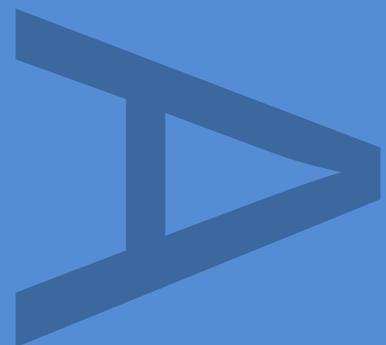


**WHIPPS CROSS UNIVERSITY
HOSPITAL A&E, LEYTONSTONE,
LONDON BOROUGH OF WALTHAM
FOREST E11 1NR**

**AN ARCHAEOLOGICAL
EVALUATION**

**PLANNING APPLICATION NUMBER: 2001/1022
SITE CODE: WPX09**

FEBRUARY 2010



PRE-CONSTRUCT ARCHAEOLOGY

DOCUMENT VERIFICATION

WHIPPS CROSS UNIVERSITY HOSPITAL A&E,
LEYTONSTONE, LONDON BOROUGH OF
WALTHAM FOREST E11 1NR

AN ARCHAEOLOGICAL EVALUATION

Quality Control

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**An Archaeological Evaluation at Whipps Cross University Hospital A&E,
Leytonstone, London Borough of Waltham Forest E11 1NR**

Site Code: WPX09

Central National Grid Reference: TQ 3851 8850

Planning Application Number: 2009/1022

Written and Researched by Iain Bright

Pre-Construct Archaeology Ltd, February 2010

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February 2010

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1 ABSTRACT

- 1.1 An archaeological evaluation was undertaken by Pre-Construct Archaeology Ltd at Whipps Cross University Hospital A&E, Leytonstone, London Borough of Waltham Forest E11 1NR, between 8th-10th February 2010. The work was commissioned by RPS Planning and Development.
- 1.2 The natural deposits encountered on site differed somewhat to what is described in the British Geological Survey. It is likely that the post-diversionary Thames river terrace gravels extend further west of the Epping Forest area than previously thought. Truncating the natural deposits were two irregularly sided linear features which have been interpreted as late post-medieval/early modern landscaping, perhaps in the form of bedding trenches for plants and flowers. It is possible that this area once formed a garden associated with the hospital, although it is equally possible that they could be features related to the gardens of the Forest House estate. It was subsequently reworked, and truncated with service related features eventually being consolidated and levelled for its present day use as a helicopter landing pad.
- 1.3 No archaeological features or deposits pre-dating the late post-medieval period were observed in any of the trenches, and those that were exposed are of very limited significance. Pre-Construct Archaeology Ltd therefore suggest that no further archaeological work is necessary for proposed extension to Whipps Cross University Hospital A&E.

2 INTRODUCTION

- 2.1 An archaeological evaluation was conducted between 8th-10th February 2010 by Pre-Construct Archaeology Limited (PCA) at Whipps Cross Hospital A&E, Leytonstone, in advance of the extension of the A&E department. The National Grid Reference of the site is TQ 3851 8850.
- 2.2 The evaluation was commissioned by RPS Planning & Development to satisfy a planning condition (Condition 8) applied by the London Borough of Waltham Forest (to planning permission 2009/1022, dated 21st October 2009), which stipulated that a programme of archaeological work be implemented prior to any construction works being undertaken on site. The field investigation was supervised by Iain Bright and project managed by Chris Mayo for PCA. The work was undertaken following an approved Written Scheme of Investigation prepared by RPS (2009). The site works were monitored by Mick Rawlings, RPS on behalf of the Whipps Cross University Hospital NHS Trust and by David Divers, English Heritage (GLAAS) on behalf of English Heritage and the London Borough of Waltham Forest.
- 2.3 The site lies within the developed area of Leytonstone, a quarter mile NW of its town centre and on the western edge of the Hollow Ponds area of Epping Forest. RPS has secured, on behalf of the land owners, the Whipps Cross University Hospital NHS Trust, planning permission to construct single and part two-storey extensions to provide replacement Accident & Emergency facilities at Whipps Cross University Hospital; the development has the planning application number 2009/1012. The area proposed for the extension is currently occupied occasionally by the London Air Ambulance as a helicopter landing pad.
- 2.4 Three trenches were excavated at specific positions across the site, as stipulated in the Written Scheme of Investigation (RPS 2009). The trench locations were designed to avoid the problem of encountering any live services currently in use by the hospital.
- 2.5 The site records will be archived at the London Archaeological Archive Research Centre under the site code WPX09.

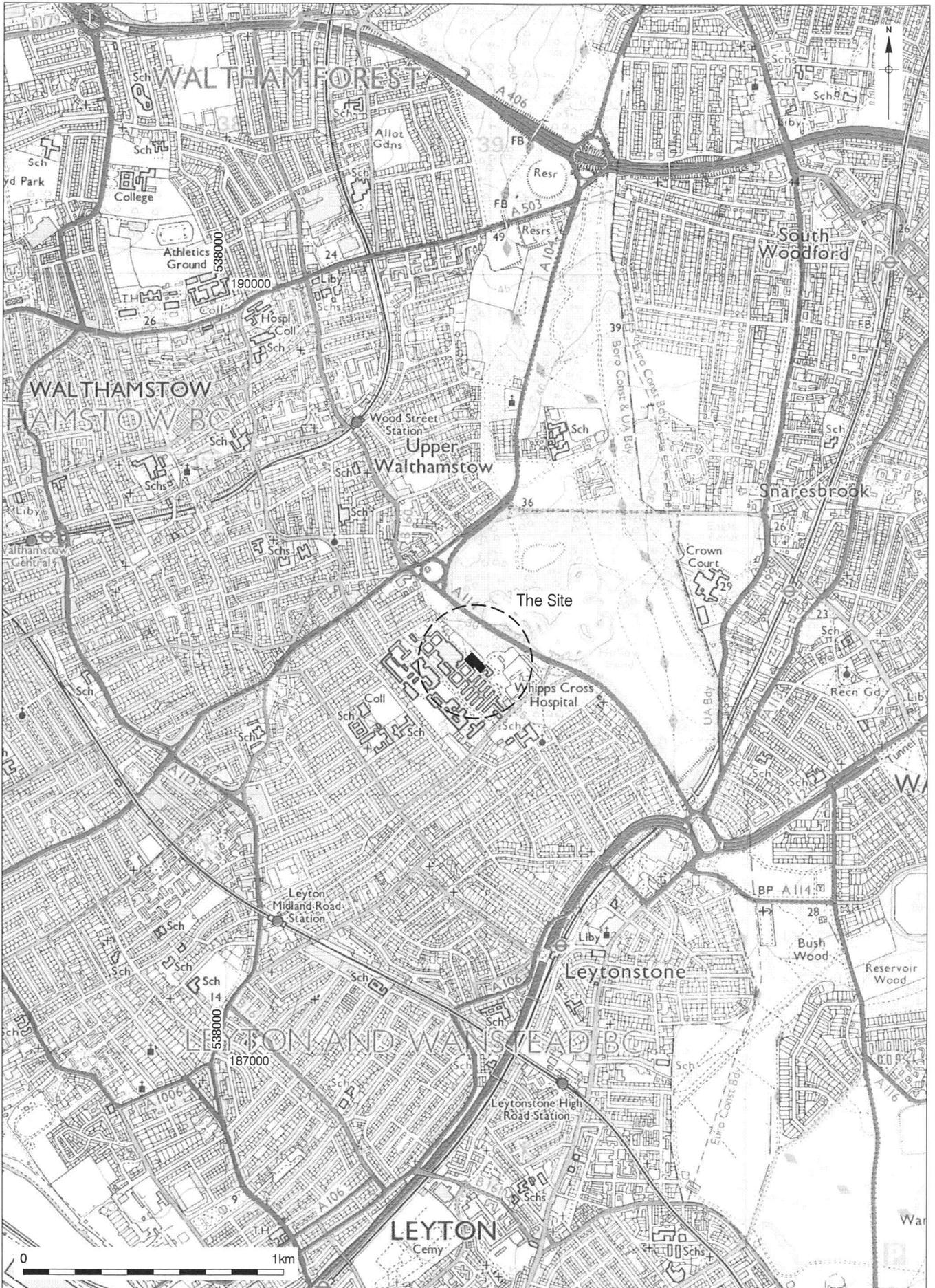


Figure 1
 Site Location
 1:20,000 at A4

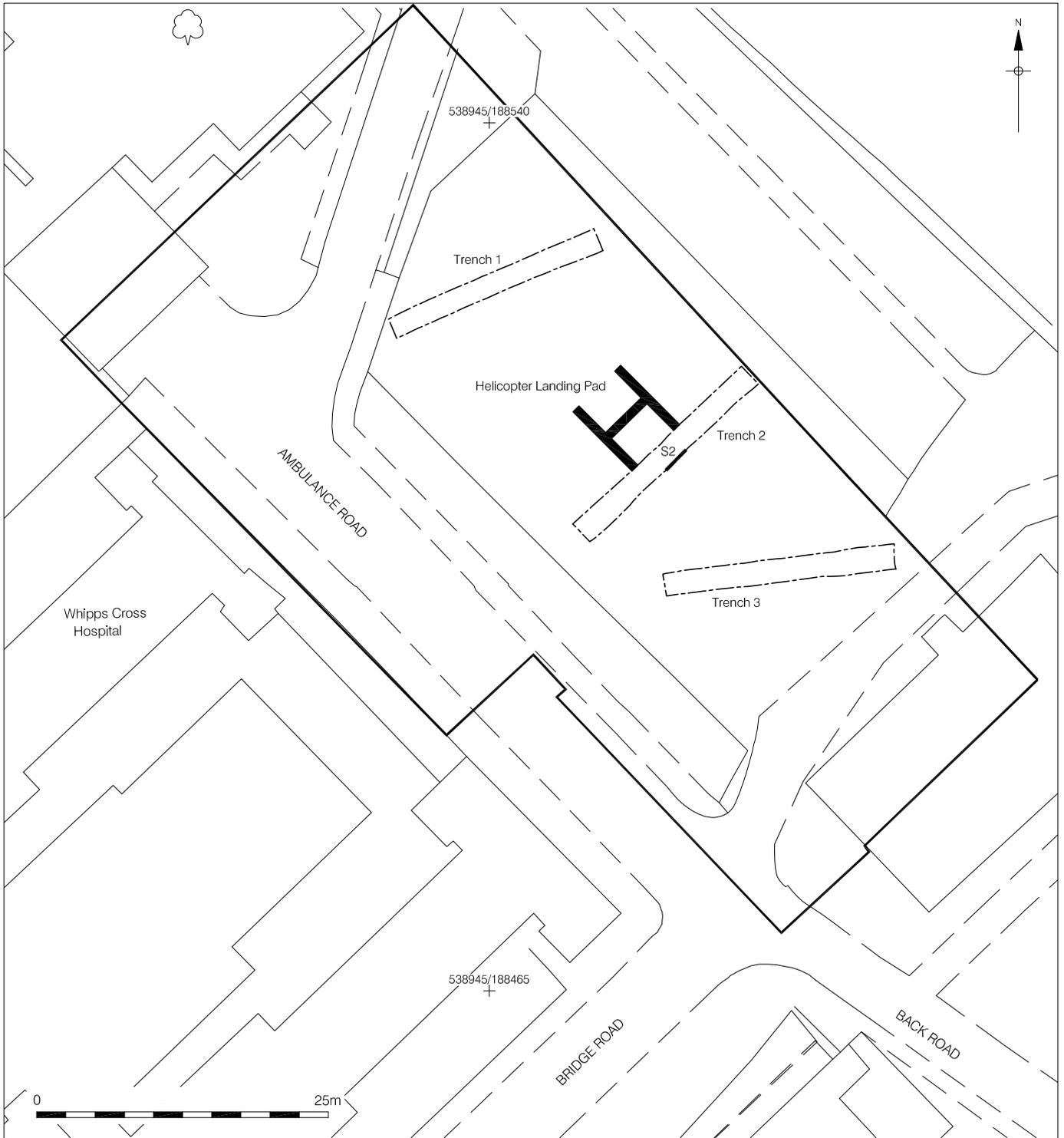


Figure 2
Trench Location
1:400 at A4

3 PLANNING BACKGROUND

3.1 Archaeology in Waltham Forest and the Unitary Development Plan

- 3.1.1 The study aims to satisfy the objectives of the London Borough of Waltham Forest, which fully recognises the importance of the buried heritage for which they are the custodians. The Borough's 'Unitary Development Plan' (UDP) (adopted in March 2006) contains policy statements in respect of protecting the buried archaeological resource.
- 3.1.2 The proposed development of the site will be subject to the Council's Archaeology Policies, outlined in Chapter 8 of the UDP:

POLICY BHE17 ARCHAEOLOGICAL HERITAGE

THE COUNCIL WILL ENSURE THE PRESERVATION, PROTECTION AND WHERE POSSIBLE THE ENHANCEMENT OF THE ARCHAEOLOGICAL HERITAGE OF THE BOROUGH.

THE HISTORY OF WALTHAM FOREST DATES FROM THE TIME OF THE EARLIEST SETTLEMENTS IN THE FOREST. ARCHAEOLOGY IS AN IMPORTANT WAY IN WHICH GREATER KNOWLEDGE ABOUT THE HISTORY OF THE BOROUGH CAN BE DISCOVERED. HOWEVER, THE OPPORTUNITY TO CARRY OUT ARCHAEOLOGICAL INVESTIGATIONS USUALLY ONLY ARISES DURING THE COURSE OF NEW DEVELOPMENT WHEN FOUNDATIONS ARE EXPOSED.

THE GREATER LONDON ARCHAEOLOGICAL ADVISORY SERVICE HAS DEFINED A NUMBER OF ARCHAEOLOGICAL PRIORITY ZONES (APZS) WHICH HAVE BEEN IDENTIFIED AS HAVING PARTICULAR ARCHAEOLOGICAL INTEREST. SOME OF THE APZS ARE EXTENSIVE AND INCLUDE THE WHOLE OF THE LEE VALLEY, THE VALLEYS OF THE CHING AND THE FILLEBROOK RIVERS AND AREAS AROUND FORMER SAXON AND MEDIAEVAL SETTLEMENTS SUCH AS CHINGFORD, WALTHAMSTOW, LEYTON, HIGHAMS PARK AND LEYTONSTONE.

THE COUNCIL WILL SEEK TO ENCOURAGE THE CONSERVATION, PROTECTION AND ENHANCEMENT OF THE ARCHAEOLOGICAL HERITAGE OF THE BOROUGH. WHEN ANY DEVELOPMENT INVOLVING A SITE OF 0.16 HECTARES OR MORE IS PROPOSED WITHIN THE ARCHAEOLOGICAL PRIORITY ZONES (AS SHOWN ON THE PROPOSALS MAP AND SCHEDULE 36), OR FOR ANY SITE IDENTIFIED BY A RECOGNISED ARCHAEOLOGICAL AUTHORITY, THE ARCHAEOLOGICAL SIGNIFICANCE OF THE SITE WILL BE CONSIDERED. THE COUNCIL MAY REQUIRE A PRELIMINARY ARCHAEOLOGICAL SITE EVALUATION BEFORE DEVELOPMENT PROPOSALS ARE CONSIDERED.

THE COUNCIL WILL SEEK TO ENSURE THAT THE MOST IMPORTANT ARCHAEOLOGICAL REMAINS AND THEIR SETTINGS ARE PERMANENTLY PRESERVED IN SITU, AND IF NECESSARY, ARE MADE AVAILABLE FOR PUBLIC VIEWING. SITES OF ARCHAEOLOGICAL SIGNIFICANCE OR POTENTIAL NOT REQUIRING PRESERVATION IN SITU SHALL HAVE PROVISION MADE FOR PRESERVATION BY RECORD THROUGH AN APPROPRIATE LEVEL OF ARCHAEOLOGICAL INVESTIGATION AND EXCAVATION TO BE UNDERTAKEN BY A PROFESSIONALLY QUALIFIED ARCHAEOLOGICAL CONSULTANT OR SPECIALIST ARCHAEOLOGICAL ORGANISATION BEFORE AND DURING THE PROCESS OF DEVELOPMENT. SUCH PROVISION SHALL ALSO INCLUDE THE SUBSEQUENT ANALYSIS, INTERPRETATION AND IN APPROPRIATE CASES, PRESENTATION TO THE PUBLIC OF THE ARCHAEOLOGICAL RESULTS AND FINDS.

THERE ARE ALSO A NUMBER OF LESS EXTENSIVE APZS. FOR PROPOSED DEVELOPMENTS INVOLVING A SITE OF 0.16 HECTARES OR MORE WITHIN THE APZS, THE COUNCIL WILL LIAISE WITH THE GREATER LONDON ARCHAEOLOGY ADVISORY SERVICE IN ORDER TO ASSESS THE ARCHAEOLOGICAL SIGNIFICANCE OF THE SITE. WHERE APPROPRIATE, A PRELIMINARY ARCHAEOLOGICAL SITE EVALUATION OR DESK-BASED ASSESSMENT MAY BE REQUIRED BY THE COUNCIL BEFORE SUCH PROPOSALS ARE CONSIDERED.

THE MOST IMPORTANT ARCHAEOLOGICAL REMAINS AND THEIR SETTING SHOULD BE PERMANENTLY PRESERVED. DEVELOPERS CAN HELP TO ACHIEVE THIS BY, FOR EXAMPLE, PREPARING SYMPATHETIC DESIGNS AND USING FOUNDATIONS WHICH AVOID DISTURBING REMAINS ALTOGETHER. IF THE PHYSICAL PRESERVATION OF REMAINS IS NOT FEASIBLE, AN ARCHAEOLOGICAL EXCAVATION FOR THE PURPOSES OF "PRESERVATION BY RECORD" MAY BE AN ACCEPTABLE ALTERNATIVE.

THE COUNCIL WILL PROMOTE CO-OPERATION BETWEEN LANDOWNERS, DEVELOPERS,

AND ARCHAEOLOGICAL ORGANISATIONS IN ACCORDANCE WITH THE BRITISH ARCHAEOLOGISTS AND DEVELOPERS LIAISON GROUP CODE OF PRACTICE WHICH IT RECOGNISES AND ENDORSES.

- 3.1.3 The permitted hospital extension will lie about 350m SE of the LPA's Archaeological Priority Zone APZ14 where Roman finds have been previously recovered and where roads and land boundaries are recorded from the medieval period.
- 3.1.4 The Waltham Forest UDP mirrors advice contained in the Department of Environment document 'Planning Policy Guidance: Archaeology and Planning (PPG 16)'. This document identifies the need for early consultation in the planning process to determine the impact of the construction schemes upon buried archaeological strata.
- 3.1.5 The development has been granted planning permission under application number 2009/1012, dated 21st October 2009.

4 GEOLOGY AND TOPOGRAPHY

4.1 Geology

4.1.1 The British Geological Survey map (BGS 256) shows the expected geology to comprise of London Clay Formation, described as clay, silty in part; lower part sandy in east.

4.1.2 However, the natural formation encountered on site comprised mainly of bands of interleaving gravel, sand with some clay. It is possible that the gravel here forms the edge of what is known as Boyn Hill gravel, a post-diversionary Thames river terrace deposit. The survey map shows this to exist immediately north-east of the site location, within the area of land occupied mainly by Epping Forest.

4.2 Topography

4.2.1 The subject site lies within 5km to the east of the River Lee and 4km west of the River Rodding, both of which eventually flow into the Thames.

4.2.2 The site slopes down gently from north to south, generally lying between levels of 27.85m OD to 26.88m OD.

5 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

5.1 Prehistoric

- 5.1.1 Although the gravel terraces of the River Thames have revealed plentiful archaeological evidence of early prehistoric activity in Greater London, comparatively little has been identified in the area surrounding Whipps Cross University Hospital.
- 5.1.2 The only evidence noted within the 500m radius SMR search of the site revealed unspecified finds from the prehistoric period on a site at 127 Essex Road, Leyton.

5.2 Roman

- 5.2.1 It is known that a substantial mid-first century three-track Roman highway that linked London to Colchester crossed the River Lea at Old Ford. East of the Lea crossing, the road ran north-east through present-day Stratford, whilst a secondary road is believed to have branched off to join the known Roman road that ran between Chigwell and the Roman small town of Great Dunmow (Essex) and thence to the first century legionary fortress at Great Chesterford. It has been suggested that the latter road passed through present-day Leyton, and it is certain that the area was settled and cultivated during the Roman period (Thompson 2008).
- 5.2.2 The site lies approximately 350m SE of an Archaeological Priority Zone (APZ14) where Roman finds have been previously recorded. In addition Leyton Green, an area believed to have been settled during the Roman period, lies 900m due NE of the hospital. Roman finds have also been observed in the vicinity of the large roundabout at Whipps Cross (RPS 2009).

5.3 Saxon

- 5.3.1 The Saxon derivation of the name Leyton (*'Lugetune'*, later *'Leintune'* or *'Leituna'*, trans. 'The Tun on the River Lea'), suggests that it may have been the fertile low-lying ground on the east bank of the Lea that encouraged Saxon settlers to establish permanent habitation in the area. Despite its undoubted Saxon origins, archaeological evidence of settlement or cultivation between the fifth and the eleventh centuries in the area is negligible (Thompson 2008).

5.4 Medieval

- 5.4.1 By 1086 the two largest holdings in Leyton belonged to Robert fitz Corbucion/Corbutio. It is not known precisely when the parish of Leyton was established, although a reference in the Domesday Book to a priest resident on Robert fitz Corbucion's estate suggests that there was a permanent clerical presence on the manor by the late 11th century (ibid).
- 5.4.2 SMR records indicate a number of features and structures datable to the medieval period within the locality of the site including cultivation soil, common land and a number of houses and buildings on Leyton Green Road (RPS 2009).

5.5 Post-Medieval

- 5.5.1 The site lies within the boundaries of the parish of Leyton, and adjacent to the course of the Phillebrooke or Fillebrook. This stream was piped underground from James Lane, to the immediate south of the site, in 1904, having previously been an open stream (VCH 1973a).
- 5.5.2 The site occupied by the current hospital was formerly within the grounds of the Forest House Estate, which was defined by the forest to the NE, James Lane to the SE and the Phillebrook. The estate originated in 1492, having then been leased by the abbot of Stratford to John More of London, a stockfishmonger. By 1568 the leasehold estate included two dwellings, the chief of which was called the Forest House located at the NE end of James Lane. Hearth tax assessments of the late 17th century record the property as the largest in Leyton; however, after changing hands numerous times it was adapted for use as an auxiliary workhouse for approximately 300 old men in the late 19th century and finally closed in 1962. The lands were then acquired by the N.E. Metropolitan Hospital Board (VCH 1973b).
- 5.5.3 There has been an infirmary present on the site of the hospital since 1903, when the construction of the Leytonstone Workhouse was completed. Upon its opening the infirmary provided 672 beds in four symmetrical blocks of such expense that they gained notoriety almost as soon as they were started. The infirmary became a general hospital, called Whipps Cross Hospital, in 1918 (GLIAS 2000).
- 5.5.4 Historic maps show the area under investigation, to the SE of the current A&E, to be undeveloped through the post-medieval period.

6 METHODOLOGY

- 6.1 The evaluation was conducted according to an approved Written Scheme of Investigation prepared by RPS (2009) prior to the commencement of works. The fieldwork was designed to assess the presence or absence of significant archaeological remains, which may require further investigation.
- 6.2 The WSI for this archaeological evaluation stipulated that three trenches were to be located within the area of the proposed extension, each measuring 20m X 2m. The initial proposed trench locations were subject to minor change in order to avoid potential damage to the oxygen supply route into the hospital or any other potential live services. Trench 3 in particular had its axis altered from a NE-SW alignment to a roughly E-W alignment to avoid a signal detected by CAT-scan equipment. Trench 1 was moved a few meters to the north in order to ensure a good sample of the site area was investigated for potential archaeology.
- 6.3 A mechanical excavator fitted with a flat ditching bucket was used under archaeological supervision to remove overburden down to the highest archaeological horizon. The features and deposits identified within the trenches were then cleaned and investigated by hand. Investigation was limited to identifying the extent and nature of the deposits and to recover dating evidence.
- 6.4 The archaeological deposits were assigned individual context numbers and recorded onto pro-forma sheets and recorded in plan and section as appropriate. A photographic record (film and digital) was also made.
- 6.5 A temporary bench mark was obtained from an RPS survey map which indicated a manhole cover level of 27.08m OD.

7 ARCHAEOLOGICAL SEQUENCE

7.1 Trench 1

- 7.1.1 The earliest deposit encountered was a loose, mid to light reddish greyish brown layer of interleaving sands, clays and gravels [16]. This forms the natural geology of the site. It was noted that the quantity of sand and gravel was higher than what was to be expected from the British Geological Survey. However the site's close proximity to the band of Boyn Hill gravel that underlies the land within Epping Forest can account for its presence here. It was observed at 27.24m OD.
- 7.1.2 Cut into the gravel was a shallow linear feature [17] with irregular sides and a relatively flat, sloping base. It measured 2.90m E-W with an overall depth of 0.24m and was encountered at 27.22m OD. This feature contained a moderately compact, mid brownish grey mixed sandy gravel [18] (sub-rounded to rounded) containing occasional lenses of brownish black silt. There was evidence for plant root activity within the fill; however it appeared to contain no cultural material. It seems likely that this feature represents a bedding trench and/or related garden feature dating to an earlier phase of the hospital. The feature was not encountered in the SW end of Trench 2, and as such would not appear to extend much further across the length of the site.
- 7.1.3 Overlying this was a firmish, mid greyish brown sandy silt subsoil with some clay content [15]. This layer also included medium to small, rounded to sub-rounded pebbles, occasional small fragments of ceramic building material (CBM) and evidence of plant rootlets. This layer was observed at 27.58m OD and was approximately 0.35m thick. In turn, overlying this was a friable dark greyish brown slightly sandy silt topsoil with grass turf [14]. This forms the present day ground level and was recorded at a maximum height of 27.79m OD.

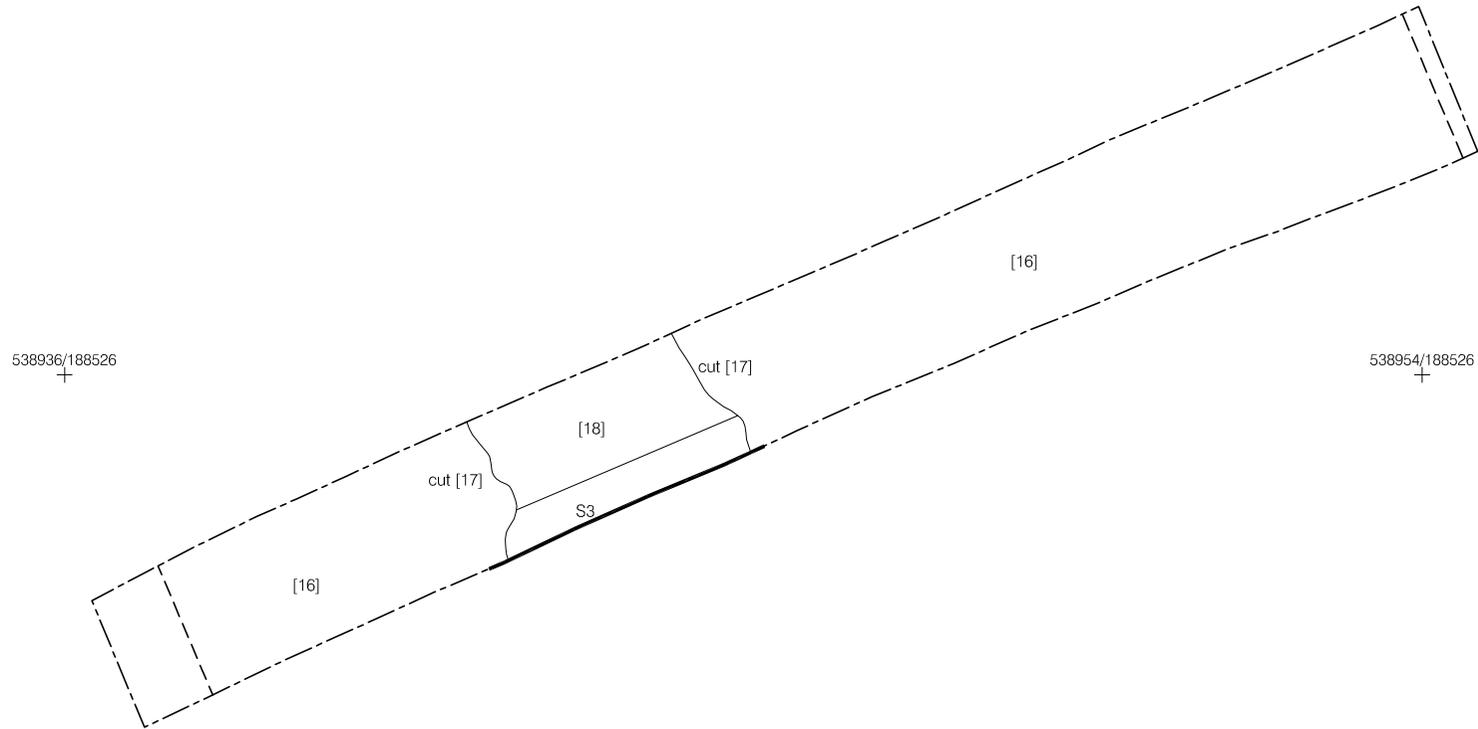
7.2 Trench 2

- 7.2.1 Natural deposits [13] were encountered between heights of 27.00m OD and 26.69m OD and comprised of a loose mid-light reddish greyish brown sand and gravel. The level of the natural deposits are somewhat lower than encountered in Trench 1, indicating a natural land slope towards the SE of the site.
- 7.2.2 The subsoil [12] consisted of a firm but friable dark to mid greyish brown clayey silt. It contained a moderate amount of rounded pebbles, occasional CBM flecks, a sherd of developed cream ware datable to 1760-1830 and 4 sherds of Willow Pattern transfer printed ware datable to between 1789-1900. It is highly likely that the pottery is residual and it is possible that the subsoil has been transported here from elsewhere in an effort to raise the ground level and consolidate it prior to the installation of the helipad. This layer was measured to be approximately 0.23m thick and recorded at a height of 27.22m OD.
- 7.2.3 Garden soil [11] overlay the lower deposits, comprising of firm but friable dark greyish brown slightly clayey silt with small to medium sized sub-angular to sub-rounded pebbles and occasional

small CBM fragments. Moderate to frequent plant root activity was also observed. This layer, topped by grass turf, forms the present day ground level and was recorded between 27.69m OD and 27.37m OD.

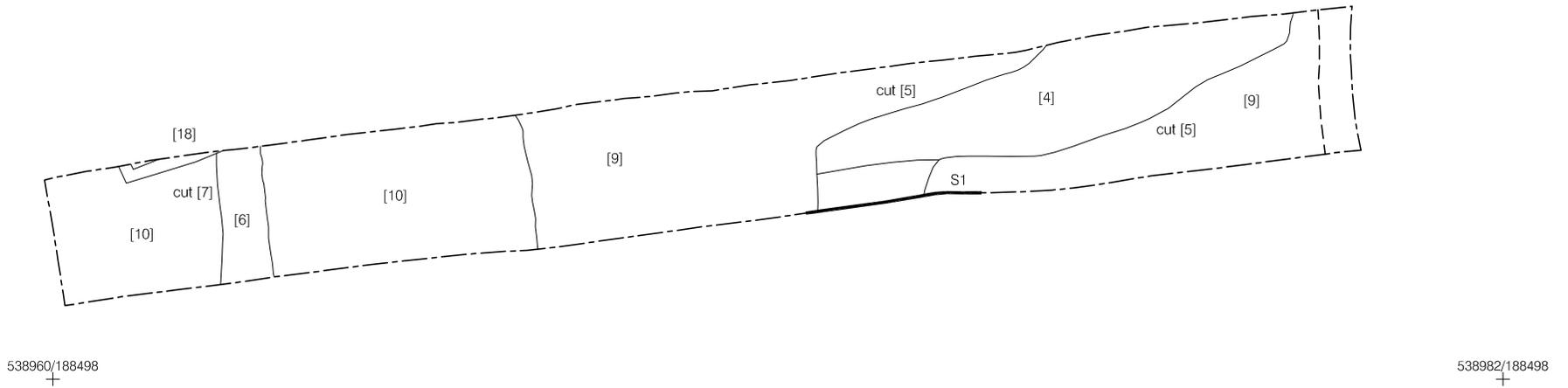
7.3 Trench 3

- 7.3.1 The natural deposits here comprised of a firm, light reddish yellowish brown clay [9] and firm but friable mid greyish brown clayey gravel [10]. These layers were encountered between 26.38m OD and 26.62m OD, lower than encountered in the previous two trenches and providing a further indication of the apparent north-south slope of the natural land level.
- 7.3.2 Truncating the natural deposits was an irregularly profiled linear feature [5] with gradually sloping sides and a concave base. The feature was relatively shallow measuring 7.50m NE-SW by 1.60m NW-SE with a maximum depth of 0.24m and was encountered at 26.34m OD. Filling this feature was a fairly firm but friable dark, mid grey (with blackish brown mottling) clayey, silty gravel [4]. Recovered from the fill was one plank of wood which could have originally been derived from a barrel. It is of a post-medieval/modern date. This feature would appear to represent further garden landscaping, in the form of a bedding trench for plants and flowers or possibly even cut to assist land drainage.
- 7.3.3 Overlying the linear feature was a firm, light to mid greyish brown silty clay [3]. This contained occasional small rounded to sub-rounded pebbles, and occasional CBM flecks and fragments. This subsoil was encountered at 26.66m OD and was approximately 0.34m thick.
- 7.3.4 Two features were seen cutting the subsoil, namely ceramic drain pipe [7] and a brick lined manhole [19]. The cut for the drain was approximately 0.40m NE-SW and 0.10m deep, running across the width of the trench and recorded at a height of 26.72m OD. The fill [6] comprised of a fairly firm mid greyish brown clayey silt with occasional small gravel inclusions and CBM flecks. The manhole [8] was partially exposed in the south facing section at the eastern end of the trench. It was constructed with yellow stock brick with concreted grey mortar with gritty inclusions. Where observed it measured 1.54m N-S by 0.30m E-W by 0.30m and was encountered at 26.95m OD.
- 7.3.5 Observed towards the deeper, eastern end of the trench was a layer of loose light greyish brown brick rubble containing mortar and silty sand [2]. This layer extended approximately 11.50m from the eastern end, overlying the subsoil and eventually petering out towards the middle of the trench. It was measured as being approximately 0.42m thick and was encountered at 27.02m OD. This layer of made ground likely represents an attempt to level and consolidate the area, most likely in advance of the construction of the helipad.
- 7.3.6 Overlying all the above mentioned features and deposits was a layer of garden soil and grass turf [1]. The layer consisted of a firm but friable, dark greyish brown slightly clayey silt with medium to small sub-rounded to rounded pebbles and occasional CBM fragments. This present day ground level was recorded at heights of 27.41m OD and 27.25m OD.



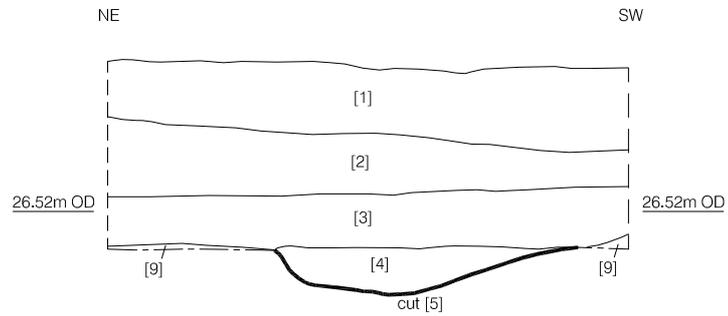
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Figure 3
Trench 1
1:100 at A4

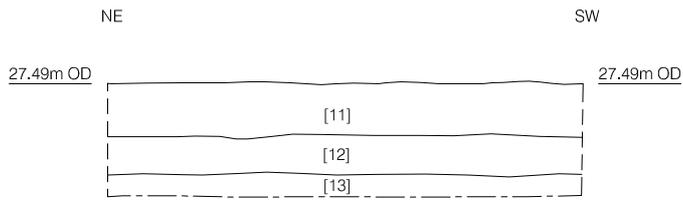


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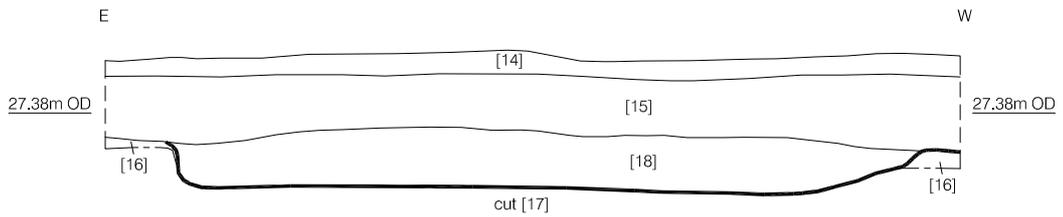
Figure 4
Trench 3
1:100 at A4



Section 1
Trench 3
Northwest Facing



Section 2
Trench 2
Northwest Facing



Section 3
Trench 1
North Facing



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Figure 5
Section 1 - 3
1:40 at A4

8 CONCLUSIONS

- 8.1 The natural deposits encountered on site differed somewhat to what is described in the British Geological Survey. It is likely that the post-diversionary Thames river terrace gravels extend further west of the Epping Forest area than previously thought. Indeed the site is bounded immediately to the east by woodland that, before it was intersected by Whipps Cross Road, would have formed part of the forest itself.
- 8.2 Truncating the natural deposits were two irregularly sided linear features which have been interpreted as late post-medieval/early modern landscaping, in the form of bedding trenches for plants and flowers. It is possible that this area once formed a garden associated with the hospital, although it is equally possible that they could be features related to the gardens of the Forest House estate.
- 8.3 This areas was subsequently reworked, and truncated by a ceramic drain and brick lined manhole, eventually being consolidated and levelled for its present day use as a helicopter landing pad.
- 8.4 No archaeological features or deposits pre-dating the late post-medieval period were observed in any of the trenches, and those that were exposed are of very limited significance. Pre-Construct Archaeology Ltd therefore suggest that no further archaeological work is necessary for proposed extension to Whipps Cross University Hospital A&E.

9 ACKNOWLEDGEMENTS

- 9.1 Pre-Construct Archaeology Limited would like to thank Mick Rawlings and Andy Bateson of RPS Planning and Development for commissioning this project and David Divers of English Heritage (GLAAS) for monitoring the work on behalf of the LPA.
- 9.2 The author would like to thank Andy Roberts and Paul Baker of Whipps Cross Hospital and Neil Higgs of RPS for their assistance during the evaluation. The author would also like to thank Chris Jarrett for pottery analysis, Jenny Simonson for illustrations and James Langthorne for his assistance on site. Thanks also go to Chris Mayo for project management and editing of this report.

10 BIBLIOGRAPHY

- RPS 2009, 'Archaeological Written Scheme of Investigation; Whipps Cross University Hospital A&E, Leytonstone, London Borough of Waltham Forest', unpublished report for RPS
- RPS Energy Ltd 2009 'Desk Study For Potential Historic Unexploded Ordnance Contamination: Accident and Emergency Unit Upgrade On Behalf of Whipps Cross University Hospital', unpublished report for RPS
- Thompson, G. 2008, 'Archaeological Desk-Based Assessment of Land at Willow Brook Primary School, 190 Church Road, Leyton, London Borough of Waltham Forest E10', unpublished report for PCA
- Waltham Forest, LB of. 2006, *Waltham Forest Unitary Development Plan*, <http://www.esrcartography.co.uk/lbwf/>

Internet Sources

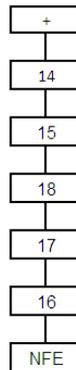
- GLIAS 2000, 'Notes and news — February 2000'.
URL: <http://www.glias.org.uk/news/186news.html#F>
Date accessed: 17 February 2010
- VCH 1973a, 'Leyton: Introduction', *A History of the County of Essex: Volume 6*, pp. 174-184.
URL: <http://www.british-history.ac.uk/report.aspx?compid=42767>
Date accessed: 17 February 2010
- VCH 1973b, 'Leyton: Manors and estates', *A History of the County of Essex: Volume 6*, pp. 184-197. URL: <http://www.british-history.ac.uk/report.aspx?compid=42768&strquery=whipps>
Date accessed: 17 February 2010

11 APPENDIX 1: CONTEXT INDEX

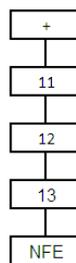
Site Code	Context No.	Plan	Section / Elevation	Type	Description	Date
WPX09	+	N/A	N/A	Layer	Grass turf, modern services, etc.	Modern
WPX09	1	N/A	S1	Layer	Garden soil	Modern
WPX09	2	N/A	S1	Layer	Rubble/Made ground	Modern
WPX09	3	N/A	S1	Layer	Subsoil	Modern/Post-Medieval
WPX09	4	Tr 3	S1	Fill	Fill of [5]	Modern/Post-Medieval
WPX09	5	Tr 3	S1	Cut	Cut of garden feature	Modern/Post-Medieval
WPX09	6	Tr 3	N/A	Fill	Fill of [7]	Modern
WPX09	7	Tr 3	N/A	Cut	Modern field drain	Modern
WPX09	8	Tr 3	N/A	Masonry	Service inspection chamber	Modern/Post-Medieval
WPX09	9	Tr 3	S1	Natural	Natural clay and gravel	Natural
WPX09	10	Tr 3	S1	Natural	Natural gravel	Natural
WPX09	11	N/A	S2	Layer	Garden soil	Modern
WPX09	12	N/A	S2	Layer	Subsoil	Modern/Post-Medieval
WPX09	13	Tr 2	S2	Natural	Natural sand and gravel	Natural
WPX09	14	N/A	S3	Layer	Garden soil	Modern
WPX09	15	N/A	S3	Layer	Subsoil	Modern/Post-Medieval
WPX09	16	Tr 1	S3	Natural	Natural sand, gravel and clay	Natural
WPX09	17	Tr 1	S3	Cut	Cut of garden feature	Modern/Post-Medieval
WPX09	18	Tr 1	S3	Fill	Fill of [17]	Modern/Post-Medieval
WPX09	19	Tr 3	N/A	Cut	Cut of [8]	Modern/Post-Medieval

12 APPENDIX 2: SITE MATRICES

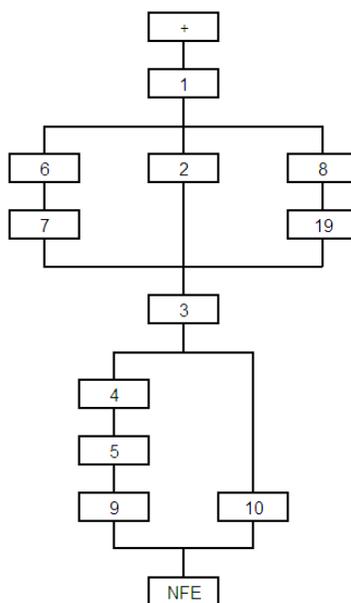
Trench 1



Trench 2



Trench 3



13 APPENDIX 3: POTTERY ANALYSIS

By Chris Jarrett, Pre-Construct Archaeology Ltd

13.1 Five sherds of pottery were recovered from the subsoil [12] located in Trench 2.

Context	No. of Sherds	Total Weight (g)	Date	Fabric Type
12	1	7	1760-1830	CREADEV
12	4	72	1789-1900	TPW

13.2 The assemblage contained one sherd of developed cream ware (CREADEV) datable to between 1760-1830 alongside four sherds of Willow Pattern transfer printed ware (TPW) datable to 1789-1900.

13.3 One piece of the transfer printed ware bore a makers stamp partially discernable as reading "...ilibr... Longport".

13.4 These finds require no further work.

14 APPENDIX 4: OASIS FORM

OASIS ID: preconst1-72601

Project details

Project name	Whipps Cross University Hospital A and E, Leytonstone, London Borough of Waltham Forest E11 1NR
Short description of the project	An archaeological evaluation was undertaken by Pre-Construct Archaeology Ltd at Whipps Cross University Hospital A and E, Leytonstone, London Borough of Waltham Forest E11 1NR, between the between 8th-10th February 2010. The work was commissioned by RPS Planning and Development. The natural deposits encountered on site differed somewhat to what is described in the British Geological Survey. It is likely that the post-diversionary Thames river terrace gravels extend further west of the Epping Forest area than previously thought. Truncating the natural deposits were two irregularly sided linear features which have been interpreted as late post-medieval/early modern landscaping, perhaps in the form of bedding trenches for plants and flowers. It is possible that this area once formed a garden associated with the hospital, although it is equally possible that they could be features related to the gardens of the Forest House estate. It was subsequently reworked, and truncated with service related features eventually being consolidated and levelled for its present day use as a helicopter landing pad. No archaeological features or deposits pre-dating the late post-medieval period were observed in any of the trenches.
Project dates	Start: 08-02-2010 End: 10-02-2010
Previous/future work	No / Not known
Any associated project reference codes	WPX09 - Sitecode
Type of project	Field evaluation
Site status	None
Current Land use	Community Service 1 - Community Buildings
Monument type	BEDDING TRENCHES Post Medieval
Significant Finds	POT Post Medieval
Methods & techniques	'Targeted Trenches'
Development type	Public building (e.g. school, church, hospital, medical centre, law courts etc.)
Prompt	Planning condition
Position in the planning process	After full determination (eg. As a condition)

Project location

Country	England
Site location	GREATER LONDON WALTHAM FOREST LEYTON Whipps Cross University Hospital A and E, Leytonstone, London Borough of Waltham Forest E11 1NR
Postcode	E11 1NR
Study area	0.40 Hectares
Site coordinates	TQ 3851 8850 51.5778284536 -0.0008531856330820 51 34 40 N 000 00 03 W Point
Lat/Long Datum (other)	27.37m OD
Height OD / Depth	Min: 26.38m Max: 27.24m

Project creators

Name of Organisation	Pre-Construct Archaeology Ltd
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Project brief originator	Consultant
Project design originator	RPS Planning and Development
Project director/manager	Chris Mayo
Project supervisor	Iain Bright
Type of sponsor/funding body	Consultancy
Name of sponsor/funding body	RPS Planning and Development

Project archives

Physical Archive recipient	LAARC
Physical Contents	'Ceramics'
Digital Archive recipient	LAARC
Digital Contents	'Stratigraphic'
Digital Media available	'Images raster / digital photography','Images vector','Spreadsheets','Text'
Paper Archive recipient	LAARC
Paper Contents	'Stratigraphic'
Paper Media available	'Context sheet','Notebook - Excavation',' Research',' General Notes','Plan','Section'

Project bibliography 1

Publication type	Grey literature (unpublished document/manuscript)
Title	An Archaeological Evaluation at Whipps Cross University Hospital A and E, Leytonstone, London Borough of Waltham Forest E11 1NR
Author(s)/Editor(s)	Bright, I
Date	2010
Issuer or publisher	Pre-Construct Archaeology Ltd
Place of issue or publication	London
Description	A4 document

Entered by	Chris Mayo (cmayo@pre-construct.com)
Entered on	17 February 2010

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