MAYESBROOK RIVER RESTORATION PROJECT MAYESBROOK PARK, BARKING & DAGENHAM PHASE 1

Archaeological Trench Evaluation

Prepared by

NETWORK ARCHAEOLOGY LTD

For

QUARTET DESIGN

On behalf of

BARKING AND DAGENHAM BOROUGH COUNCIL

Report Number: 447

March 2011

Museum of London Accession Code: MAY11







DOCUMENT CONTROL SHEET

Project title	Mayesbrook River Restoration Project							
Document title	Archaeolog	Archaeological Trench Evaluation						
Report no.	447							
Project code	MAP14							
Accession number	MAY11							
File ref.	MAP14 v1.	0						
County	London							
Parish	Dagenham	Dagenham and Barking						
NGR	NGR 5464	NGR 546450 185000						
Client 1	Quartet De	Quartet Design						
Client 2	Dagenham	Dagenham and Barking Borough Council						
Distribution	Barking &	Alex Farris, Quartet Design Barking & Dagenham Borough Council Jane Sidell Inspector Of Ancient Monuments (London)						
Document Comprises	Doc. Control Sheet	Table of Contents	List of Tables	List of Figures	List of Plates	List of Appends	Text	Apps
	1	11	1	1	1	1	26	17

Ver	Status	Author(s)	Reviewer	Approver	Date
1.0	First Issue	Steve Thorpe Project Officer	Daniel Hounsell Project Manager	David Bonner Director and Senior Project Manager	19/04/2011

Network Archaeology Northern Office 15 Beaumont Fee Lincoln. LN1 1UH Tel: 01522 532621

Email: enquiries@netarch.co.uk



Network Archaeology Southern Office 22, High Street Buckingham MK18 1NU Tel: 01280 816174

Email: enquiries@netarch.co.uk

Network Archaeology delivers a complete consultancy and field service nationwide. The company's particular expertise is linear infrastructure, such as pipelines, roads, rail and cables. Its emphasis is upon good communication and recognition of client's individual needs and priorities. Network is known for delivering professional support, taking care of the archaeology and enabling projects to keep moving forward.

© Network Archaeology Ltd, April 2011

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means - electronic, mechanical, photocopying, recording or otherwise - unless the permission of the publisher has been given beforehand

All statements and opinions presented in any report(s) arising from the proposed programme of investigation are offered in good faith and compiled according to professional standards. No responsibility can be accepted by the authors of the report(s) for any error of fact or opinion resulting from incorrect data supplied by any third party.

CONTENTS

Docu	ment Control Sheet	i
Cont	ents	ii
Appe	endices	. iii
Table	es	. iv
Plate	S	V
Figuı	res	. vi
Non-	technical summary	1
1	Introduction	2
1.1 1.2 1.3 1.4 1.5 1.6 1.7	Purpose of the report Scope of works Commissioning bodies Mayesbrook Park, restoration and regeneration Legislation, regulations and guidance Archaeological background Archaeological trench evaluation Circulation of this Report	2 2 3 3
2	Fieldwork Procedures	8
2.1 2.2 2.3 2.4 2.5	Quality standards Evaluation trenches and watching brief area Project codes and number allocations Data management and presentation Impact assessment process	8 9
3	Results	10
3.1 3.2 3.3 3.4 3.5	Introduction Summary of archaeological findings Archaeological trenching results Finds Summary Confidence rating of the results	. 10 . 10 . 18
4	Discussion	. 19
5	Assessment of Impact	. 20
5.1 5.2 5.3	Importance	. 20
6	Conclusions	. 21
7	Archive	. 22
8	Acknowledgements	. 23
9	References & Ribliography	24

APPENDICES

Appendix A: Archaeological and historical background

Appendix B: Summary trench data

Appendix C: Summary table of archaeological contexts

Appendix D: Specialist reports

Appendix E Plates

Appendix F Figures

TABLES

Table 3.1	Summary of archaeological remains by trench	10
Γable 7.1	Quantification of the site archive	22

PLATES

Plate 1: Trench 1.1 showing ditch 1109

Plate 2: Trench 1:1 showing trench profile and ditch 1109

Plate 3: Trench 1.2 from the southeast

Plate 4: Trench 1.2 profile section

FIGURES

Figure 1	Location of Mayesbrook Park, 1:100,000
Figure 2	Known archaeological sites, 1:10,000
Figure 3	Reach 1 trench locations, 1:1000
Figure 4	Reach 3 trench locations, 1:1000
Figure 5	Reach 4 trench locations, 1:1000
Figures 6 to 10	Individual trench plans and sections, 1:50 and 1:20

NON-TECHNICAL SUMMARY

This report presents the results of archaeological trench evaluation undertaken in advance of works associated with the restoration and regeneration of Mayesbrook Park in the Borough of Dagenham and Barking in London.

The evaluation was undertaken to assess the nature and extent of any archaeological remains that may be affected by the proposed regeneration of the park and has generated a reliable predictive model of the expected level of archaeological remains.

The evaluation comprised twelve archaeological trial trenches, located in three separate "reaches" of the park. The trenches were laid out to target key areas associated with the proposed regeneration works and areas of potential archaeology identified by the desk based assessment.

The evaluation identified layers of alluvium, possibly associated with the original course of the Mayes Brook as well as layers of relatively recent building rubble.

The only archaeological feature identified was a former hedge located within trench 1.1 which contained pottery dating from the 13th to 14th century and may have represented a former field boundary and drainage ditch.

The significance of potential impacts upon the known and potential archaeology is considered likely to be in the ranges negligible to low and low to medium.

The nature of any further archaeological investigation and mitigation works will be determined by the Greater London Archaeology Advisory Service (GLASS) in liaison with Quartet Design and Network Archaeology Ltd.

1 INTRODUCTION

1.1 Purpose of the report

This report presents the results of an archaeological evaluation conducted during March 2011 in advance of restoration and regeneration works at Mayesbrook Park in the borough of Barking and Dagenham, London (Figure 1).

1.2 Scope of works

The scope of work covered by this document includes:

- Trench evaluation and;
- Preparation of a client report and publication as appropriate.

1.3 Commissioning bodies

This archaeological report has been commissioned by Quartet Design for Barking and Dagenham Borough Council. The archaeological contractor was Network Archaeology Ltd.

1.4 Mayesbrook Park, restoration and regeneration

1.4.1 Restoration and regeneration

The proposed Phase 1 restoration works encompass three discrete areas (known as a 'Reach') with a collective area of 0.275 ha. These three areas are:

- **Reach 1**: This is a long, narrow strip of land occupying an area of 495m² at the north end of the park. Proposed redevelopment works here include backfilling of the existing river channel and the cutting of a new one, including a larger pond at the northern end of the channel. The surrounding land will also be subject to limited landscaping (figure 3).
- **Reach 3**: This is the largest of the three areas proposed for redevelopment at 1978m². This, roughly square area, is centrally located within the park. Proposed redevelopment works here include the backfilling of the existing river channel, the cutting of a new river channel (which will include a number of meanders as well as a much wider, meandering side channel), the creation of two ponds and more extensive landscaping of the surrounding parkland including the construction of a new path through this section of the park (figure 4).
- **Reach 4**: This is a long narrow strip of land, occupying an area of 269m² towards the south end of the park. Proposed redevelopment works here include the backfilling of the existing river channel and the cutting of a new one and limited landscaping of the surrounding parkland (figure 5).

1.4.2 Physical environment of the park

Mayesbrook Park is a relatively, long, narrow strip of parkland, comprising grassland, areas of planted trees, lakes and buildings. The park occupies a total area of 0.48 km² and is situated in the heart of the Greater London borough of Barking &

Dagenham, c. 3-4 km north of the Thames, at NGR 546450 185000 (Figure 1). Mayes Brook, a tributary of the Thames and the focus of the proposed restoration works, flows N-S along the west edge of the park. The south side of the park is defined by the Barking and Pitsea Railway (Metropolitan Line). To the north, is the East London University campus and immediately to the east, the park is bordered by the A1153 (Lodge Avenue). The entire park is surrounded by densely packed residential housing.

The park is low lying with an average AOD of c.5m. There is a relatively gentle slope across it downwards from west to east (c.1m height difference), as well as a more moderate slope downwards from north to south (c.3m height difference).

A full description of the geology and hydrology of the park can be found in the Written Scheme of Investigation (WSI) (Network Archaeology Ltd 2011).

1.4.3 Regeneration and restoration techniques

The construction methodologies are not yet determined but are likely to include:

- Backfilling existing river channels;
- Excavating new river channels;
- Excavating new ponds;
- Landscaping (raising /lowering current ground levels), and;
- Building new pathways.

All of these activities have the potential to affect any archaeological deposits which may be present. Construction is planned to commence in April 2011 and is anticipated to be complete within 6 months.

1.5 Legislation, regulations and guidance

The proposed development works relating to this project are detailed in planning application 10/00804/FUL (October 2010).

Planning Policy Statement (PPS) 5 addresses the protection of archaeological sites, either by preservation 'in situ' or preservation 'by record'. Consequently planning authorities may require applicants to commission an archaeological evaluation prior to determination of any planning application, and may attach an archaeological Condition to any such planning permission in the event that important archaeological remains are identified within the application area.

The park lies on the edge of an archaeological priority area (APA) designated by Barking & Dagenham Council, but the APA is not directly affected by the proposed restoration works.

1.6 Archaeological background

1.6.1 Desk-based assessment

As part of the WSI a desk based assessment of the archaeological potential of the PDA was undertaken (Network Archaeology 2011). A summary of the

archaeological and historical background of the PDA – taken from the DBA section of the WSI, is presented below.

Prehistoric (c.8300 BC to AD 43)

Two ditches (HER MLO65802), dating to the middle Bronze Age, were revealed during excavations at the University of East London's Barking Campus on the northern edge of Mayesbrook Park whilst Neolithic axe heads have also been found within the Barking area (NMR 408151, 408152 and 408153). This excavation also revealed a middle Iron Age ditch and associated pottery.

Roman (AD 43 to AD 410)

The line of a possible Roman road, running form London to Bradwell (Othona) runs through the southern end of the study area and a Roman pit and associated pottery has been recovered during excavations at the University of East London (HER MLO65803). Stone coffins have been found to the southwest (NMR 408147) and south (NMR 408149). Roman pottery and a brooch (HER MLO55862) were recovered during building work at Westrow Drive.

Saxon and Medieval (AD 410 to AD 1540)

Jenkins Manor (HER MLO23617) is known to have existed in the west of the park during the Middle Ages and other Medieval sites close to the PDA include a windmill ((NMR 408160) and a horse mill (NMR 408159), a possible hermitage (NMR 408161) and a rabbit warren (HER MLO5898). Settlement is thought to have existed at Upney Lane (HER MLO13766) and a possible farm is thought to have existed at Longbridge (HER MLO13771).

Post-medieval (AD 1540 to AD 1800)

During this period the original wooden manor house was replaced by a brick house (HER MLO23618) and a windmill was constructed to the south-east of the Park (HER MLO23616).

At the northern end of Mayesbrook Park, within the university campus, Longbridge House had been constructed by 1653. This was subsequently demolished and replaced with Longbridge Farm in 1860.

A field called Tile Kiln Field (HER MLO10875) located near to the house most likely indicates the presence of tile kilns in the area, which may have extended into the Park.

Early modern (AD1860 to present)

A number of park amenities are depicted within Mayesbrook Park on the Ordnance Survey map of 1939 and later, including a bandstand, pavilion and playgrounds.

On the same maps, it is significant that two large lakes are visible towards the south end of the park. It is thought that these relate to earlier gravel extraction activity.

The East London University campus on the northern edge of the Park opened as the South East Technical College in 1936. The building (SMR MLO99293) is listed, with much of the original interior of the main 1930's surviving intact.

Field boundaries and a drain are shown crossing the Study Area on the 1864 Ordnance Survey map and the remains of further agricultural features may also survive.

A full summary of the archaeological background, described by period is presented in Appendix A. Based on a review of the data obtained by the desk-based assessment, the overall potential for previously unrecorded archaeological remains was considered to be low to moderate.

1.6.2 The Mayes Brook

The 19th century Ordnance Survey mapping shows that the route of the Mayes Brook as varied little in the ensuing years (www.old-maps.co.uk).

The major change appears to have happened between 1950 and 1961 when the brook was re-routed, probably to accommodate the building of Hepworth Gardens and Southwold Drive.

1.7 Archaeological trench evaluation

1.7.1 Summary of trench proposals

Agreement was reached with GLAAS that a minimum of 5% of the three restoration areas would be investigated as part of the archaeological evaluation process. The proposed area of trench to be excavated by reach was as follows:

- Reach 1: 16 linear metres of trench at 2m wide (Figure 3);
- Reach 3: 52 linear metres of trench at 2m wide (Figure 4);
- Reach 4: 9 linear metres of trench at 2m wide (Figure 5).

This equated to 12 evaluation trenches at 2m wide. In addition, a 1% contingency (equivalent to 14 linear metres at 2m wide trench) was allowed for, should archaeological remains be uncovered that required further investigation to fully characterise and record them.

The trench layout was designed to target key areas of the footprint of the proposed regeneration and restoration works, specifically the footprint of the proposed new river channels and associated ponds.

Detailed trench specifications are presented in Appendix B and figures showing trench locations are presented in Appendix B (figures 3-5).

1.7.2 Aims of the evaluation

The purpose of the proposed archaeological evaluation was to assess the cultural heritage implications of the proposed redevelopment and regeneration works and to provide a basis for further stages of investigation and mitigation, if required.

The **general** objectives of the archaeological investigations were:

• To identify, appropriately manage and fully record the archaeological resource affected by the proposed development;

- To consider, in all cases of archaeological discovery, whether preservation in situ is desirable or achievable as the foremost response;
- To determine, where preservation in situ is not desirable or achievable, an appropriate strategy for preservation by record;
- To develop, where possible, knowledge and understanding of the historic landscape and archaeological resource through recording of threatened remains;
- To determine and understand the nature, function and character of any archaeological remains in their cultural and environmental setting;
- To obtain a chronological sequence for any human activity within the park and to place it within its regional context;
- To establish the ecofactual and environmental sequence and context of archaeological deposits and features;
- To engage in a programme of post excavation, archiving, synthesis and study, leading to publication and dissemination of results, and
- To ensure the long-term survival of the information through deposition of a project archive.

In addition to these further **specific** aims included:

- The Investigation of any prehistoric presence at the site, in particular any such presence which may survive within alluvial deposits. Bronze Age remains are of particular interest;
- The documentation of any surviving evidence for medieval ridge and furrow activity as observed within the upper soil deposits;
- Identifying and recording the location, extent and nature of the Mayesbrook Manor House;
- Identifying and recording the location, extent and nature of post medieval / early modern ornamental park and garden features;
- Identifying and recording the location, extent and nature of early river channels and their associated floodplains and alluvial deposits, and
- Identifying and recording the location, extent and nature of the possible gravel quarrying activity.

1.7.3 Regional research frameworks

All archaeological work considered existing and developing research frameworks and planning from the region, including:

- The Barking & Dagenham Local Implementation Plan 2011/12 2013/14 Second Review (2010).
- A Research Framework for London Archaeology (MoLAS 2002).

• The Archaeology of Greater London (MoLAS 2002).

1.7.4 Archaeological resourcing

The evaluation was carried out by up to three archaeologists between March $14^{\rm th}$ and March $17^{\rm th}$ 2011.

Report writing was undertaken by one person over a one month period. Use was made of MapInfo GIS and AutoCAD to manage and present the data. Two subcontractors provided the finds assessment reports.

1.8 Circulation of this Report

This report will be issued to Quartet Design, and will also be subject to external review by GLASS.

2 FIELDWORK PROCEDURES

2.1 Quality standards

All archaeological work was undertaken in accordance with the Institute for Archaeologists' codes, standards and guidance documents (IfA 2000, 2001i, 2001ii, 2001iii, 2001ii, 2001iv, 2002, 2004 and 2006). The standards represented by the Registered Archaeological Organisation (RAO) scheme operated by the IfA were adhered to throughout. The Senior Project Manager and Project Manager were members of the Institute for Archaeologists at appropriate levels.

2.2 Evaluation trenches and watching brief area

Twelve evaluation trenches were proposed in the final WSI (Network Archaeology 2011).

During the fieldwork, seven of the trenches had to be moved. These were;

- Trench 3.1: entire trench moved to the southwest to avoid existing fencing;
- Trench 3.2: entire trench moved to the east to avoid existing fencing;
- Trench 3.3: southwest end of trench, moved to avoid existing fencing;
- Trench 3.6: entire trench moved to the west to avoid an extant path;
- Trench 4.1: entire trench moved to the west to avoid existing fencing;
- Trench 4.2: entire trench moved to the northwest close to the existing fence to allow for the movement of trench 4.3, and
- Trench 4.3: entire trench moved to the northwest to avoid existing fencing.

Where possible, trenches were moved in such a way as they were still positioned across their intended target (as laid out in the WSI) - such as the proposed footprint of a new river channel.

2.2.1 Survey

The end point of each evaluation trench was marked-out to sub-metre accuracy using GPS technology prior to the evaluation.

2.2.2 Mechanical-excavation under archaeological control

The evaluation trenches were excavated with a 360⁰ mechanical excavator fitted with a 1.6m wide toothless ditching bucket, in accordance with the methodology laid out in the WSI (Network Archaeology 2011). The machine excavation was subject to monitoring by a suitably experienced archaeologist at all times during the excavation of the evaluation trenches.

2.2.3 Hand-excavation, recording and sampling

Archaeological remains were hand-excavated, in a controlled and stratigraphic manner, and in sufficient quantities, in order to meet the stated objectives (1.7.2).

All features and deposits of archaeological interest were recorded by photograph. Paper records were made and plans and sections were hand drawn at an appropriate scale. All work was undertaken in accordance with the WSI (Network Archaeology 2011).

2.3 Project codes and number allocations

The project code, MAP14, appeared on all records as did the accession code issued by GLASS which was MAY11.

A block of 100 context numbers was allocated to each trench, the first digit of this number block matching the unique identifiable number for the trench. For example, trench 1.1 was allocated the context numbers 1100 to 1199 whilst trench 4.1 was allocated the numbers 4100 to 4199 etc.

2.4 Data management and presentation

2.4.1 Context summary table

Summary trench data is presented in trench order in Appendix B, with context summaries in Appendix C.

2.4.2 Figures

Ten figures are presented in appendix F. There is one overall location plan, showing the park in its geographical context (Figure 1), a plan showing the known archaeology (Figure 2), a plan of each reach and the evaluation trenches therein (Figures 3 to 5). The remaining figures (Figures 6 to 10) show individual trench plans and archaeological sections.

2.4.3 Accuracy of displayed data

Data was captured from two sources, a 1:2500 OS base plan provided by the client and permatrace drawings at 1:100, 1:50, 1:20 and 1:10 scale. The trenches have a positional accuracy of c. \pm 0.1m and the archaeological remains within them probably the same level of c. \pm 0.1m.

2.5 Impact assessment process

Archaeological impact assessment is the process by which the impacts of a proposed development upon the archaeological resource are identified.

The archaeological remains located by the evaluation have been assessed in their wider heritage landscape, taking account of identity, place, and past and present perceptions of value. A three-stage process was adopted:

Stage 1: assessment of importance

Stage 2: assessment of the impact of the re-development works

Stage 3: assessment of significance of impact

The results of this process are presented in Chapter 5.

3 RESULTS

3.1 Introduction

A summary of the evaluation results is presented in trench order in section 3.2 below. A summary table of trench details can be found in Appendix B and a summary table of archaeological contexts in Appendix C. The plates are presented in Appendix E and the figures appear in Appendix F.

3.2 Summary of archaeological findings

The twelve evaluation trenches produced a combination of negative cut feature and alluvial layers, a summary of which is provided in table 3.1 below.

Table 3.1 Summary of archaeological remains by trench

Reach	Trench	Date opened	Archaeological findings	Finds
1	1.1	15/03/2011	1 x ditch Alluvium Modern path and building debris	Yes (pottery)
1	1.2	15/03/2011	Alluvium Modern building debris	No
1	1.3	15/03/2011	Alluvium Modern building debris	No
3	3.1	14/03/2011	Alluvium	No
3	3.2	14/03/2011	Alluvium	No
3	3.3	14/03/2011	x ditch with defunct modern services and land drain x modern concrete culvert Alluvium	No
3	3.4	14/03/2011	Alluvium	No
3	3.5	14/03/2011	Alluvium	No
3	3.6	14/03/2011	Alluvium	No
4	4.1	14/03/2011	Modern building debris Alluvium	No
4	4.2	14/03/2011	Modern building debris Alluvium	No
4	4.3	14/03/2011	Modern building debris Alluvium	No

3.3 Archaeological trenching results

3.3.1 Introduction

The results of the archaeological trenching are given below in reach and trench order.

3.3.2 Reach one

Trench 1.1

Location

This trench was oriented northeast to southwest and was located at the northern end of reach one on relatively flat ground at approximately 5.5mAOD.

The desk based assessment identified no known archaeology within the area of this trench, which was positioned to evaluate the footprint of a proposed pond (Figure 3).

Soil profile

The topsoil (1100) comprised up to 0.37m depth of mid to dark grey, soft, clayey silt which overlay a 0.15m thickness of modern tarmac (1101). Directly beneath the tarmac was 0.2m of pale orange-brown clayey silt (1102) which overlay 0.33m of pale to mid orange-brown soft clayey silt (1103). Directly beneath this was the natural pale to mid grey-yellow clay (1104) (Figure 6c).

Archaeological features

Sealed beneath layer 1103 and cutting the natural substrate (1104) was a linear ditch-like feature (1109) which was oriented WNW-ESE with a possible rounded terminal at its eastern end (Plate 1 and Figure 6a). This linear had moderately steep concave sides with a base which varied from concave to flat (7.5m long, 0.54m max width and up to 0.14m deep) (Plate 2 and Figure 6b) and was filled with a loose pale grey silt (1105/1108) which contained fragments of 13th to 14th century pottery.

Interpretation

The linear feature (1109) most likely represented the remnant of a former boundary, the loose nature of the fill suggesting that this boundary may have, at one point in its life, taken the form of a hedge-line. The pottery all dated to the 13th to 14th centuries, indicating that the boundary fell into disuse during the Medieval period. This is further supported by the historical maps which show no field boundaries within this reach, proving that the boundary had fallen into disuse prior to the 19th century.

Evidence of more recent activity was indicated by the layer of tarmac (1101) which probably represented the remnant of a former road, possibly associated with the construction of the A124 to the north or Lovelace Gardens to the south. The layer of made ground (1102) which was beneath the tarmac probably also represented the remnant of demolition rubble associated with fairly recent construction.

The layer of mid orange-brown silt (1103) was probably alluvial in origin and may have been indicative of a section of an earlier course of the Mayes Brook.

Trench 1.2

Location

This trench was oriented northwest to southeast and was located close to the middle of the reach on relatively flat ground at 5.25m AoD (Plate 3).

The desk based assessment identified no archaeology within the area of this trench which was positioned to evaluate the footprint of a section of the proposed re-route of the Mayes Brook (Figure 3).

Soil profile

The topsoil (1200) was similar in nature and depth to that identified in trench 1.1 and overlay a 0.17m thick deposit of compact orange clay (1201) which contained frequent charcoal flecks. Directly beneath this was 0.24m thick layer of soft dark

grey clay (1202) which in turn overlay a 0.27m thick deposit of pale grey-brown clay (1203). Directly beneath this was the natural orange clay substrate (Plate 4 and Figure 7a).

Archaeological features

No archaeological features were identified within this trench.

Interpretation

Although no archaeological features were identified within this trench, the layer of dark grey clay (1202) appeared to be the remnant of buried topsoil, possibly indicating the level of the original land surface prior to the construction of the park in the 1930s.

As with the layer of made ground identified within trench 1.1 (1102), the layer of compact orange clay (1201) may also have been indicative of fairly recent construction, possibly a levelling layer laid down during construction of the park.

The layer of pale brown clay (1202) which directly overlay the natural substrate (1203) was of a similar type to layer 1103, identified in trench 1.1, and so may also be alluvial.

Trench 1.3

Location

This trench was oriented east to west and was located within the southern half of the reach on relatively flat ground at 5.25m AoD.

The desk based assessment identified no archaeology within the area of this trench, which was positioned to evaluate the archaeological potential of the footprint of a section of the proposed re-route of the Mayes Brook (Figure 3).

Soil profile

As with trench 1.2, the topsoil was similar to that identified in trench 1.1. It overlay a 0.09m thick deposit of pale orange-brown clay (1301) which contained patches of gravel. Directly beneath this a 0.23m deep layer of compact dark grey clay (1302) which contained fragments of modern brick. Underneath this was a layer 1303, pale grey brown clay (0.27m thick). Directly beneath this was the natural grey clay substrate (1304) (Figure 7b).

Archaeological features

No archaeological features were identified within this trench.

Interpretation

The soil stratigraphy within this trench was similar to that identified within trenches 1.1 and 1.2, with layers of made ground (1301 and 1302) overlying a layer of probable alluvium (1303).

3.3.3 Reach three

Trench 3.1

Location

This trench was oriented northeast to southwest and was located close to the northern extent of reach three on relatively flat ground at 2.72m AoD.

The desk based assessment identified no archaeology within the area of this trench which was positioned to evaluate the archaeological potential of the proposed new route of the Mayes Brook (Figure 4).

Soil profile

The topsoil (3100) comprised a 0.26m thick deposit of soft mid brown silt which overlay a 0.16m thick layer of firm mottled orange-grey clay (3101). Directly beneath this was the natural grey mixed sand and gravel (3102) (Figure 7c).

Archaeological features

No archaeological features were identified within this trench.

Interpretation

Although no archaeological features were identified within this trench, the layer of clay (3101) may be alluvial in origin, possibly indicating a section of an earlier course of the Mayes Brook.

Trench 3.2

Location

This trench was oriented northwest to southeast and was also located within the northern half of the reach on relatively flat ground at 2.50m AoD.

The desk based assessment identified no archaeology within the area of this trench which was positioned to evaluate the archaeological potential of sections of the footprints of two proposed ponds (Figure 4).

Soil profile

The soil layers identified within this trench were the same as those identified within trench 3.1 with the topsoil and subsoil having a combined depth of 0.6m over the natural gravel (3202) (Figure 7d).

Archaeological features

No archaeological features were identified within this trench.

Interpretation

As with trench 3.1, the layer of clay (3201) beneath the topsoil (3200) was probably alluvial in origin, possibly indicating part of an earlier course of the Mayes Brook.

Trench 3.3

Location

This trench was oriented northeast to southwest and was located close to the centre of reach three on relatively flat ground at 2.0m AoD.

This trench was positioned to locate a possible former boundary (DBA:AE) which was identified in the desk based assessment through the examination of 19th century mapping. It was also designed so as to evaluate the archaeological potential of the footprint of a proposed pond (Figure 4).

Soil profile

The topsoil (3300) comprised a 0.4m thick deposit of dark grey soft clay which overlay a 0.38m thickness of compact mid orange-brown clay (3301). Directly below this was the natural mixed orange-brown gravel (3302) (Figure 8c).

Archaeological features

Two archaeological features were identified within this trench, comprising a possible ditch (3303) and a modern concrete culvert (3306) (Figure 8a).

The ditch (3303), located within the northern half of the trench, was oriented northwest to southeast running across the trench and had steep concave sides with a flat base (2m wide and 0.5m deep) (Figure 8b). The upper fill (3304) comprised 0.4m of mid to dark grey soft clayey silt whilst the primary fill (3305) comprised 0.1m of wet, stick dark blue grey silty clay. At the interface with the upper and primary fills were a number of rusted and broken electricity cables, indicating a modern date for the feature. A modern land-drain cut obliquely across its northern edge.

The concrete structure (3306) comprised an L-shaped concrete base which was topped with modern bricks. As this feature was considered to be modern it was not excavated.

Interpretation

The ditch (3303) correlated with the former boundary identified by the desk based assessment (DBA:AE). The presence of a number of defunct electricity cables within the body of this feature, however, suggested that a modern service trench had been placed along the line of the earlier land boundary after it had fallen into disuse – and these appeared to have removed any former trace of the original boundary.,

The concrete and brick structure was not excavated and is considered to be a fairly recent culvert or drain.

Trench 3.4

Location

This trench was oriented north-northeast to south-southwest and was also located close to the centre of the reach on relatively flat ground at 2.33m AoD.

The desk based assessment identified no archaeology within the area of this trench which was positioned to evaluate the archaeological potential of a section of the footprint of the proposed re-routing of the Mayes Brook (Figure 4).

Soil profile

The soil profile was the same as that identified within trench 3.1 with the topsoil (3400) being 0.36m deep, the alluvium (3401) 0.08m deep and directly overlying the natural gravel (3402) (Figure 9a).

Archaeological features

No archaeological features were identified within this trench.

Interpretation

As with trench 3.1, the layer of clay was probably alluvial in origin, so possibly indicating a stretch of an earlier course of the Mayes Brook.

Trench 3.5

Location

This trench was oriented north-northeast to south-southwest and was located within the southern half of the reach on relatively flat ground at 2.0m AoD.

The desk based assessment identified no archaeology within the area of this trench which was positioned to evaluate the archaeological potential of the footprint of a section of the proposed re-routing of the Mayes Brook. (Figure 4)

Soil profile

The topsoil (3500) comprised a 0.25m thick deposit of loose dark brown clayey silt which overlay a 0.3m deep layer of compact mid orange-brown clay (3501). Directly below this was 0.35m thick, pale grey clay (3502) which in turn sat on a layer 3503, a mid orange-grey clay (0.25m thick). Below this was a 0.05m thick deposit of mixed orange-grey gravel (3504) which overlay the natural grey gravel (3505) (Figure 9b).

Archaeological features

No archaeological features were identified within this trench.

Interpretation

As with the other trenches within this reach, the successive layers of clay between the topsoil (3500) and natural gravel (3505) were most likely alluvial in origin and so may have been indicative of a stretch of an earlier course of the Mayes Brook.

Trench 3.6

Location

This trench was oriented north-northeast to south-southwest and was also located within the southern half of the reach on relatively flat ground at 2.5m AoD.

The desk based assessment identified no archaeology within the area of this trench which was positioned to evaluate the archaeological potential of the footprint of a proposed pond (Figure 4).

Soil profile

The topsoil (3600) comprised 0.34m of dark grey soft clayey silt which overlay 0.04m of compact orange clay (3601). Directly below this was the natural mixed orange-grey gravel (3602) (Figure 9c).

Archaeological features

No archaeological features were identified within this trench.

Interpretation

Unlike the other trenches within this reach, the alluvial subsoil (3601) was comparatively shallow, possibly indicating that the original course of the Mayes Brook was located further to the east.

3.3.4 Reach 4

All of the trenches within this reach were located close to the western edge of the reach.

Trench 4.1

Location

This trench was oriented north-northwest to south-southeast and was located within the northern half of the reach on relatively flat ground at 1.14m AoD.

The desk based assessment identified no archaeology within the area of this trench which was positioned to evaluate the archaeological potential of a section of the proposed re-routing of the Mayes Brook (Figure 5).

Soil profile

The topsoil (4100) comprised a 0.15m thickness of soft mid brown silty loam which overlay a 0.17m deep deposit of soft yellow brown sand (4101). Directly beneath this was a 0.48m thick layer of friable grey-brown clayey silt (4102) which contained fragments of modern brick and overlay a 0.36m thick, friable grey-brown, clayey sand material (4103). Directly beneath this was the natural compact orange clay (4104) (Figure 9d).

Archaeological features

No archaeological features were identified within this trench.

Interpretation

The layer of grey-brown clay (4103) appeared to be alluvial in origin and most likely represented a remnant of a stretch of an earlier course of the Mayes Brook. The overlying layer (4102) which contained modern brick probably represented the deliberate filling-in and levelling of the original brook, possibly when the park was landscaped.

Trench 4.2

Location

This trench was oriented northwest to southeast and was located close to the middle of the reach on relatively flat ground at approximately 1.10m AoD.

The desk based assessment identified no archaeology within the area of this trench which was positioned to evaluate the archaeological potential of a section of the footprint of the proposed re-routing of the Mayes Brook (Figure 5).

Soil profile

The topsoil (4200) was the same as that identified in trench 4.1 and overlay a 0.35m thick deposit of friable yellow-brown sandy gravel (4201) which contained frequent fragments of modern brick. Directly below this was a 0.36m deep layer of friable grey-brown clayey sand (4202) which overlay the natural firm orange clay (4203) (Figure 10a).

Archaeological features

No archaeological features were identified within this trench.

Interpretation

As with trench 4.1, the layer of sandy gravel (4201) was most likely indicative of the deliberate filling-in of the Mayes Brook and the levelling of the land during the construction of Mayesbrook Park.

Trench 4.3

Location

This trench was oriented north-northeast to south-southwest and was also located close to the middle of the reach on relatively flat ground at 1.05m AoD.

The desk based assessment identified no archaeology within the area of this trench which was positioned to evaluate the archaeological potential of a section of the footprint of the proposed re-routing of the Mayes Brook (Figure 5).

Soil profile

The topsoil (4300) was the same as that identified within trenches 4.1 and 4.2 and overlay a 0.21m thick deposit of friable mid brown sandy clay (4301). Directly below this was a 0.28m thick layer of friable orange sandy clay (4302) which I turn sat on firm dark grey silty clay (4303) which contained fragments of modern brick and plastic and was 0.40m thick. Directly below this was the natural mottled orange-grey firm clay (4304) (Figure 10b).

Archaeological features

No archaeological features were identified within this trench.

Interpretation

As with the other trenches within this reach, the layer of dark grey silty clay (4303) appeared to be the result of the deliberate filling-in of the Mayes Brook. However, unlike the other trenches, pieces of plastic recovered from this layer may indicate that this section of the brook was filled-in after the park had been landscaped in the 1930s.

3.4 Finds Summary

Following completion of trenching, the finds recovered during the evaluation work were sent for specialist assessment, the results of which are included in this report in Appendix D. These reports are summarised by finds type below.

3.4.1 Pottery (Jane Timby)

Only four sherds of pottery (57g) were recovered, all from ditch **1109**, and all were dated to the 13th to 14th centuries AD. All of the represented vessels were cooking pots and were likely to have originated from the Hertfordshire or Middlesex industries.

No further work is recommended for this material.

3.5 Confidence rating of the results

The descriptions, interpretations and relationships of the deposits recorded within all of the trenches were good and the confidence rating for the results is considered to be high.

4 DISCUSSION

The only definite archaeological feature identified was the ditch (1109), found within trench 1.1. This ditch was well sealed beneath the alluvial clay (1103) and contained pottery dating from the 13th to 14th centuries. The narrowness and depth of this ditch (0.5m wide and 0.14m deep) suggested that it was unlikely to be a substantial feature and most likely represented the remnant of a former field boundary – probably consisting of a hedgeline. The silty nature of the fill material suggested that it may have been washed in from the Mayes Brook during flood episodes.

The alluvial layers identified in almost all of the trenches within reaches 1 and 3 were evidently the result of flooding episodes or the natural silting up of sections of the earlier courses of the Mayes Brook (see section 1.6.1).

Within reach 4, the post-medieval rubble seemed to have been deposited within grey or orange silty clay. This suggests that the rubble may have been dumped as part of the deliberate filling-in of the Mayes Brook during the construction of the park in the 1930s.

5 ASSESSMENT OF IMPACT

5.1 Importance

The trench evaluation made no majorly significant archaeological discoveries. A single ditch of medieval date was discovered, which was through to represent part of a larger, agricultural, field system. These remains – and the field system which they imply may be present within the PDA, should be deemed to be of local importance.

5.2 Impact

The proposed redevelopment and regeneration of the park has the potential to have an adverse affect upon any buried archaeological remains located within the PDA.

The only definite archaeological feature (ditch **1109**) was sealed below the topsoil and alluvium, cutting into the natural geology, at a depth of 1.05m. The evaluation works undertaken demonstrated that, within the footprint areas of the proposed new river channels and ponds, the depth of overburden onto the natural geology was between c0.5-1m. Profile plans of the proposed work supplied by Barking and Dagenham Borough Council indicate that the excavation of the new river course and ponds will penetrate to a maximum depth of between 1.50 - 2.25m i.e. penetrating and truncating the natural geology. Therefore, in these areas (the footprints of the planned new river course and ponds) any potential archaeological remains may be subject to significant, direct, impact.

In terms of the proposed landscaping works, the profile plans supplied indicate that where the landscaping reduces the ground level it will typically be to a depth of 0.50 – 1m. However, the extent and depth of the alluvial layer beyond those areas where it was identified during the evaluation, is not known. Therefore, the degree of protection which the alluvium may offer any potential archaeological remains, from ground reduction associated with the planned landscaping works, is unclear.

5.3 Significance of impact

Based on the evaluation results, the significance of impacts upon known and potential archaeological remains lying within the park is likely to be in the ranges negligible to low and low to medium.

6 CONCLUSIONS

The evaluation has been successful in identifying layers of alluvial clay probably associated with the original Mayes Brook (see section 1.6.2).

The work was not successful in locating any prehistoric activity, nor in indentifying the remains of medieval ridge and furrow.

Human activity dating to the Medieval period $(13^{th} - 14^{th}$ Century) was identified within reach 1 and, although only an isolated ditch was located, it is possible that this ditch may be associated with a hitherto unidentified Medieval field system. This field system may have been associated with the known manor house (Jenkins Manor) located c. 400m to the south (HER MLO23617) or, the unknown but postulated, farm c. 150m to the north (HER MLO13771), the HER entry for this referring to name place evidence to a possible bridge *or farm* of unknown date.

Whilst the above may be *associated* with the manor house, no archaeological remain directly related to the extent of the manor house were uncovered, neither was any evidence of the nature of the post medieval / early modern park and gardens.

Although no further archaeological features were identified in any of the other reaches the presence of natural gravel below a good depth of alluvium suggests that other archaeological remains may exist in areas of the park which were not investigated during this evaluation and that were not destroyed during the construction of the park. The presence of a substantial, preserved, alluvium layer, within at least part of the PDA, also allows for the potential of discovering features associated with the post medieval /early modern park and gardens, which would likely be cut into /onto this layer.

The presence of a gravel layer, through all of the evaluation trenches, also means that the site/extent of the postulated gravel extraction undertaken within the PDA was not identified by these works.

The need for any further archaeological works, however, should be determined in collaboration with GLASS, Barking and Dagenham Borough Council, Quartet Design and Network Archaeology Ltd.

7 ARCHIVE

The documentary archive comprises:

- A copy of the desk based assessment;
- A copy of the WSI for the evaluation;
- A copy of this evaluation report;
- Relevant and non confidential documents and correspondence relating to the site held by Network Archaeology, and
- Site records, as detailed in the table below:

Table 7.1 Quantification of the site archive

Item	Count
Number Record	1
Trench Sheets	12
Context Registers	5
Context Sheets	7
Level Register	1
Drawing Registers	1
Drawing Sheets	5
Photographic Registers	4
Black and white photographs	63
Colour slide photographs	63
Digital Photos	30

On completion of the reporting stages of the project, the archive will be prepared for long-term storage, to a standard from which post-excavation assessment could proceed and in a format agreed in advance with the relevant local depository. This will be in accordance with guidelines prepared by the UK Institute of Conservation (Walker 1990) and the Museums & Galleries Commission (MGC 1992). The project archive will be managed in accordance with current guidelines (Ferguson & Murray 1997).

The recipient museum is Valence House Museum, Becontree Avenue, Dagenham. RM8 3HT. Tel 020 8227 5222.

The recipient museum will receive all of the document archive. The accession number for the archive is MAY11

In the event that deposition of the archive cannot be concluded, Network Archaeology will store the archive to a suitable standard until deposition can be arranged. In this event, Network Archaeology will retain ownership of the document archive until the document archive and its ownership is passed to the recipient museum.

8 ACKNOWLEDGEMENTS

Network Archaeology Ltd would like to thank the following for their contribution to the project:

Name	Organisation	Position	Contribution
Alex Farris	London Borough of Barking and Dagenham	Senior Park Development Officer	Client liaison
David Newman	Quartet Design	Partner	Tender Commissioning
Jane Sidell	GLASS	Inspector of ancient monuments (London)	External monitoring
Oje Unuigbe		Project Manager	Land access (reach 4)
Alec			Land access (reach 1)
Brian Roberts	O'Connor Plant Hire	Driver	Machine excavation
Jane Timby	External specialist		Pottery report
Daniel Hounsell		Project manager	Project management Report editing
Chris Casswell		Project Supervisor	Evaluation
Jacqueline Churchill		Illustrator	Report figures (CAD)
Susan Freebrey		GIS Officer	Report figures (GIS)
Gavin Glover	Network Archaeology	Senior Project Officer	Surveying Evaluation
Steve Thorpe		Project Officer	Evaluation Archive checking Report writing
Mike Wood		Project Manager Acting Finds Officer	Finds management

9 REFERENCES & BIBLIOGRAPHY

ACAO	1993	Model briefs and Specifications for Archaeological Assessments and Field Evaluations	
Allen J L & Holt A St J	1986 (with later updates)	Health & Safety in Field Archaeology	Standing Conference of Unit Managers, London
ALGAO	1997	Analysis and Recording for the Conservation and Control of works to Historic Buildings: Advice to Local Authorities and Applicants	
ALGAO	In prep	South East England Archaeological Framework	
ALGAO	2003	Standards for field archaeology in the east of England	EAA occasional paper 14
Association for Environmental Archaeology	1995	Environmental Archaeology and Archaeological Evaluations. Recommendations concerning the environmental archaeology component of archaeological evaluations in England	Working Papers of the Association for Environmental Archaeology 2, 8 pp. York
Barking & Dagenham Borough Council	2010	The Barking & Dagenham Local Implementation Plan 2011/12 – 2013/14 Second Review (2010).	
Department for Communities and Local Government	2010	PPS5: Planning for the Historic Environment	The Stationery Office
Department for Communities and Local Government	2008	PPS11: Regional Spatial Strategies	Update 2/2008
EAA	2005	Standards for Field Archaeology in the East of England	Occasional Paper 14
English Heritage	1991	The Management of Archaeological Projects, 2nd edition	London
English Heritage	1999	Waterlogged Wood: Guidelines on the Recording, Sampling, Conservation and Curation of Waterlogged Wood	London
English Heritage	1999	Guidelines for the care of waterlogged archaeological leather	http://194.164.61.1 31/default.asp?wci= WebItem& CE=558

English Heritage	1997	Sustaining the historic environment: new perspectives on the future	
English Heritage	2002	Environmental Archaeology: A Guide to the Theory and Practice of Methods, from Sampling and Recovery to Post-Excavation	London
Evans, J.	1897	The ancient stone implements, weapons and ornaments of Great Britain	Longmans Green and Co, London
Ferguson L.M. & Murray D.M.	1997	Archaeological Documentary Archives: Preparation, Curation and Storage, Paper 1,	Institute of Field Archaeologists' Manchester
Harris E	1993	Principles of Archaeological Stratigraphy	
HSE	2002 (As amended)	Control of Substances Hazardous to Health Regulations (COSHH)	
HSE	1994	Construction (Design and Management) Regulations	
HSE	1974	Health and Safety at Work Act	
IFA	2008 (194, revised 2001)	Standard and guidance for the collection, documentation, conservation and research of archaeological material	
IFA	2008 (194, revised 2001)	Standard & Guidance documents (Desk-Based Assessments, Watching Briefs, Evaluations, Excavations, Investigation and Recording of Standing Buildings, Finds, Waterlogged Wood)	
IFA	2008 (194, revised 2001)	Code of Conduct	
IFA	2000b	Code of Approved Practice for the Regulation of Contractual Arrangements in Field Archaeology.	
McKinley J.1. & Roberts C.	1993	Excavation and Post- Excavation Treatment of Cremated and Inhumed Human Remains,	Institute of Field Archaeologists Technical Paper 13
MGC	1992	Standards in the Museum Care of Archaeological Collections	Museums and Galleries Commission London
MoLAS	2002	A Research Framework For London Archaeology	Museum of London Archaeology Service

MoLAS	2002(a)	The Archaeology of Greater London	Museum of London Archaeology Service
Network Archaeology	2006(2003, revised 2004, 2005, 2006)	Health, Safety and Welfare Policy	
Network Archaeology	2006	Mayesbrook River restoration project, Mayesbrook Park, Barking & Dagenham. (Phase 1) Written Scheme of Investigation for Archaeological Trench Evaluation & Monitoring	Unpublished client report
Soil Survey of England and Wales (SSEW)	1983	Soils of England and Wales; Sheet 5, South West England	Scale 1:250,000
Society of Museum Archaeologists	1995	Towards an accessible archaeological archive - the transfer of archaeological archives to museums: guidelines for use in England, Northern Ireland, Scotland and Wales	Society for Museum Archaeologists, London
Walker, K.	1990:00:0	Guidelines for the preparation of excavation archives for long-term storage.	United Kingdom Institute for Conservation, Archaeology Section (London)
Watkinson, D & Neil A. V	1998	First Aid for Finds	Rescue Publications, Hertford
Wessex Archaeology	2007	University of East London, Barking Campus, Longbridge Road, London Borough of Barking & Dagenham, Greater London: Archaeological Evaluation Report	Unpublished Wessex Archaeology report

$\label{eq:Appendix A} A ppendix \, A$ Archaeological and historical background

Appendix A

Palaeolithic (c.500 000 – 8300BC)

There is evidence, mainly in the form of stone tools, of mobile hunter-gatherer communities living in Britain as far back as half a million years ago. Such evidence is extremely rare and is consequently of national/international significance. The National Monument Record lists the discovery of Palaeolithic stone tools, including hand-axes and flake implements (NMR 408150), at Barking but the location given is imprecise and only suggests a general locality in the vicinity of the Study Area. The tools were recovered from 'drift' deposits (Evans 1897, 603) and were not therefore in situ, but the possibility that further finds from the period may exist within the Study Area cannot be dismissed. However, given their rarity, the potential for Palaeolithic remains is low.

Mesolithic (c.8300 – 4200BC)

Mayesbrook Park is located on the gravel terraces of the River Roding and the River Thames. Riparian locations such as this tend to be rich in resources, both plant and animal, and as a result were commonly exploited by the hunter-gatherer communities of the Mesolithic period. However, despite the seemingly favourable location, no Mesolithic artefacts are known from the Study Area.

Neolithic (c.4200 – 2200BC)

Throughout the Neolithic period, communities across Britain adopted an increasingly sedentary lifestyle, with agriculture gaining primacy over hunting and gathering as the principal method of subsistence. However, Neolithic domestic structures and associated field systems are rare and the major evidence type consists of mortuary and ritual monuments, such as barrows and arrangements of standing stones (Whittle 1999).

The National Monument Record lists three Neolithic, polished stone axe heads (NMR 408151, 408152, 408153) as being found in or around Barking. The location given for the finds is imprecise and, in the absence of other evidence of Neolithic activity, the potential for Neolithic remains within the Study Area is considered to be low.

Bronze Age (c.2200 – 800BC)

With the exception of a new metalworking technology, an essentially Neolithic lifestyle continued on into the early Bronze Age. Yet from the middle of the period onwards there is a dramatic increase in the volume of settlement remains known to archaeology and a concomitant decrease in the number of visible ritual sites.

Two ditches (HER MLO65802), dating to the middle Bronze Age, were revealed during excavations at the University of East London's Barking Campus on the northern edge of Mayesbrook Park. The ditches possibly formed part of an enclosure, which may be related to circular anomalies seen on aerial photographs to the south of the university (Wessex Arch. 2007, 2). A further ditch (HER MLO77771), possibly of late Bronze Age or Early Iron Age origin was revealed at Bromhall Road (Roy 2003) on the east edge of Mayesbrook Park. The presence of Bronze Age remains suggests that communities were exploiting the freer draining soils overlying the terrace gravels which extend under Mayesbrook Park. The Study Area therefore has a moderate potential for Bronze remains.

Iron Age (c.800BC – AD43)

Despite the development of iron-working, coinage and the potter's wheel, the Iron Age landscape remained largely one of enclosed roundhouse settlements and field systems. However, sustained population growth brought increased competition for land, and the highly

territorial society that resulted is manifest in the many hillforts constructed at this time (Haselgrove 1999).

There is relatively little evidence of Iron Age activity within the Study Area. The National Monument Record lists a middle Iron Age field boundary and pottery (NMR 933059) revealed during excavations at the East London University campus on the northern edge of Mayesbrook Park and a large Iron Age jar and the remains of another vessel (HER MLO55862) were recovered during development work at Westrow Drive to the west. Given the general paucity of evidence of Iron activity within the Study Area, the potential for Iron Age archaeological remains within Mayesbrook Park is low.

Roman (AD43 – 410)

The Roman invasion in AD43 was followed by a rapid implementation of centralised administration, and supported by a network of roads. Britain's absorption into the Roman Empire changed the way of life dramatically for many indigenous people (Esmonde Cleary 1999). Formerly isolated communities were now able to engage in large-scale trade and exchange networks, as well as to adopt the wealth of new items, fashions and customs to which they were exposed. Others lived on in continuity with their Iron Age past: in small rural villages or native-style farmsteads, about which little is known.

The line of a possible Roman road, running form London to Bradwell (Othona) runs through the southern end of the Study Area, although its location within the area covered by the park has never been confirmed through excavation. Other known sites are relatively few, although the excavations undertaken at the East London University campus revealed a shallow pit (HER MLO65803) along with a small quantity of Roman pottery. Romano-British pottery and a brooch (HER MLO55862) were recovered during the development work at Westrow Drive to the west of the campus and a stone coffin containing human bone, along with a cinerary urn and at least one further vessel (NMR 408147) was found in 1933 at Ripple Road some 500m to the south-west of Mayesbrook Park, close to the line of the Roman road. A further stone coffin, containing an inhumation and a glass vessel (NMR 408149), was found in Barking a year earlier but the location of its excavation is not known with any precision. Although Roman sites are not especially well represented in the archaeological record within the Study Area, the presence of a possible Roman road running through the southern end of the park, suggests that the Study Area has a moderate to high potential for archaeological remains.

Saxon (AD410 – 1066)

The Saxon or early medieval period began with the end of official Roman rule in Britain in AD410. The emergent population comprised of native British and northern European settlers such as Angles, Saxons and Jutes (Hills 1999).

The Abbey at Barking was established by Erkenwald, Bishop of London, in AD666 and it is likely that the main focus of activity during the period was around the Abbey, approximately 2km to the south-west of the Mayesbrook Park. There is very little evidence of activity within the Study Area during this period. Several coins, including one of the ninth century king Burgred (NMR 408156), are known from the genera vicinity but are imprecisely located. The potential of the proposed development area for Saxon remains is low.

Medieval (AD1066 – 1540)

Increasing urbanisation is characteristic of the medieval period, with many new towns developing and large numbers of people abandoning a rural existence to move into the suburbs. Away from the towns, strip field systems continued in use, and low-lying, flood-

Appendix A

prone land was retained for meadow and pasture. Rural villages were organised around a church and surrounded by their own fields, woods and pastures.

By the Medieval period Mayesbrook Park lay within the manor of Jenkins (HER MLO23617), which had been granted by Barking Abbey to Fitz Stephens during the early 13th century. The manor house itself stood within the Study Area, on the western edge of Mayesbrook Park and was a large timber construction surrounded on three sides by a moat. A chapel is said to have been attached to the manor and certainly by 1273 the manor estate included of a messuage, 101 acres of arable land and 19 acres of meadow.

Documentary evidence from the thirteenth century points to the existence of a windmill (NMR 408160) and a horse mill (NMR 408159) in the general vicinity of Mayesbrook Park but the location is imprecisely known, likewise a possible hermitage (NMR 408161). Richard Osberne was granted 'free warren' in the demesne lands of Jenkins Manor in 1447 (HER MLO5898) with the warren most likely lying on the southern edge of the Mayesbrook Park. Place name evidence suggest that a settlement may have existed at Upney Lane (HER MLO13766) approximately 350m to the west of Mayesbrook Park, whilst similar evidence possibly points to a farm or bridge (HER MLO13771) at Longbridge close to the northern edge of the park.

Given the proximity of Jenkins' Manor to Mayesbrook Park and the likely presence of medieval features within the Study Area, the potential for further remains of this period within Mayesbrook Park is considered to be high.

Post-medieval (AD1540 – 1800)

The post-medieval period was characterised by sustained population growth, increased urbanisation, technological advance and the commercialisation of agriculture (Whyte 1999). From the 18th century onwards, the industrial revolution brought even more dramatic changes, all of which had a huge impact across the whole of Britain. Industrial architecture, factories, mines, mills and other production sites came into being, and towns continued to expand until the majority rural population had become a majority urban.

In 1567 the Jenkins' Manor estate was sold to Henry Fanshawe, within whose family it stayed until 1714. A windmill constructed to the south-east of Mayesbrook Park (HER MLO23616) may have been part of the Jenkins Estate. In 1714 the manor was sold to William Humphreys, Lord Mayor of London. Humphreys demolished the old manor house and constructed a brick house (HER MLO23618) in Queen Anne style in its place. The gardens for the new house were extensively landscaped to create fish ponds, terraces and avenues, which most likely extended into the present park. However, by 1796 Humphreys' construction had been demolished by Edward Hulse in favour of a two storey farmhouse. A two storey bay was added in 1840 but the farmhouse was demolished in 1937.

At the northern end of Mayesbrook Park, within the university campus, Longbridge House had been constructed by 1653 (Wessex Arch. 2007). A field called Tile Kiln Field (HER MLO10875) located near to the house most likely indicates the presence of tile kilns in the area, which may have extended into Mayesbrook Park. In 1860 Longbridge house was demolished and replaced by Longbridge Farm.

Early Modern and Modern (AD1800 - present)

Modern Barking & Dagenham is an essentially urban London Borough, with a population of some 155,000 and covering an area of 3419 hectares. Much of the growth and urbanisation of Barking has taken place from the 1920's onwards, with the area around Mayesbrook Park being rapidly developed, predominantly for housing.

The East London University campus on the northern edge of Mayesbrook Park opened as the South East Technical College in 1936. The building (SMR MLO99293) is listed, with much of the original interior of the main 1930's surviving intact.

Field boundaries and a drain are shown crossing the Study Area on the 1864 Ordnance Survey map and the remains of further agricultural features may also survive.

The Barking and Pitsea Railway (Metropolitan Line), which defines the south side of the park was built in 1888.

A number of park amenities are depicted within Mayesbrook Park on the Ordnance Survey map of 1939 and later, including a bandstand, pavilion and playgrounds. On the same maps, it is significant that two large lakes are visible towards the south end of the park. It is thought that these relate to earlier gravel extraction activity. However, no

The archaeological potential of the Study Area for this period is high.

documentary evidence supporting this was uncovered during this assessment.

Appendix B Summary trench data

Trench	Easting 01	Northing 01	Easting 02	Northing 02	Length
1.1	546128.10	185635.62	546136.93	185640.32	10.0
1.2	546146.20	185593.55	546148.16	185591.28	3.0
1.3	546169.62	185555.71	546172.56	185556.28	3.0
3.1	546261.04	184949.46	546263.98	184951.27	3.5
3.2	546226.04	184940.46	546239.80	184934.64	14.9
3.3	546191.92	184883.92	546200.08	184899.23	17.3
3.4	546226.46	184895.45	546228.37	184899.07	4.1
3.5	546167.92	184815.24	546165.88	184811.83	4.0
3.6	546187.42	184810.83	546182.76	184801.98	10.0
4.1	546068.07	184474.70	546069.35	184472.03	3.0
4.2	546088.59	184441.14	546090.87	184439.08	3.1
4.3	546093.87	184432.71	546094.52	184429.73	3.1

Appendix C Summary table of contexts

Trench	Context	Туре	Fill of	Filled by	Same as	Depth BGS	Dimensions	Description	Interpretation
								Very loose mid to dark grey slightly	
1.1	1100	Layer			1200/1300	0	0.37m deep	clayey silt	Topsoil
1.1	1101	Layer				0.37m	0.15m deep	Tarmac	Former path
								Light orange brown clayey silt with	
1.1	1102	Layer				0.52m	0.2m deep	gravel patches	Made ground
								Light to mid orange brown soft silty	
1.1	1103	Layer				0.72m	0.33m deep	clay	Alluvial subsoil
1.1	1104	Layer				1.05m	N/A	Light to mid grey yellow compact clay	Natural substrate
								Very loose light grey silt with sparse	
1.1	1105	Fill	1106		1108	0.95m	0.14m deep	angular pebbles	Sole fill
							0.5m wide and	WNW-ESE oriented linear. Moderate	
1.1	1106	Cut		1105	1107	0.95m	0.14m deep	concave sides with a concave base	Ditch or hedge line
							0.54m wide and	WNW-ESE oriented linear. Moderate	
1.1	1107	Cut		1108	1106	0.95m	0.1m deep	concave sides with a flat base	Ditch or hedge line
								Very loose light grey silt with sparse	
1.1	1108	Fill	1107		1105	0.95m	0.1m deep	angular pebbles	Sole fill
							7.5m long, 0.5m		
						0.8m to	average width and	WNW-ESE oriented linear with a	
1.1	1109	Group			1106/1107	0.95m	up to 0.14m deep	rounded terminal at the eastern end	Ditch or hedge line
								Very loose dark grey sandy silt with	
1.2	1200	Layer			1100/1300	0	0.29m deep	concrete fragments	Topsoil
								Compact orange clay with frequent	
1.2	1201	Layer			1301	0.29m	0.17m deep	charcoal flecks	Made ground
1.2	1202	Layer				0.46m	0.24m deep	Soft dark grey clay	Buried topsoil
1.2	1203	Layer			1303	0.7m	0.27m deep	Light grey brown clay	Alluvial subsoil
1.2	1204	Layer				0.97m	N/A	Compact orange grey clay	Natural substrate
								Very loose dark grey sandy silt with	
1.3	1300	Layer			1100/1200	0	0.3m deep	frequent modern cbm	Topsoil
								Light orange brown clayey silt with	
1.3	1301	Layer			1201	0.3m	0.09m deep	gravel patches	Made ground
								Compact dark grey clay with	
1.3	1302	Layer				0.39m	0.23m deep	occasional cbm	Made ground
1.3	1303	Layer			1203	0.62m	0.27m deep	Light grey brown clay	Alluvial subsoil
1.3	1304	Layer				0.89m	N/A	Light grey soft clay	Natural substrate
3.1	3100	Layer			3200/3400	0	0.26m deep	Soft mid brown silt	Topsoil
								Firm mixed orange grey mottled	
3.1	3101	Layer			3201/3401	0.26m	0.16m deep	clayey silt	Alluvial subsoil
					3202/3302/3				
3.1	3102	Layer			402/3505	0.42m	N/A	Mixed grey sand and gravel	Natural substrate
3.2	3200	Layer			3100/3400	0	0.3m deep	Soft mid brown silt	Topsoil

Trench	Context	Туре	Fill of	Filled by	Same as	Depth BGS	Dimensions	Description	Interpretation
								Firm mixed orange grey mottled	•
3.2	3201	Layer			31013401	0.3m	0.3m deep	clayey loam	Alluvial subsoil
					3102/3302/3				
3.2	3202	Layer			402/3505	0.63m	N/A	Mixed grey sand and gravel	Natural substrate
3.3	3300	Layer			3600	0	0.4m deep	Dark grey soft clayey silt	Topsoil
3.3	3301	Layer			3501	0.4m	0.38m deep	Mid orange brown compact clay	Alluvial subsoil
					3102/3202/3				
3.3	3302	Layer			402/3505	0.78m	N/A	Mixed orange brown gravel	Natural substrate
				3304/330			2m wide and 0.5m	NW-SE oriented linear with steep	Modern service
3.3	3303	Cut		5		0.4m	deep	concave sides and a flat base	trench and land drain
3.3	3304	Fill	3303			0.4m	0.44m deep	Mid to dark grey soft clayey silt	Upper fill
								Wet and sticky loose dark blue grey	
3.3	3305	Fill	3303			0.84m	0.06m deep	silty clay	Primary fill
								L-shaped modern concrete structure	Possible culvert or
3.3	3306	Masonry				0.4m		topped with frogged bricks	drain
3.4	3400	Layer			3100/3200	0	0.36m deep	Soft mid brown silt	Topsoil
								Firm mixed orange grey mottled	
3.4	3401	Layer			3101/3201	0.36m	0.08m deep	clayey loam	Alluvial subsoil
					3103/3203/3				
3.4	3402	Layer			302/3505	0.44m	N/A	Grey gravel	Natural substrate
3.5	3500	Layer				0	0.25m	Loose dark brown clayey silt	Topsoil
3.5	3501	Layer			3301	0.25m	0.3m deep	Mid orange brown compact clay	Alluvial subsoil
3.5	3502	Layer				0.55m	0.35m deep	Light grey clay	Alluvial subsoil
3.5	3503	Layer				0.9m	0.25m deep	Mid orange grey clay	Alluvial subsoil
3.5	3504	Layer			3602	1.2m	0.05m deep	Mixed orange grey gravels	Natural substrate
					3103/3203/3				
3.5	3505	Layer			302/3402	1.25m	N/A	Grey gravel	Natural substrate
3.6	3600	Layer			3300	0	0.34m deep	Dark grey soft clayey silt	Topsoil
3.6	3601	Layer				0.34m	0.04m deep	Compact orange clay	Alluvial subsoil
3.6	3602	Layer			3504	0.38m	N/A	Mixed orange grey gravels	Natural substrate
4.1	4100	Layer			4200/4300	0	0.15m deep	Soft mid brown silty loam	Topsoil
4.1	4101	Layer				0.15m	0.17m deep	Soft yellow brown sand	Subsoil
4.1	4102	Layer				0.32m	0.48m deep	Friable grey brown clayey silt	Rubble
4.1	4103	Layer				0.9m	0.3m deep	Firm dark grey silty clay	Alluvium
4.1	4104	Layer				1.2m	N/A	Firm brown orange silty clay	Natural substrate
4.2	4200	Layer			4100/4300	0	0.24m deep	Soft mid brown silty loam	Topsoil
								Friable yellow brown sandy gravel	
4.2	4201	Layer				0.24m	0.35m deep	with frequent modern cbm	Rubble
4.2	4202	Layer				0.59m	0.36m deep	Friable grey brown clayey sand	Alluvium
4.2	4203	Layer				0.95m	N/A	Firm orange clay	Natural substrate

Appendix C

Trench	Context	Туре	Fill of	Filled by	Same as	Depth BGS	Dimensions	Description	Interpretation
4.3	4300	Layer			4100/4200	0	0.26m deep	Soft mid brown silty loam	Topsoil
4.3	4301	Layer				0.26m	0.21m deep	Friable mid brown sandy clay	Subsoil
								Friable orange sandy clay with	
4.3	4302	Layer				0.47m	0.28m deep	occasional stones	Rubble
								Firm dark grey silty clay with modern	
4.3	4303	Layer				0.75m	0.4m deep	plastic and cbm	Rubble
4.3	4304	Layer				1.15m	N/A	Firm mottled orange and grey clay	Natural substrate

Appendix D Specialist reports

THE POTTERY

By Jane Timby

Summary

The archaeological work resulted in the recovery of just four sherds of pottery from a ditch in Trench 11 (contexts 1105 and 1108). The sherds, comprising two bodysherds, a base and a rim-sherd are all from plain, wheel-made jars (cooking pots) (see catalogue below). The pieces are in moderately good condition although one sherd is a spalled fragment and the basesherd is slightly worn. They appear to be generally consistent with a medieval date, probably in the 13-14th century.

Three fabrics are present; a fine micaceous sandy ware with sparse flint (fabric 1); a fine sandy ware with sparse flint (fabric 2) and a fine micaceous ware with sparse voids from leached out inclusions (fabric 3). The character of the material suggests these are local products, perhaps from the Hertfordshire or Middlesex grey ware industries.

This is a very small group of material which beyond providing a date for the feature is not likely to be of great significance. No further work is recommended unless the specific fabrics need to be identified.

Catalogue

- 1. Context (1105). Brown wheel-made bodysherd with a dark grey/red-brown sandwich core. The paste contains sparse flint. Fabric 2. From a plain jar. Weight 15g.
- 2. Context (1105). Worn basesherd from a cooking pot slightly blackened on the external angle. Very finely micaceous paste with rare sparse voids 1-2mm presumably from calcareous inclusions. Fabric 3. Weight 5g.
- 3. Context (1108). Rim-sherd from a jar/ cooking pot with a flaring neck and flat-topped slightly expanded rim. Fine sandy micaceous ware with rounded fine quartz sand and rare flint. Fabric 1. Weight 34g.
- 4. Context (1108). Spalled bodysherd, fine micaceous, sandy ware with an oxidised interior and mottled grey core. Weight 3 g.

Appendix E Plates



Plate 1: Trench 1.1 showing ditch 1109



Plate 2: Trench 1:1 showing trench profile and ditch 1109

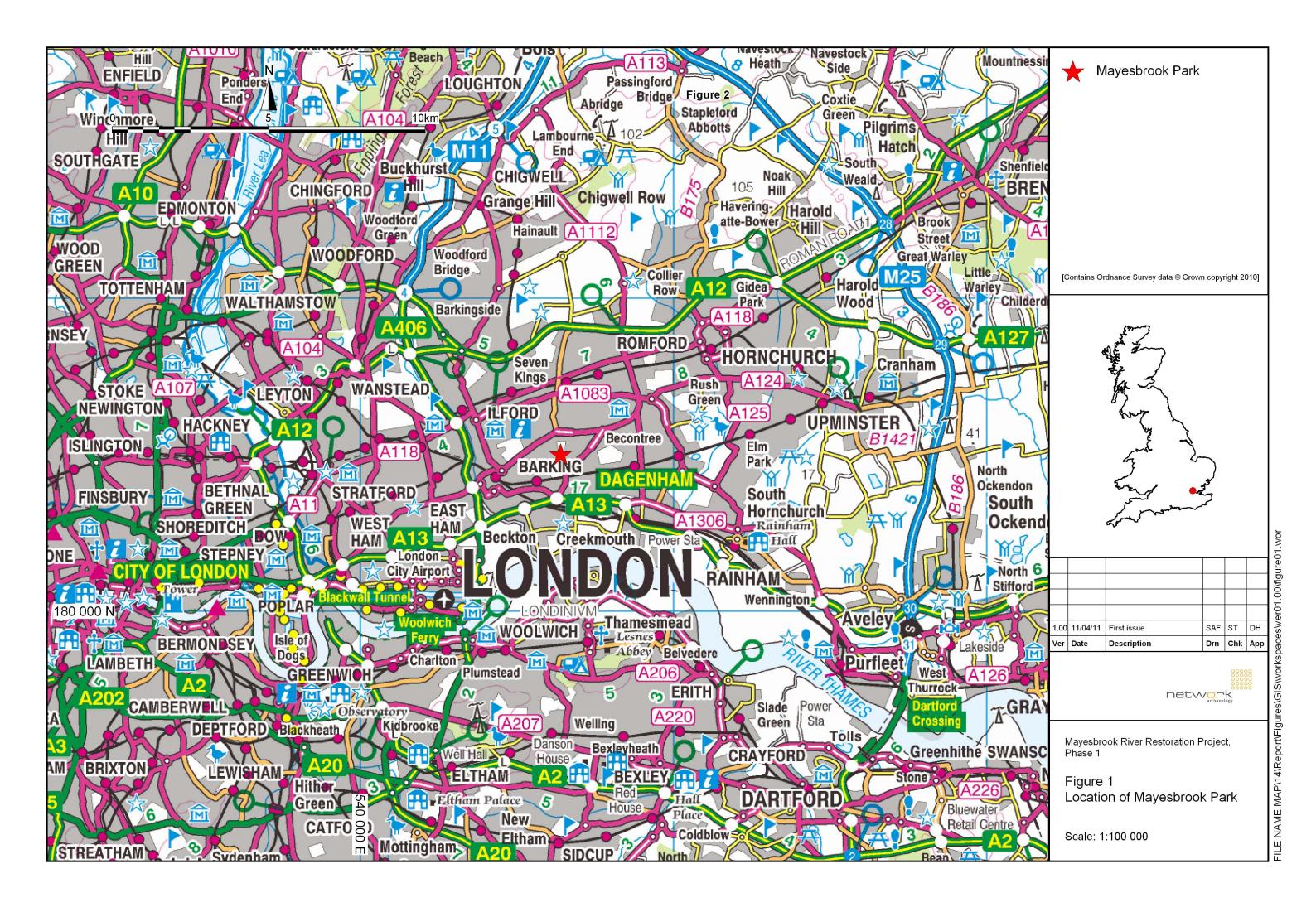


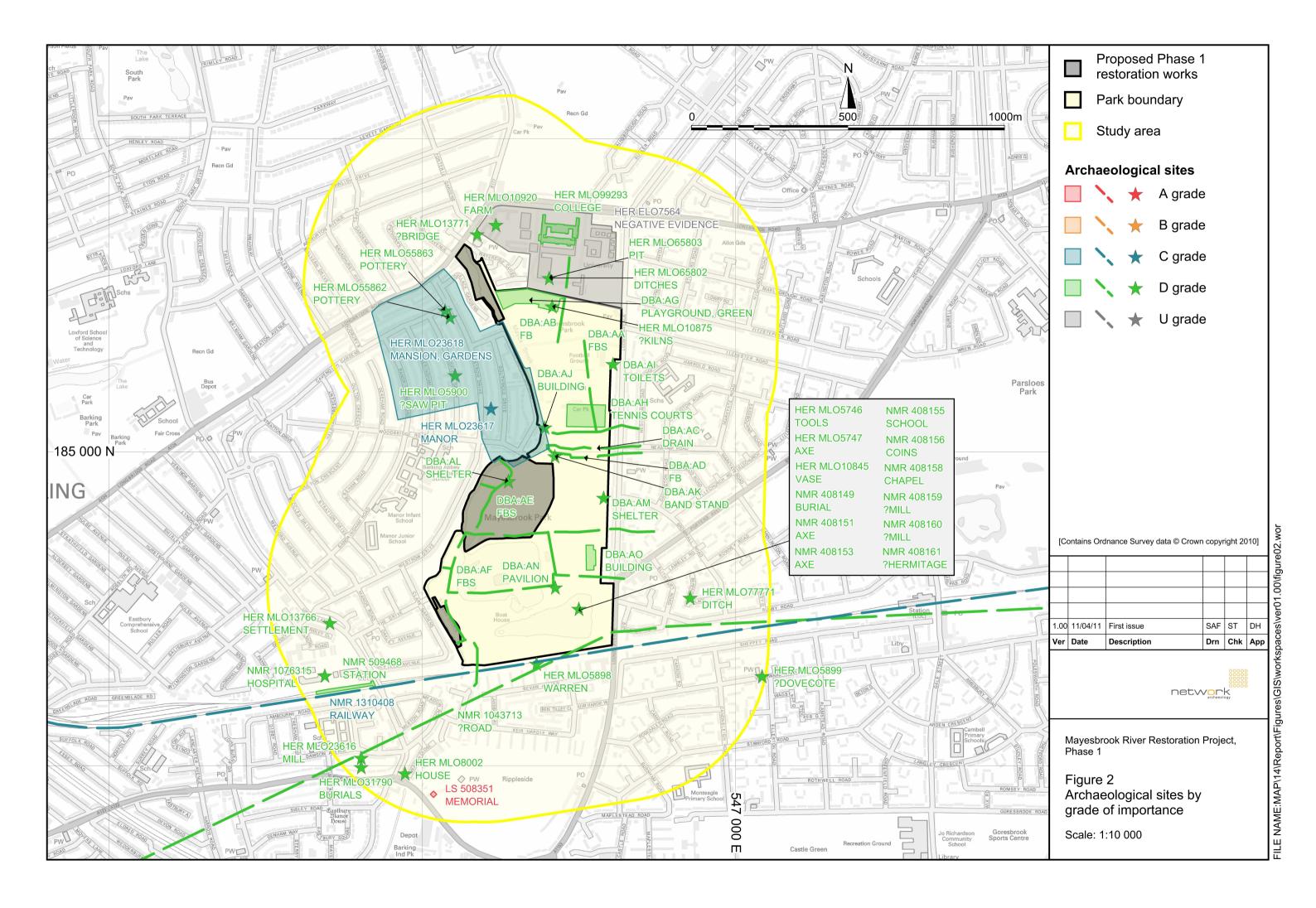
Plate 3: Trench 1.2 from the southeast

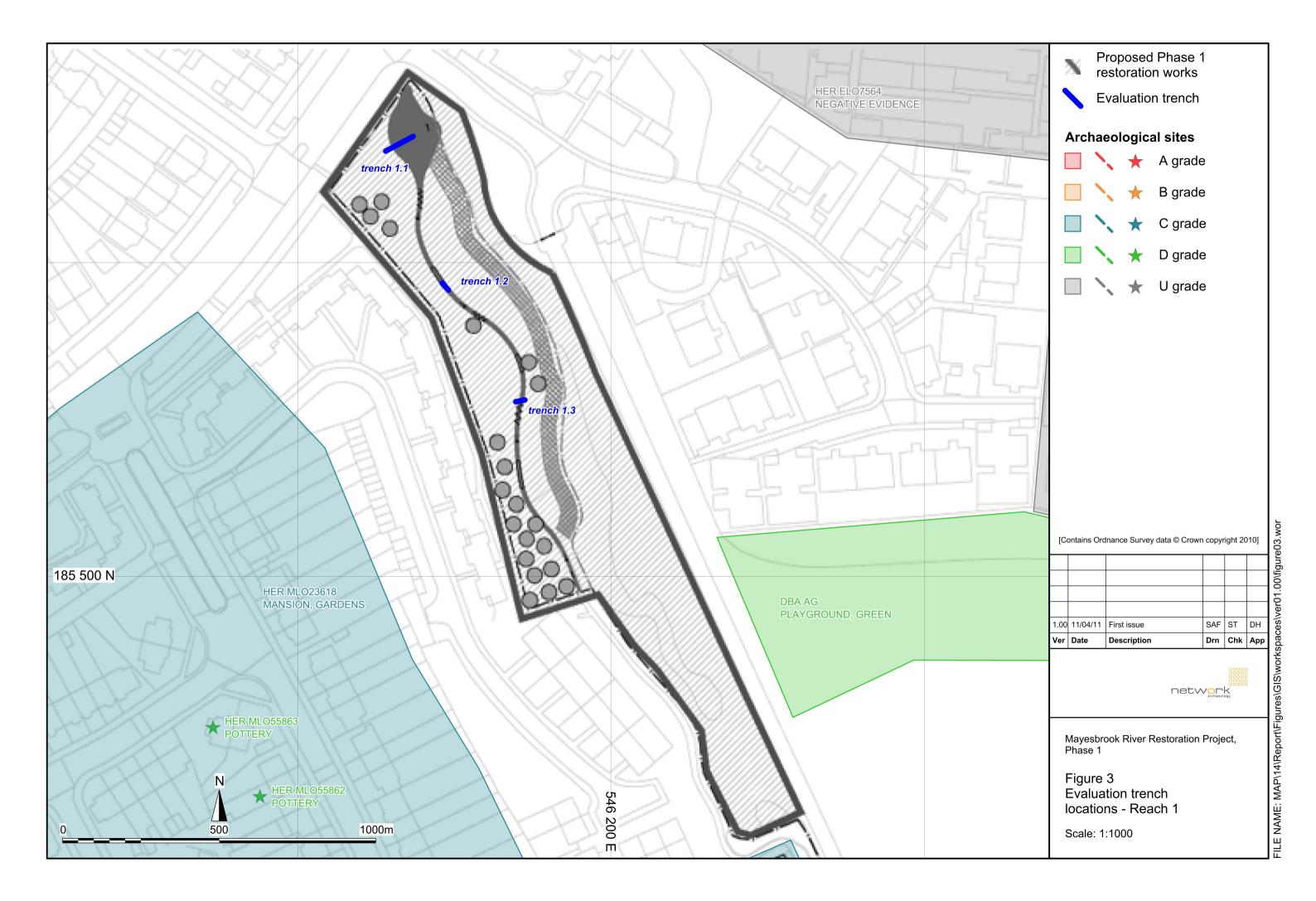


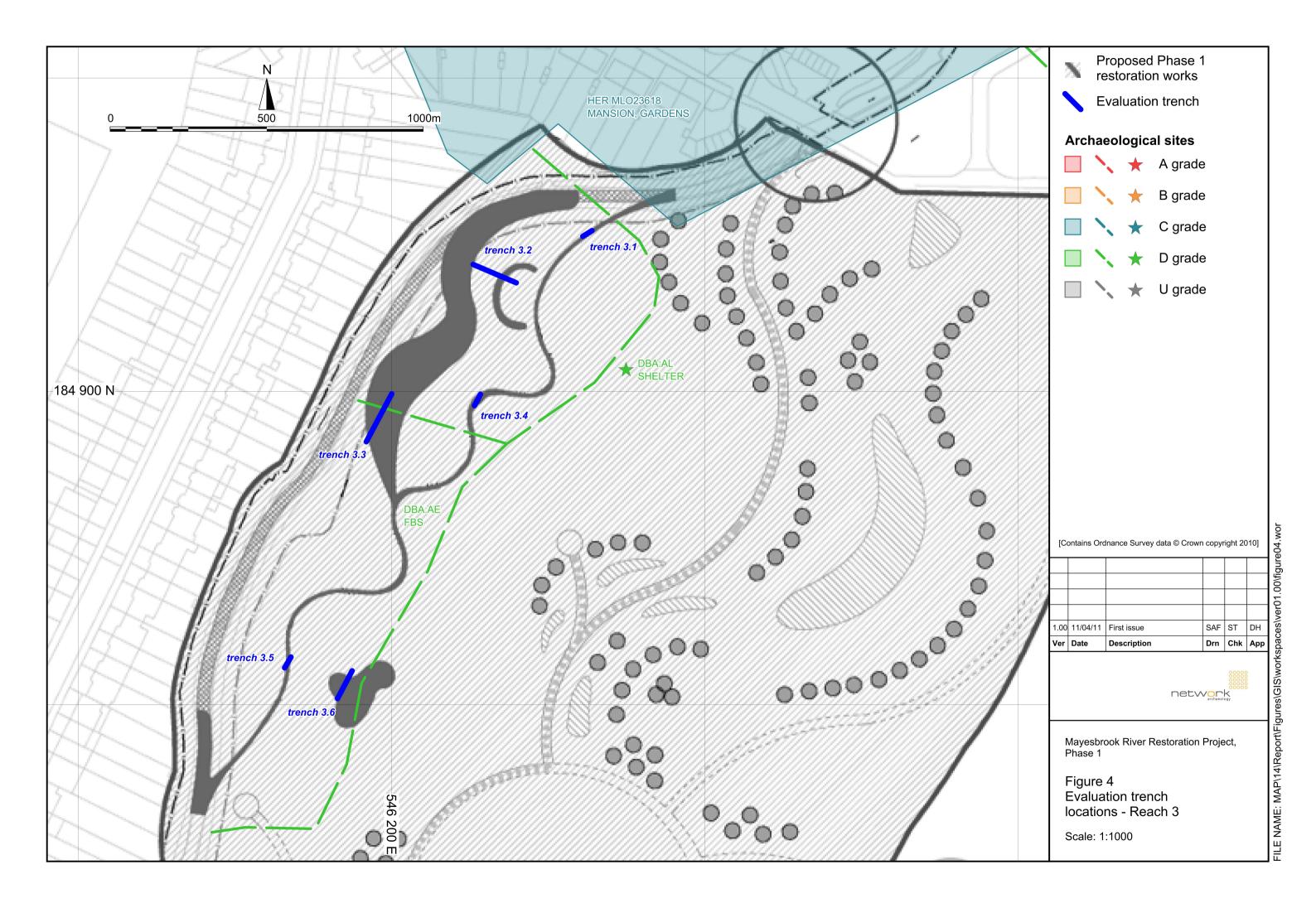
Plate 4: Trench 1.2 profile section

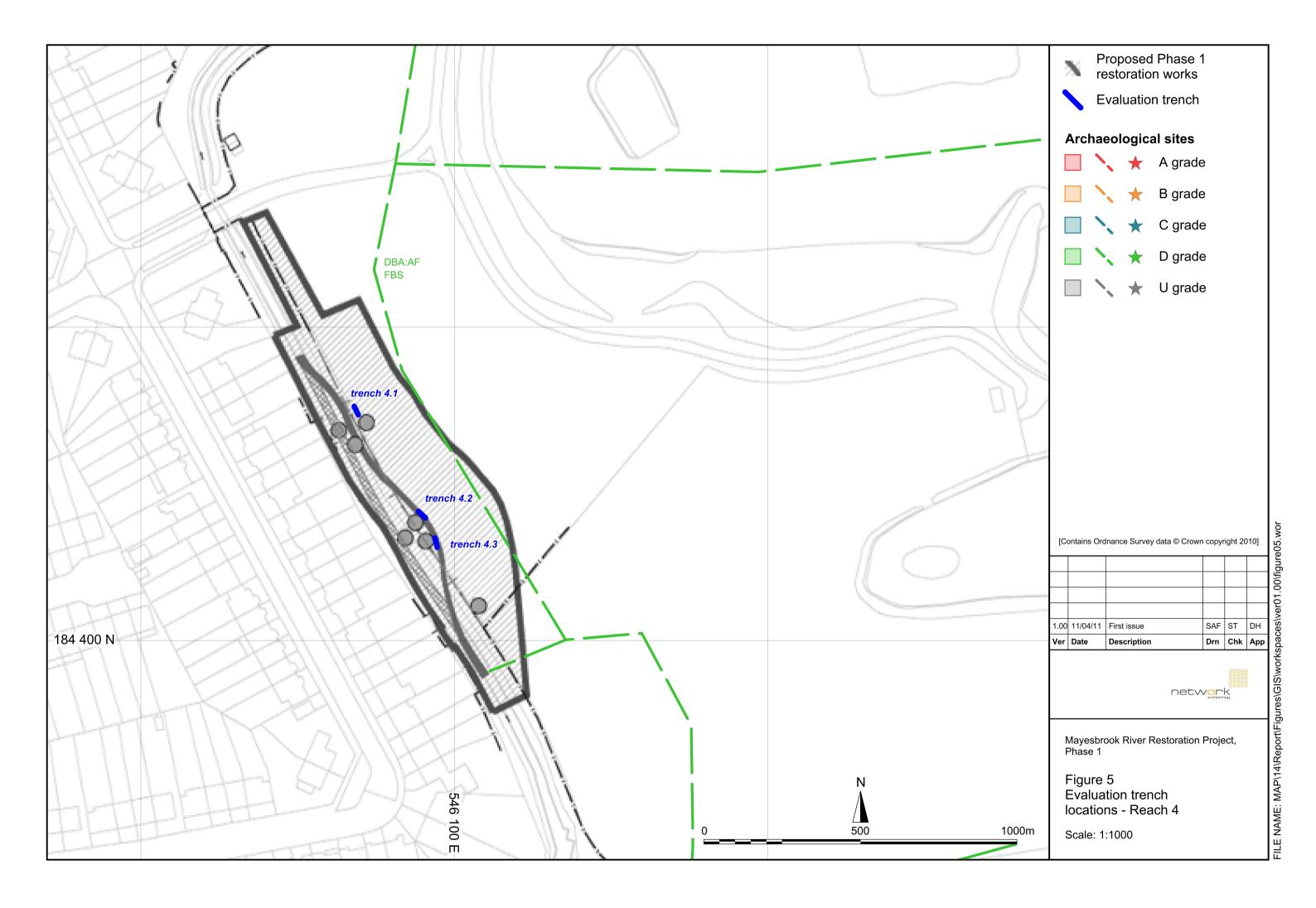
Appendix F Figures

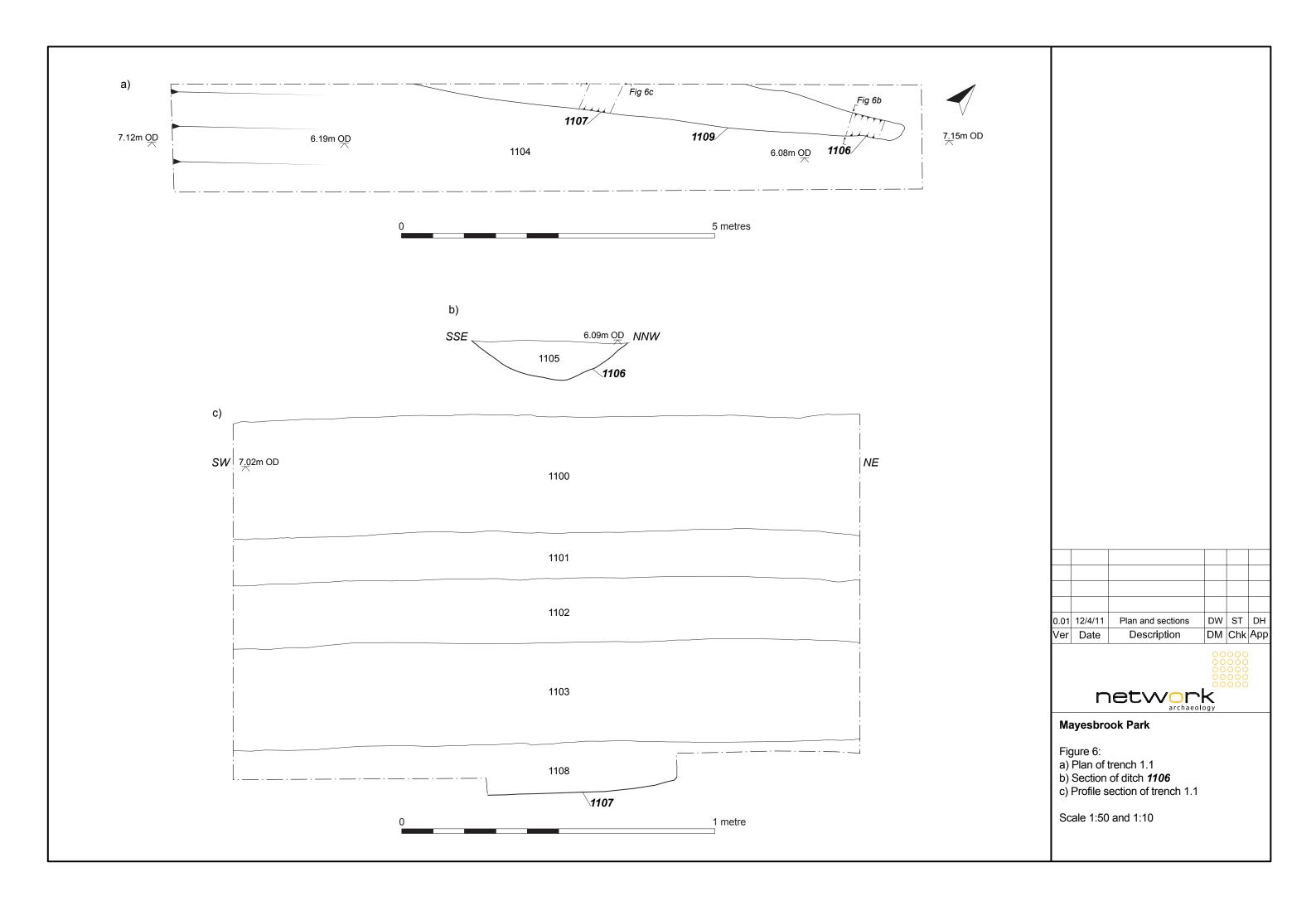


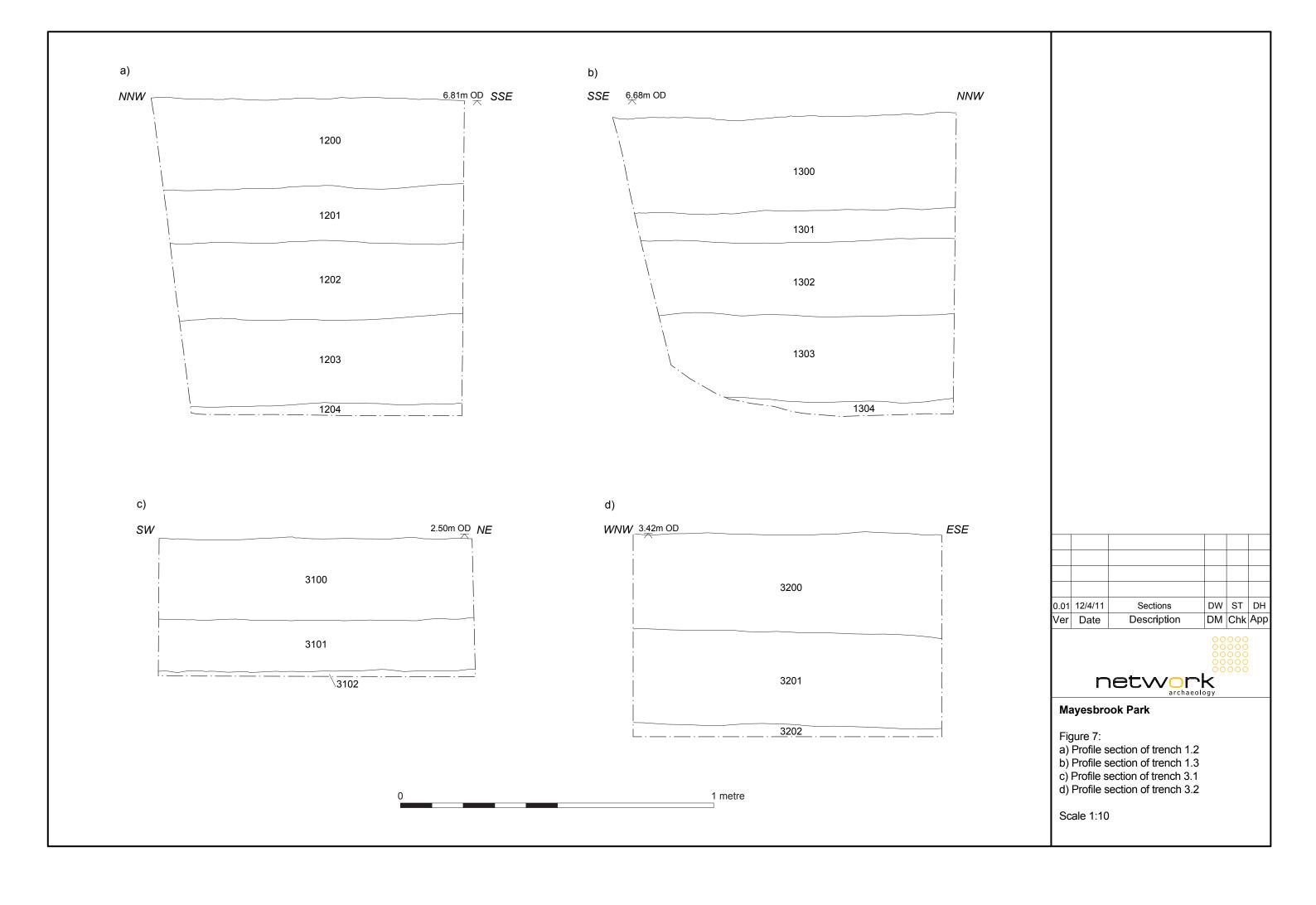


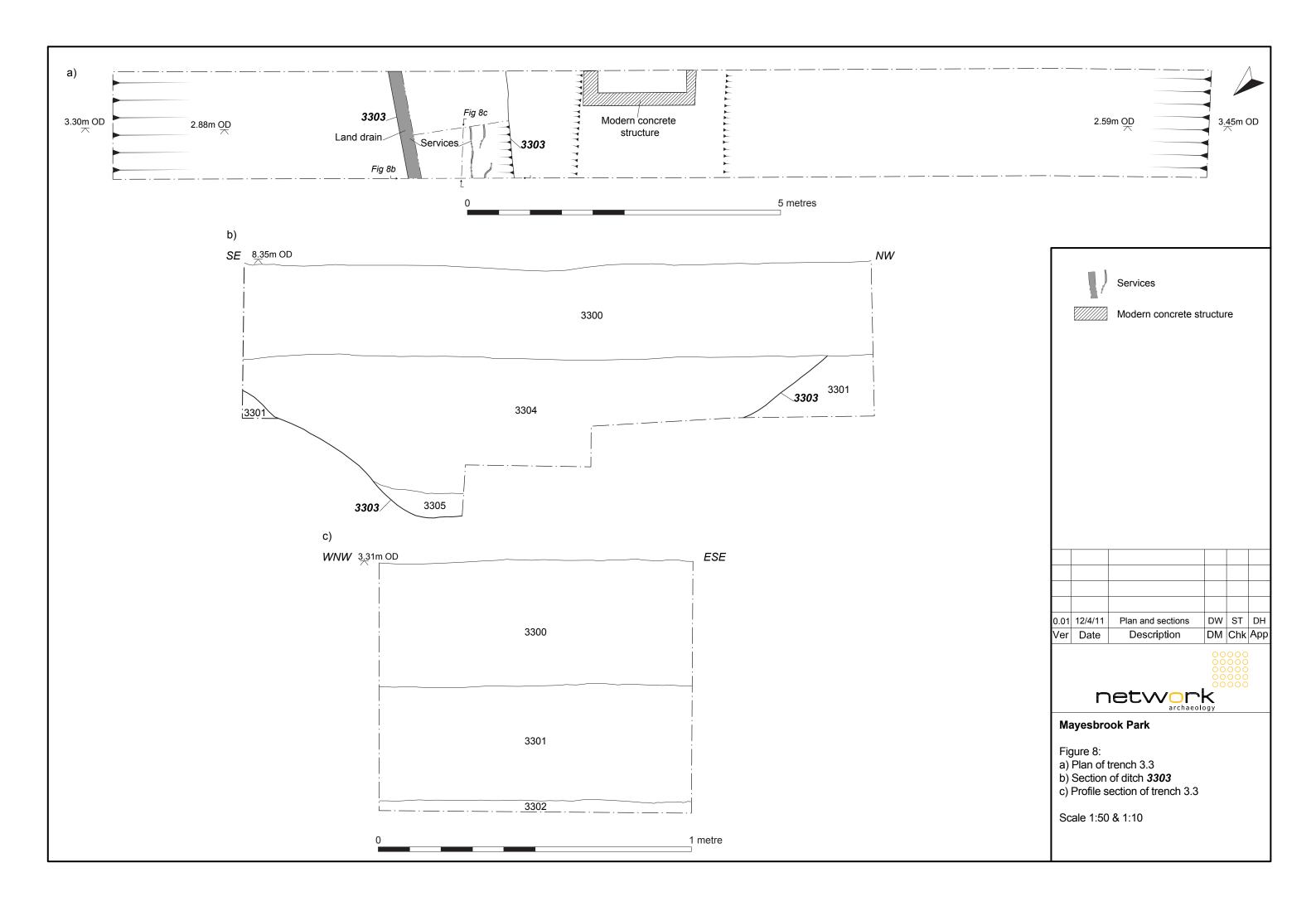


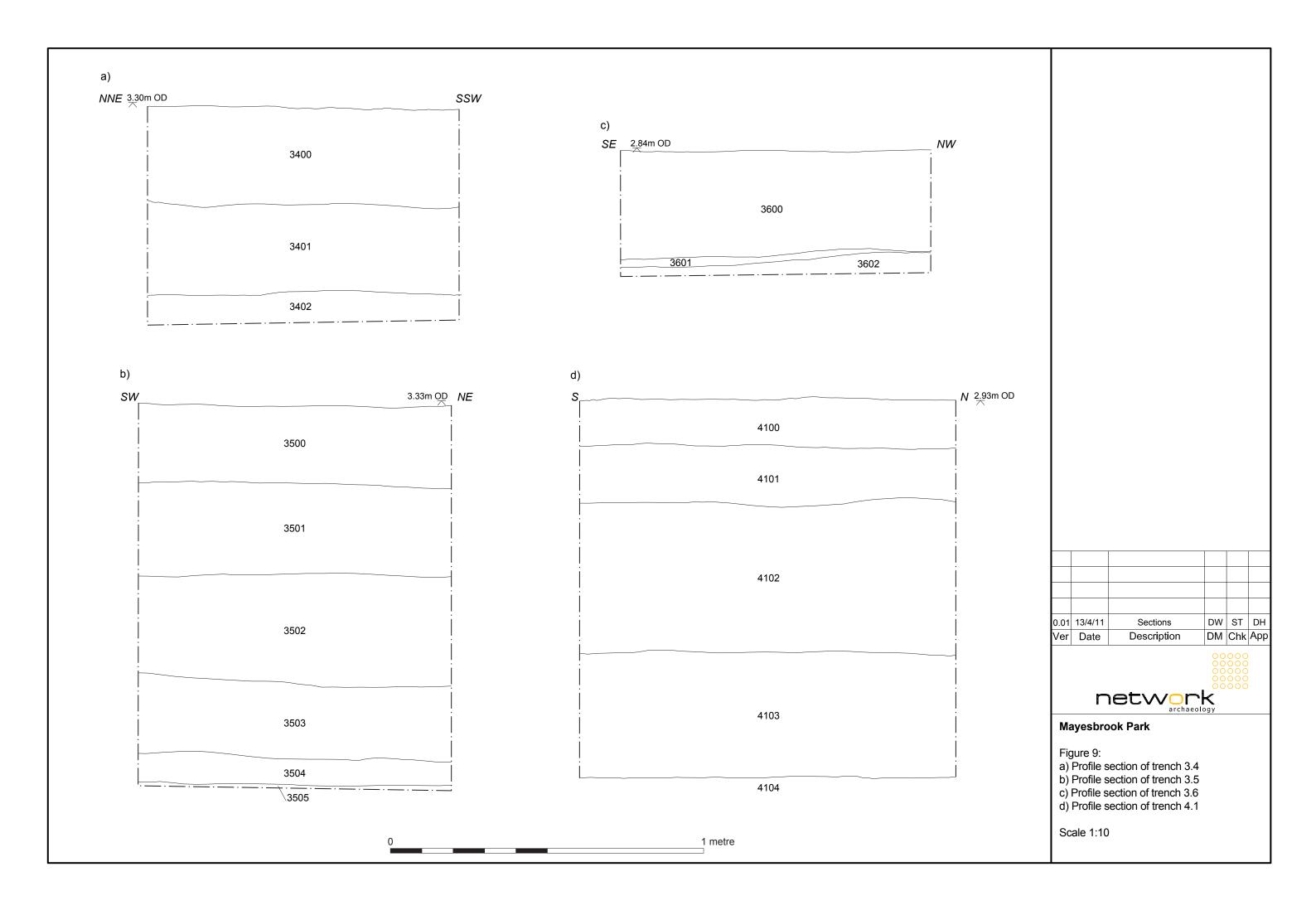


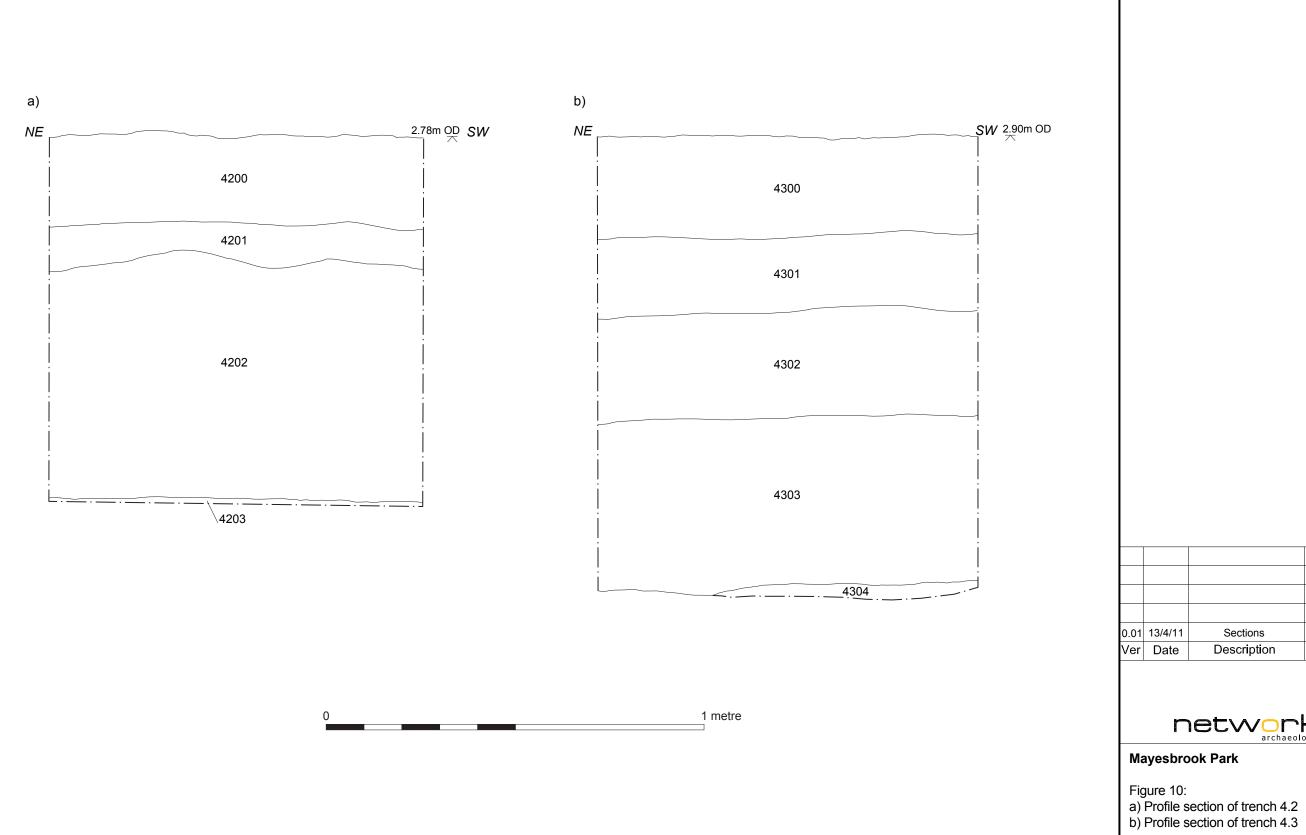


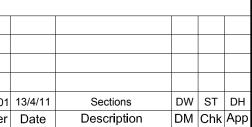














Scale 1:10