

Archaeology West - Contract No. C254
Archaeological Watching Brief at the Tunnelling Academy,
Aldersbrook Sidings, Newham
Event Code XSQ10
 Fieldwork Report
Document Number: C254-OXF-T1-RGN-CR100-50001
 (Draft Document No. OAG16188.R28)

Document History:

Revision:	Date:	Prepared by:	Checked by:	Approved by:	Reason for Issue:
1.0	06-05-11	Vix Hughes	A Shelley R Brown	R.Brown	For Acceptance
		<i>Vix Hughes</i>	<i>Andy Shelley</i>	<i>[Signature]</i>	

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<input type="checkbox"/>	Code 3. Not Accepted. Revise and resubmit. Work may not proceed
<input type="checkbox"/>	Code 4. Received for information only. Receipt is confirmed
Reviewed/Accepted by:(signature)	<i>[Signature]</i>
Print Name:	<i>S. Coarke</i> Date: <i>18/5/12</i>
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Document History continued

Revision:	Date:	Prepared by:	Checked by:	Approved by:	Reason for Issue:
2.0	2 Feb 12	Andy Shelley	Richard Brown	Dan Poore	Review Sheet Document Number C254-XRL-T1-XCS-CR100-50001 Comments Addressed

CONTENTS

	Page
SUMMARY	3
1. INTRODUCTION	3
1.1 Scope of work.....	3
1.2 Location, geology and topography.....	3
1.3 Archaeological background	5
2. RESEARCH AIMS AND OBJECTIVES	6
3. INVESTIGATION METHODOLOGIES	8
3.1 Watching Brief Methodology	8
3.2 Recording standards.....	8
3.3 Investigation Methodology	9
3.4 Survey Work.....	9
4. RESULTS.....	11
4.1 Introduction.....	11
4.2 Watching Brief	11
4.3 Phase Summary	14
5. RESULTS IN RELATION TO INVESTIGATION AIMS.....	15
5.1 Assessment of the Results	15
6. CONCLUSIONS	15
7. ARCHIVE DEPOSITION	16
8. BIBLIOGRAPHY AND REFERENCES	16
9. ACKNOWLEDGEMENTS	17
APPENDIX 1 ARCHAEOLOGICAL CONTEXT INVENTORY.....	18
APPENDIX 2 SUMMARY OF SITE DETAILS	18
APPENDIX 3 ARCHIVE DETAILS	18
10. SMR / HER / OASIS RECORD FORMS.....	20
Figure 1: Location and extent of the Tunnelling Academy Worksite	5
Figure 2: Location of the watching brief interventions	11
Plate 1: OS map of the area, c. 1894.....	6

SUMMARY

An archaeological watching brief was undertaken by Oxford Archaeology/Gifford (OAG) at the new Tunnelling Academy site in the London Borough of Newham which is being constructed as part of the Crossrail scheme. The intermittent watching brief work commenced in February 2011 and concluded in April 2011. Due to modern overburden the monitoring was limited to construction impacts deeper than 3m. Deposits pre-dating the modern overburden were recorded at the base of the three monitored locations, however no archaeological remains were present.

1. INTRODUCTION

1.1 Scope of work

- 1.1.1 During February to April 2011 Oxford Archaeology/Gifford (OAG) undertook an intermittent general archaeological watching brief, centred on the former Aldersbrook Sidings site in Newham, London, where a Tunnelling Academy was being constructed in connection with the Crossrail scheme (NGR 543087 186217, Figure 1). The work consisted of archaeological monitoring during mechanical excavation for attenuation tank and oil interceptor installations.
- 1.1.2 The works were carried out in accordance with a Site Specific Written Scheme of Investigation (SSWSI) for the site (Document No: C175-CSY-T-RGN-CRG03-00002 Rev 1.3). In response, OAG produced an Archaeology Method Statement (Document No. C254-OXF-W-GMS-CR100-50001/OAG16188.R22), which was approved by the Crossrail Project Archaeologist.
- 1.1.3 The SSWSI noted that on the artificially raised land which comprised the majority of the site there was c. 3m to 4m depth of recently made ground, and therefore that only ground excavations which exceeded this depth would have an archaeological impact. In this case, a general watching brief was to be applied. Beyond the raised land area it was thought that any groundworks deeper than c. 1m would have the potential to encounter potential archaeological remains, and a targeted watching brief was suggested to be appropriate. It was in this latter area where a moderate potential for unknown prehistoric or Roman archaeological remains being present was posited.
- 1.1.4 A general watching brief (GWB) comprises observation and recording of the Principal Contractor's works without constraint on their working methods; and a Targeted Watching Brief (TWB), comprises observation and recording of the Principal Contractor's works, with specific operations carried out under the supervision of the Archaeological Contractor.
- 1.1.5 Following correspondence with Crossrail (Abhi Purkayastha) and a review of supplied drawings it appeared that the only works which were to have an impact within the parameters set were three deep excavations for the location of attenuation and interceptor tanks (SWITN 1, 2 and 3). A general watching brief was undertaken during the excavation of these facilities.

1.2 Location, geology and topography

- 1.2.1 The site is located c. 350m east of Ilford Station, in the London Boroughs of Newham and Redbridge. It is bordered to the north by the Great Eastern Main Line, to the east by the River Roding and to the south and west by the subsidiary Alders Brook. A third watercourse, a north-to-south aligned drain, probably originally continued southwards to cross the centre of the site, but has been diverted eastwards into the Roding, north of the existing railway.
- 1.2.2 The site is crossed on the eastern side by the elevated A406 North Circular road deck and by overhead power lines carried on pylons, one of which is located in the north-west corner of the site. The only site access is over a single lane bridge crossing the Alders Brook from the south (Lugg Approach).
- 1.2.3 The majority of the site is raised above the surrounding Roding valley, on made ground presumably built to alleviate flooding. Beneath the made ground is flood plain alluvium from channels of the River Roding and its tributaries. The surface level of the made area lies at c. 107.5m ATD, with a slight rise to c 108.8m ATD in the north-west corner. The adjacent railway and sidings to the north also lie on an embankment, at a higher surface level (c. 108.8–109.1m ATD). To the south of the sidings, there is another artificially raised area at a lower intermediate level, but still above original ground level which is represented by Romford Road (to the south of and outside the Crossrail site).
- 1.2.4 Only the intermediate raised terrace and certain areas beyond it were affected by the construction works. This is the location of the former College of Railway Technology. A small two-storey brick building is located in the south-western corner. The site area measured .c 1.69ha (Figure 1).
- 1.2.5 London is situated within the Thames Basin, a large glacially-scoured area cut into the Cretaceous chalk which outcrops at the Chilterns to the north and the North Downs to the south. The basin subsequently infilled with Tertiary age (65 million to 1.5 million years ago) marine and estuarine sands and clays, such as the Reading / Woolwich Beds and the London Clay. The Thames Valley also contains a number of substantial gravel terraces deposited by the river during successive glaciations between approximately 450,000 to 50,000 years ago, and there are other alluvial deposits related to the Roding Valley.
- 1.2.6 Within the site, the upper surface of the Terrace Gravels is estimated to lie at c. 102.4m ATD. The surface of the floodplain alluvium is estimated to dip from c. 103.4–103.8m ATD. Beneath this is an estimated c. 1–2m depth of potential archaeological and palaeoenvironmental deposits. This includes alluvial deposits, some of which may be peat and peaty silt, measuring c. 0.5m thick. The mean water level of Alders Brook is c. 104.0m ATD.
- 1.2.7 It was therefore suggested that any archaeological features would be located beneath the raised ground, above or within the alluvium, and possibly within any deeper palaeochannels cut into the underlying gravel.

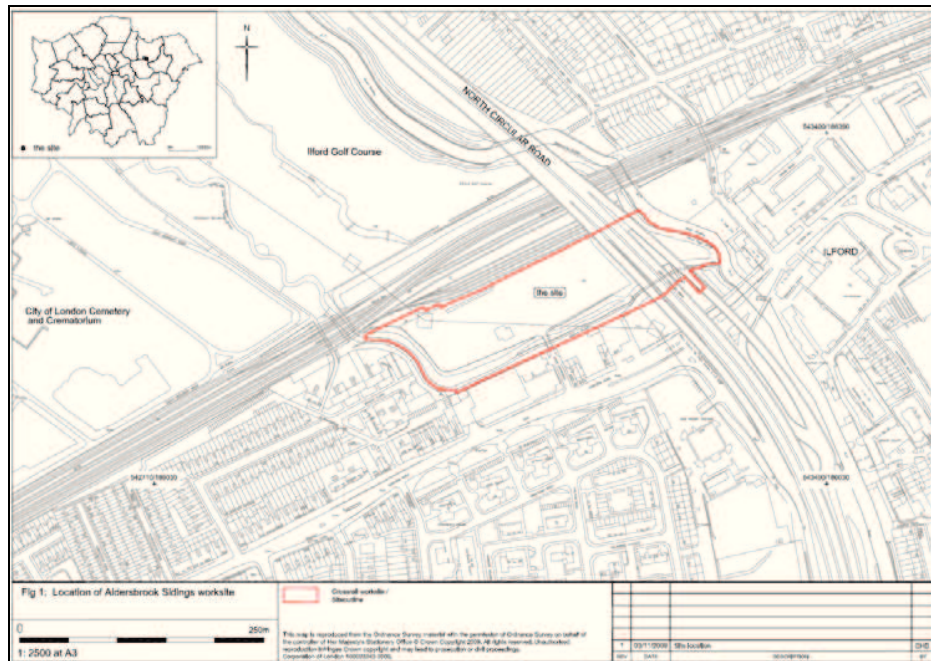


Figure 1: Location and extent of the Tunnelling Academy Worksite shown as a red outline

1.3 Archaeological background

- 1.3.1 The following outline is taken from the Specialist Technical Reports (STR): Assessment of Archaeology Impacts (Parts 1-6), prepared in support of the Environmental Statement (2005), with the updated version in 2009; and additional information from Written Scheme of Investigations (C175-CSY-T-RGN-CRG03-00002 and C175-CSY-T-RGN-CRG03-00001).
- 1.3.1 In summary, there is evidence for Bronze and Iron Age occupation on the higher ground overlooking the floodplain, including the Iron Age hillfort at Uphall Camp, Ilford. It is possible that the floodplain alluvium could preserve organic remains, such as the prehistoric trackways found c 2.3km and 2.8km to the south of the site respectively. The projected line of the Roman road from London to Colchester, passes along Romford Road and Ilford High Road, c 50m to the south of the site, although there is as yet no supporting archaeological evidence from the vicinity.
- 1.3.2 The medieval market town of Ilford originally grew up along the old Roman road on the western side of the Roding valley (now Manor Park). The present town is on the opposite, eastern side, but neither are directly relevant to the Crossrail site which lies within the river valley, in an area that remained largely rural until the arrival of the railway in c. 1840. Excavations beside the Romford Road have revealed medieval boundary ditches and plough soils, illustrating how much of the area remained as open fields well into the 19th century.

1.3.3 Land use changed dramatically in the post-medieval period with the expansion of London. Urbanisation extended out from the City, particularly from the late 17th century. The waterpower of the Alders Brook and Roding was used for industry and a paper mill is shown adjacent to the site, on the east bank of the River Roding, on the 1894 Ordnance Survey map (Plate 1). The higher area of ground for the railway embankment sidings is also shown, but no other structures. The former Railway Training College is first shown on the OS map of 1962 and had been removed by 1985. Watching briefs carried out in 2005 and 2006 for drainage works just over 300m to the east of the site uncovered remains associated with the Hospital Chapel of St Mary and St Thomas. A ditch and various deposits seen during works 160m to the south-east in 2005 supported the open nature of the area prior to the 19th century.

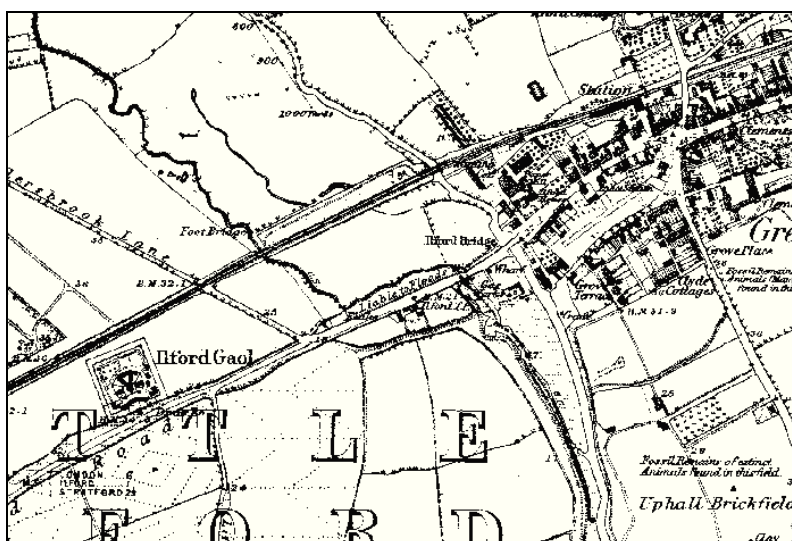


Plate 1: OS map of the area, c. 1894

1.3.4 It was concluded in the SSSI (Document No: C175-CSY-T-RGN-CRG03-00002 Rev 1.3), that the majority of the potential archaeological remains that might exist within the site were likely to be of moderate importance or in the case of evidence for medieval and later agriculture, of low importance. However, any well-preserved prehistoric structures such as trackways, should they exist, might be of high importance..

2. RESEARCH AIMS AND OBJECTIVES

2.1.1 The overall objectives of the investigations were to establish the character, nature, date, extent and state of preservation of any surviving archaeological remains that would be impacted upon by the development and to contribute to the research themes as outlined in documents such as 'A Research Framework for London Archaeology 2002' (Nixon *et al* 2003).

2.1.2 The general watching brief proposed during the excavation of the interceptors held the potential to provide information regarding the early settlement and land use sequences of the site. More specifically, the proposed work was designed to recover any evidence for:

- Prehistoric or later environments, land use or landscapes contained within the floodplain sequence of the Roding valley, including any organically-preserved deposits such as peat.;
- A Roman, medieval or later agricultural landscape on the floodplain and focused to the main London to Colchester road; and
- Post-medieval industrialisation utilising the river channels *e.g.* mill leets or jetties.

2.1.3 This evidence had the potential to aid:

- Understanding the significance of geomorphology, ecology, ecosystems and climate, hydrology, and vegetational and faunal development on human lives;
- Understanding the River Thames and its tributaries through the periods of prehistory and the relationship between the floodplains and the gravel terraces, and between inner and outer parts of the Thames Estuary and its tributaries;
- Understanding how the relationship between hinterland and territorium of Londinium operated; and
- Understanding the reasons for evolution of the road systems, street layouts, river crossings and ferries, and their importance as engines of development and change.

3. INVESTIGATION METHODOLOGIES

3.1 Watching Brief Methodology

- 3.1.1 The purpose of the watching brief was to identify the potential of any archaeological remains that were uncovered during the course of the works and record them appropriately (as far as was reasonably practicable).
- 3.1.2 The following observations were recorded on a daily basis.
- The Event Code and location of the area observed;
 - The date of the observation;
 - Personnel employed on site;
 - A description of the construction works observed;
 - Any relevant works sub-contractor and personnel undertaking and supervising the construction activity;
 - Depths and extents of excavation works observed;
 - A measure of confidence that any archaeological remains would have been observed and reasons;
 - The reasons why any particular area of the works was not observed, and noting those areas not subject to disturbance from construction;
 - Location and description of any archaeological remains; and
 - Location and description of any modern remains.
- 3.1.3 The watching brief has resulted in the preparation of an ordered archive, which will be incorporated into the post-excavation works and into publication of the project results.

3.2 Recording standards

- 3.2.1 The recording included a written record of individual context descriptions on appropriate *pro forma*; a drawn record, finds retrieval and photography, where appropriate.
- 3.2.2 The drawn record incorporated plans and section drawings of appropriate features, structures and individual contexts (at scales of 1:50 1:20 or 1:10).
- 3.2.3 The photographic record consisted of 35mm monochrome and colour images, as well as digital formats. Archived images include an appropriate graduated scale, a North arrow, and a header board detailing the event code and context/feature number.
- 3.2.4 All structures and deposits were recorded according to current best practice and accepted professional standards (see OA Fieldwork Manual 1992, Museum of London Archaeological Site Manual 1990), and as outlined in:
- Tunnelling Academy Aldersbrook Sidings Worksite; Site-Specific Archaeological Written Scheme of Investigation (SSWSI). Document No: C175-CSY-T-RGN-CRG03-00002 (Rev.1.3, 28 Jan 10)
 - Archaeology West – Contract No. C254, Tunnelling Academy Aldersbrook Sidings, Newham, Archaeology Method Statement, Document No. Document No: C254-OXF-W-GMS-CR100-50001, (OAG16188.R22)

- Archaeological Generic Written Scheme of Investigation, Document No: CR-PN-LWS-EN-SY-00001, 7 July 2009 (AWSI)
- Archaeology Specification for Evaluation and Mitigation (including Watching Brief), Document No: CR-PN-LWS-EN-SP-00001, 26 June 2009, (ASEM)
- Works Information (Volume 1 - General), Document No: CR-SD-PRW-X-RT-00151, 5 June 2009 (WIV1)
- Works Information (Volume 2 - Particular), Document No: CR-SD-PRW-X-ITT-00001, 13 July 2009 (WIV2)
- Crossrail standards and specifications;
- Institute for Archaeologists – Standard and Guidance for archaeological excavation, 2008 (revised);
- Institute for Archaeologists – Standard and Guidance for an archaeological watching brief, 2008 (revised);
- Museum of London collections and archive policies and guidance;
- English Heritage – Geoarchaeology, 2007;
- English Heritage - Archaeological Science at PPG16 interventions: Best Practice Guidance for Curators and Commissioning Archaeologists, 2003;
- GLAAS Archaeological Guidance Papers 1999;
- Corporation of London archaeology guidance – Planning Advice Note 3, 2004; and
- Museum of London Archaeology Service site recording manual (MOLA 1994).

3.3 Investigation Methodology

- 3.3.1 All trenches had their Tarmac surfaces removed by the Principal Contractor and modern deposits were removed by mechanical excavation. This element of the works did not require permanent archaeological supervision. All work was carried out using a 20 tonne 360° mechanical excavator fitted with a bladed ditching bucket.
- 3.3.2 Trench SWINT3 was completed first, on the same day as SWINT1. Trench SWINT2 was excavated in the course of one day over a month later.
- 3.3.3 The small size of the trenches and their depths meant that there were access constraints. It was therefore not possible to clean and record in detail the made ground deposits that constituted much of the findings. Every effort was made to establish the presence or absence of archaeological deposits and the depth of modern intrusions into key stratigraphic components and natural deposits.

3.4 Survey Work

- 3.4.1 The nature of the works was entirely observational and the interventions were located to a horizontal accuracy of +/-500mm in relation to the detail illustrated in the contract drawing(s). The corner points of each excavation was set out with a Total Station Theodolite, under the control of the VolkerFitzpatrick approved surveyor. The location, position and depth of the interventions was predetermined and in accordance with C815-VLK-D-DDA-CRT00_MS002-50001 (Drawing number NK016564_0300 (Nov 2010)). The positions of these trenches and survey points were verified by the archaeological personnel through discussion and observation.

- 3.4.2 Heights for all deposits, as obtained from the site surveyor, have been related to approved Permanent Ground Markers (PGMs) or approved Ordnance Survey Bench Marks (OSBM), where reasonably accessible. Levelling accuracy between OSBMs/PGMs and site Temporary Bench Marks (TBMs) were within 10 mm/k: where 'k' is the total distance levelled in kilometres.
- 3.4.3 The full details of the survey and CAD work are to be found in the Archaeological *Watching Brief at Tunnelling Academy, Archaeological Survey Report* (Document Ref. C254-OXF-T1-RGN-CR100-50002).

4. RESULTS

4.1 Introduction

4.1.1 Broad phasing has been ascribed to the deposits and structures encountered during the investigations, and the results are presented below in chronological order. Only two phases of activity could be defined, these being:

- Phase 0: Natural Drift Geology
- Phase 1: The Victorian to Modern periods

4.2 Watching Brief

4.2.1 The works comprised the monitoring during excavation of three surface water interceptor tanks (SWINT 1, 2 & 3) which were located outside the area of raised, made ground (Figure 2). The works observed and recorded the deposits encountered. diagnostic artefacts were present or retained from the works. The results for the three excavated areas are given below.

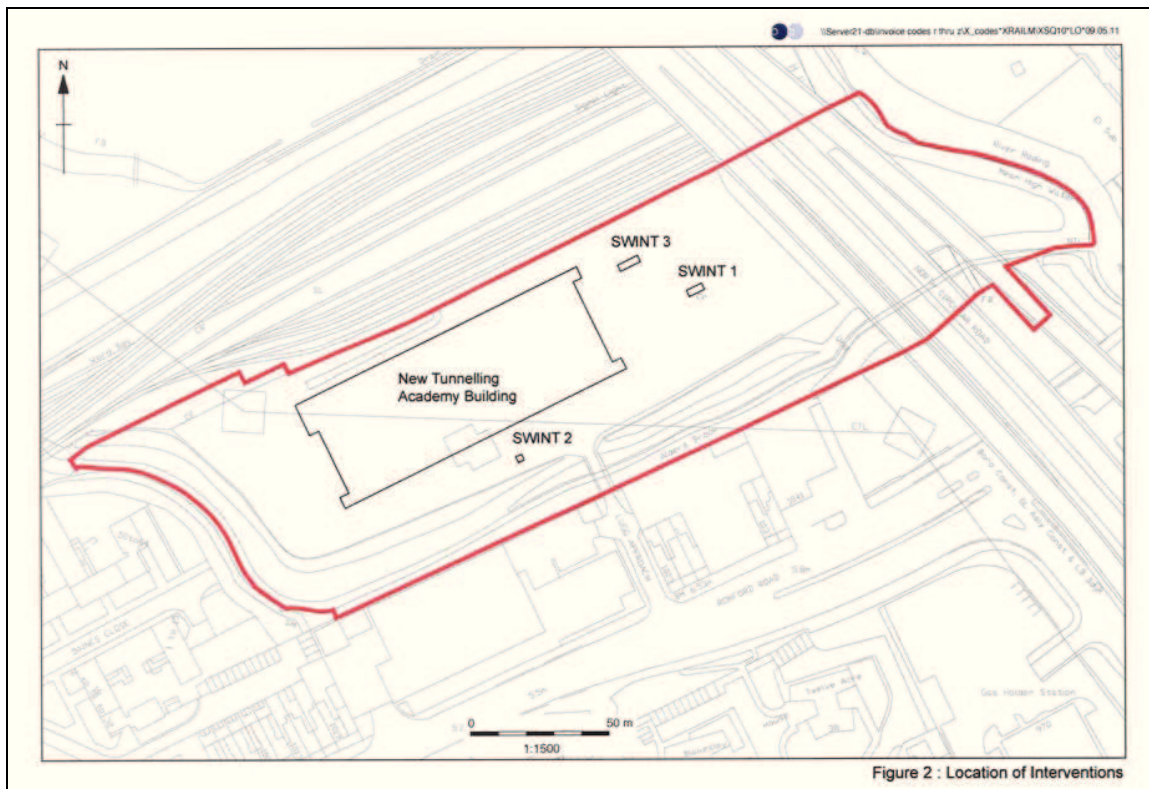








Figure 2: Location of the watching brief interventions

Trenches	Results	
XSQ10 SWINT 1 February 2011	<p data-bbox="459 331 820 365">Tunnelling Academy</p>  <p data-bbox="480 647 802 703">Excavation for SWITN 1, section view, looking south</p>  <p data-bbox="480 1173 802 1229">Excavation for SWITN 1, looking west</p>	<p data-bbox="842 383 1458 533">SWINT 1 measured 5.65m x 2.4m and was dug to a maximum depth of 3.75m BGL (104m ATD). At the eastern end of the trench a square brick structure was observed. This was part of the 20th-century drainage system of the site.</p> <p data-bbox="842 580 1458 792">There was a 2.7m depth of make-up deposits (context 3). These consisted of alternating layers of dark brownish grey ash/soot rich clayey silt and mid orangey brown gravelly clay. The darker layers contained fragments of red bricks, pottery and glass bottles throughout. This material was dumped or tipped from west to east.</p> <p data-bbox="842 840 1458 965">Below this was a soft light brown homogenous clay, which had brick fragments pressed into the upper surface. This deposit (4) was interpreted as alluvial clay.</p>
XSQ10 SWINT 2 April 2011	 <p data-bbox="480 1756 802 1812">Excavation for SWITN 2, looking east</p>	<p data-bbox="842 1279 1458 1404">SWINT 2 measured 4.3m x 4m and was dug to a maximum depth of 3.9m BGL. The ground level lay at 107.52m ATD. The sequence of deposits within the excavated area consisted of six deposits (5-10).</p> <p data-bbox="842 1451 1458 1778">The uppermost deposit was a loose black ashy gravelly silt with rubble inclusions (5). This was 2m thick at the north side of the trench and 0.6m thick on the southern side. Below this was a 0.4m thick, redeposited mid brown clay (6). This sealed a layer of crushed red brick (7) which also included some fragments of peg tiles and occasional chalk fragments. The layer was probably either demolished building rubble or waste material from brick and tile manufacture used to make up the ground levels. It was also thicker on the northern than southern side.</p> <p data-bbox="842 1794 1458 1852">Below this was another 0.2m thick layer of loose black ashy rubble (8), which overlaid another red crushed</p>

Trenches	Results
	 <p data-bbox="480 786 799 840">Excavation for SWITN 2, looking south</p> <p data-bbox="842 306 1461 434">brick layer (9). The alternating deposits sloped slightly downwards towards the Alders Brook river channel. At the bottom of the sequence was a gleyed clay (at 104 – 103.55m ATD), the alluvial natural (10).</p>
<p data-bbox="268 853 437 958">XSQ10 SWINT 3 February 2011</p>	 <p data-bbox="480 1317 799 1370">Excavation for SWITN 3, section view, looking west</p>  <p data-bbox="464 1845 815 1870">Excavation for SWITN 3, completed</p> <p data-bbox="842 853 1461 1093">SWINT 3 measured 7.3m x 2.3m and was dug to a maximum depth of 3.6m BGL (104m ATD). The trench contained 2.4m of make-up deposits (1) consisting of a dark brownish grey ash/soot rich, clayey silt, with rare lenses of mid orangey brown gravel. The darker layers contained fragments of frogged red bricks and glass bottles throughout. The material was dumped or tipped from west to east.</p> <p data-bbox="842 1144 1461 1263">Below this was a soft light brown homogenous clay which had brick fragments pressed into the upper surface. This deposit (2) was interpreted as alluvial clay.</p> <p data-bbox="842 1272 1461 1330">At the base of the trench ground water was encountered.</p>

Trenches	Results
	excavation, looking west

Table 1. Results of archaeological monitoring of test pits and utility trenches

4.3 Phase Summary

- 4.3.1 **Phase 0 Natural Drift Geology:** Deposits that were confidently identified as *in situ* natural were seen only in the areas where the deepest work were undertaken. The geological sequence in this area of London should consist of floodplain alluvium overlying Terrace gravels and, since the base of the works was at around 104m ATD (above the known level of gravels), the clay-based deposits observed were probably alluvial in origin.
- 4.3.2 **Phase 1 The Victorian to Modern periods:** Various dumps of material were seen, all associated with the historic raising of the ground levels to alleviate flooding and form railway embankments. The origin of the material was difficult to determine but was likely to be related to industrial waste, demolition material, general debris and redeposited natural. A single, brick structure was clearly a drainage feature, probably dating to within the last 30 years.



Plate 2: General view of SWINT 2 with the surveying taking place, looking south



Plate 3: General view of SWINT 3, looking south

5. RESULTS IN RELATION TO INVESTIGATION AIMS

5.1 Assessment of the Results

- 5.1.1 **Period:** the watching brief results demonstrate the survival of the upper parts of the natural deposit sequence, which are here compatible with riverine conditions. The overlying post-medieval deposits forming the made ground were of a broad mid 19th- to 20th-century date.
- 5.1.2 **Relative completeness:** The absence of significant archaeological remains means that judgements of completeness are not therefore relevant in this case.
- 5.1.3 **Condition:** the features and deposits encountered were all in a reasonable state of preservation.
- 5.1.4 **Rarity:** Neither the post-medieval remains nor the small windows of the uppermost natural deposits can be regarded as rare.
- 5.1.5 **Group value** the archaeological value of the site can be described as low. The deposits and features belonging to the riverine conditions were mostly inaccessible and although the locations of such deposits contributes towards the overall body of information they have little intrinsic value here. The post-medieval deposits were of limited value.
- 5.1.6 The watching brief did not identify the presence of below-ground archaeological remains. It did verify that the current ground levels were artificial and that there were deposits of natural origin at the base of the interventions.

6. CONCLUSIONS

- 6.1.1 The watching brief did not identify any archaeological remains or deposits of significance. No archaeological information on the prehistoric and later environments of the floodplain could be recovered, and there was there no information for occupation activity of any period. The vast majority of deposits were of 19th- or 20th-century date and resulted from a ground level raising exercise. Below these deposits, the natural alluvial clays of the Alders Brook and the River Roding systems were encountered.

7. ARCHIVE DEPOSITION

- 7.1.1 The project archive includes paper context records and indices, permatrace drawings, black and white and colour photographs, digital plans and photographs. A full list is given in Appendix 5. These will be prepared for archive following the guidelines set out in *Environmental Standards for the Permanent Storage of Excavated Material from Archaeological Sites* (UKIC 1984, Conservation Guidelines 3) and *Guidelines for the Preparation of Excavation Archives for Long-term Storage* (Walker 1990).
- 7.1.2 The digital data will be temporarily stored on the server at OA South which is backed up on a daily basis. For long term storage of the digital data CDs/DVDs will be used and will include the reports, plans, scanned images and digital photographs. Each disk will be fully indexed and accompanied by the relevant metadata as provenance.
- 7.1.3 The recipient museum will be:

London Archaeological Archive Research Centre
Mortimer Wheeler House
46 Eagle Wharf Road
London N1 7ED
tel: 020 7410 2200

8. BIBLIOGRAPHY AND REFERENCES

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|--|------|---|
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Nixon, T, McAdam, E, Tomber, R, and Swain, H	2003	A Research Framework for London, Archaeology 2002, Museum of London Archaeology Service

9. ACKNOWLEDGEMENTS

Oxford Archaeology South wish to thank Crossrail for commissioning the project and in particular Abhi Purkayastha for his support and guidance and Jay Carver for his interest and enthusiasm. At VolkerFitzpatrick Dan Morain and Dean Kellerman provided invaluable assistance during the works.

At Byrne and King Ltd thanks are due to Mark Morris for his support and help whilst working alongside OAG. Greg Beck undertook the surveying and setting out.

The watching brief work was undertaken by Gary Evans. The report was compiled by Vix Hughes and the drawings produced by Lucy Offord. The report was edited by Richard Brown and Andy Shelley who were also responsible for overall project management.

APPENDIX 1 ARCHAEOLOGICAL CONTEXT INVENTORY

Context No.	Context Type	Trench	Category	Finds	Date
1	Deposit	SW3	Levelling material	-	20th century
2	Deposit	SW3	Natural drift geology	-	-
3	Deposit	SW1	Levelling material	-	20th century
4	Deposit	SW1	Natural drift geology	-	-
5	Deposit	SW2	Levelling material	-	20th century
6	Deposit	SW2	Levelling material	-	20th century
7	Deposit	SW2	Levelling material	-	20th century
8	Deposit	SW2	Levelling material	-	20th century
9	Deposit	SW2	Levelling material	-	20th century
10	Deposit	SW2	Natural drift geology	-	-

APPENDIX 2 SUMMARY OF SITE DETAILS

Client name: Crossrail Ltd

Site name: Tunnelling Academy, Aldersbrook Sidings, London Borough of Newham

Site code: XSQ10

Grid reference: 543087, 186217

Type of investigation: Watching brief

Date and duration of project: 15/02/11 and 28/04/11

Location of archive: The archive is currently held at OA, Janus House, Osney Mead, Oxford, OX2 0ES, and will be deposited with the Museum of London in due course.

APPENDIX 3 ARCHIVE DETAILS

Description	Totals
Contexts	
Context Numbers used	10
Checklists	1
Number of void contexts	0
Context sheets	10
Additional sheets	0
Drawings	
Plan numbers used	1
Checklists	1
A1 Permatrace	0
5mx5m Permatrace	1
Section numbers used	3
Checklists	1
A1 Permatrace	
5mx5m Permatrace	3

Finds	
Finds materials	N/A
Small find numbers used	N/A
Checklists	N/A
Environmental samples	
Environmental sample numbers used	N/A
Checklists	N/A
Photographs	
<i>Film numbers used:</i>	
Black and White	29
Checklists	1
Colour Slide	28
Individual digital photographs	131
Approximate MB of data	366
Checklists	4
EDM Survey	
Survey Record Sheets	N/A
Rectified / Geo-reference photo survey sheets	N/A
Approximate MB of data	N/A

10. SMR / HER / OASIS RECORD FORMS

OASIS DATA COLLECTION FORM: England

OASIS ID: oxfordar1-96270

Project details

Project name: Tunnelling Academy, Aldersbrook Sidings, London Borough of Newham

Short description of the project: A general archaeological watching brief was undertaken by Oxford Archaeology/Gifford (OAG) at a new Tunnelling Academy site in the London Borough of Newham which is being constructed as part of the Crossrail scheme. The intermittent watching brief work commenced in February 2011 and continued through to April 2011. Due to the restricted nature of the watching brief works the results and conclusions of the investigations are limited. The majority of the below-ground intrusive work at the site had a minimal impact on any archaeology, encountering only 19th- and 20th-century make-up deposits. The base of the investigations revealed the underlying natural clay, which appeared to be *in situ* alluvial drift geology.

Project dates:	Start: 15-02-2011 End: 28-04-2011
Previous/future work:	Not known / Not known
Any associated project reference codes:	XSQ10 - Sitecode
Any associated project reference codes:	XSQ10 - Museum accession ID
Type of project:	Recording project
Current Land use:	Other 3 - Built over
Monument type:	N/A None
Significant Finds:	N/A None
Investigation type:	'Watching Brief'
Prompt:	Schedules 9, 10 and 15 and the Environmental Minimum Requirements (EMR) of the Crossrail Bill

Project location

Country	England
Site location	GREATER LONDON REDBRIDGE ILFORD Crossrail, Tunnelling Academy, Aldersbrook Sidings, Newham
Study area	18750.00 Square metres
Site co-ordinates Point	TQ 43087 86217 51.5561661048 0.06423264026770 51 33 22 N 000 03 51 E

Project creators

Name of Organisation	Oxford Archaeology/Gifford
Project brief originator	Crossrail
Project design originator	Oxford Archaeology/Gifford
Project director/manager	R. Brown
Project supervisor	V. Hughes

Project archives

Physical Archive Exists?	No
Physical Archive recipient	Museum of London
Physical Archive ID	XSQ10
Digital Archive recipient	Oxford Archaeology
Digital Archive ID	XSQ10
Digital Contents	'Stratigraphic'

3

Digital Media available 'Images raster / digital photography','Text'
Paper Archive recipient Museum of London
Paper Archive ID XSQ10
Paper Contents 'Stratigraphic'
Paper Media available 'Context sheet','Photograph','Plan','Report','Section','Unpublished Text'

Project bibliography 1

Publication type Grey literature (unpublished document/manuscript)
Title Archaeological Watching Brief at the Tunnelling Academy, Aldersbrook Sidings,
Newham: Fieldwork Report
Author(s)/Editor(s) Hughes, V
Author(s)/Editor(s) Evans, G
Date 2011
Issuer or publisher Oxford Archaeology/Gifford
Place of issue or publication Oxford
Description A4 bound client report

Entered by Susan Rawlings (susan.rawlings@oxfordarch.co.uk)
Entered on 10 May 2011