



**C257 ARCHAEOLOGY Central**  
**Fieldwork Report**  
**Archaeological Evaluation and**  
**Watching Briefs**  
**Finsbury Circus Shaft (XRZ10)**

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## Non technical summary

*This report presents the results of an archaeological field evaluation and two watching briefs carried out by the Museum of London Archaeology (MOLA) on the site of Finsbury Circus, London EC2, in the City of London. This report was commissioned from MOLA by Crossrail Ltd. This work is being undertaken as part of a wider programme of assessment to quantify the archaeological implications of railway development proposals along the Crossrail route.*

*The worksite at Finsbury Circus shaft site (in the C257 Central archaeology zone of the Crossrail Project) consists of three areas, a temporary access shaft located in the southern area of Finsbury Circus gardens, and two proposed grout shafts to the east and west located in the surrounding roadway (grout shafts have been scoped out of the scheme).*

*In the single evaluation trench at the future shaft location, natural geology (river terrace sands and gravels) was truncated by cut features. The latter included a possible gravel quarry and a ditch cutting an earlier pit, and suggest at least two phases of land use. It is tentatively assumed that this activity was of Roman date.*

*The cut features were sealed by medieval marsh deposits, up to c 3.6m beneath current street level. Two distinct environments have been identified relating to the marsh formation through geoarchaeological sampling of the deposits. The earliest being most recognisable as a marsh was sealed by a potentially redeposited horizon within which a quantity of well-preserved medieval leather (predominantly recycled shoes) was excavated. A series of deposits laid immediately on top of the marsh represent land reclamation following the expansion of the city. No evidence was found for attempts to drain the marsh, as have been found on nearby sites. Pottery and building materials suggest that land reclamation of the marsh may have started in the medieval period; gaining pace with larger levelling deposits in the 16th century until Finsbury Circus was created as a park in the early 19th century. There was no evidence for the open space of the Moorfields or the re-located Bedlam Hospital.*

*Two grout shaft trial trenches revealed evidence of stages of land fill related to the formation of the modern road/park layout in the late 18th and early 19th centuries.*

*It is concluded that the site has high potential for Roman pits/quarries and ditches, for medieval the Moorfields Marsh (including environmental and geoarchaeological data), for post-medieval remains representing reclamation of the marsh and levelling for the 19th-century roadway and gardens.*

*The results from Finsbury Circus are assessed as being of low–moderate significance, and will be used by the design archaeologist to revise and finalise the mitigation strategy for the site.*



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## 1 Introduction

Crossrail is a new Cross-London Rail Link project which will provide transport routes across the south-east of England and London. The route will link Maidenhead and Heathrow in the west with Shenfield in the north-east and Abbey Wood in the south-east. In central London, from Royal Oak in the west to Pudding Mill Lane and Royal Victoria Dock in the east, Crossrail will consist of a tunnelled section with seven new stations linked to the existing transport network.

The Crossrail Liverpool Street Station is a new underground station proposed on the Crossrail network. The new station will be situated between the existing LU stations at Moorgate and Liverpool Street in the City of London. To build this station, a temporary access shaft is required at Finsbury Circus.

The Crossrail mitigation response to archaeology is described in the Crossrail Generic WSI (Crossrail 2009) and the detailed desk based assessment (DDBA; Crossrail 2008), and can be summarised as follows:

- In the event that intact and important archaeological remains are identified at Crossrail worksites through this process, it may be preferable, where practicable, to preserve these where they are found (ie preservation in situ).
- However, because of the nature of major works projects such as Crossrail, experience of other similar projects suggests that preservation by record is usually the most appropriate method of dealing with archaeological finds.
- Following an extensive Environmental Impact Assessment (EIA) supporting the Crossrail Bill, and the production of site-specific DDBAs, appropriate mitigation measures were scoped and specified in detail in individual project designs (site-specific WSIs – Written Schemes of Investigation) which were prepared in accordance with the principles set out in the Generic WSI, and developed in consultation with the relevant statutory authorities.
- Archaeological information that is gained from fieldwork will be followed by analysis and publication of the results and will be transferred to an approved public receiving body.

This fieldwork report describes the results of one archaeological evaluation carried out at Finsbury Circus Shaft site and two general watching briefs on ground investigations at the proposed grout shafts (subsequently deleted from the scheme) by Museum of London Archaeology (MOLA) under Crossrail contract C257 Archaeology Central.

The Finsbury Circus worksite is located in the southern area of Finsbury Circus gardens, with the grout shafts located in the road to the east and west, outside nos 23–25 & 30 Finsbury Circus respectively. The centre of the site is at OS National Grid Reference 532862 181588.

The site lies within the City of London, and is bounded by the outer edge of the roadway of Finsbury Circus (Figure 1). Note that both the roadway and the gardens within it are called Finsbury Circus.

**All levels in this document are quoted in metres Above Tunnel Datum (m ATD). To convert Tunnel Datum to Ordnance Datum subtract 100m, ie 1m OD = 101m ATD.**





All fieldwork was conducted between 23/02/11 and 01/04/11. It was supervised by Sam Pfizenmaier, Dave Sankey (MOLA Supervisors) and Virgil Yendell (geoarchaeologist) and included the following:

Table 1 Fieldwork on site

Task	Principal Contractor	Date
<ul style="list-style-type: none"><li>• Trial Trench <b>Evaluation</b> (1 trench) within the temporary <b>access shaft</b> location in Finsbury Circus gardens</li></ul>	J B Riney	15/03/11–01/04/11
<ul style="list-style-type: none"><li>• <b>General Watching Brief</b> on two <b>grout shaft exploratory trial trenches</b> in Finsbury Circus roadway</li></ul>	J B Riney	23/02/11 & 28/02/11

The event code (sitecode) is XRZ10.

## 2 Planning background

The overall framework within which archaeological work will be undertaken is set out in the Environmental Minimum Requirements (EMR) for Crossrail (<http://www.crossrail.co.uk/therailway/getting-approval/parliamentary-bill/environmental-minimum-requirements-includingcrossrail-construction-code>). The requirements being progressed follow the principles of Planning Policy Guidance Note 16 on archaeology and planning (1990). Accordingly the nominated undertaker or any contractors will be required to implement certain control measures in relation to archaeology before construction work begins.

Schedules 9, 10 and 15 of the Crossrail Bill (2005) concern matters relating to archaeology and the built heritage and allows the dis-application by Crossrail of various planning and legislative provisions including those related to listed building status, conservation areas and scheduled ancient monuments (Schedule 9). Schedule 10 allows certain rights of entry to English Heritage given that Schedule 9 effectively dis-applied their existing rights to the Crossrail project, and Schedule 15 allows Crossrail to bypass any ecclesiastical or other existing legislation relating to burial grounds.

Notwithstanding these disapplications, it is intended that agreements setting out the detail of the works and requiring relevant consultations and approvals of detail and of mitigation arrangements will be entered into by the nominated undertaker with the relevant local planning authorities and English Heritage in relation to listed buildings and with the Department of Culture, Media and Sport (DCMS) and English Heritage in relation to Scheduled Ancient Monuments (SAMs).



### **3 Origin and scope of the report**

This report has been commissioned from Museum of London Archaeology (MOLA) by Crossrail Ltd. The report has been prepared within the terms of the relevant standard specified by the Institute for Archaeologists (IFA, 2001). It considers the significance of the fieldwork results (in local, regional or national terms) and makes appropriate recommendations for any further action, commensurate with the results.

### **4 Previous work relevant to archaeology of site**

The principal previous Crossrail studies are as follows:

- Crossrail, February 2005a *Environmental Statement*
- Crossrail, February 2005b *Assessment of Archaeology Impacts, Technical Report. Part 2 of 6, Central Route Section, 1E0318-C1E00-00001*, [Specialist Technical Report (STR)]
- Crossrail, November 2009 Site-specific Written Scheme of Investigation Liverpool Street Station, Doc No. CR-SD-LIV-EN-SY-00001, Revision 7.0, 20/11/09 [WSI]
- Crossrail, August 2010 *Addendum to SSWSI: Trial Trench Evaluation, Watching Brief & Detailed Excavation – Finsbury Circus (XRZ10)*, Doc No. C138-MMD-T1-RST-C101-00006 [‘the Addendum’]
- All fieldwork was carried out to a method statement prepared in accordance with the principal contractor’s method statement (JB Riney, 2011, Method Statement, Liverpool Street & Finsbury Circus Archaeological Trial Trenches). The above cited reports are all available from the London Archaeological Archive and research Centre (LAARC).



## 5 Geology and topography of site

The area around the Finsbury Circus site lies on Taplow terrace gravels (c 109m ATD), laid down approximately 128-280,000 BP (Before Present). During the last ice-age, the Thames River eroded its valley, creating a series of sand and gravel terraces, the archaeological potential of which is considered to be very low. Sporadic deposits of brickearth have been known to occur in areas of the site, as recorded at MOLA sites RIV87 and BDC03, overlying the river terrace gravels and sealed by the alluvium.

The alluvium also seals stream channels of tributaries of the River Walbrook, a tributary of the Thames that formed a broad, shallow valley that originally flowed to the east of the site. Between c AD 180 and 225 Roman activity to the south impeded drainage in the area and eventually encouraged the development of the Moorfields Marsh: a boggy occasionally waterlogged semi-terrestrial region. This marsh has been well documented (see below) in the archaeological records from surrounding sites

### 5.1 Archaeological and Historical Background

A tributary of the river Walbrook is thought to have flowed to the east of the site and was recorded at 6 Broad Street (BDC03), channels associated with its management and drainage have been previously identified to the North and east of the site at Liverpool House (ELD88) and Broadgate Circus (BRD11). Extensive Roman remains have been recorded on surrounding sites, including, (but not limited to), an E-W aligned road (FIB88, ELD88), inhumations (RIV87, FIB88, ELD88 & BDC03) as well as a variety of negative features (drainage ditches and pits)

Archaeological sites just to the north of the worksite 7–11 (RIV87) and 12–15 (FIB88) Finsbury Circus; identified marsh deposits generally encountered at c 3m below ground level, and some contained Roman material (RIV87 and FIB88).

This Marsh [from now on referred to as the Moorfields marsh] formed sometime during the late 2nd or early 3rd centuries AD, possibly as a result of the silting up of drainage channels in the area with rubbish and the creation of a Roman road (BDC03) that would also have adversely affected drainage. Previous fieldwork has demonstrated that this was overlain by a buried marshy topsoil, and Sixteenth- to seventeenth-century reclamation/landfill dumps; as identified at Riverplate House (RIV87) and 12 to 15 Finsbury Circus (FIB88), representing a period when the site fell within the open Moor Field or Moorfields following reclamation of the marsh. This period is well documented in historic maps from the Fifteenth century (Agas 1562) to the development and construction of Finsbury Circus gardens, laid out in 1815 to 1817.

The construction of the Metropolitan Line cut-and-cover tunnel will have removed all archaeological deposits along its route, passing through the centre of the worksite (bisecting the existing bowling green east–west). The width of the cutting at this point is unknown, however, it is assumed for the purposes of this report that truncation caused by the cut-and-cover construction extends 1m either side of the existing tunnel. With the exception of the Metropolitan Line, Finsbury Circus has not experienced major development and the site was undeveloped up to the 19th century, after which it became a park.



A series of small structures appear to have stood on the site from the mid 20th century. These were probably light with shallow foundations that have had limited impact on any surviving archaeological deposits. The former pavilion in Finsbury Circus has a basement between 2–3 metres in depth (see Table 2 below), which will have removed all archaeological deposits to at least the depth of the basement.

Table 2 Estimated levels of survival in m ATD

Layer	Estimated surface elevation (m ATD)	Estimated base elevation (m ATD)	Archaeological potential
Street level	113.5		none
Basement level (partially within former wine bar)	109.5		none
Made ground	112.5	110.5	Yes
Moorfields Marsh deposits	110.5	109.0	Yes
Terrace gravel	109.0	105.0	Features cut into surface only
London Clay	105.5	75.0	None

## 6 Research objectives and aims

### 6.1 Objectives of the fieldwork

The objectives of the archaeological investigations, as stated in the addendum to the WSI (Crossrail 2010), are set out below.

The purpose of the **Watching Brief** was to mitigate the impact of the development works upon archaeological remains; by making an adequate record of them in advance of and during the specified construction ground works (a mitigation strategy of *preservation by record* in line with Crossrail requirements).

The purpose of the **Evaluation** was to provide information on the presence or absence, character, extent, date, preservation, and importance of the potential archaeological remains currently predicted on the site, in particular those from Moorfields Marsh, in order to inform the mitigation design, which will comprise both *preservation-by-record* (eg archaeological excavation and/or additional watching briefs) and *preservation-in-situ* (eg protective measures for buried remains relating to significant Roman deposits).

Archaeological investigations within Finsbury Circus worksite have the potential to recover:

- Archaeological remains of Roman date relating to extra-mural activity, including burials and roadside development
- Waterlain deposits with the potential for organic preservation and palaeoenvironmental remains [Moorfields Marsh, and potentially Walbrook deposits]
- Late medieval and post-medieval rubbish dumps and remains associated with the reclamation of the Moorfields Marsh

### 6.2 Research Aims

The original aims and objectives were listed in the Liverpool Street WSI (Crossrail 2009). 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.
- Understanding the differences, if any, between burial practices in the city and outlying cemeteries;
- Understanding life expectancy, origins and belief, seen through studying health, diet and disease, and preparing models for future research;
- Considering the relationship between cemeteries and major or minor roads, in terms of symbolism, status, privacy and convenience; and
- Understanding the cultural and symbolic roles played by London's defences through the ages as reflections of power and political security or imposition and dominance.

*Furthermore, the potential at Finsbury Circus for geo-archaeological and palaeoenvironmental deposits to be recovered could contribute to the following themes:*

- The development of models for understanding the significance of geomorphology, ecology, ecosystems and climate, hydrology, and vegetational and faunal development, on human lives;
- Characterising changing climatic conditions, and air and water quality and pollution, throughout the archaeological record, towards understanding its implications for how people behaved;
- The Mesolithic/Neolithic transition: understanding the significance of horticultural experimentation at this time, and the transition from hunter-gatherers into farmers; and
- Understanding what London's past environments meant to different groups and individuals

## 7 Methodology of site-based and off-site work

All archaeological excavation and recording during the evaluation was carried out in accordance with the Crossrail Generic and Site Specific WSI, the *MOLA Method Statement* (Revision 3.0 17/02/11 and Revision 4.0 30/06/11) and the *Archaeological Site Manual* (MoL 1994).

The site finds and records can be found under the site code XRZ10 in the MOLA archive. They will be stored there pending a future decision over the longer-term archive deposition and public access process for the wider Crossrail scheme.

### 7.1 General Watching Brief Methodology

The archaeological General Watching Brief covered two cross-shaped exploratory trenches (Figure 1-trial pits, and Photo 1), in the footprint of the two proposed future grout shafts (subsequently deleted from the scheme).

The General Watching Briefs consisted of a basic monitoring presence, by a MOLA Senior Archaeologist, to observe works carried out by the Principal Contractor. Excavation was by 6 tonne machine, operated by the Principal Contractor under supervision of a MOLA Senior Archaeologist. Manual cleaning, investigation and recording were then undertaken by the MOLA Senior Archaeologist. A 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 locations were recorded by the Principal Contractor and communicated to the MOLA geomatics team

### 7.2 Evaluation Methodology

One evaluation trench was excavated within the southern area of the Finsbury Circus gardens. The trench was excavated by machine down to the first significant archaeological horizon, [6] a sandy silt deposit 0.4m bGL, once hand cleaned, investigated, and recorded this was carefully removed by machine under close archaeological supervision. Changes in stratigraphy uncovered by subsequent machining were similarly recorded by MOLA staff until a sufficient depth had been reached when the sheeting could be safely lowered.

Machining halted at the surface of the natural geology (river terrace gravels) at 108.48m ATD which was cut in places by several archaeological features. Further manual cleaning, investigation and recording were then undertaken by two MOLA staff and the features excavated sufficiently to determine their function, nature, and obtain any dating evidence.

The sampling strategy was conducted following the Method Statement (MOLA 2011, sections 6 and 11). The Moorfields Marsh deposits bulk samples of 20 litres taken by a geoarchaeologist on site for processing and subsequent analysis by archaeobotanical and archaeozoological specialists. A profile/section through the marsh deposits was investigated (Photo 8), paying particular attention to the interface at the base of the marsh sequence, how it first formed, and when (see Appendix 18.6). Monolith samples were also taken and retained for future sediment analysis and possibly pollen and diatom sub samples. The remaining archaeological features (the



pits and a ditch) were filled with sterile inorganic gravely clay (contexts [17] and [19]) and did not warrant sampling.

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 location was recorded by MOLA Geomatics by optical survey. The survey utilised Crossrail London Survey Grid control stations, which were then tied into the OS. A Survey Report was produced by MOLA Geomatics (MOLA, April 2011).



## 8 Results and observations including stratigraphic report and quantitative report

For trench locations see Figure 2

### 8.1 General Watching Brief on grout shafts



Photo 1: Western grout shaft trial trench. Telecommunications services (green cable) visible at centre. Facing south.

Western Grout Shaft Trial Trench (South Grout Shaft 1)	
Location	Finsbury Circus, West Grout Shaft: Outside 30 Finsbury Circus. Adjacent to curb edge. Overlying
Dimensions	5.65m north to south and 4.34m east to west x 1.3–1.70m deep. Cross shaped.
LSG coordinates	83154 / 36305
OS National grid coordinates	532805 / 181613
Modern Ground Level/top of the slab	113.12m ATD
Modern subsurface deposits	0.45–0.55m of tarmac for concrete road surface.



Level of base of archaeological deposits observed and/or base of trench	111.33m ATD)
Natural geology observed	Not observed.
Extent of modern truncation	Services consisting of early 20th-century gas pipes and telecommunications cable truncating down to 0.6m bGL (max)
<b>Archaeological remains</b>	<b>Dating Evidence, Finds, and Samples</b>
Light grey sandy silt [3], containing oyster shell, tobacco pipes, ceramic building material, charcoal, pottery and animal bone. 112.72–112.36m ATD. Overlies [4].	[3]: Pot 1807–1840
Dark brownish grey sandy silt [4], containing tile, tobacco pipes, pottery and metal. 112.36–111.79m ATD. Overlies [5].	[4]: Pot 1680–1700, Tobacco pipes 1700–1740.
Light creamy grey coarse silty sand [5], containing tobacco pipe, roof tile, ceramic building material, chalk and mortar, 111.79–111.33m ATD.	[5]: Pot 1580–1900, Tobacco pipes 1730–1780.
<b>Interpretation and summary</b>	
<p>The demolition-rich deposit [5] may be residue from a earlier structure on or near the location. It could also be landfill laid prior to the formation of the road in the early 19th century.</p> <p>Silty soil horizon [4], which overlies [5], may represent redeposited soils from the Moor Fields (post-medieval to early 19th-century).</p> <p>Context [3], which seals [4], appears to be a levelling deposit formed of imported (probably household) waste, pre-dating the formation of the park.</p> <p>Whilst the earlier deposits [4] and [5] may represent 18th-century activity in the Moor Fields, it appears more likely that this material is all redeposited in levelling layers laid down in the early 19th century as make up for the road.</p>	

<b>Eastern Grout Shaft Trial Trench (South Grout Shaft 2)</b>	
Location	Finsbury Circus, Eastern Grout Shaft: Outside 23–25 Finsbury Circus. 0.2m from curb edge.
Dimensions	4.90m north to south and 6.0m east to west x 1.32m deep. Cross shaped
LSG coordinates	83211 / 36259
OS National grid coordinates	532864 / 181570
Modern Ground Level/top of the slab	113.23m ATD
Modern subsurface deposits	0.45m of tarmac for concrete road surface
Level of base of archaeological deposits observed and/or base of trench	111.73m ATD
Natural geology observed (truncated/not truncated ?)	Not observed
Extent of modern truncation	Surface: 0.9m bGL
<b>Archaeological remains</b>	<b>Dating Evidence, Finds, and Samples</b>
Dark grey coal-ash sandy silt deposit [1] containing oyster shells, animal bone and wine (onion) bottles. 112.33m ATD– 111.73m ATD. Overlies [2].	[1]:Pot 1800–1900, Tobacco pipe 1730–1780
Firm dirty brickearth [2], with frequent mortar, pebbles. Consistent with demo debris.111.83m ATD–111.73m ATD (limits of excavation).	No Finds
<b>Interpretation and summary</b>	
<p>Deposit [2] appears to be a landfill/levelling, representing an earlier stage n the levelling than the overlying layer [1].</p> <p>Context [1] also appears to be made up of predominantly household waste (nightsoil) that was probably brought on to site to be used as part of a landfill/levelling deposit. One unusual fragment of imported pottery was identified as being from a provincial Chinese source (possibly Sung Dynasty: AD 960–1279) with a deliberately applied crackle glaze.</p> <p>As in the Western Grout Shaft Trial Trench, whilst both deposits [1] and [2] may represent 18th-century activity in the Moor Fields, it appears more likely that this material is all redeposited in levelling layers laid down in the early 19th century as make up for the road of Finsbury Circus.</p>	

## 8.2 Evaluation Trench 1

See Figure 2 for trench locations, Figure 4 and **Error! Reference source not found.** for sections

### 8.2.1 Trench 1



*Photo 2: Quarry pit [19] continuing beyond limits of excavation. Note truncated natural geology of sands overlying gravels visible in the base of the excavated pit cut. Looking north.*





*Photo 3:* West-facing section of probable Roman quarry pit [19]. Showing secondary fill [17] purplish grey gravelly clay over primary fill [18] pale silty gravel. Facing east.



*Photo 4:* Pit cut [25], probably Roman. Facing south-west.

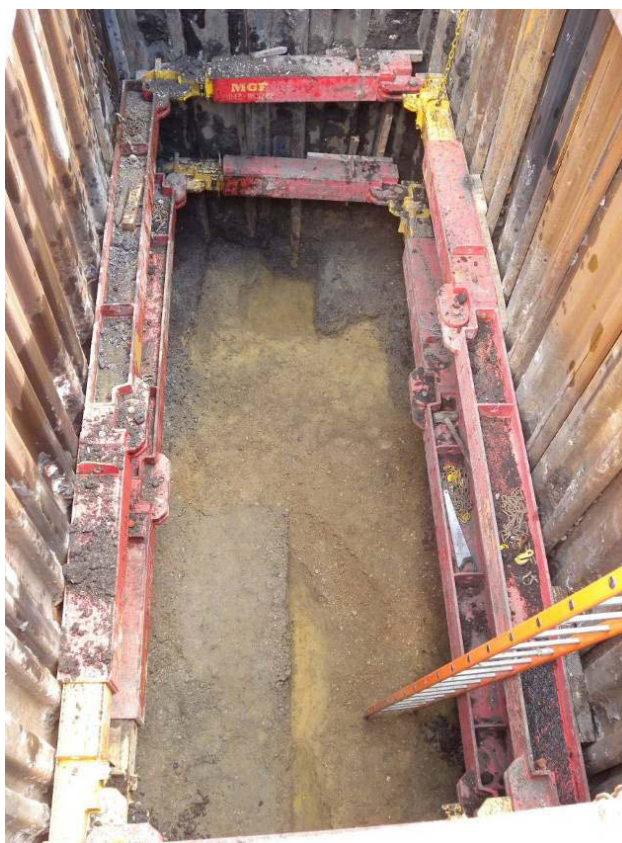


Photo 5 Showing probable Roman features cutting natural gravels at maximum depth of 107.92m ATD (7.92m OD). Facing south; post excavation.

<b>Evaluation Trench 1 (Figure 3, Figure 4, &amp; Error! Reference source not found.)</b>	
Location	Finsbury Circus gardens, Immediately east of Victorian basement.
Dimensions	5.9m north to south and 2.65m east to west x 5.7m deep.
LSG coordinates	83221 / 36279
OS National grid coordinates	532873 / 181591
Modern Ground Level/top of the slab	113.70m ATD
Modern subsurface deposits	0.4m of rubble levelling
Level of base of archaeological deposits observed and/or base of trench	107.92m ATD
Natural geology observed	Untruncated gravels [22] at 108.48m ATD. Natural sands [23] truncated at 107.92m ATD in base of cut features [19].
Extent of modern truncation	Surface: 0.4m bGL, 113.20m ATD (13.2m OD)
<b>Archaeological remains</b>	<b>Dating Evidence, Finds, and Samples</b>
Contexts [6],[7],[8] & [9]. All sequentially overlay each other. A dark brownish	[6]: Pot 1807–1840, Crucible fragment 1807–1840





<p>black sandy silt deposit [6] at 113.36m ATD (13.36m OD) containing ceramic building material, charcoal, chalk and pottery overlay a grey brown consolidation deposit [7], containing mortar and complete frogged bricks. These sealed a brownish grey sandy clay deposit [8] containing frogged bricks and tile. A further mid brown silt deposit [9] at 112.26m ATD appeared part of the same sequence also containing brick fragments, animal bone, chalk and oyster shell. [9] overlies [10]. These deposits probably represent the gradual accumulation of levelling/ land reclamation debris.</p>	<p>[7]: No finds          [8]: No Finds          [9]:Pot 1680–1750, Glass cylindrical phial 1700–1800</p>
<p>A grey chalky post-medieval dump deposit [10] at 111.9m ATD, becoming thicker at the northern end of the trench, overlay a very mixed sandy deposit [11] probably demolition material. [11] overlies [12].</p>	<p>[10]: No Finds          [11]: Pot 1680–1700</p>
<p>At 110.52m ATD a thin but consistent band of dirty Brickearth [12] with frequent inclusions of gravel at its base overlay a moist sandy clay deposit [13], with inclusions of mortar, animal bone, charcoal, chalk fragments and oyster shell. This variety in inclusions suggests this may have been a dump of occupation debris. [13] diffuse horizon with [14].</p>	<p>[12]: No finds          [13]: Pot 1550–1610</p>
<p>Upper Moorfields marsh deposit [14] at 109.6m ATD. Dark blackish brown peaty deposit. Diffuse horizon with [15].</p>	<p>[14]: Pot 1480–1550, leather late medieval–post-medieval (15th/16th-century), residual medieval Pot 1270–1350, residual Roman pot 150–400 &amp; tile 50–160.</p> <p>Bulk sample [14] {7}, see 18.7.</p> <p>A mixed plant assemblage including seeds from a variety of plants, including dry, disturbed (possibly cultivated) ground as well as some from wet places, and many freshwater molluscs</p> <p>Bulk sample [14] {8}, see 18.7.</p> <p>This probably contains remains of hay, perhaps from damp, riverside meadows, and cereal crop weeds included with grain used as fodder, most likely to derive from stable refuse.</p>



<p>Marsh deposit [15] at 109.14m ATD, Mid to dark brown humic silt, rooting to top and frequent to occasional shells in basal 30cm, regular and sharp lower boundary [16].</p>	<p>Bulk sample [15] {6}, see 18.7. This yielded a large assemblage of seeds almost entirely from aquatic and wetland plants, and freshwater molluscs. These suggest that this was one of the wetter parts of the Moorfields Marsh.</p>
<p>Light grey-blue coarse sandy silt deposit [16], sealed by marsh. Context [16] sealed feature [19] and [21].</p>	<p>[16]: Pot 1580–1900, probably intrusive. (later artefacts sunk through the marsh sequence have been noted nearby at Eldon Street (sitecode ENS03, S. Watson, MOLA, pers comm). Bulk sample [16] {5}, see 18.7. This contained much plant epidermal tissue, probably from roots or rhizomes of plants growing in later deposits, but waterlogged seeds were scarce and poorly preserved, and represented several habitat types.</p>
<p>A large pit [19] at 110.48m ATD and 0.50m deep, which extended over the northern area of the trench. Probably a quarry pit. Secondary fill [17] consisted of purplish grey gravelly sterile clay. Primary fill [18] silty gravel. This feature was cut into natural gravel.</p>	<p>[17]: Tegula AD 50–160</p>
<p>A cut feature [21], possibly a shallow ditch, 0.27m deep, extended across the southern part of the trench beyond the limits of excavation truncating a pit [25], 0.50m deep, of which the majority lay beyond the southern limit of excavation. This pit cut natural gravel at a maximum depth of 108.79m ATD.</p>	<p>No finds</p>
<p><b>Interpretation and summary</b></p>	
<p>Natural sandy gravels were visible at a maximum depth of 107.92m ATD. These were cut by a pit [25] which was partially truncated by a ditch cut [21]. Both of these features produced no finds apart from a single fragment of tile dated to AD 50–160 from the pit. Both, however, are probably Roman. This is possible evidence for two separate phases of land use. There is evidence for Roman activity in the form of a possible quarry pit [19].</p> <p>The potential Roman deposits were sealed by a highly organic spongy brown marsh deposit [15]. This appears to be the Moorfields Marsh deposited under two significantly different environments. Context [14] is quite peaty and may be the result of separate, yet consistent flooding events. The latest pottery from this context was dated to the 16th century; it also contained residual fragments of Roman black-burnished ware, particularly interesting given the site location within the known western extent of the northern Roman cemetery (Hall 1996). Potentially these sherds could originate from disturbed burial vessels. However, this is tenuous</p>	

given the small quantity of pottery.

Context [13] immediately sealing the marsh is also dated to the 16th century. This is sealed by post-medieval dumps [7]–[12] that appear to have been deposited progressively to consolidate the underlying Moorfields marsh deposit. The sites recent use as a park is demonstrated by contexts [6]–[9], which consist of 19th-century garden horizons interspersed with levelling/landfill layers.

## 9 Assessment of results against original expectations and review of evaluation strategy

GLAAS guidelines (English Heritage, 1998) require an assessment of the success of the evaluation 'in order to illustrate what level of confidence can be placed on the information which will provide the basis of the mitigation strategy'. The recommendations suggest that there should be:

Assessment of results against original expectations (using criteria for assessing national importance of period, relative completeness, condition, rarity and group value) (Guidance Paper V, 4 7)

Department of the Environment guidelines for assessing the importance of individual monuments for possible Scheduling include the following criteria: *Period; Rarity; Documentation; Survival/Condition; Fragility/Vulnerability; Diversity; and Potential* (PPG16 Annex 4, slightly updated in DCMS 2010 Annex 1). The guidelines stress that 'these criteria should not be regarded as definitive; rather they are indicators which contribute to a wider judgement based on the individual circumstances of a case'.

Corporation of London guidelines (CoL 2004) also require an 'Assessment of results against original expectations (using criteria for assessing national importance of; period, relative completeness, condition, rarity, and group value) and review of evaluation strategy.'

### 9.1 Research aims

The original research objectives were met as follows; information was recovered on:

- No archaeological remains of prehistoric date relating to occupation of the area.
- Archaeological remains of probable Roman date relating to occupation of the area; in the form of a Quarry pit, a ditch and earlier pit.
- Substantial archaeological remains of medieval date in the form of the *Moorfields Marsh*, and overlying late medieval deposits recorded relating to the subsequent reclamation of land... *establishing the presence of Late medieval and post-medieval rubbish dumps and remains associated with the reclamation of Moorfields Marsh.*
- Extensive archaeological remains of post-medieval date, in the form of dump and levelling deposits, as well as demolition type deposits associated with the later installation of a park.
- Geo-archaeological and palaeoenvironmental deposits recovered from Moorfields Marsh will contribute to understanding the significance of geomorphology, ecology, ecosystems and climate, hydrology, and vegetational and fauna development of the site during the medieval period. The results of the fieldwork allow us a more through understanding of the reclamation of Moorfields Marsh during the post-medieval period. Further analysis of monolith and bulk samples from the marsh will help us to understand the palaeoenvironmental, climatic and ecological conditions under which it was deposited, as well as the vegetation and fauna that survived in that environment.

- The absence of waterlain deposits associated with the Walbrook help us to identify where it did not flow, and therefore where it may have. Closer examination of the finds (particular leather) will potentially help in understanding activities being undertaken in the vicinity during the medieval period. The evidence for Roman activity, when taken in conjunction with documentary sources and records from adjacent sites (RIV87, FIB88, ENS03 etc) should give us a greater understanding of land use in the area, and its development over time.

## 9.2 Assessment criteria

### **Criterion 1: Period**

The Remains fall into the following groups,

- No Prehistoric features.
- Roman Remains, including finds and pits.
- Roman/medieval marsh deposit.
- Post-medieval reclamation dumps, finds (including leather and ceramics).
- 19th-century structural remains (culvert)

### **Criterion 2: Rarity**

Roman Quarry and refuse pits are comparatively common in this extra-mural area of the city, and are not considered of high importance.

The Moorfields Marsh deposits have also been widely recorded in the surrounding area, eg sites RIV87 & ENS03 (although these results will allow future analysis for localised conditions and potentially variations from the other sites).

Post-medieval deposits relating to the levelling and reclamation of the marsh have been well documented.

### **Criterion 3: Documentation**

Documentation is limited to historic maps, which identify Moorfields Marsh as far back as the 16th century (Agas 1562). The site has seen little development beyond 19th-century shallow building foundations that have minimal impact on the archaeology.

### **Criterion 4: Group Value**

The Roman extra-mural activity can be compared, and contrasted, with that seen in a large number of previous archaeological sites in the area, in particular 12–15 Finsbury circus (sitecode FIB88), Eldon Street (ENS03), New Broad Street (NEB87) and Riverplate House (RIV87). This will help to characterise the varied activities being conducted in the area.

#### **Criterion 5: Survival/condition**

Organic remains such as a small quantity of leather artefacts were relatively well-preserved in the marsh deposits. The Roman features appeared to have been truncated in antiquity, potentially by the marsh formation processes. The marsh deposits and reclamation dumps were relatively undisturbed.

#### **Criterion 6: Fragility**

Apart from the waterlain marsh deposits, which due to their nature produce a greater variety of fragile finds (eg leather items that require careful handling and excavation), the vulnerability of the majority of archaeological remains are similar to that seen in other sites across London.

#### **Criterion 7: Diversity**

The site characterises three periods, although with limited variety in each. Roman features represent quarry pitting, and possibly rubbish disposal. The medieval and post-medieval periods are represented by the Moorfields Marsh and subsequent reclamation.

#### **Criterion 8: potential**

Although no evidence of prehistoric activity was present, there remains the possibility that further excavation on the site could add to the limited finds from the surrounding area (eg sites BDC03 and RIV87).

The work has demonstrated the survival of Roman pits, Moorfields Marsh deposits and subsequent reclamation dumps. These features all extended beyond the footprint of the evaluation trench. Further features of similar type and date almost certainly survive in the unexcavated areas of the site outside these footprints.

## **10 Statement of potential archaeology**

The following remains have been **demonstrated** to survive within the evaluation trench, and to extend beyond that trench. Therefore there is a high potential for them to be present in other, as yet unexcavated, parts of the site:

- High potential for Roman remains, in the form of the already exposed negative features [see above] in the form of multiple phases of pits/quarries and ditches, and probably relatively untruncated.
- High potential for medieval remains, in the form of the already exposed section of Moorfields Marsh and overlying deposits relating to the reclamation and drainage of the surrounding area.
- High potential for post-medieval remains representing reclamation of the marsh, and levelling for the 19th-century roadway and gardens.

Although not present in the evaluation trench, the remaining areas of the site still have a low potential for limited prehistoric evidence.





In addition:

- Future analysis of the plant, mollusc, and beetle remains from the bulk samples, and of the soil monoliths from the column samples, will contribute to characterising the marsh and its formation processes locally, also contributing to wider discussion as to its origins and formation processes.
- Further analysis of the leather finds has the potential to contribute to our understanding of medieval/post-medieval leather manufacture.

## **10.1 Importance of Resources**

The archaeological remains identified in the fieldwork are provisionally assessed as being of low to moderate importance, as there is significant potential to further the understanding of the medieval marsh deposits locally, but contributing to wider-ranging studies of the marsh. The evidence from Roman cut features contributes to our knowledge of activity in this extra-mural area before the spread of the marsh.

## 11 Conclusions

### 11.1 Geology

The area around Liverpool Street Station site lies on Taplow terrace gravels (c 108.6m ATD). At 107.92m ATD a layer of light greyish-yellow fine sterile sand was exposed at the base of pit cut [19]. This was probably a thin band within the terrace gravel sequence. These consisted of light brown sandy gravels exposed at a maximum height of 108.58m ATD (8.58m OD) in evaluation Trench 1. These may have been horizontally truncated, following Roman consolidation activity, which would explain the absence of a layer of alluvium generally associated with the River Walbrook, as recorded in LNA99 & RIV87. Likewise the brickearth recorded at Riverplate House (RIV87) was not evident.

### 11.2 Roman remains

Three features (Figure 3) (one contained Roman roof tile dated to AD 50–160) were recorded cutting the terrace gravels, between 108.67m ATD and 107.92m ATD. The largest (Photo 2) was probably a quarry pit, at the northernmost end of Trench 1, extending beyond the limits of excavation. This shared a similar fill with the east–west ditch, both of which may have been backfilled for land reclamation.

In the southern corner of Trench 1 a small pit (Photo 4)(again continuing beyond the limits of excavation) had been truncated by the ditch. Filled with sterile blue grey silty clay, its function was unclear. It may represent an earlier phase of quarry pitting.

All three of these features survived to depths of c 0.3–0.5m. This may suggest truncation prior to formation of the marsh, or possibly as a result of flooding and the marsh formation processes.

Compared to surrounding sites in Finsbury Circus (RIV87, FIB88) there was surprisingly little Roman stratigraphy. No evidence for the variety of burials and cremations found at FIB88 or the alluvial activity at RIV87. Whilst this may be a result of extensive quarry pitting and/or land reclamation, it is possible that due to the sites location on the periphery of the city is was simply comparatively underdeveloped.

### 11.3 Medieval remains

Roman–medieval marsh remains survived between 108.89m ATD and 109.64m ATD (**Error! Reference source not found.**). The lowest brown fibrous organic marsh (consistent with that recorded at RIV87) was probably formed sometime after the 2nd century AD. This was overlain by a buried marshy topsoil, which contained a variety of finds dating from the late medieval to the early 16th century. Later inclusions are probably intrusive, as the majority of dated finds are late medieval in date.

Within the confines of Trench 1 no cut features representing attempts to drain the marsh were observed (eg ditches/gullies). The area would have remained waterlogged throughout the medieval period. There was evidence that extensive land reclamation was undertaken, in the form of dumps overlying the marsh (**Error! Reference source not found.**) containing large amounts of imported soil dumped onto the moor in an attempt to raise the ground level and prevent flooding.

## 11.4 Post-medieval remains

Sixteenth- to seventeenth-century reclamation/landfill dumps were identified between 112m ATD and 110.5m ATD (**Error! Reference source not found.**). The site falls entirely within the open *Moor Field* or Moorfields (as seen on maps from the 16th to 18th centuries, see 1553 map below) explaining the lack of building development seen during this period on the site. The sequence of soil horizons interspersed with levelling/dump deposits represent the construction of the gardens and surrounding roadway in the early 19th century (laid out 1815–17, see 1824 map below). There was no evidence for alterations to the parks layout, such as pathways, planting, or small buildings.

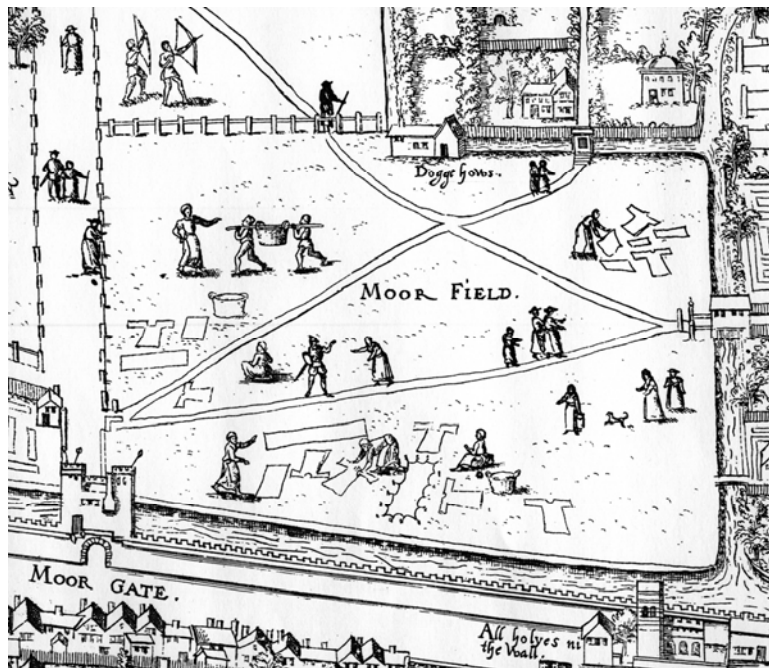


Photo 6 Detail from the Copperplate Map of c 1553 showing the Moorfields as an open space, reclaimed from the Moorgate Marsh

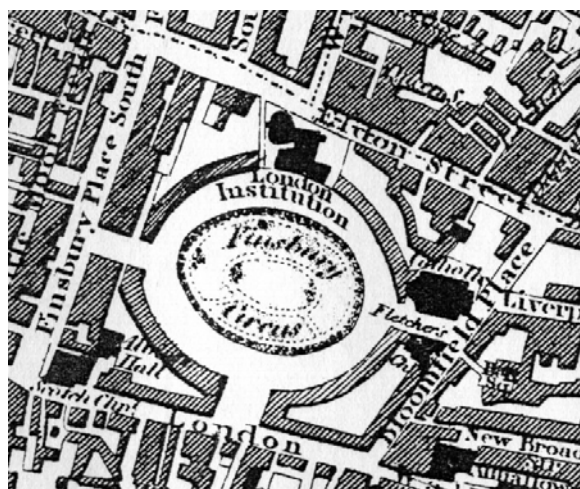


Photo 7 Detail from Greenwood's map of c 1824, showing the recently constructed gardens, roadways, and buildings of Finsbury Circus

## 12 Recommendations for appropriate mitigation strategy

No unforeseen archaeological deposits of significance were exposed by the evaluation trench or the shallow grout shaft trial trenches. Therefore the mitigation strategy of preservation by record remains appropriate.

The C138 design archaeologist will produce recommendations for further work to mitigate the impact of the access shaft.

### 12.1 Revised and new objectives for further fieldwork

- What is the nature, *and in particular the date*, of the Roman activity on the site, how does it compare with that in the surrounding area? Is this related to any variations the levels of the natural geology?
- Are any Roman burials present?
- At what date, and by under which environmental conditions, did the Moorgate Marsh develop?

*This has mostly been addressed by geoarchaeological recording and sampling during the evaluation, but if marsh deposits are present above natural geology or features differing from those seen in evaluation, further work may be required to record and sample any variations.*

- What evidence is there for activities in the area of the marsh, or in the surrounding area, represented by dumping of refuse in/on it?
- How, and when, was the marsh reclaimed, eg by drainage (ditches etc) and dumping (land raising and consolidation)?
- Is there any evidence for activities carried out in the Moorfields following reclamation of the marsh?
- Is there any evidence for the layout of Finsbury Circus gardens in the early 19th century?

## 13 Publication and dissemination proposals

The watching brief and evaluation results will initially be disseminated via this report; the supporting site archive of finds and records (including digital data) and by incorporation into the wider predictive deposit modelling for the Crossrail scheme. Any publication proposals will be considered in relation to later fieldwork on this site, and also the wider context of archaeological potential and results within the Crossrail scheme.

A summary report will be published in the London Archaeologist excavation round up and also deposited with the LAARC



## **14 Archive deposition**

The site archive containing original records and finds will be stored temporarily with MOLA pending a future decision over the longer-term archive deposition and public access process for the wider Crossrail project.

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## 16 Acknowledgements

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The evaluation was supervised by the author and David Sankey, with the assistance of Matt Ginnever. Other MOLA staff involved in the evaluation included Mark Burch, Catherine Drew and Neville Constantine (geomatics), Ian M Betts (Building Material) and Jacqui Pearce (pottery). The fieldwork was managed by MOLA Assistant Contracts Manager Nicholas Elsdon and Contracts Manager Elaine Eastbury.





## 17 NMR OASIS archaeological report form

### 17.1 OASIS ID: molas1-98482

#### Project details

Project name Crossrail Finsbury Circus

Short description of the project Two phases of archaeological excavation (two general watching briefs and one evaluation with one trench) were carried out at the site of Crossrail Finsbury Circus Shaft by the Museum of London Archaeology (MOLA), between 11/03/11 to 01/04/11. 19th-century garden soil horizons overlying post-medieval dumps were recorded at a maximum depth of 9.86m OD. These were related to the recrimination of land overlying Moorfields Marsh. Medieval marsh deposits sealed Roman cut features at 8.6m OD. These included a possible quarry pit and intercutting ditch and pit. Natural Gravels and sand were truncated to a maximum depth of 7.92m OD.

Project dates Start: 11-03-2011 End: 01-04-2011

Previous/future work Not known / Not known

Any associated project reference codes XRZ10 - Sitecode

Type of project Field evaluation

Site status Local Authority Designated Archaeological Area

Current Land use Transport and Utilities 2 - Other transport infrastructure

Monument type MARSH Medieval

Monument type DITCH Roman





Monument type	PIT Roman
Significant Finds	SHERD Medieval
Significant Finds	LEATHER (SHOE) Medieval
Significant Finds	CBM Uncertain
Methods & techniques	'Environmental Sampling', 'Test Pits'
Development type	Rail links/railway-related infrastructure (including Channel Tunnel)
Prompt	Crossrail act 2008
Position in the planning process	Not known / Not recorded
Project location	
Country	England
Site location	GREATER LONDON CITY OF LONDON CITY OF LONDON Finsbury Circus
Postcode	EC2
Study area	27.00 Square metres
Site coordinates	3286 8158 3286 00 00 N 8158 00 00 E Point
Height OD / Depth	Min: 7.92m Max: 8.58m
Project creators	
Name of Organisation	MoL Archaeology



Project brief originator	Crossrail
Project design originator	Crossrail
Project director/manager	Elaine Eastbury
Project supervisor	Sam Pfizenmaier
Project supervisor	David Sankey
Type of sponsor/funding body	Crossrail Ltd
Name of sponsor/funding body	Crossrail
Project archives	
Physical Archive recipient	LAARC
Physical Archive ID	XRZ10
Physical Contents	'Ceramics','Environmental','Glass','Leather'
Digital Archive recipient	LAARC
Digital Archive ID	XRZ10
Digital Contents	'Stratigraphic'
Digital Media available	'Images raster / digital photography'



Paper Archive recipient LAARC

Paper Archive ID XRZ10

Paper Contents 'Stratigraphic'

Paper Media available 'Context sheet', 'Diary', 'Drawing', 'Matrices', 'Notebook - Excavation', 'Research', 'General Notes', 'Plan', 'Section'

Project bibliography  
1

Publication type Grey literature (unpublished document/manuscript)

Title C257 ARCHAEOLOGY CENTRAL Fieldwork Report Archaeological Watching Briefs and Evaluation C138 Finsbury Circus Access and Grout shafts-XRZ10

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## 18 Appendices:

### 18.1 Building Materials – Ian M Betts

#### *Summary/Introduction*

Three fragments of Roman building material were recovered from XRZ10 (contexts [14] and [17]). The building material from XRZ10 has been fully recorded and the information added to the Oracle database.

#### *Discussion*

The Roman building material from the site is all tegula roofing tile of AD50–160 date. All three are in slightly different fabric types (2452, 3006, 3023) suggesting they may derive from different roofs. Two were probably made in or close to London (fabrics 2452, 3006) whilst the other may be from a tiler in north Kent (less sandy variant of fabric 3023). One of the tegula has part of a signature mark added to the top surface with the tips of the fingers or a blunt tool. This would appear to be the individual mark of the tilemaker.

### 18.2 Tobacco pipes – Jacqui Pearce

#### *Introduction/methodology*

The clay tobacco pipes from XRZ10 were recorded in accordance with current MOL Archaeology practice and entered onto the Oracle database. The pipe bowls have been classified and dated according to the Chronology of London Bowl Types (Atkinson and Oswald 1969), using the prefix AO, with the dating of 18th-century pipes refined by reference to Oswald's Simplified General Typology, distinguished by the prefix OS (Oswald 1975). Quantification and recording follow guidelines set out by Higgins and Davey (1994; Davey 1997).

A total of 7 clay pipe fragments, all bowls, were recorded in three contexts, none of which yielded more than five examples. Five items have been accessioned, all of them marked; none are decorated. All pipes are typical of London manufacture and all have been smoked. Datable bowls range broadly from c 1680 to 1780, with most made c 1730–80. The context dates, based on clay pipe evidence, are given in Table 3.

#### *Quantification*

*Table 3: dating and quantification of clay pipes from the site*

Ctxt	TPQ	TAQ	B	S	M
1	1730	1780	5		
4	1700	1740	1		
5	1730	1780	1		
<b>Total</b>			<b>7</b>	<b>0</b>	<b>0</b>

#### *Character and dating of the clay pipes*

The earliest pipe bowl is a type AO22, dated to c 1680–1710. This was found in context [1], together with four pipes of mid 18th-century date. Apart from one pipe of type OS10 (c 1700–30) in context [4], all others are of type OS12. None are milled

around the top of the bowl and none are burnished. They are standard everyday clay pipes of typical London manufacture. The OS10 pipe from context [4] is marked with the maker's initials WW, moulded in relief on the sides of the heel (<7>). These probably stand for William Wilder, recorded 1717–63 in Whitecross Street (Oswald 1975, 149). Two type OS12 bowls from context [1] are similarly marked, but with the initials CS (<4>, <5>); the identity of this pipe maker is uncertain. The remaining marked pipes do not have initials, so again cannot be traced to a known maker. The first of these (from context [1]) is marked simply with a raised dot moulded in relief, one on each side of the heel (<6>). The second pipe, from context [5], has a moulded fleur-de-lis on each side of the heel (<8>).

#### *Potential and Significance*

The clay pipes from XRZ10 have a limited significance in relation to the site and its immediate environs. There is little potential for further chronological refinement. Consequently, no further work is recommended.

### **18.3 Post-medieval pottery and glass – Nigel Jeffries**

#### *Summary/Introduction*

Post-medieval pottery from this evaluation was recovered in 10 contexts ([1], [3], [4], [5], [6], [9], [11], [13], [14], and [16]) and comprised 52 sherds from 41 vessels (weighing 2025 grammes). With an average weight of 38.9 grammes per sherd, this material was recovered in a varied condition with some vessels surviving as small-sized fragments with others better preserved (for example, pottery in [4] and [14]).

#### *Fabrics and forms*

With the general range of pottery dating this limited sequence to the 17th century, the range of fabrics and sources of supply common to this period are therefore well represented, for example Surrey-Hampshire border whitewares, imported Rhenish stoneware and London made red earthenwares in utilitarian forms (largely dishes and bowls). Similarly sourced tin-glazed wares supplied a range of table and apothecary wares, with the presence of the variously decorated and defined products of London's delft industry supplying the main dating evidence to the recorded landuse. The earliest sequences supported by the pottery appear is in contexts [13] and [14] and are dated to the 16th century.

#### *Discussion*

The most unusual and idiosyncratic pot is a goblet or vase in context [1] which appears to be of a provincial Chinese source (possibly Sung), with a deliberately applied crackle glaze that appears distinctive from Celadon ware, which also has a similar glaze style.

A complete natural green coloured glass cylindrical phial in context [9] provided the only example of bulk glass from this site and appears a development of this form that can be dated to the first half of the 18th century.

### **18.4 Roman Pottery – Amy Thorp**

#### *Fabrics and forms*

A total of fourteen sherds were recovered from context [14], dated to AD 150–400 based on a single base from a Nene valley colour-coated ware beaker (NVCC 3). Post-Roman pottery was also present in the context [the upper Moorfields Marsh deposits], and the small group is almost certainly residual. The mixture of Roman





fabrics concentrates on samian wares and black-burnished wares. The latter is particularly interesting given the site location within the known western extent of the northern Roman cemetery (Hall 1996). Potentially these sherds could originate from disturbed burial vessels. However, this is tenuous given the small quantity of pottery.

## 18.5 Registered finds – Michael Marshall

### *Fabrics and forms*

The small assemblage of 3 registered finds provides some useful information about the date and nature of activity upon the site. They belong to the later medieval or post-medieval period. The most interesting find is a fragment of a small post-medieval crucible <1>, [6] which provides evidence for local industry more specifically the working of non-ferrous metals, most probably copper alloy.

Another group of finds came from a marshy deposit [14]. The two registered finds from this context were a fragment of an iron horse shoe <2>, most likely of later medieval or post-medieval date, and a piece of melted lead waste <3>. The later need not relate to metalworking and could come from building material or an object which has been exposed to high temperatures.

In addition to the registered finds [14] produced a small – medium assemblage of well-preserved leather (1 box). This material will be reported on in more detail at post-excavation assessment, and is made up of waste, including part recycled shoes, as well as shoe fragments. An initial scan of the material shows a variety of shoe styles at least some of which are of welted construction. This technique became popular in the later part of the 15th century. As such a preliminary late medieval – post-medieval date for at least some of the leather can be proposed.

A full archive catalogue of the material is included below:

#### Ceramic crucible

<1>, [6]; sgp

Incomplete; Diam of base 26mm. Ceramic crucible base sherd, with a circular flattened base. Some glassy green vitrification on the exterior and darkened green tinged surface with adhering yellow (cess?) material on the interior. Pale white-orange oxidised fabric with quartz sand (PMCR).

#### Iron horseshoe

<2>, [14]; sgp

Incomplete; surviving L 77mm, max surviving W 29mm, average Th of shoe 4.5mm, Th of Calkin 9.5mm. Fragment of an iron horseshoe, from the heel broken across the web. Smooth curved edge which expands in width along its length. Two nail holes near the outer edge both punched from the ground surface, one rectangular, the other sub rectangular, no well defined counter sinking. Folded (type C) calkin which tapers to a point. Medieval or post-medieval, probably type 4 or a derivative (Clark 1995, 69) which are most common from the later medieval period onwards.

#### Lead waste

<3>, [14]; sgp



Incomplete; L of largest 115mm. Two fragments of lead waste solidified molten running structure with some hints of linear structure, possibly wood grain impressions, on the smaller piece.

Bulk leather, including one fragment to be accessioned

[14]

An assemblage of leather was recovered from [14]. An initial examination shows that it includes waste leather (including recycled shoes) as well as objects. Shoe fragments include a mixture of broad round toed soles with narrow heels, more oval toed examples and the presence of fragments of welt suggesting a late medieval – post-medieval date for much of the material. Several upper fragments are also present including a piece which maintains part of its leather fastening which will be accessioned. The exact range of forms and dates will be confirmed at the next stage of analysis.

## 18.6 Geoarchaeological sampling – Virgil Yendell

One sheet pile was lifted to give access to a 30cm width of the north-facing section towards the eastern corner of Trench 1. Geoarchaeological soil monoliths (column samples) and environmental bulk samples were taken from a hand cleaned section through the medieval and early post-medieval Moorgate Marsh sequence. They were photographed, levelled and located on a section drawing (Figure 4).

Table 4 Geoarchaeological results

Approximate elevation	Description	Samples
110.40m ATD to 110.20m ATD	Context [13]; Silty sand, frequent CBM and flint, Mid brown and soft. <i>Medieval to post-medieval dump layer</i>	<1> Mono 4/4
110.14m ATD to 110.04m ATD	Context [14]; Dark reddish brown peat, frequent wood remains, rare to occasional large CBM pieces, frequent to occasional tiny CBM fragments, irregular but sharp upper and lower boundaries, soft and spongy. <i>Buried medieval to post-medieval marshy topsoil.</i>	<1> Monolith 4/4 <4> [14] x2 <8> [14] Bulk x1
110.04m ATD to 109.59m ATD	Context [14]; Dark brown to black clayey silt, soft, occasional CBM, leather, bone, chalk, regular and sharp lower boundary. <i>Potential marsh deposits but increased human input and possibly dumped/redeposited.</i>	<1> Monolith 3/4 <3> [14] x2 <1> Monolith 2/4 <2> [14] x2 <7> [14] x2
109.59m ATD to 108.94m ATD	Context [15]; Mid to dark brown humic silt, heavy 1cm width rooting to top and frequent to occasional shells in basal 30cm, regular and sharp lower boundary. Evidence of plant fibres preserved. No visible structure but poor light levels made description of this part of section hard. Rare to no inclusions of finds. <i>Moorfields marsh deposits</i>	<1> Monolith 1/4 <6> [15] Bulk x2
108.94m ATD to 108.49m ATD	Context [16]; Sandy clay, occasional gravel inclusions, rounded to sub angular, occasional large CBM, dark grey, soft. <i>Possible dump? Or pit fill as found in other part of trench? Roman?</i>	<1> Monolith ¼ <5> [16] bulk x2
108.49m ATD to 108.21m ATD	Clay sand, yellowish grey, abundant large gravel, angular to subangular. No human made inclusions. <i>Natural sand and gravel, archaeologically sterile.</i>	



*Photo 8:* Detail of monolith samples taken through medieval marsh and associated horizons.  
Facing south.

## 18.7 Plant Remains – Anne Davis

### Methodology

Four environmental bulk samples were taken from the section through a sequence of post-medieval/medieval marshy topsoil and marsh deposits and a Roman dump/pit in Trench 1.

The environmental bulk samples were processed by flotation using a modified Siraf flotation tank with meshes of 1.00mm and 0.25mm to retain the residue and flots respectively. The wet flots assessed to determine the presence and nature of any plant remains and other biological material present. The sample residues were dried, and sorted by eye for artefacts and environmental material. The sorted materials were weighed and counted. Due to the presence of waterlogged organics three of the samples <7> <8> and <9> were sub-sampled to retain material for future specialist processing. The flots were bagged and stored wet.

Sample [16]{5}, from the base of the sequence, contained much plant epidermal tissue, probably from roots or rhizomes of plants growing in later deposits, but waterlogged seeds were scarce and poorly preserved. Those noted came from a variety of plants, representing several habitat types, and give very little information about the deposit, although a few fig (*Ficus carica*) seeds, charred grain fragments and scrappy leather fragments indicate a certain amount of human input.

A very large flot from Moorfields Marsh deposit [15]{6} was made up mostly of the same epidermal tissue seen in sample {5}. A large assemblage of seeds came almost entirely from aquatic and wetland plants, including pondweed (*Potamogeton* sp.), rigid hornwort (*Ceratophyllum submersum*), horned pondweed (*Zanichellia palustris*), marshwort (*Apium* sp.) and duckweed (*Lemna* sp.). These are taxa typical of ponds, ditches and slow rivers, and suggest that this was one of the wetter parts of the Moorgate Marsh. Freshwater molluscs were abundant in the sample, and some beetles were also seen.

A more mixed plant assemblage was seen in sample [14]{7}, with quite frequent plant stem fragments and wood, as well as some epidermal material. Seeds came from a variety of plants, including dry, disturbed (possibly cultivated) ground as well as some from wet places. A little evidence of human influence was seen, in the form of a hemp (*Cannabis sativa*) seed, quite frequent leather, and a marine mollusc shell. Many freshwater molluscs were also seen.

The waterlogged plant assemblage from sample [14]{8} seems most likely to derive from stable refuse. The bulk of the flot was made up of monocot plant stems, probably straw and/or wild grasses, with a large assemblage of waterlogged seeds from grassland, arable and damp habitats, including many wild grass caryopses. This probably contains remains of hay, perhaps from damp, riverside meadows, and cereal crop weeds included with grain used as fodder.

While sample {5} is of little significance, the remaining three samples contained large plant assemblages whose further study would contribute to the interpretation of the site. Molluscs from samples {6} and {7} and insects from {6}, {7} and {8} would also provide useful information.



## 18.8 Faunal material – Anne Davis

In total 48 fragments of animal bone were recovered. The material was recorded into the Museum of London Archaeology (MOLA) Osteology Section Oracle animal bone post-assessment database. This included species, skeletal element, completeness, body side, epiphysial fusion, dental characteristics and modification.

All of the faunal material was collected from wet sieve samples. Sample <7> of context [14] produced 18 fragments and sample <6> from context [16] produced 30 (Table 1). The majority of the material was highly fragmented and it was only possible to identify 39% (19) bones to element and species. However, this was due to the recovery method, as wet sieving collects small fragments often missed during hand retrieval.

*Table 5 Summary of the number of bones (NISP) by species and context*

SPECIES/CONTEXT	[14]	[16]	TOTAL
CATTLE	2	8	10
SHEEP/GOAT	2	2	4
PIG	1		1
CAT	1		1
PASSERINE, SMALL	1		1
GURNARD	1		1
PLAICE/FLOUNDER	1		1
CATTLE SIZE		10	10
SHEEP SIZE	6	3	9
CHICKEN SIZE	1		1
UNIDENTIFIED MAMMAL		7	7
UNIDENTIFIED FISH	2		2
<b>TOTAL</b>	<b>18</b>	<b>30</b>	<b>48</b>

### *Discussion*

All of the remains from the Roman or later context [16] came from domestic mammals, predominately cattle or cattle-sized fragments. The presence of unfused proximal humerus and distal radius epiphyses suggests young cattle, less than three years old, are present in the sample (Reitz and Wing 1999, 76). Sheep/goat are represented by a loose incisor and proximal humerus fragment. Spiral fracture patterns were noted on cattle long bones and cattle-sized long bone fragments. Butchery was also noted on a cow cervical vertebra. This consisted of a diagonal chop through the dorsal-ventral plane and is likely to be related to dismemberment of the carcass into more manageable body sections. A cow proximal humerus fragment also displays evidence of the meat being filleted from the bone, as slivers of bone have been removed during the process. Such marks along with the high degree of fracturing are consistent with patterns observed from Romano-British urban centres (Maltby 2007).

The remains from possible Tudor context [14] were more varied. Domestic mammals including cattle, sheep/goat, pig and cat are present. The cow elements include an



unfused first phalanx from an animal less than two years old. A cat humerus is also present, with a unfused proximal epiphysis meaning it is from an individual less than 16 months old (Smith 1969). Bird remains are represented by a small fragment of rib from a chicken sized bird, and a first phalanx from a small passerine (sparrow sized bird). One small fragment of egg shell was also recovered from context [14]. The fish remains include vertebra from plaice/flounder and gurnard, as well as 2 small fragments from unidentified fish.

Overall the assemblage highlights the excellent preservation and the high likelihood that further, more substantial, archaeological work would produce an informative faunal assemblage.

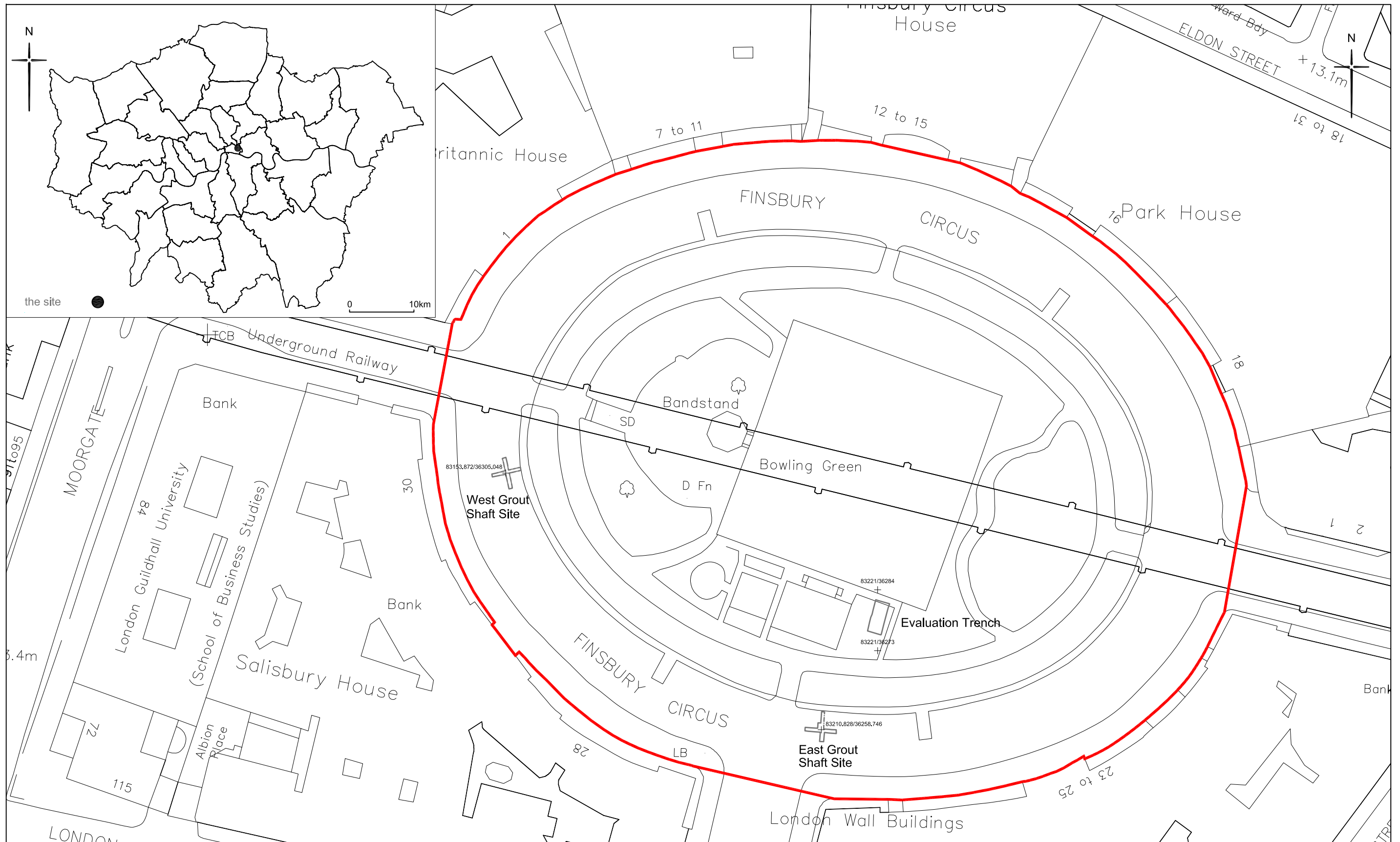


Fig 1 Location of Finsbury Circus shaft evaluation and watching brief trenches (XRZ10)

- ▭ Site outline
- ▭ Trench edge

1:750 @ A3



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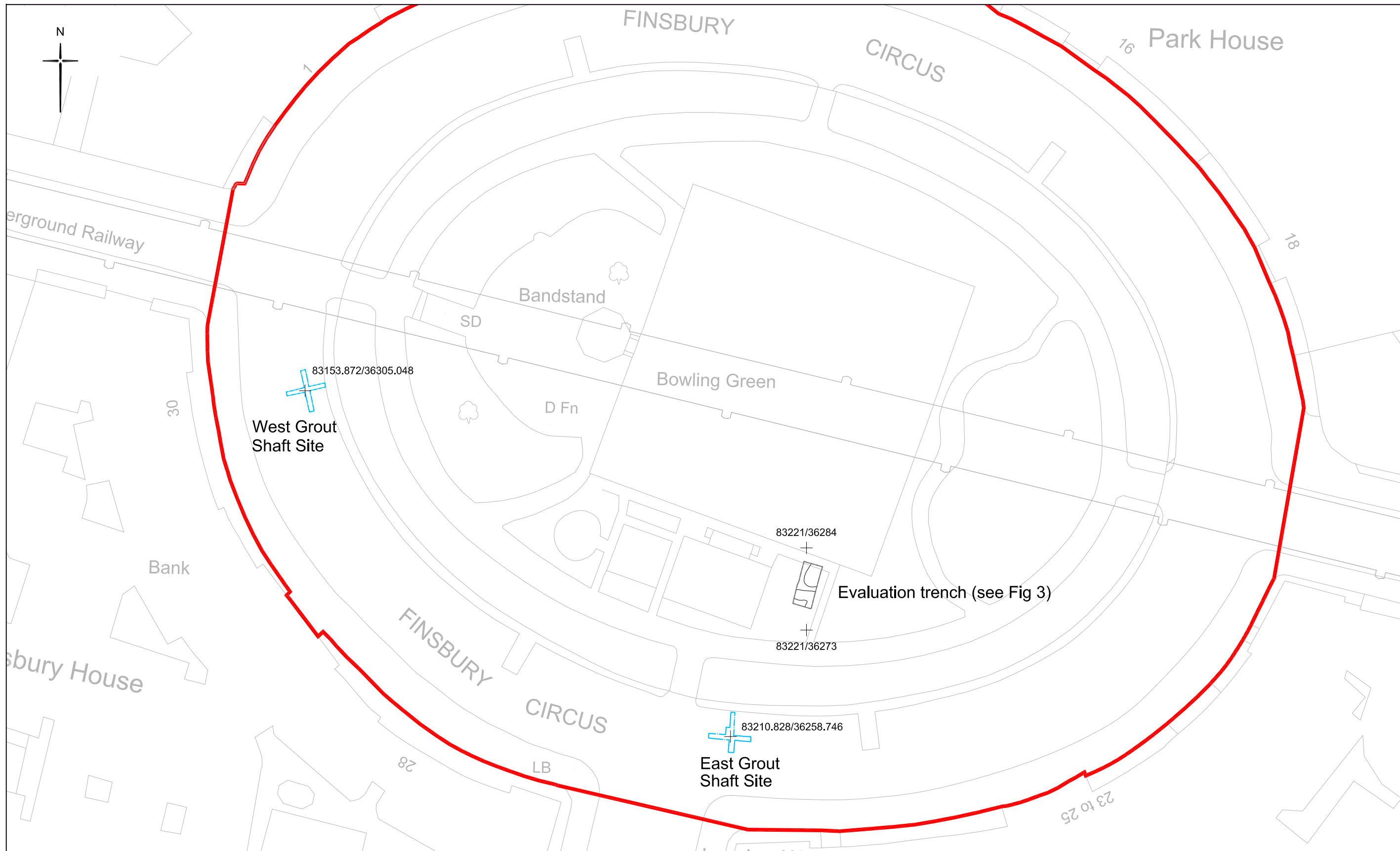


Fig 2 Archaeological features, Finsbury Circus Shaft (XRZ10)

- Site outline
- Evaluation trench
- + Watching brief area
- Archaeological features

1:500 @ A3  
 0  25m

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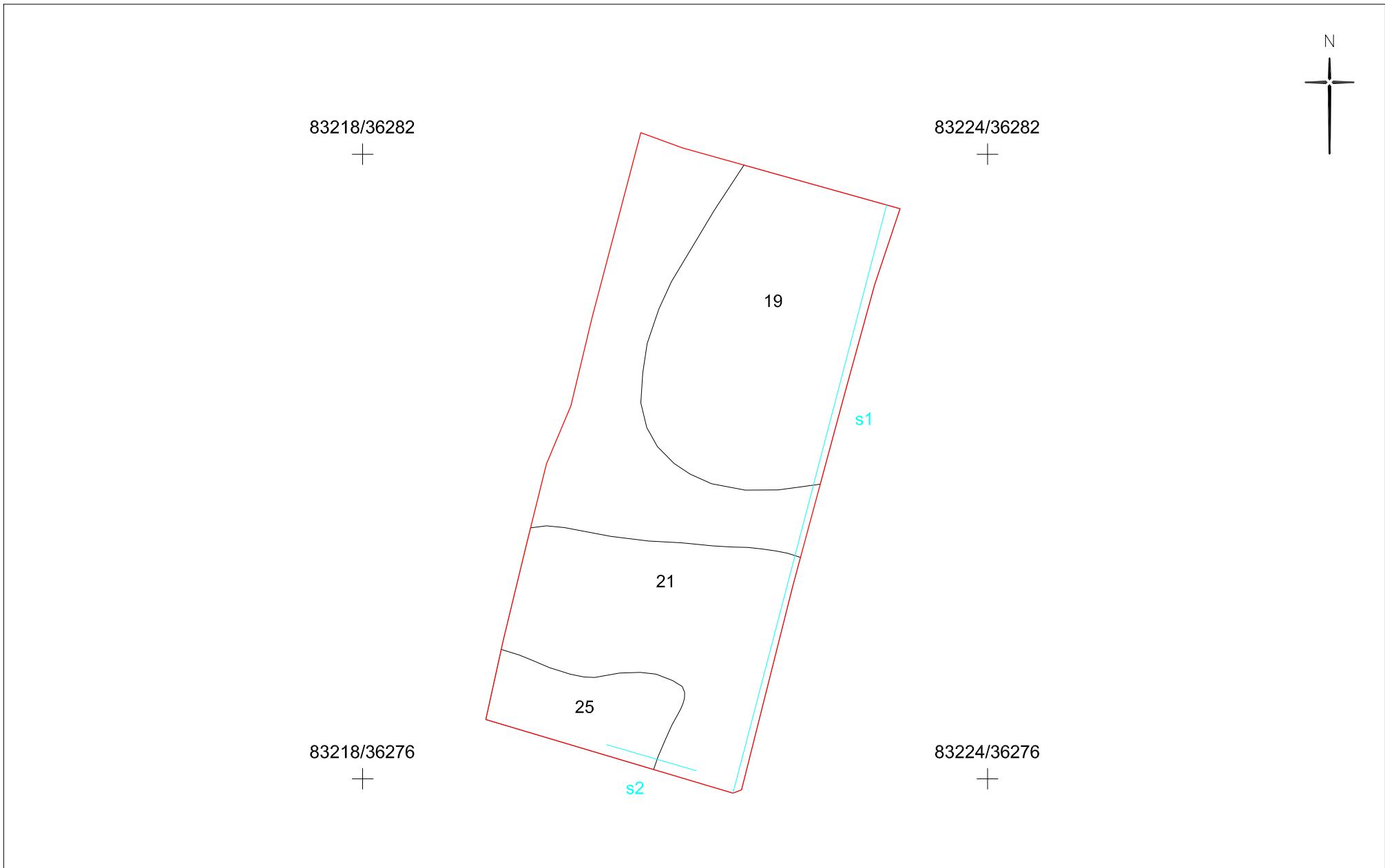


Fig 3: Archaeological features seen in the evaluation trench

- evaluation trench limit of excavation
- section location (figs 4 and 5)
- archaeological features

0 1: 50 @ A4 2.5m

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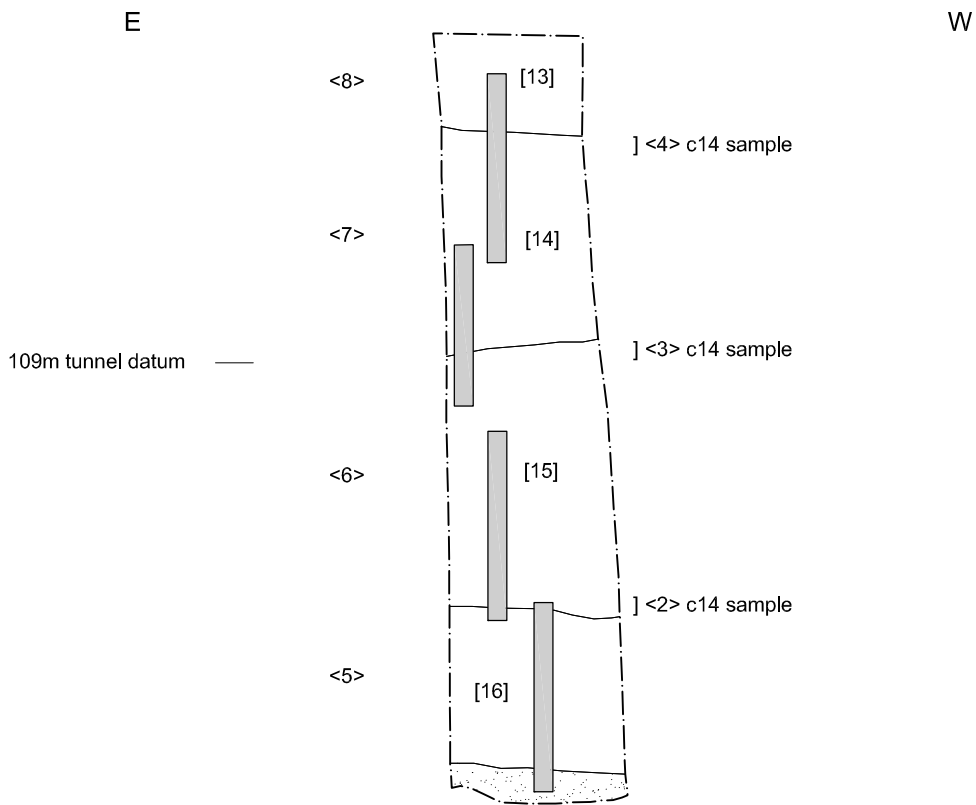


Fig 4: Section 2, north facing, showing location of geoarchaeological samples

- visible extent of section
- natural sand and gravel
- location of sample tins <1>
- [14] archaeological deposit
- <5> location of bulk sample

1:20 @ A4





N

S

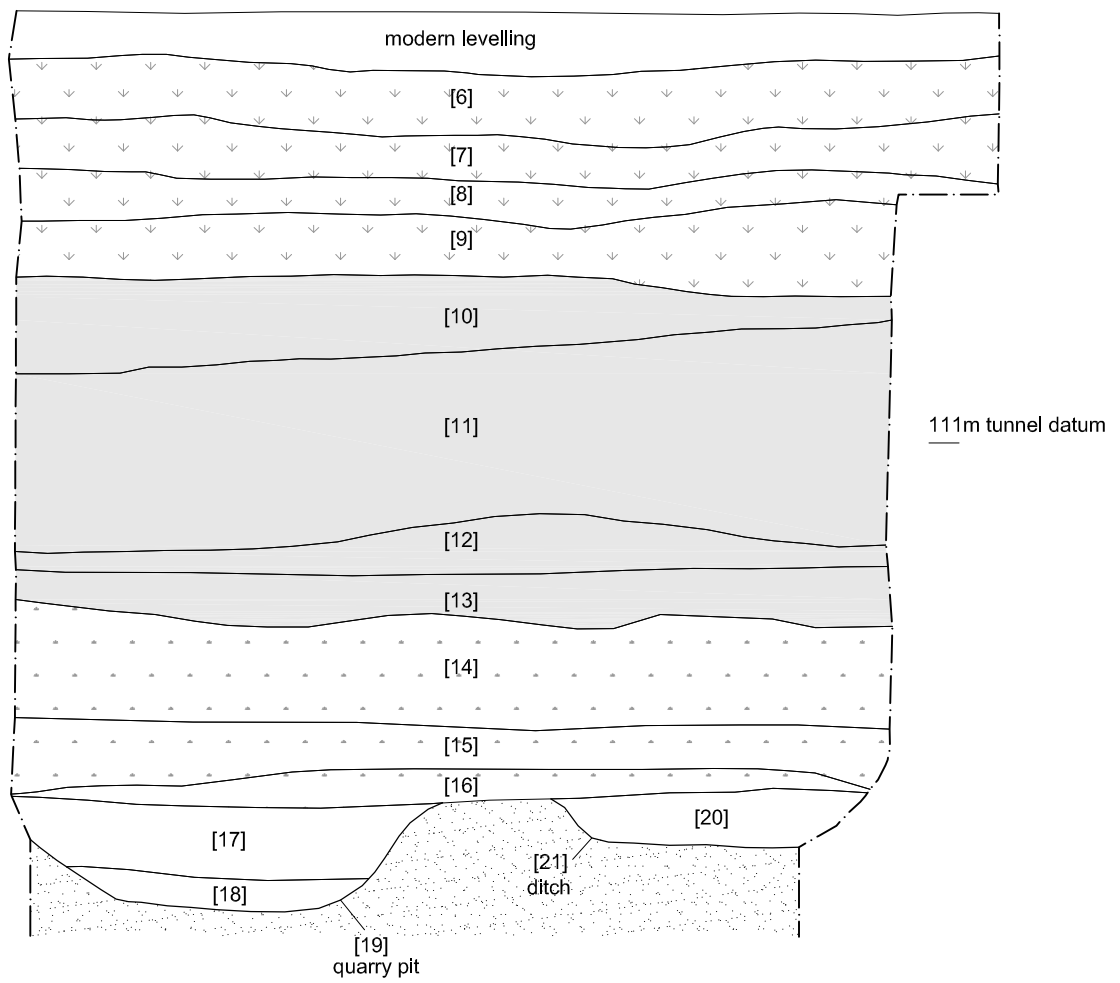







Fig 5: Section 1, west facing, detailing horizontal stratigraphy overlying Roman cut features

-  visible extent of section
-  park deposits
-  consolidation
-  marsh deposits
-  natural sand and gravel

1:50 @ A4

0 2.5m

