



C257 ARCHAEOLOGY CENTRAL

Interim Statement

Archaeological Watching Brief Moorgate Worksite, OSD Foundation (Outside Diaphragm Walled Shaft)

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1 Introduction

This Interim Statement covers an archaeological general and targeted watching brief (see section 3) on ground reduction for the OSD (over-site development) foundation at the location of the future Crossrail Moorgate Shaft, by C257 Museum of London Archaeology (MOLA).

This was carried out between 30th May and 28th June 2012, and supervised by MOLA Senior Archaeologist Sam Pfizenmaier.

It was recorded under event code (sitecode) XSP10.

This document is an interim statement of the results of the fieldwork one week after the end of fieldwork. At this time further reporting is not required, however a brief summary of the results will be included in the overall Moorgate site fieldwork report following completion of works.

The fieldwork was carried out in accordance with:

- Crossrail 2010, A Crossrail **Site-specific Written Scheme of Investigation** (SS-WSI): *Liverpool Street Station*, Doc. No. C138-MMD-T1-RST-C101-00002, Rev. 2 [WSI].
- Crossrail 2011, An **Addendum to the WSI**: *Addendum to Written Scheme of Investigation: Detailed Excavation and Watching Brief– Moorgate Worksite (XSP10)*, Doc. No. C138-MMD-T1-TCP-C101-00001 Revision 5.0, 02.11.11 [Addendum].

2 Aims and Objectives

2.1 Research Aims

The original aims and objectives were listed in the SS-WSI Liverpool Street Station, (Doc. No. C138-MMD-T1-RST-C101-00004, see section 1) and stated that 'Archaeological investigation and mitigation within the Crossrail worksites have the potential to contribute to the research themes set out below':

Evidence relating to the Walbrook, its tributaries and Moorfields Marsh deposits may provide data relevant to the following themes:

- Understanding London's hydrology, river systems and tributaries and the relationship between rivers and floodplains;
- Understanding how water supply and drainage provision were installed and managed;
- Refining our understanding of the chronology and function of the landward and riverside defences and extramural evidence of defensive or military structures in the Roman period;
- Understanding the relationships between urban settlements and royal villas or religious estates;
- Examining the proposal that there was an ideological polarity between town and anti-town systems: Roman towns did not so much fail as were discarded;
- The end of the Roman occupation: developing explanatory models to explain socio-political change and considering the influence of surviving Roman structures on Saxon development; and;
- Examining the use in any one period of materials from an earlier period (eg Saxon use of surviving Roman fabric) and the influence on craftsmanship, manufacture and building techniques.

2.2 Fieldwork Objectives

The overall objectives of the watching brief is to preserve by record any surviving archaeological remains that will be impacted upon by the development, also to mitigate the impact of Crossrail construction through a programme of archaeological works comprising ... general and targeted watching brief to excavate and record archaeological deposits for analysis and dissemination in accordance with the Crossrail Generic WSI (document number CR-PN-LWS-EN-SY-00001) and the standards listed therein.

The task-specific aims and objectives from the Addendum to the WSI (Doc. No. C136-SWN-T1-XAP-M123_WS098-00001, see section 1) which relate to the watching brief are:

Specifically, the archaeological investigations have the potential to recover:

- Artefacts of prehistoric date redeposited in later deposits.
- Remains of Roman extra-mural activity, potentially including burials.
- Evidence of the defensive ditch associated with the Roman and medieval City Wall.



- Waterlain deposits from the Roman to medieval Moorgate Marsh, with the potential for organic preservation and palaeoenvironmental evidence.
- Late medieval and post-medieval drainage ditches, rubbish dumps and remains associated with the reclamation of Moorfields Marsh.
- In areas not truncated by later activity: remains of mid 17th-century or earlier buildings on the western side of Moorfields, and late 17th/early 18th-century or later buildings across the whole site.

3 General and Targeted watching brief methodology

This watching brief was to have been conducted as a general watching brief on the Moorfields Marsh deposits, with the more intensive targeted watching brief methodology to be applied to pre-marsh (ie Roman) deposits. In practice, only the general watching brief methodology was required, as no Roman deposits survived, and very little later material.

The structural trench outside the diaphragm wall (OSD) was located by the principal contractor (C501 Bam Nuttall - Kier JV).

The Principal Contractor removed approximately 0.5m of remaining piling mat under supervision of a MOLA (C257) Senior Archaeologist. Prior to entering the trench the approved temporary works were installed by the Principal Contractor. After this MOLA entered the trench to record and excavate the features exposed. This process was then repeated with the Principal Contractor removing the subsequent dump in 300mm spits. A written and drawn record of all archaeological deposits encountered was made in accordance with the principles set out in the Museum of London site recording manual (MoL 1994).

The Trench was surveyed by the Principal Contractor, Bam Nuttall - Kier JV, and survey data supplied to MOLA's geomatics team.

4 Provisional Results

4.1 OSD Foundation Trench



Photo 1, OSD foundation trench, after removal of 0.5m of piling mat, at 108.90m ATD looking north.

Moorgate OSD Foundation Trench. (Figure 1, Photo 1, Photo 2 & Photo 3)	
Location	Approximately underneath 17 Moorfields
Dimensions	Approximately 23m north to south, and east to west 8m and 2m deep
LSG grid coordinates	83038/36335
OS National grid coordinates	532688 181642
Modern Ground Level/top of sheeting	109.50m ATD [this value is for the top of the sheeting, as no relevant ground level remains in this area; former street level was approx. 113m ATD (Crossrail 2011)]
Modern subsurface deposits	Concrete foundations associated with Moorgate station in northern area to (107.49m ATD)
Level of base of archaeological deposits observed and/or base of trench	Archaeology recorded at maximum depth of 4.55m bGL (beneath ground level) (108.45m ATD)
Natural observed / truncated	Untruncated orange sandy gravels at 1.05m bGL (108.45m ATD)

Extent of modern truncation	Truncation associated with underground station foundations extends down to 2m+ from top of sheeting.
Archaeological remains	Dating Evidence, Finds, and Samples
[40] - (Photo 2). Light grey clay silt, 350mm thick dump of refuse like material at 108.80m ATD.	[40]: pot, tobacco pipe stem and glass (all provisionally 19th-century)
Interpretation and summary	
<p>Natural geology in the form of Pleistocene river terrace gravels (Third/Taplow Terrace) was recorded at a consistent depth of 4.55m bGL (108.45m ATD) across the site.</p> <p>Archaeological deposits were limited to a solitary dump of general refuse [40] (Photo 2), that was visible as a lens of material within a larger band of redeposited natural sands and gravels. It appears likely that this deposit was formed during the levelling and deposition of made ground for the underground station, or ancillary buildings associated with it, which have been removed by subsequent construction activity. It is therefore possible that this material was redeposited in the 20th century.</p> <p>Foundations associated with the recently demolished underground station had truncated any archaeology once present, and natural geology, to a maximum depth of 107.49m ATD in the northernmost area of the OSD.</p> <p>At the commencement of the watching brief, a recently-formed piling mat (January 2012) consisting of compacted type 1 rubble filled the OSD to the top of the sheeting at 109.50m ATD.</p>	



Photo 2, OSD trench, 19th-century dump deposit [40], looking north-west.



Photo 3, OSD trench, archaeological monitoring ceased at 107.49m ATD (the area will eventually be reduced to approximately 20m bGL, looking south-west.

Significance of Results (*provisional*)

4.2 Summary of Fieldwork Results

Untruncated natural Pleistocene river terrace gravels (the third Taplow terrace) were recorded at 4.55m bGL (108.45m ATD).

No evidence for prehistoric, Roman or Saxon activity was found.

The watching brief has demonstrated the survival of a single deposit of minimal importance, containing 19th-century artefacts (probably redeposited), as well as significant truncation to and below the natural surface of geology at 5.5m beneath street level (107.49m ATD).

The extent to which post-medieval horizons have been horizontally truncated is difficult to ascertain, given the variation in basements depths across the site. In comparison results from the evaluation phase of fieldwork (MOLA 2012) located natural brickearth between 108.30–108.60m ATD. These are comparable to those from the OSD (108.45m ATD). However, the evaluation trenches (91–109 Moorgate) were located to the east of the OSD and, significantly, beneath a separate phase of former buildings. The Moorgate underground station basement and foundations were roughly situated at 17 Moorfields, and have considerably deeper basements, as well as foundations than the main shaft site to the east. For example, street level in this area is around 113m ATD, the basements to the east (site of the evaluation) caused truncation down to approximately 110.00m ATD, compared to between 108.50 and 108.00m ATD underneath the station complex.

Therefore, it would appear that foundations in the OSD area have truncated any redeposited brickearth layers corresponding to those seen in evaluation (approximately 109.00m ATD in the evaluation), as well as the overlying Moorfields Marsh (approximately 109.30m ATD). The only surviving archaeological deposit in the OSD area was recorded at 108.80m ATD. This layer was incorporated within a larger dump consisting of redeposited natural sands between 108.45 and 109.00m ATD that was most likely made ground for the later buildings on site.

The high levels of truncation in this area have been mirrored in contemporary Crossrail work immediately to the north and west, where the sewer diversion works (specifically run S2-S3) have also exposed deep foundations associated with the Moorgate underground station.

4.3 Importance of Resources

The archaeological remains identified in the fieldwork are provisionally assessed as being of very **low importance**, as the solitary dump identified is of a common composition, may well be redeposited, and is therefore of minimal archaeological significance.



4.4 Provisional conclusions for future work

- Any future work has potential to help to identify the limits of truncation in the surrounding area.
- Future excavations planned to the east of the OSD area may share these high levels of truncation, particularly immediately to the east, where some of the station foundations may survive.

5 Future Deliverables

No further deliverables are required for this watching brief (C257_PMA_0003).



6 Annex 1 – Trench Location Plan

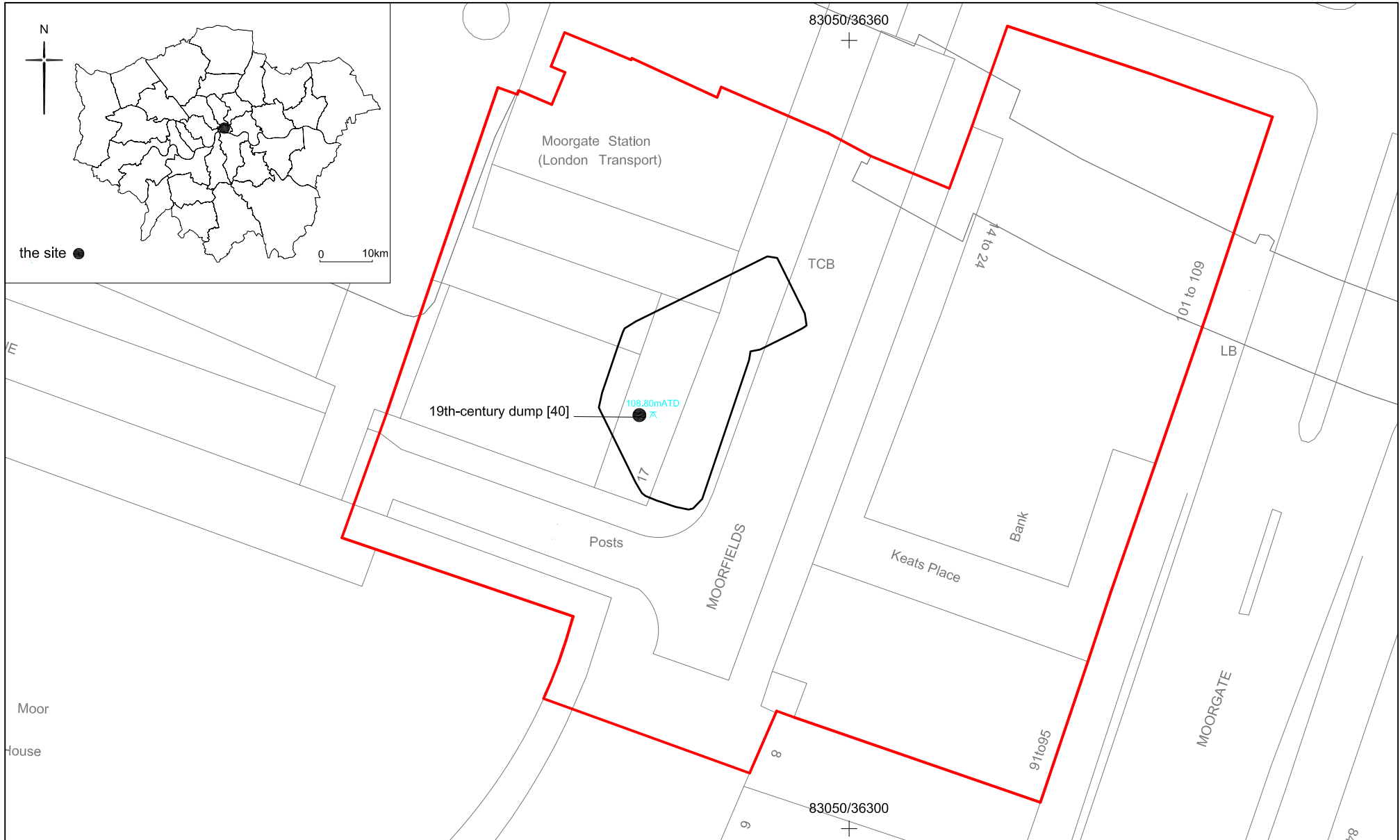
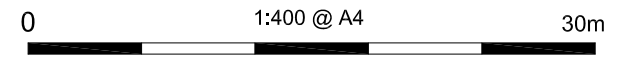


Fig 1 Location of OSD

- Site outline
- Trench edge
- Archaeological features
- 108.80mATD
↗ Level of archaeology



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