes the natural London Clay was encountered directly beneath the concrete and made ground beginning at a depth of between 6.72m to -0.47m

OD (approximately 6.50m to 13.70m below current ground level). (Sudds 2006, 3)

- 2.5 The most recent watching brief monitored the excavation of four trenches through the basement slab into which were formed foundations to support the retained façade. The exercise revealed a substantial thickness of concrete and 20<sup>th</sup> century bedding overlying London Clay.
- 2.6 The site was recorded using the site code OLO 06. The archive from the site will eventually be deposited at LAARC.



Figure 1 Site Location 1:10,000 at A4



#### 3 PLANNING BACKGROUND

- 3.1 In November 1990 the Department of the Environment issued Planning Policy Guidance Note (PPG 16) "Archaeology and Planning", providing guidance for planning authorities, property owners, developers and others on the preservation and investigation of archaeological remains.
- 3.2 In considering any planning application for development, the local planning authority will be guided by the policy framework set by government guidance, in this instance PPG16, by current Structure and Local Plan policy and by other material considerations.
- 3.3 The relevant Development Plan framework is provided by the City of London Unitary Development Plan adopted in April 2002. This Unitary Development Plan aims to:
  - Protect and promote the conservation, preservation in situ and enhancement of ancient monuments and archaeological remains of national importance and their settings.
  - Assess and evaluate sites of archaeological potential prior to a decision on a planning application.
  - Ensure the proper investigation, recording and publication of evidence of ancient monuments and archaeological remains as an integral part of a development programme.

#### **POLICY STRAT 11A**

To recognise the archaeological importance of the City as the historic centre of the capital and to seek the adequate safeguarding and investigation of ancient monuments and archaeological remains.

Para 11.7: Strategic Guidance states that account should be taken of the desirability of preserving ancient monuments and their settings and of the Secretary of State's guidance in PPG 16, Archaeology and Planning. Archaeological remains are an irreplaceable resource and often the only evidence of past development. These remains are a finite and non-renewable resource, in many cases highly fragile and vulnerable to damage and destruction. They contain irreplaceable information about our past and the potential for an increase in future knowledge.

Para 11.8: Where nationally important archaeological remains, whether scheduled or not, and their settings are affected by proposed development there is a presumption in favour of their physical preservation in situ. Some monuments and archaeological remains are protected as scheduled ancient monuments under Part I of the Ancient Monuments and Archaeological Areas Act 1979. Applications for works which may affect a scheduled ancient monument are determined by the Secretary of State for Culture, Media and Sport, with advice from English Heritage. This procedure is different from any consents that may be necessary under Town Planning legislation. Due to the potentially complex nature of archaeological remains in the City, the Corporation will expect applications for scheduled monument consent and planning permission to be prepared and considered in parallel.

**Para 11.9:** Not all important remains are scheduled, and in some cases, remains of more local importance will be considered worthy of preservation. PPG 16 gives criteria for assessing the national importance of an ancient monument and

considering whether scheduling is important. Development schemes should be designed to incorporate the preservation in situ of important monuments and archaeological remains, and respect and enhance their settings.

**Para 11.10:** On sites where archaeological remains of lesser importance exist, and it is considered by the Corporation that preservation in situ is not appropriate, investigation, recording and publication will be required. This is to ensure preservation by record, placing those remains in a wider context, and adding to our understanding and interpretation of the historic landscape.

Para 11.11: Where development groundworks are proposed that are permitted development under the Town and Country Planning (General Permitted Development) Order 1995, account should be taken of policies in the UDP. Developers and statutory undertakers are encouraged to discuss the proposals with the Corporation in order that an appropriate mitigation study can be put in place.

#### **LOCAL POLICIES**

Requirement for Assessment and Evaluation of Sites of Archaeological Potential

#### **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.

Para 11.12: 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.

Para 11.13: 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.

Preservation in Situ and Recording of Ancient Monuments and Archaeological Remains

#### **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.

Para 11.14: 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.

Para 11.15: 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.

Para 11.16: 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.

- 3.4 The fieldwork is also guided by the stipulations set out in the Corporation of London's Planning Advice Note 3: Archaeology Guidance (Corporation of London 2004).
- 3.5 The watching brief at One Lothbury was necessitated by conditions attached to the site's planning permission (registered planning number 06/00500/FULL). The planning permission contained two relevant conditions: Number 15 (relating to archaeology) and Number 16 (relating to the foundation design of the new development).

#### 4 GEOLOGICAL AND ARCHAEOLOGICAL BACKGROUND

- 4.1 Substantial quantities of archaeological work have previously been conducted in close proximity to the site, allowing confident projections about the nature of remains that may be expected and comparison with the known levels of truncation that the current sub-basement level has caused.
- 4.2 The existing sub-basement has a finished floor level (FFL) between 7.05m OD and 6.98m OD, and the proposed new basement FFL will be at 4.55m OD¹. This compares with an original level for terrace gravel across the site which is thought to be between 8.50m OD and 10.00m OD (Bull 2006, iv) although subsequent work by MoLAS at a site immediately to the west (54-66 Gresham Street, TQ3255081270) has revealed natural gravel deposits at heights between 10.20m OD and 10.50m OD². On that same site, the deepest archaeological feature found was a Roman quarry which had its base at a lowest level of 7.63m OD (pers comm. R. Wroe-Brown). In places, severe truncation at the site revealed London Clay beneath concrete intrusions at heights of approximately 7.00 to 6.50m OD. The existing basement at One Lothbury has a minimum slab thickness of 0.45m, but modern truncations are also recorded at a height of 2.00m OD (Sudds 2006).
- 4.3 Two possible stream tributaries of the Walbrook have previously been conjectured to cross the site (Bull 2006, 8); however, subsequent work now suggests that one may be located off site (Jackson 2007). The second has a stream bed base recorded at c 7.00m OD, which makes its survival at One Lothbury unlikely.
- 4.4 It is considered by the project engineers, AKS Ward, that the construction method used for the current building on site, built during the 1940s, would have involved the bulk removal of alluvial deposits to a solid foundation surface of London Clay. Such a method would clearly have truncated all but deep-cut archaeological features (Jackson 2007).
- 4.5 The present standing building at site has been seen from the geotechnical watching brief to be within a substantial construction cut, backfilled with modern material (Sudds 2006).

<sup>&</sup>lt;sup>1</sup> Data provided by Total Project Integration, 2006

<sup>&</sup>lt;sup>2</sup> http://www.molas.org.uk/pages/siteSummaries.asp?year=summaries2006&borough=none

#### 5 METHODOLOGY

- 5.1 The temporary support works within the basement involved the breaking of the slab within five locations, whereupon piles would be inserted to support a tower above, which in turn would support the façade. These interventions were labelled Towers 1 to 5 (Figure 2).
- 5.2 The breaking and excavation of four of the five towers was monitored archaeologically (Towers 2, 3, 4 and 5). Tower 1 was scheduled to happen much later as it is located outside of the contiguous piled wall for the proposed new basement.
- 5.3 Once broken and excavated, all interventions were located on an engineer's drawing locating the early piling works<sup>3</sup>. Sections were drawn at 1:10 and were located on the same drawing. Deposits were recorded on *pro forma* context sheets of the type developed by the Museum of London. Digital photograph record shots were taken of each trench [the low level lighting in the basement at the site made slide photography impractical].
- 5.4 Spot heights and levels were calculated from an engineer's drawing showing the sub-basement level<sup>4</sup>.

<sup>&</sup>lt;sup>3</sup> McGee drawing number SK230

<sup>&</sup>lt;sup>4</sup> Concept Site Investigations drawing number 061872/03

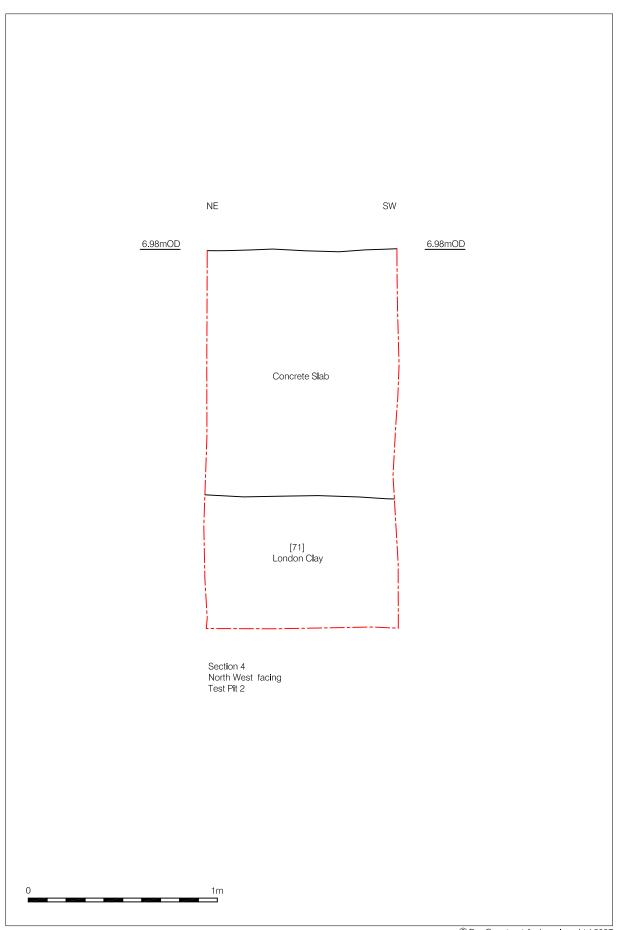
#### **6 SUMMARY OF THE ARCHAEOLOGICAL SEQUENCE**

- 6.1 Within all monitored interventions (Towers 2, 3, 4 and 5) the earliest deposit encountered was an oxidised and very stiff silt-clay (5% / 95%) containing very occasional chalky lenses [71]. This was the underlying London Clay geology of the site, recorded at upper heights between 6.55m OD in Tower 3 and 6.18m OD in Tower 2.
- 6.2 The London Clay was sealed in places by a layer of gravel hoggin, which in turn formed the bedding for the concrete basement slab of One Lothbury above. This slab was between 0.5m thick (Towers 3 and 4) and 1.3m thick (Tower 2).
- 6.3 The findings of the watching brief are summarised in Table 1.

**Table 1: Details of Watching Brief Results** 

			slab thickness	<b>London Clay</b>	depth of		
Date of Visit	Tower	slab height (m OD)	(m)	height (m OD)	trench (m)	Photos	comments
02/04/2007	1	6.98					
11/04/2007	1	6.98					
02/04/2007	2	6.98	0.90	6.08		4	
19/06/2007	2	6.98	0.80	6.18	2.00	4	
19/06/2007	2	6.98	1.30	5.68	2.00	4	
02/04/2007	3	7.05	0.50	6.55	1.60	2	
02/04/2007	4	7.02	0.55	6.47		2	
11/04/2007	4	7.02	0.50		1.40	5	0.25 thick layer of gravel hoggin below slab
02/04/2007	5	7.00	0.85	6.15		3	
11/04/2007	5	7.00	1.10		1.10	7	slab 1.1m thick at S end, 0.8m thick in middle

London Clay = oxidised v.v. firm silt / clay (5/95) with very occasional chalk lenses.



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#### 7 CONCLUSIONS AND RECOMMENDATIONS

- 7.1 The watching brief at One Lothbury has revealed London Clay beneath the existing basement slab level within the building. The work monitored interventions in Towers 2, 3, 4 and 5, which are all positioned within or at the edge of the proposed new basement level.
- 7.2 The upper height at which the London Clay was recorded, 6.55m OD in Tower 3, corresponds with records from the recent work by MoLAS at 54-66 Gresham Street, which revealed London Clay beneath concrete intrusions at heights of approximately 7.00 to 6.50 m OD. At that same site, and atop the London Clay, natural gravel deposits were revealed at a minimum height of 10.20m OD (pers comm. R. Wroe-Brown).
- 7.3 The findings of the watching concur with documentary evidence that during the 1940s when the existing building was constructed, all soft deposits at the site were removed to the London Clay. Traces of this substantial construction cut were revealed during the geotechnical watching brief at the site in 2006 (Sudds 2006, 17).
- 7.4 No evidence was found for any archaeological survival at the site, and therefore it is recommended that no further archaeological mitigation is required.

#### 8 ACKNOWLEDGEMENTS

- 8.1 Pre-Construct Archaeology Ltd would like to thank Total Project Integration for commissioning the work on behalf of their clients, One Lothbury Limited, who kindly funded it. We also thank Kathryn Stubbs, Senior Planning and Archaeology Officer for the Corporation of London, for monitoring the work.
- 8.2 The author would like to thank Brendan Tighe of Total Project Integration, Martin Edwards of Fletcher Priest Architects Limited, Barry Kingscote and Bart Korczyk of Galliford Try for their assistance. The author also thanks Hayley Baxter for the illustrations and Jonathan Butler for editing this report.

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#### APPENDIX 1: OASIS FORM

OASIS ID: preconst1-33158

#### **Project details**

Project name An Archaeological Watching Brief at One Lothbury, City of London

the project

Short description of An archaeological watching brief conducted by Pre-Construct Archaeology Ltd during formation works associated with the redevelopment of One Lothbury in the City of London. The proposed development involves the demolition of the existing buildings interior, and then its reconstruction within the retained façade. The installation of temporary support works for the façade retention formed the basis for the watching brief reported upon here. Previous archaeological work at One Lothbury has suggested that no archaeological features or deposits survive at the site of One Lothbury, owing to the methodology by which the existing building was constructed in the 1940s. The latest watching brief, which monitored works at basement level, concurs with those previous suggestions. In light of the work that has now been undertaken at One Lothbury, and owing to not only the lack of archaeological survival but indeed the documentary evidence for its full-scale removal in the 1950s, it is recommended that no further

mitigation is necessary.

Project dates Start: 02-04-2007 End: 19-06-2007

Previous/future work Yes / No

associated OLO 06 - Sitecode Anv

reference project

codes

Type of project Field evaluation

Site status Local Authority Designated Archaeological Area

Current Land use Industry and Commerce 2 - Offices

Methods

techniques

& 'Visual Inspection'

Development type Urban commercial (e.g. offices, shops, banks, etc.)

Prompt Planning condition

the After full determination (eg. As a condition) Position in

planning process

#### **Project location**

Country England

GREATER LONDON CITY OF LONDON CITY OF LONDON One Site location

Lothbury, City of London

Postcode EC2

Study area 1240.40 Square metres

Site coordinates TQ 532610 181250 50.9415944585 0.181732864819 50 56 29 N 000

10 54 E Point

Height OD Min: 6.18m Max: 6.55m

#### **Project creators**

of Pre-Construct Archaeology Ltd Name

Organisation

Project brief Local Authority Archaeologist and/or Planning Authority/advisory body

originator

Project design Chris Mayo

originator

Project Chris Mayo

director/manager

Project supervisor Chris Mayo

Type of Private company

sponsor/funding

body

Name of Total Project Integration on behalf of One Lothbury Limited

sponsor/funding

body

#### **Project archives**

Physical Archive No

Exists?

Digital Archive LAARC

recipient

Digital Contents 'Survey'

Digital Media 'Images raster / digital photography', 'Images vector', 'Text'

available

Paper Archive LAARC

recipient

Paper Contents 'Stratigraphic'

Paper Media 'Plan', 'Section', 'Context sheet', 'Miscellaneous Material'

available

## Project bibliography 1

Publication type Grey literature (unpublished document/manuscript)

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