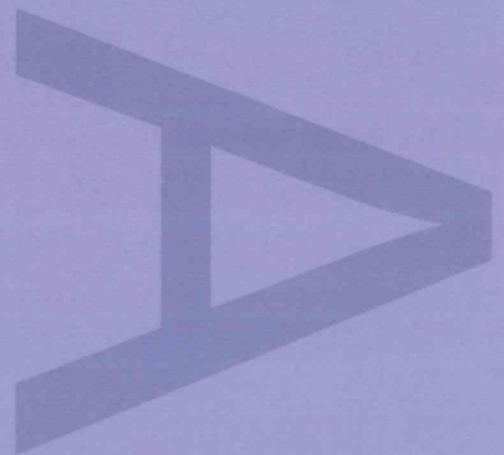
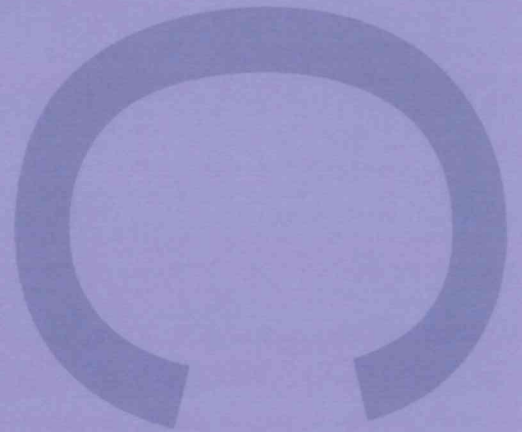
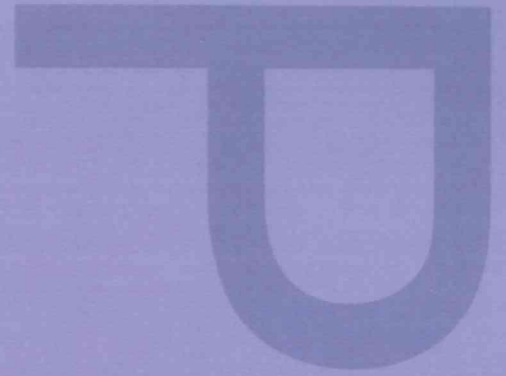


**AN ARCHAEOLOGICAL MONITORING
EXERCISE AT
THE FORMER RENTOKILL SITE,
BROMLEY ROAD, CATFORD,
LONDON BOROUGH OF LEWISHAM**



JUNE 2008

PRE-CONSTRUCT ARCHAEOLOGY

DOCUMENT VERIFICATION

The Former Rentokill Site, Bromley Road, Catford,
London Borough of Lewisham

Archaeological Monitoring Exercise

Quality Control

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Bromley Road, Catford, London Borough of Lewisham**

Central National Grid Reference: TQ 3775 7269

Site Code: RTK 08

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June 2008

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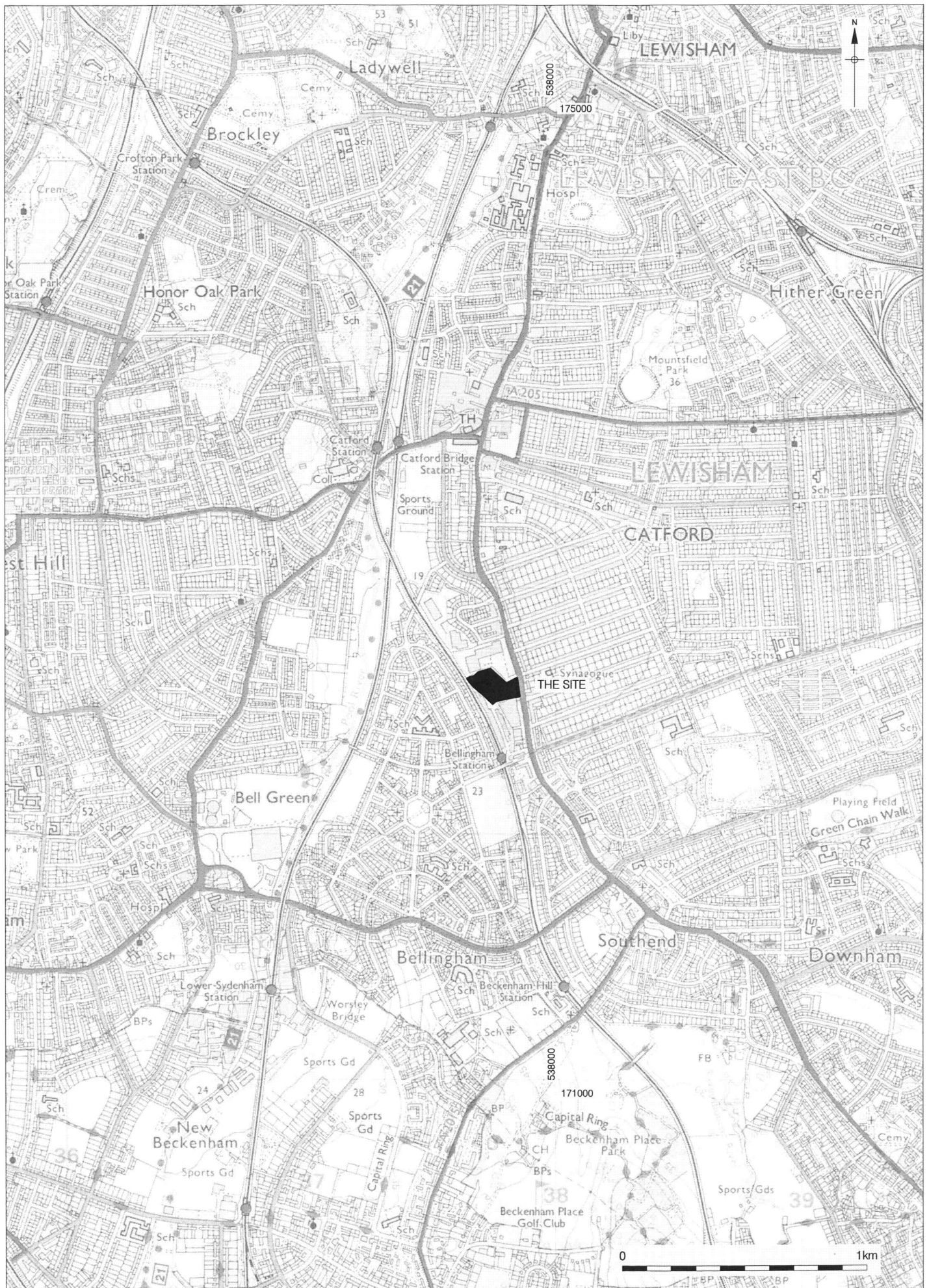
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1 ABSTRACT

- 1.1 This report details the results and working methods of an archaeological monitoring exercise undertaken by Pre-Construct Archaeology Ltd on land that currently comprises the former Rentokill Site at Bromley Road, Catford, London Borough of Lewisham. Pre-Construct Archaeology Ltd, commissioned by CgMs on behalf of Precis Holding Limited, initially undertook a watching brief during the installation of a new service run between 26th March and 3rd April 2008. Then, between 13th May and 6th June 2008, Pre-Construct Archaeology Ltd conducted an evaluation of two trenches at the site.
- 1.2 The earliest deposits encountered were natural clay and gravel sealed by alluvial gravely brickearth deposits, found to contain residual Roman ceramic building material and one fragment of medieval pottery. Cut into the brickearth layer was a late medieval/early post-medieval channel, following a north-south alignment. The channel is very likely to be associated with the River Ravensbourne located just about 70-80m from it. A sequence of post medieval layers sealing the channel were in turn truncated by concrete foundations associated with the former 20th century library which occupied the site.
- 1.3 In addition, Pre-Construct Archaeology Ltd have been provided with geotechnical information from an investigation conducted at the site in 2007. This shows sub-surface natural deposits consistent with the evaluation findings, overlain by made ground.

2 INTRODUCTION

- 2.1 An archaeological site monitoring exercise was undertaken by Pre-Construct Archaeology Ltd in advance of redevelopment of land at the former Rentokill Site, Bromley Road, Catford, London Borough of Lewisham (Fig. 1). The study site covers an area of approximately 1.6 hectares, and is bordered to the north by Bromley Road Retail Park, to the west by the River Ravensbourne, to the east by Bromley Road and to the south by a bus garage. Pre-Construct Archaeology Ltd were initially commissioned to undertake a watching brief during the installation of a new electricity cable and sub-station, conducted between 26th March and 3rd April 2008 (Fig. 2). Following that work, Pre-Construct Archaeology Ltd were appointed to undertake the evaluation of two trenches to determine the archaeological potential of the site. The evaluation occurred between 13th May and 6th June 2008 and was supervised by the author, while the watching brief was supervised by Joanna Taylor, both of Pre-Construct Archaeology Ltd.
- 2.2 Pre-Construct Archaeology Ltd were commissioned by Richard Meager of CgMs, and all work was conducted according to his approved Specification (Meager 2008). The fieldwork was monitored on behalf of the London Borough of Lewisham by Mark Stevenson of English Heritage.
- 2.3 Prior to the fieldwork an archaeological Desk Based Assessment had been prepared (Meager 2007). This made the following conclusions:
- The study site is considered to have a low potential for the Palaeolithic.
 - The study site is considered to have a moderate potential for the Mesolithic, Neolithic, Bronze Age and Iron Age periods.
 - The study site is considered to have a low potential for the Roman, Anglo-Saxon and medieval, post medieval and Modern periods.
 - Past post-depositional impacts at the study site are likely to have been severe, within the existing building footprints.
- 2.4 The completed site archive comprising written, drawn and photographic records will be deposited with the London Archaeology Archive and Resource Centre (LAARC), under the unique site code RTK 08.



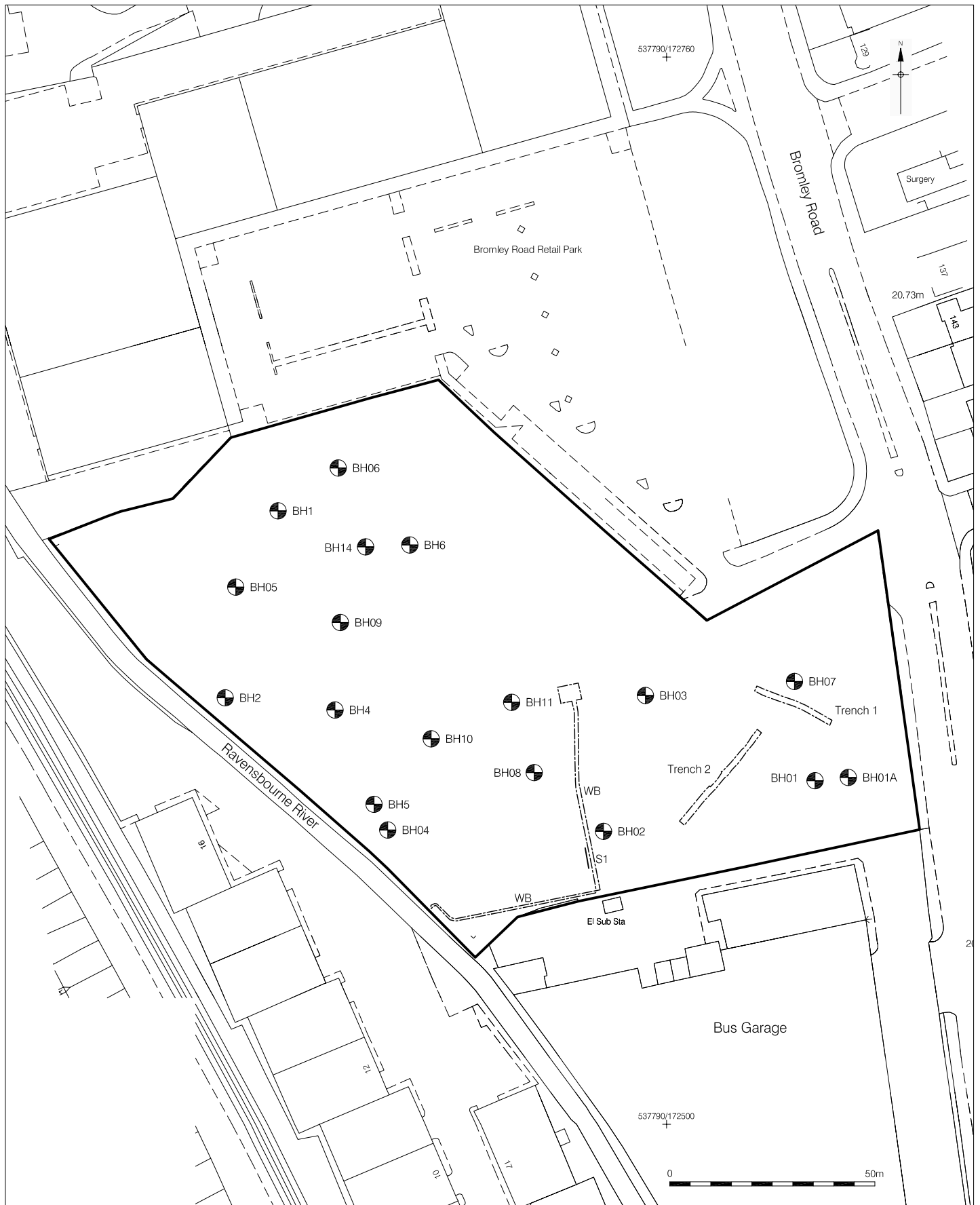


Figure 2
Trench, Watching Brief and Borehole Location
1:1,250 at A4

3 PLANNING BACKGROUND

- 3.1 In November 1990 the Department of the Environment issued Planning Policy Guidance Note 16 (PPG16) "Archaeology and Planning", providing guidance for planning authorities, property owners, developers and others on the preservation and investigation of archaeological remains.
- 3.2 In short, government guidance provides a framework which:
- Protects Scheduled Ancient Monuments
 - Protects the settings of these sites
 - Protects nationally important un-scheduled ancient monuments
 - In appropriate circumstances seeks adequate information (from field evaluation) to enable informed decisions
 - Provides for the excavation and investigation of sites not important enough to merit in-situ preservation.
- 3.3 In considering any planning application for development, the local planning authority is bound by the policy framework set by government guidance, in this instance PPG16, by current Development Plan Policy and by other material considerations.
- 3.4 The relevant Strategic Development Plan framework is provided by the London Plan, published on 10 February 2004. It includes the following policy relating to archaeology in London:

POLICY 4B.14 ARCHAEOLOGY

THE MAYOR, IN PARTNERSHIP WITH ENGLISH HERITAGE, THE MUSEUM OF LONDON AND BOROUGHs, WILL SUPPORT THE IDENTIFICATION, PROTECTION, INTERPRETATION AND PRESENTATION OF LONDON'S ARCHAEOLOGICAL RESOURCES. BOROUGHs IN CONSULTATION WITH ENGLISH HERITAGE AND OTHER RELEVANT STATUTORY ORGANISATIONS SHOULD INCLUDE APPROPRIATE POLICIES IN THEIR UDPS FOR PROTECTING SCHEDULED ANCIENT MONUMENTS AND ARCHAEOLOGICAL ASSETS WITHIN THEIR AREA.

- 3.5 The relevant Development Plan framework is provided by the Lewisham Unitary Development Plan adopted in July 2004. The Plan contains the following policies which provide a framework for the consideration of development proposals affecting archaeological and heritage features:

STR.URB 3

To preserve and enhance the archaeological heritage and the valuable elements, strategic and local, of the Borough's environment.

URB 21 ARCHAEOLOGY

THE COUNCIL WILL PROMOTE THE CONSERVATION, PROTECTION AND ENHANCEMENT OF THE ARCHAEOLOGICAL HERITAGE OF THE BOROUGH AND ITS INTERPRETATION AND PRESENTATION TO THE PUBLIC BY:

(a) REQUIRING APPLICANTS TO HAVE PROPERLY ASSESSED AND PLANNED FOR THE ARCHAEOLOGICAL IMPLICATIONS WHERE DEVELOPMENT PROPOSALS MAY AFFECT THE ARCHAEOLOGICAL HERITAGE OF A SITE. THIS MAY INVOLVE PRELIMINARY ARCHAEOLOGICAL SITE EVALUATIONS BEFORE PROPOSALS ARE DETERMINED;

(b) ADVISING WHERE PLANNING APPLICATIONS SHOULD BE ACCOMPANIED BY AN EVALUATION WITHIN ARCHAEOLOGICAL PRIORITY AREAS AS SHOWN ON THE PROPOSALS MAP. THIS SHOULD BE COMMISSIONED BY THE APPLICANTS FROM A PROFESSIONALLY QUALIFIED ARCHAEOLOGICAL ORGANISATION OR ARCHAEOLOGICAL CONSULTANT;

(c) ENCOURAGING EARLY CO-OPERATION BETWEEN LANDOWNERS, DEVELOPERS AND ARCHAEOLOGICAL ORGANISATIONS, IN ACCORDANCE WITH THE PRINCIPLES OF THE BRITISH ARCHAEOLOGISTS AND DEVELOPERS LIAISON GROUP CODE OF PRACTICE, AND BY ATTACHING APPROPRIATE CONDITIONS TO PLANNING CONSENTS, AND/OR NEGOTIATING APPROPRIATE AGREEMENTS UNDER S106;

(d) ENCOURAGING SUITABLE DEVELOPMENT DESIGN, LAND USE AND MANAGEMENT TO SAFEGUARD ARCHAEOLOGICAL SITES AND SEEKING TO ENSURE THAT THE MOST IMPORTANT ARCHAEOLOGICAL REMAINS AND THEIR SETTINGS ARE PERMANENTLY PRESERVED IN SITU WITH PUBLIC ACCESS AND DISPLAY WHERE POSSIBLE AND THAT WHERE APPROPRIATE THEY ARE GIVEN STATUTORY PROTECTION;

(e) IN THE CASE OF SITES OF ARCHAEOLOGICAL SIGNIFICANCE OR POTENTIAL WHERE PERMANENT PRESERVATION IN SITU IS NOT JUSTIFIED, PROVISION SHALL BE MADE FOR AN APPROPRIATE LEVEL OF ARCHAEOLOGICAL INVESTIGATION AND RECORDING WHICH SHOULD BE UNDERTAKEN BY A RECOGNISED ARCHAEOLOGICAL ORGANISATION BEFORE DEVELOPMENT BEGINS. SUCH PROVISION SHALL ALSO INCLUDE THE SUBSEQUENT PUBLICATION OF THE RESULTS OF THE EXCAVATION;

(f) SEEKING TO ENSURE THEIR PRESERVATION OR RECORD IN CONSULTATION WITH THE DEVELOPER IN THE EVENT OF SIGNIFICANT REMAINS UNEXPECTEDLY COMING TO LIGHT DURING CONSTRUCTION; AND

(g) IN THE EVENT OF THE SCHEDULING OF ANY ANCIENT MONUMENTS AND SITES OF NATIONAL IMPORTANCE, ENSURING THEIR PROTECTION AND PRESERVATION IN ACCORDANCE WITH GOVERNMENT REGULATION, AND TO REFUSE PLANNING PERMISSION WHICH ADVERSELY AFFECTS THEIR SITES OR SETTINGS

- 3.6 The site lies within an Archaeological Priority Area as shown on the Lewisham Unitary Development Plan. There are no scheduled monuments in the vicinity.

4 GEOLOGY AND TOPOGRAPHY

The geology and topography of the site has been laid out in full in the Desk Based Assessment (Meager 2007). The following is a summary of the geology and topography represented in that document.

4.1 Geology

- 4.1.1 The solid geology of the site is represented by London Clay deposits. More specifically the study site is situated in an area of Alluvium to the west and an area of Kempton Park Gravels to the east and north of the site

4.2 Topography

- 4.2.1 The study site lies approximately 70 to 80m to the east of the River Ravensbourne and on fairly flat ground at a height of approximately 20.40m OD. However there is very gradual slope downwards to the west of the site where the River Ravensbourne forms the western and southwestern site boundary.

4.3 Geotechnical Data

- 4.3.1 Pre-Construct Archaeology Ltd have been provided with the results of a geotechnical investigation conducted at the site in 2007 (Geotechnical & Environmental Associates 2007). The results from 15 boreholes (Figure 2 and see Appendix 4) show a consistent level of natural ground across the site to be sealed by 'made ground', defined as a mixture of silt / sand / gravel / clay with brick and ash inclusions – indicative of 19th century or modern deposition. The natural was recorded as either clay between heights of 18.7m OD (BH03) and 19.3m OD (BH08) or gravel, between heights of 18.5m OD (BH06) and 19.3m OD (BH12). The levels of this underlying gravel represent an approximate fall from east to west towards the River Ravensbourne.

5 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

The archaeological and historical background to this site has been laid out in full in the Desk Based Assessment (Meager 2007). The following is a summary of the periods represented in that document.

5.1 Prehistoric

- 5.1.1 A number of archaeological investigations in the vicinity of the site have revealed evidence of prehistoric activity, such as an excavation at Firhill Road (TQ 3710 7233) and an evaluation just south of the same site (TQ 37100 72050) where finds of Mesolithic date were discovered. Southwest of the study site, a Holocene water channel was observed at Otterden Street (TQ 3700 7200). Evidence for Bronze Age and Iron Age occupation was found during the excavation of the Firhill Road Sports Ground in Bellingham (TQ 36160 72190).

5.2 Roman

- 5.2.1 The site is possibly situated east of the suggested line of the Roman road from London to Lewes. The gravel surface associated with a Roman road has been observed at Broadmead (TQ 3713 7212). In addition the excavation at Firhill Road revealed a cremation burial, a possible road surface and pottery, tiles, lead, bronze and charcoal (TQ 3710 7233), in addition to other Late Roman and Early Saxon remains.

5.3 Anglo-Saxon and Medieval

- 5.3.1 Sherds of pottery dating to the Saxon period were found at the Firhill Sports Ground, c. 720m southwest of the study site (TQ 37160 72190). Medieval pottery was also found on the west bank of the Pool River, west of the study site (TQ 3715 7262). In addition a watermill (Friars Mill) should, according to medieval documents, be located near Randlesdown Road, just south of the study site (TQ 3777 7228).

5.4 Post Medieval and Modern

- 5.4.1 Cartographic sources show that the study site lies in an area of open land/pasture from 1745 (John Roque's Survey) until 1868 (First Edition Ordnance Survey).
- 5.4.2 The first substantial change within the study area can be observed with the Second Edition Ordnance Survey of 1897. By this time the course of the River Ravensbourne

has been canalised forming the south-western and western site boundary of the present study site. In addition the railway line and Bellingham Station was constructed to the west and south-west of the study site.

- 5.4.3 In 1910 the Gleniffer Laundry was built and later on extended by 1935 and 1958. The Ordnance Survey of 2006 shows the construction of a library building in the southeast corner, fronting Bromley Road.

6 ARCHAEOLOGICAL METHODOLOGY

6.1 Pre-Construct Archaeology Ltd was commissioned initially to undertake a monitoring exercise during groundworks at the site associated with the installation of new services. That work was undertaken in accordance with an approved specification (Meager 2008), and was supervised by Joanna Taylor of PCA between 26th March and 3rd April 2008. It is referred to in this report as 'WB Trench'. Following the completion of the monitoring exercise PCA were then commissioned to undertake an evaluation at the site, comprising Trenches 1 and 2. That work was conducted under the remit of the same specification with the approval of the Archaeological Advisor to the London Borough of Lewisham, Mark Stevenson of English Heritage. The evaluation was supervised by Ireneo Grosso of PCA, and was undertaken non-consecutively between 13th May and 6th June 2008.

6.2 All trenches were broken out and then excavated with a mechanical excavator fitted with a flat-bladed ditching bucket in spits of between 150mm and 200mm, under the supervision of an archaeologist. Trench sizes were as follows:

	Length (m)	Width (m)	Max depth (m)
WB Trench	90.00	1.0	1.20
Trench 1	20.15	1.40	1.20
Trench 2	29.22	1.40	1.50

6.3 All deposits were recorded on *pro forma* context sheets, trench plans being drawn at a scale of 1:20, and sections at a scale of 1:10. The locations of the trenches were surveyed using a total station theodolite. A photographic record was also kept of all the trenches in colour slide and digital formats.

6.4 Levels in this report are taken from a temporary benchmark on the site with a value of 20.40m OD, which was transferred from a benchmark of 20.73m OD located at the junction between Bromley Road and Newquay Road.

7 THE ARCHAEOLOGICAL SEQUENCE

7.1 Phase 1: Natural

7.1.1 The earliest deposits observed were light grey natural sandy gravel (33) at 19.13m OD in turn sealed by a light brown grey silty sandy gravel (31) toward the south-western end of Trench 2. Both deposits (33) and (31) gradually sloped downwards to the north-east of Trench 2 at 18.94m OD and 18.90m OD respectively. A mid-yellow brownish silty clay (21) and light brown gravely silty clay (23) were observed toward the northwest of Trench 2 at 19.32m OD and 19.39m OD respectively. In Trench 1, natural alluvial silty clay (5) was observed at 19.55m OD and in the WB Trench mid-yellow sandy gravel (3) was observed at 19.00m OD sealed by mid yellow brown clay at 19.71m OD.

7.1.2 The relatively high level of the natural sandy gravel in Trench 2 and in the WB Trench suggest that the silty clay observed in Trench 1 and towards the north-west of Trench 2 can be explained as flooding episodes associated with the Ravensbourne River.

7.2 Phase 2: Possible Roman

7.2.1 Overlying the gravel (31) in Trench 2 was a 0.25m thick layer of moderately compacted brown greyish sandy gravely silty clay (12) found at 19.64m OD. One fragment of abraded Roman CBM dating from between AD 60 and AD 160 was found within this layer. Layer (12) was interpreted as alluvial material possibly associated with a flooding episode of the River Ravensbourne. However due to the small area examined and the lack of artefacts it is very difficult to date this context with precision.

7.3 Phase 3: Possible Late Medieval

7.3.1 A very clean brickearth layer (13), consisting of a firm, mid brown orangey sandy silty clay was found in Trench 2 at 19.84m OD and overlying (12). A fragment of Roman CBM and a fragment of late medieval pottery were found within this layer.

7.3.2 The presence of one late medieval fragment of pottery and the abraded Roman CBM suggest that this layer, similarly to (12), was deposited by a series of flooding events taking place from the late Roman to the late medieval periods.

7.4 Phase 4: North-South Channel (Possible Late Medieval / Post Medieval)

7.4.1 A north-south aligned channel represented by cuts [29] and [35] was exposed in Trench 2. It was stratigraphically above layers [13] and [21], and was recorded at upper heights ranging from at 19.80m OD in the west to 19.22m OD in the east. The two cuts, although separated by a modern intrusion, gave a total width for the channel of approximately 15.5m. The full depth of the channel was not recorded due to the instability of the trench edges; however it was at least 1.5m deep, at a level of 18.82m OD.

7.4.2 The channel was best observed in its south-western section, where a number of fills were visible, as follows (shown in stratigraphic order, earliest first):

Context	Description	Highest level (m OD)	Thickness (m)
11	Light brown greyish sandy gravel	19.09	0.18
36	Mid brown silty clay	19.60	0.18
10 & 34	Mid grey brownish sandy gravel silt	19.20	0.22
9	Light to mid greyish brown clay sandy gravel	19.52	0.57
8	Mid brown orangey silty clay	19.82	0.40
38	Mid grey silty sandy gravel clay	19.63	0.25
7	Mid blue greyish silty clay	19.82	0.45

7.4.3 The fills of the channel were found to be completely undated, with no anthropogenic material seen throughout. The edges of the channel were unstructured. The channels tentative dating to the late medieval – post-medieval period is based purely on its stratigraphic position, above layer [13] and below later post-medieval sequences.

7.5 Phase 5: Possible Post Medieval

7.5.1 The western side of channel [35], in Trench 2, was sealed by an undated dark grey gravely silty clay (6), about 0.33m thick at 20.03m OD. Similarly the mid brown greyish clay sandy silt (39) found at 19.61m OD towards the east of channel [35] and which filled cut [40] did not produced any dating material. Within Trench 2 this phase was also represented by a 0.25m thick mid brown greyish clay silt layer (16) found at 19.89m OD in turn sealed by mid grey brown clay silt layer (54) found at 20.07m OD and by mid grey brownish clay gravely silt layer (46) found at 20.00m OD. Towards the NW end of Trench 2 this phase was represented by mid grey brownish clay sandy gravel layer (30) found at 19.57m OD which also sealed the upper fill of channel [29] (same as [35]). Light to mid brown gravely silt layer (48), found at 19.61m OD, sealed (30) and was in turn overlaid by mid brown silty gravel layer (47) at 20.02m OD. Towards the very NE area of Trench 2 the sequence was completed by mid brown greyish gravely clay silt layer (27) found at 19.51m OD in turn sealed by brown greyish gravely clay silt layer (26) found at 19.80m OD.

7.5.2 In Trench 1 a dark brown/medium reddish brown gravely sandy clay silt layer [4], about 0.30 to 0.55m thick, was observed at 19.84m OD. Some small fragments of post-medieval pottery were recovered from this layer.

7.5.3 Within the WB Trench a mid yellow brown silty clay layer [1], about 0.26m thick, at 19.98m OD, was found. This layer was interpreted as bioturbated natural/subsoil.

7.6 Phase 6: 20th Century

7.6.1 Towards the SW area of Trench 2 a semicircular late 19th/20th century pit [15] was observed at a highest level of 19.80m OD and at a lowest level of 18.90m OD. This pit extended behind the northern limit of excavation of the trench and was filled by a 0.43m thick green blue gravely sandy silt clay (37) at 19.33m OD which in turn was sealed by a 0.50m thick mid dark grey gravely silty clay (14), found at 19.80m OD. The upper fill (14) produced a number of 19th/20th century sherds of pottery and clay tobacco pipe fragments.

7.6.2 Towards the middle of Trench 2 and truncating post medieval layers [54] and [46] to the SW and NE respectively, was observed construction cut [41] for NS concrete and masonry foundation [17]. The highest level of the 20th century foundation was observed at 20.07m OD. Only 0.30m NE of [41] was observed construction cut [44] for another NS concrete foundation [43] which had its highest level at 19.57m OD and was sealed by construction cut backfill [45] at 20.00m OD.

7.6.3 Towards the NE area of Trench 2, truncating [47] and [26] to the SW and NE respectively, was observed construction cut [50] for concrete and masonry foundation [22] and backfills [49], [51] and [25]. Context [22] was found at 19.94m OD and followed the same alignment of foundation [17] and [43].

7.6.4 The 19th / 20th archaeological sequence was completed by construction cut [53] for concrete foundation [24] found at a highest level of 19.55m OD towards the NE end of Trench 2.

7.6.5 Foundation walls [17], [43], [22] and [24] represent the library building constructed during the 1950s and fronting Bromley Road. The position of this building is shown on the 2006 Ordnance Survey.

7.6.6 Modern demolition rubble was observed in Trench 1 sealing and filling modern truncations. Modern make up for the reinforced concrete associated with the library sealed the modern foundations.

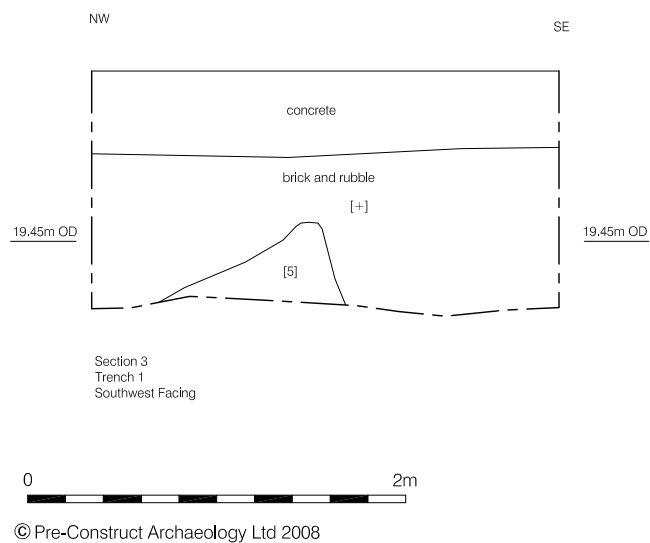
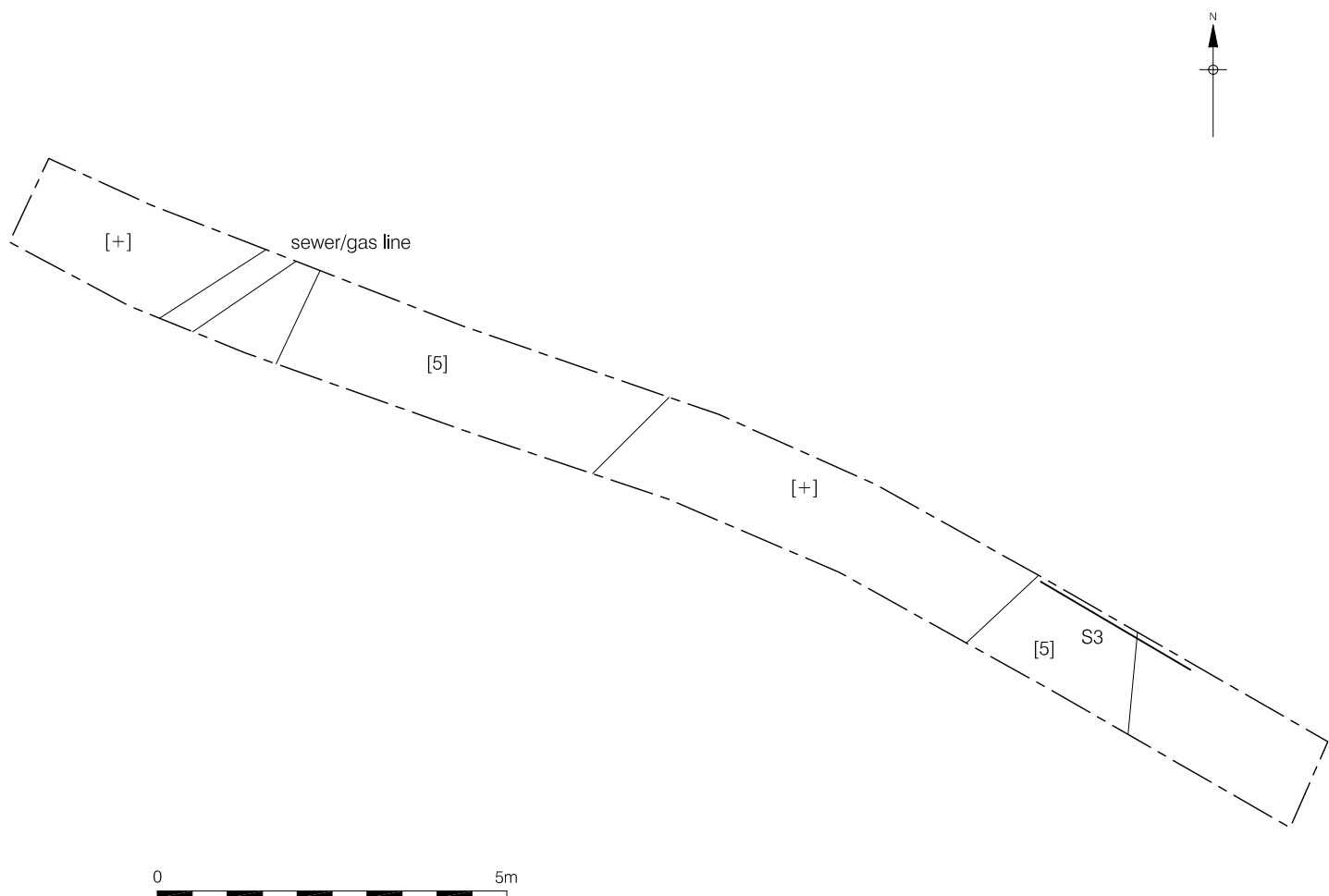
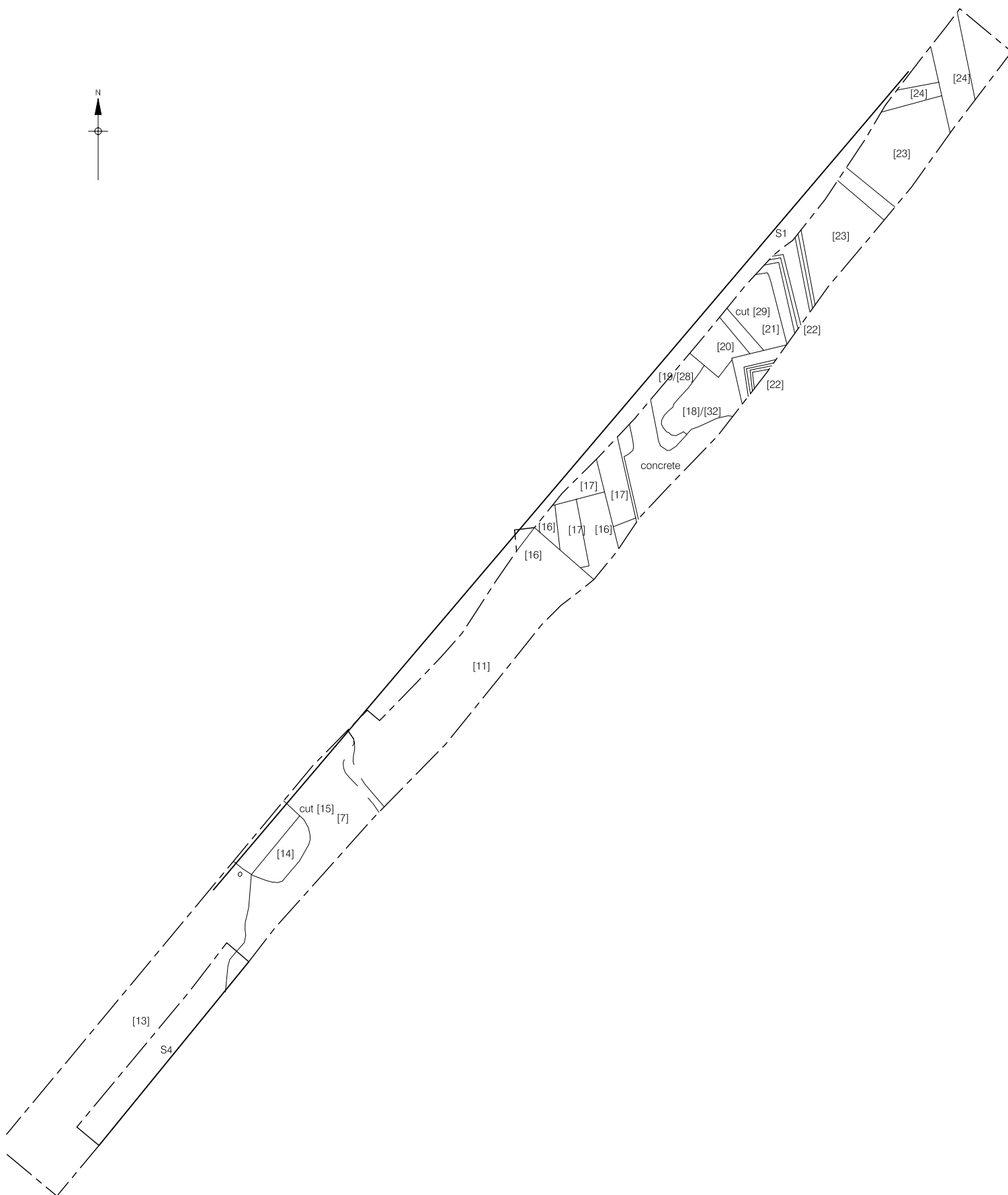


Figure 3
Plan of Trench 1 and Section 3
Plan 1:100, Section 1:40 at A4



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Figure 4
Plan of Trench 2
1:100 at A4

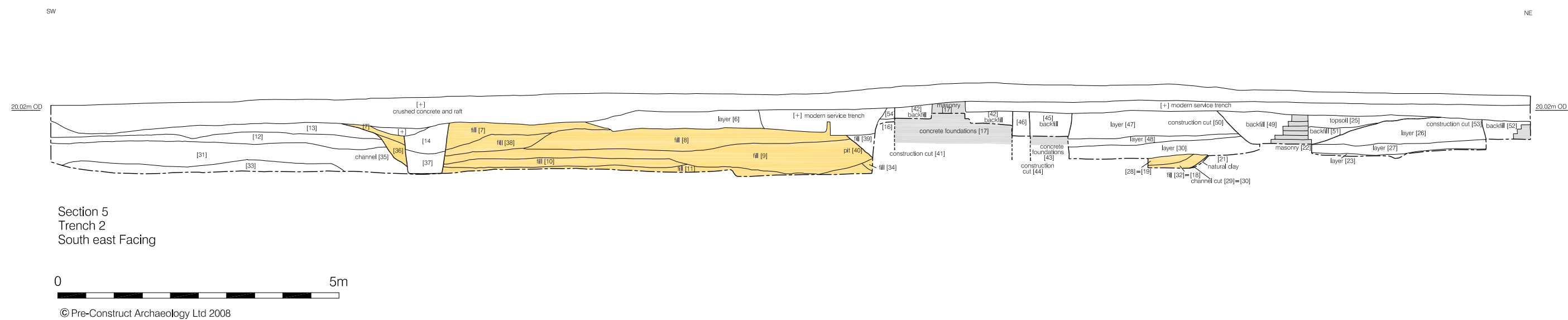
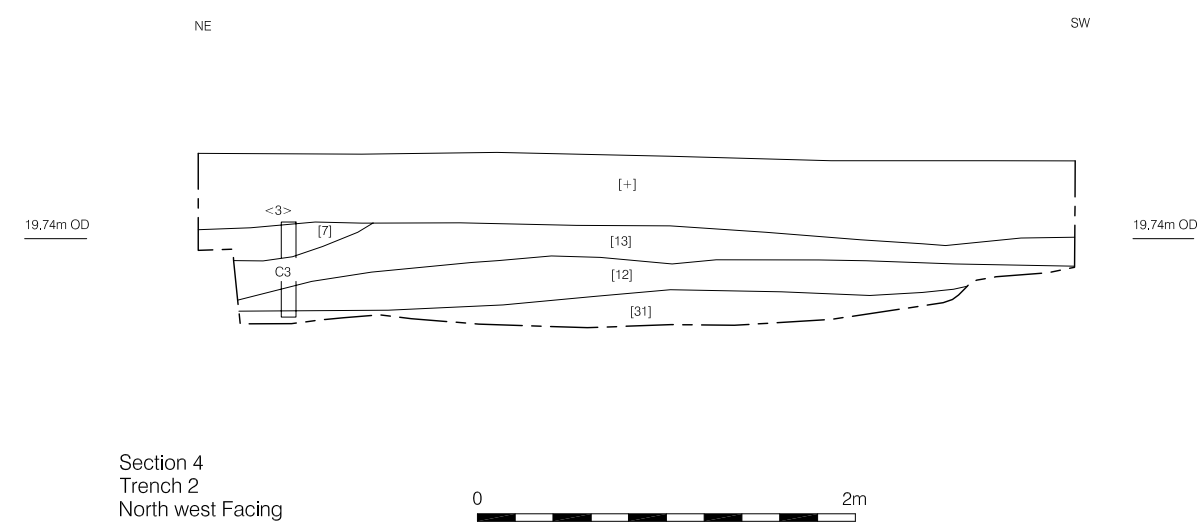


Figure 5
Sections 4 and 5
Section 4 1:40, Section 5 1:75 at A3

8 INTERPRETATION AND CONCLUSIONS

- 8.1 The investigation at the Former Rentokil Site has revealed a general sequence of natural ground sealed by brickearth-type deposits, for the most part then heavily impacted upon by modern activity. However, within Trench 2 the presence of a large feature interpreted as a channel was identified. The feature was bereft of any dating material, and its tentative phasing is only possible by its stratigraphic position, being above a possible medieval layer and below late post-medieval to modern activity. Two layers found below the channel contained datable material from both the Roman and medieval periods. These layers are suggestive of flooding events, and the abraded nature of the artefactual material makes it probable that the pieces were deposited away from the site.
- 8.2 The channel cannot be identified on cartographic sources in the Desk Based Assessment (Meager 2007), making its interpretation difficult. Although the channel was not revetted in any way its distinct edges and evidence of deliberate backfilling (suggested by the uneven nature of its fills) make it likely that it was man-made. It is possible that it was cut to divert water from the Ravensbourne to another source. The evaluation of Trench 2 suggested that the channel was aligned north-south. Geotechnical data for BH03, located to the north-west of Trench 2, revealed only made ground atop natural clay, suggesting that if the channel did indeed run north-south, it can be projected to pass through the gap between BH03 and the western edge of Trench 1.
- 8.3 The geotechnical investigation revealed a sub-surface make-up consistent with the archaeological evaluation, of natural clays and gravels overlain by potentially recent made ground. Two of the boreholes (BH01 and BH01A) in the southern corner of the site also recorded the basement of the previous library structure, which had truncated the ground to a depth of at least 18.17m OD.

9 ACKNOWLEDGMENTS

- 9.1 Pre-Construct Archaeology Ltd would like to thank Richard Meager of CgMs for commissioning the work on behalf of Precis Holdings Ltd, and Mark Stevenson of English Heritage for monitoring the work.
- 9.2 The author would like to thank Chris Mayo for project managing the site and editing this report, Jem Rodgers for survey work, Hayley Baxter and Josephine Brown for the illustrations, Lisa Lonsdale for logistics and Will Johnston, Graham Mc Arthur and Stuart Watson for their work on site. Thanks also to Kevin Hayward for spot-dating and to Jo Taylor for supervising the initial watching brief.

10 BIBLIOGRAPHY

Geotechnical & Environmental Associates 2007, Geotechnical site investigation, uncredited and untitled report courtesy of CgMs

Meager, R. 2007 'Archaeological Desk Based Assessment: Former Rentokil Site, Bromley Road, Catford, London SE6', unpub rep for CgMs

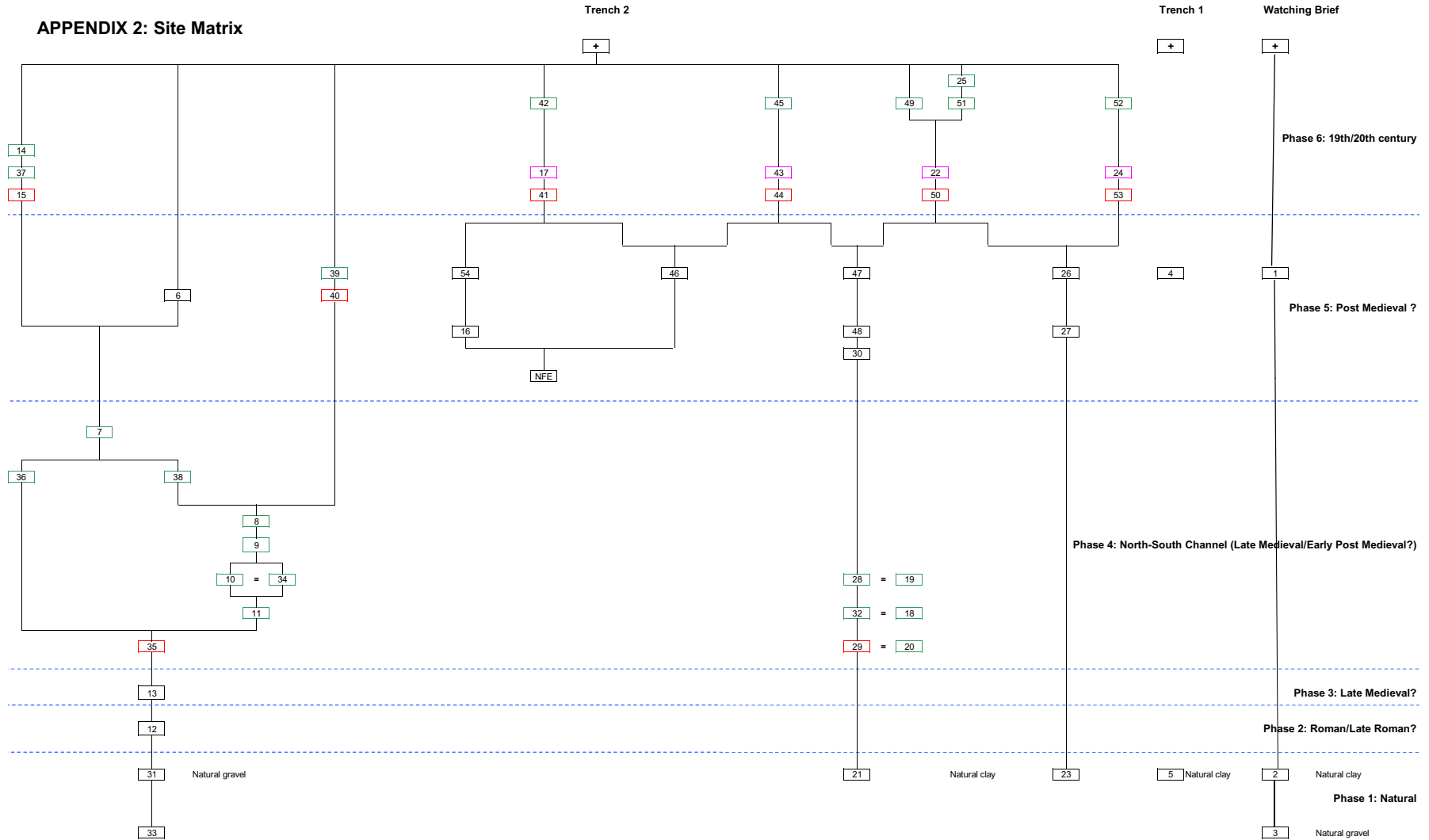
Meager, R. 2008 'Specification for an Archaeological Monitoring Exercise: Former Rentokil Site, Bromley Road, Catford, London SE6', unpub rep for CgMs

APPENDIX 1: CONTEXT INDEX

Site Code	Context No.	Trench	Section / Elevation	Type	Description	Highest Level	Lowest Level	Phase
RTK08	1	WB	1	Layer	Subsoil/bioturbated natural	19.98m OD	19.98m OD	5
RTK08	2	WB	1	Layer	Natural clay	19.71m OD	19.69m OD	1
RTK08	3	WB	1	Layer	Natural gravel	19.00m OD	19.00m OD	1
RTK08	4	TR1	2	Layer	Gravelly soil	19.84m OD	19.77m OD	5
RTK08	5	TR1	2,3	Layer	Brickearth	19.55m OD	19.15m OD	1
RTK08	6	TR2	5	Layer	Dark grey clay	20.03m OD	19.70m OD	5
RTK08	7	TR2	4, 5	Fill	Blue silty clay	19.82m OD	19.57m OD	4
RTK08	8	TR2	5	Fill	Mid brown brickearth	19.82m OD	19.35m OD	4
RTK08	9	TR2	5	Fill	Grey brown gravel	19.52m OD	19.19m OD	4
RTK08	10	TR2	5	Fill	Mid grey sandy silt	19.20m OD	19.07m OD	4
RTK08	11	TR2	5	Fill	Fine sandy gravel/grey brown gravel	19.09m OD	18.89m OD	4
RTK08	12	TR2	4, 5	Layer	Gavelly brickearth deposit	19.64m OD	19.50m OD	2
RTK08	13	TR2	4, 5	Layer	Compact brickearth to the east of (12)	19.84m OD	19.50m OD	3
RTK08	14	TR2	5	Fill	Upper fill of post medieval pit [15]	19.80m OD	19.57m OD	6
RTK08	15	TR2	5	Cut	Post medieval pit filled by (14) and (37)	19.80m OD	18.90m OD	6
RTK08	16	TR2	5	Layer	Dark brown clay silt	19.89m OD	19.77m OD	5
RTK08	17	TR2	5	Masonry	Post medieval foundation wall	19.97m OD	19.76m OD	6
RTK08	18	TR2	5	Fill	Fill of cut (channel?) [20] same as (32)	19.25m OD	19.05m OD	4
RTK08	19	TR2	5	Fill	Peaty infill to [20] same as (28)	19.25m OD	19.17m OD	4
RTK08	20	TR2	5	Cut	Cut of channel filled by (18) and (19) and same as [29]	19.22m OD	19.02m OD	4
RTK08	21	TR2	5	Layer	Yellow clay layer	19.32m OD	19.02m OD	1
RTK08	22	TR2	5	Masonry	Post medieval foundation wall	19.94m OD	19.43m OD	6
RTK08	23	TR2	5	Layer	Gravelly yellow clay layer	19.39m OD	19.22m OD	1
RTK08	24	TR2	5	Masonry	Post medieval foundation wall	19.59m OD	19.51m OD	6
RTK08	25	TR2	5	Fill	Fill of construction cut [.....]	19.94m OD	19.91m OD	6
RTK08	26	TR2	5	Layer	Gravelly clay layer	19.80m OD	19.42m OD	5

Site Code	Context No.	Trench	Section / Elevation	Type	Description	Highest Level	Lowest Level	Phase
RTK08	27	TR2	5	Layer	Brickearth layer	19.51m OD	19.39m OD	5
RTK08	28	TR2	5	Fill	Fill of cut/channel [29]	19.25m OD	19.17m OD	4
RTK08	29	TR2	5	Cut	Cut of channel same as [20]	19.22m OD	19.02m OD	4
RTK08	30	TR2	4, 5	Layer	Clay sandy gravel layer	19.57m OD	19.38m OD	5
RTK08	31	TR2	5	Layer	Natural sandy gravel	19.78m OD	18.90m OD	1
RTK08	32	TR2	5	Fill	Fill of channel [29]	19.25m OD	19.05m OD	4
RTK08	33	TR2	5	Layer	Natural sandy gravel	19.13m OD	18.94m OD	1
RTK08	34	TR2	5	Fill	Dark grey peat [same as (10)?]	19.19m OD	19.08m OD	4
RTK08	35	TR2	5	Cut	SE-NW channel	19.80m OD	18.86m OD	4
RTK08	36	TR2	5	Fill	Fill of channel [35]	19.60m OD	19.40m OD	4
RTK08	37	TR2	5	Fill	Primary fill of post medieval pit [15]	19.33m OD	19.25m OD	6
RTK08	38	TR2	5	Fill	Fill of channel [35]	19.63m OD	19.32m OD	4
RTK08	39	TR2	5	Fill	Fill of cut [40]	19.61m OD	19.58m OD	5
RTK08	40	TR2	5	Cut	Cut filled by (39)	19.58m OD	19.19m OD	5
BFX08	41	TR2	5	Cut	Construction cut for post medieval wall foundation (17)	20.07m OD	19.57m OD	6
RTK08	42	TR2	5	Fill	Backfill of construction cut [41]	20.13m OD	20.08m OD	6
RTK08	43	TR2	5	Masonry	Moderen concrete foundation	19.57m OD	19.57m OD	6
RTK08	44	TR2	5	Cut	Construction cut for concrete (43)	20.00m OD	19.97m OD	6
RTK08	45	TR2	5	Fill	Backfill of construction cut [44]	20.00m OD	19.97m OD	6
RTK08	46	TR2	5	Layer	Post medieval layer	20.00m OD	19.99m OD	5
RTK08	47	TR2	5	Layer	Mid brown silty gravel	20.02m OD	19.97m OD	5
RTK08	48	TR2	5	Layer	Light to mid brown gravelly silt	19.61m OD	19.52m OD	5
RTK08	49	TR2	5	Fill	Backfill of construction cut [50]	20.01m OD	19.95m OD	6
RTK08	50	TR2	5	Cut	Construction cut for post medieval wall foundation (22)	20.02m OD	19.32m OD	6
RTK08	51	TR2	5	Fill	Backfill of construction cut [50]	19.80m OD	19.73m OD	6
RTK08	52	TR2	5	Fill	Backfill of construction cut [53] for wall (24)	19.86m OD	19.82m OD	6
RTK08	53	TR2	5	Cut	Construction cut for wall foundation (24)	19.86m OD	19.32m OD	6
RTK08	54	TR2	5	Layer	Post medieval layer?	20.07m OD	19.88m OD	5

APPENDIX 2: Site Matrix



APPENDIX 3: OASIS FORM

OASIS ID: preconst1-44200

Project details

Project name	An Archaeological Monitoring Exercise at the former Rentokill Site, Bromley Road, Catford, London Borough of Lewisham
Short description of the project	An archaeological monitoring exercise was undertaken by Pre-Construct Archaeology Ltd on land that currently comprises the former Rentokill Site at Bromley Road, Catford, London Borough of Lewisham. Pre-Construct Archaeology Ltd, commissioned by CgMs on behalf of Precis Holding Limited, initially undertook a watching brief during the installation of a new service run between 26th March and 3rd April 2008. Then, between 13th May and 6th June 2008, Pre-Construct Archaeology Ltd conducted an evaluation of two trenches at the site. The earliest deposits encountered were natural clay and gravel sealed by alluvial gravelly brickearth deposits, found to contain residual Roman ceramic building material and one fragment of medieval pottery. Cut into the brickearth layer was a late medieval/early post-medieval channel, following a north-south alignment. The channel is very likely to be associated with the River Ravensbourne located just about 70-80m from it. A sequence of post medieval layers sealing the channel were in turn truncated by concrete foundations associated with the former 20th century library which occupied the site.
Project dates	Start: 26-03-2008 End: 06-06-2008
Previous/future work	No / No
Any associated project reference codes	RTK08 - Sitecode
Type of project	Field evaluation
Site status	Local Authority Designated Archaeological Area
Current Land use	Other 13 - Waste ground
Monument type	CHANNEL Post Medieval
Methods & techniques	'Sample Trenches','Visual Inspection'
Development type	Not recorded
Prompt	Planning condition
Position in the planning process	After full determination (eg. As a condition)

Project location

Country	England
Site location	GREATER LONDON LEWISHAM CATFORD Former Rentokill Site, Bromley Road, Catford
Postcode	SE6 2QS
Study area	1.60 Hectares
Site coordinates	TQ 3775 7269 51.4359294612 -0.01799207003920 51 26 09 N 000 01 04 W Point
Height OD	Min: 18.90m Max: 19.55m

Project creators

Name of Organisation	Pre-Construct Archaeology Ltd
Project brief originator	English Heritage
Project design originator	CgMs Consulting
Project director/manager	Chris Mayo
Project supervisor	Ireneo Grosso
Type of sponsor/funding body	Consultancy
Name of sponsor/funding body	CgMs

Project archives

Physical Archive recipient	LAARC
Physical Contents	'Ceramics','Worked stone/lithics'
Digital Archive recipient	LAARC
Digital Contents	'Stratigraphic','Survey'
Digital Media available	'Images raster / digital photography','Images vector','Spreadsheets','Survey','Text'
Paper Archive recipient	LAARC
Paper Contents	'Stratigraphic'
Paper Media available	'Context sheet','Correspondence','Matrices','Miscellaneous Material','Notebook - Excavation',' Research',' General Notes','Photograph','Plan','Section','Unpublished Text'

Project bibliography 1

Publication type	Grey literature (unpublished document/manuscript)
Title	An Archaeological Monitoring Exercise at the Former Rentokill Site, Bromley Road, Catford, London Borough of Lewisham
Author(s)/Editor(s)	Grosso, I
Date	2008
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	19 June 2008

APPENDIX 4: GEOTECHNICAL INVESTIGATION DATA

Site ITS, 160 Bromley Road, Catford, SE6

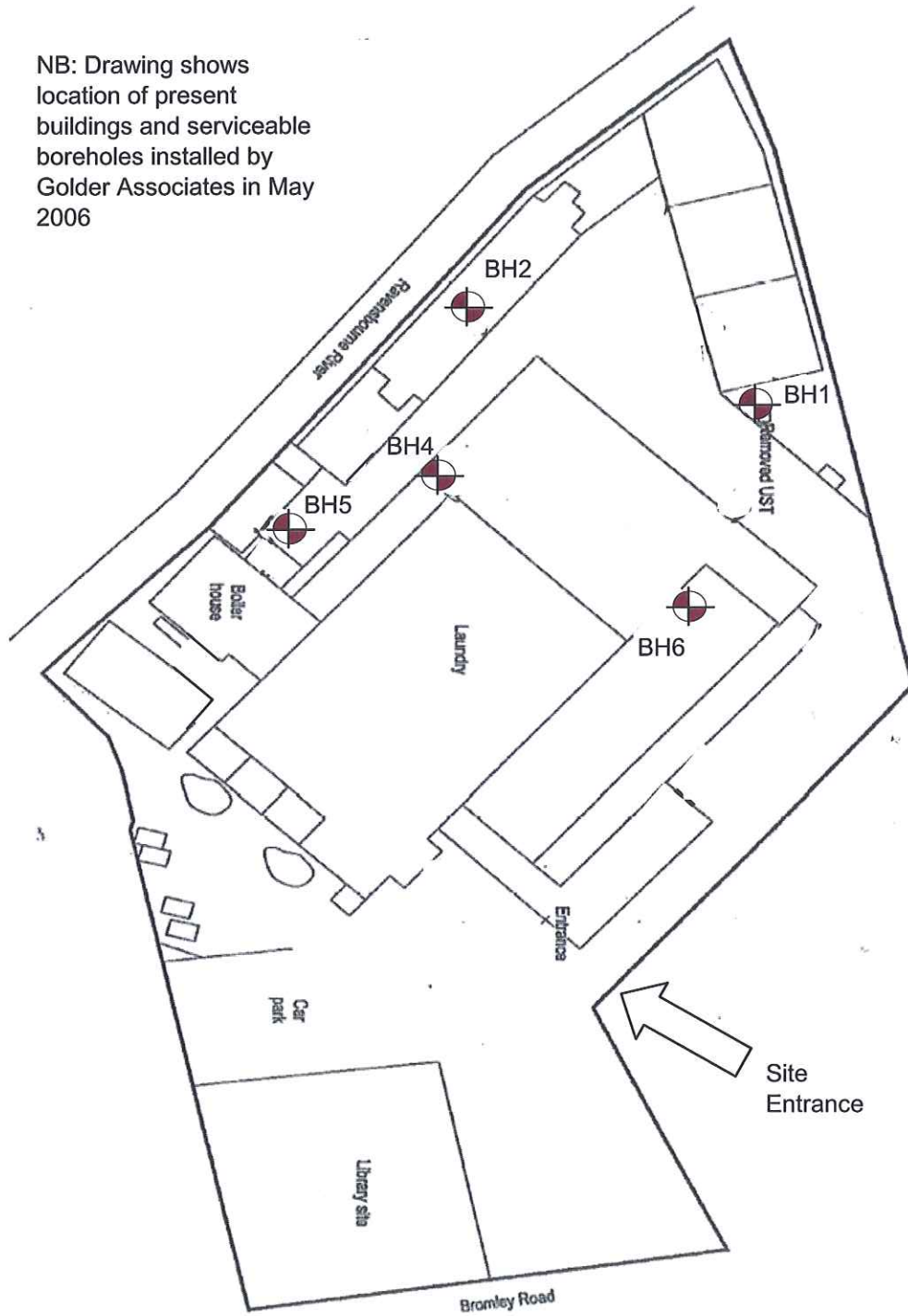
Client Catford Properties Ltd

Engineer MMP Design

Job Number
J07105

Sheet
1 / 1

NB: Drawing shows location of present buildings and serviceable boreholes installed by Golder Associates in May 2006



0 30 60 90

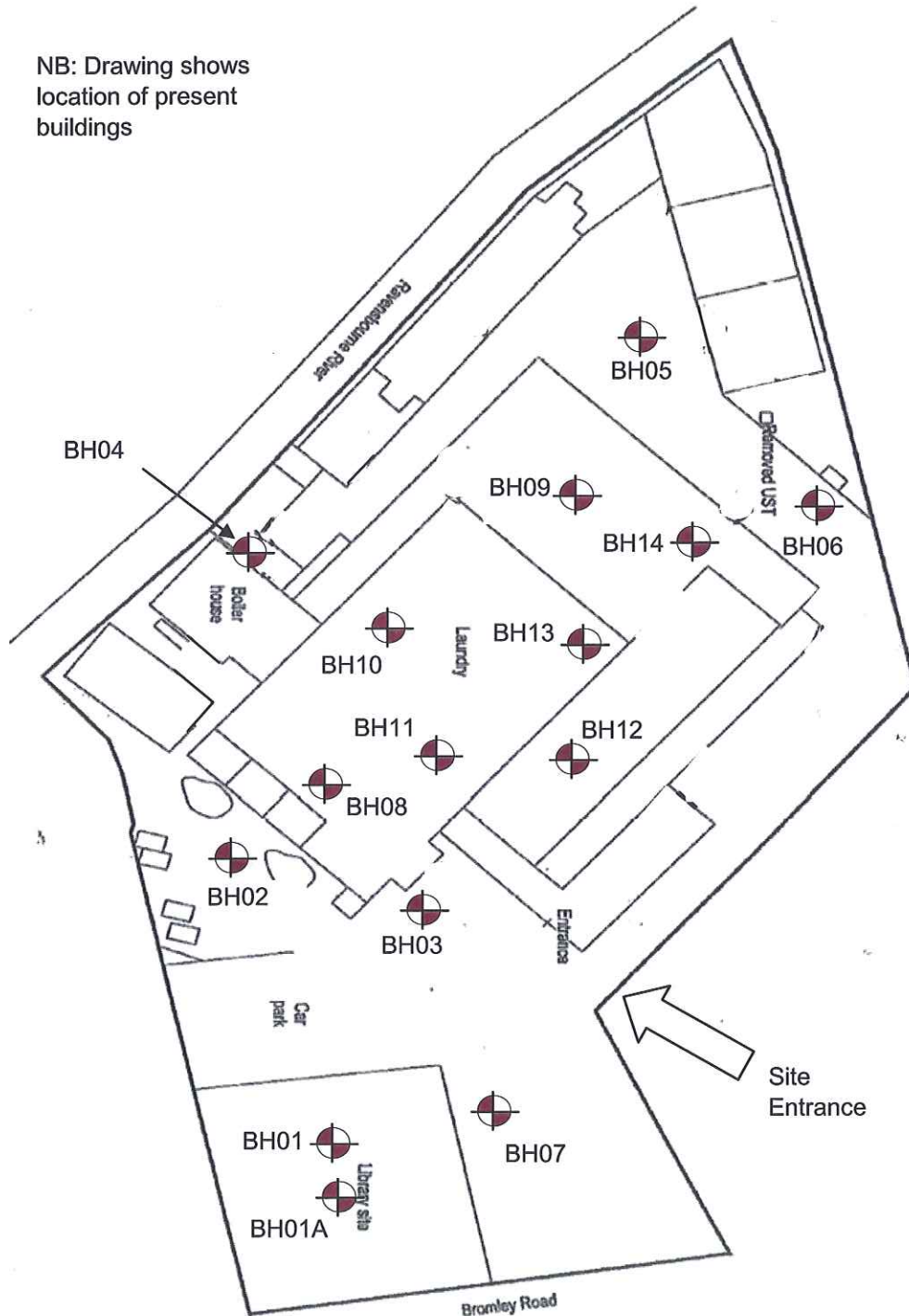


Approximate Scale in metres

Site ITS, 160 Bromley Road, Catford, SE6
Client Catford Properties Ltd
Engineer MMP Design

Job Number
J07105
Sheet
1 / 1

NB: Drawing shows location of present buildings



Approximate Scale in metres



Geotechnical &
Environmental
Associates

Tytenhanger House
Coursers Road
St Albans
AL4 0PG

Site

160 Bromley Road, Catford, London SE6 2UP

**Borehole
Number**

BH01

Boring Method

Cable Percussion

Casing Diameter

150mm cased to 2.20m

Ground Level (mOD)

20.37

Client

Catford Properties Ltd

**Job
Number**

J07105

Location

Dates

16/04/2007

Engineer

MMP Design

Sheet

1/1

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.15 0.30	D1 D2				20.07	(0.30) 0.30	Tarmac		
1.00-1.45 1.00 1.00-1.45	SPT N=39 D3 D4	1.00	DRY	6,8/10,10,9,10		(1.90)	Made Ground (brown silty sandy clay with brick, gravel, concrete, clinker and ash)		
2.00-2.15 2.00 2.20	CPT D5 D6	2.00	DRY	8,42/	18.17 17.97	2.20 (0.20) 2.40	Concrete		
							Terminated at 2.40m		

Remarks

Groundwater not encountered
Borehole terminated due to refusal at 2.4 m on concrete obstruction

**Scale
(approx)**

1:50

**Logged
By**

MP

Figure No.

J07105.BH01



Geotechnical &
Environmental
Associates

Tytenhanger House
Coursers Road
St Albans
AL4 0PG

Site

160 Bromley Road, Catford, London SE6 2UP

**Borehole
Number**

BH01A

Boring Method

Cable Percussion

Casing Diameter

150mm cased to 2.50m

Ground Level (mOD)

20.40

Client

Catford Properties Ltd

**Job
Number**

J07105

Location**Dates**

16/04/2007

Engineer

MMP Design

Sheet

1/1

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.30	D1				20.10	(0.30) 0.30	Tarmac		
0.50	D2					(0.70)	Made Ground (brown sandy clayey silt with brick and gravel)		
1.00-1.45 1.00	CPT N=40 D3	1.00	DRY	3,6/9,9,10,12	19.40	1.00	Made Ground (brick and concrete rubble with gravel)		
						(1.50)			
2.00-2.45 2.00	CPT N=63 D4	2.00	DRY	5,10/14,16,16,17	17.90	2.50 (0.20)	Concrete		
					17.70	2.70	Terminated at 2.70m		

Remarks

Groundwater not encountered
Borehole terminated due to refusal at 2.7 m on concrete obstruction

Scale
(approx)

1:50

Logged
By

MP

Figure No.

J07105.BH01A



Geotechnical &
Environmental
Associates

Tyttenhanger House
Coursers Road
St Albans
AL4 0PG

Site

160 Bromley Road, Catford, London SE6 2UP

Borehole
Number
BH02

Boring Method

Cable Percussion

Casing Diameter

150mm cased to 6.00m

Ground Level (mOD)

19.88

Client

Catford Properties Ltd

Job
Number
J07105

Location

Dates

18/04/2007

Engineer

MMP Design

Sheet
1/3

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.20	D1				19.68	(0.20)	Concrete		
0.50	D2					0.20	Made Ground (brown silty sandy clay with gravel, concrete, ash and brick)		
						(0.80)			
1.00-1.45	SPT N=19	1.00	DRY	1,2/2,5,6,6	18.88	1.00	Firm brown CLAY with gravel		
1.00	D3					(0.30)			
1.00-1.45	D4				18.58	1.30	Medium dense dark brown sandy GRAVEL		
1.30	B1								
2.00-2.45	CPT N=34	2.00	DRY	4,7/7,8,9,10		(1.70)			
2.70	B2								
3.00-3.45	SPT N=9	3.00	DRY	1,1/2,2,2,3	16.88	3.00	Firm brownish grey silty fissured CLAY with partings of silt		
3.00	D5								
3.00-3.45	D6					(1.50)			
4.00	D7								
4.00-4.40	U1			29 blows					
4.50	D8			Seepage(1) at 4.50m.	15.38	4.50	Stiff becoming very stiff grey silty fissured CLAY with partings of silt and sand		
5.00-5.45	SPT N=22	5.00	DRY	3,3/5,5,6,6					
5.00-5.45	D9								
5.50	D10								
6.50-6.90	D11			48 blows					
6.50-6.90	U2								
7.00	D12								
8.00-8.45	SPT N=33	6.00	DRY	5,5/7,7,9,10		(7.40)			
8.00	D13								
8.00-8.45	D14								
9.00	D15								
9.50-9.90	U3			50 blows					

Remarks

Combined gas / groundwater monitoring standpipe installed to 6.0 m; 5.0 m response zone

Scale
(approx)

1:50

Logged
By

MP

Figure No.

J07105.BH02



Geotechnical &
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Associates

Tyttenhanger House
Coursers Road
St Albans
AL4 0PG

Site

160 Bromley Road, Catford, London SE6 2UP

**Borehole
Number**

BH02

Boring Method		Casing Diameter			Ground Level (mOD)		Client		Job Number	
Cable Percussion		150mm cased to 6.00m			19.88		Catford Properties Ltd		J07105	
		Location			Dates 18/04/2007		Engineer MMP Design		Sheet 2/3	
Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	
10.00	D16						... as previous			
11.00-11.45	SPT N=32	6.00	DRY	5,5/7,8,8,9		(7.40)				
11.00	D17									
11.00-11.45	D18									
11.90	D19				7.98	11.90	Very stiff grey silty fissured CLAY with partings of silt and claystones at 11.90 m and 12.90 m			
12.20	D20									
12.50-12.80	U4			50 blows						
12.90	D21									
13.10	D22					(3.20)				
14.00-14.45	SPT N=30	6.00	DRY	7,7/6,7,8,9						
14.00-14.45	D23									
14.10	D24									
15.10	D25				4.78	15.10	Very stiff grey silty fissured CLAY with partings of silt and sand			
15.50-15.90	U5			50 blows						
16.00	D26									
17.00-17.45	SPT N=51	6.00	DRY	10,9/11,13,13,14						
17.00	D27									
17.00-17.45	D28					(5.35)				
18.00	D29									
18.50-18.90	U6			50 blows						
19.00	D30									
20.00-20.45	SPT N=49	6.00	DRY	7,8/10,12,13,14						
Remarks								Scale (approx)	Logged By	
								1:50	MP	
								Figure No. J07105.BH02		



Geotechnical &
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Associates

Tyttenhanger House
Coursers Road
St Albans
AL4 0PG

Site

160 Bromley Road, Catford, London SE6 2UP

Borehole
Number

BH02

Boring Method

Cable Percussion

Casing Diameter

150mm cased to 6.00m

Ground Level (mOD)

19.88

Client

Catford Properties Ltd

Job
Number

J07105

Location

Dates

18/04/2007

Engineer

MMP Design

Sheet

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Depth
(m)

Sample / Tests

Casing
Depth
(m)

Water
Depth
(m)

Field Records

Level
(mOD)

Depth
(m)
(Thickness)

Description

Legend

Water

20.00
20.00-20.45

D31
D32

-0.57

(5.35)

20.45

... as previous

Complete at 20.45m

Remarks

Scale
(approx)







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Figure No.

J07105.BH02

 Geotechnical & Environmental Associates		Tyttenhanger House Coursers Road St Albans AL4 0PG		Site 160 Bromley Road, Catford, London SE6 2UP		Borehole Number BH03			
Boring Method Cable Percussion		Casing Diameter 150mm cased to 10.50m		Ground Level (mOD) 20.00		Client Catford Properties Ltd			
		Location		Dates 19/04/2007		Engineer MMP Design			
						Job Number J07105			
						Sheet 1/3			
Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.30	D1				19.70	(0.30)	Concrete		
0.50	D2				19.50	(0.20)	Made Ground (brown soil with concrete and gravel)		
1.00-1.45	SPT N=7	1.00	DRY	1,1/1,2,2,2		(0.80)	Made Ground (brown silty sandy clay with gravel and occasional brick)		
1.00	D3				18.70	1.30	Firm becoming stiff brownish grey silty fissured CLAY with partings of silt		
1.00-1.45	D4								
1.30	D5								
2.00-2.40	U1			10 blows					
2.50	D6								
3.00-3.45	SPT N=13	3.00	DRY	2,2/2,3,4,4		(4.20)			
3.00-3.45	D7								
3.50	D8								
4.00-4.40	U2			21 blows					
4.50	D9								
5.00-5.45	D10			Moderate Inflow(1) at 5.00m.					
5.00-5.45	SPT N=17	5.00	5.00	3,4/4,4,4,5					
5.50	D11				14.50	5.50	Stiff becoming very stiff grey silty fissured CLAY with partings of silt and sand		
6.50	D12								
6.50-6.90	U3			48 blows					
7.00	D13								
8.00-8.45	SPT N=21	8.00	DRY	3,4/4,5,6,6					
8.00	D14								
8.00-8.45	D15								
9.00	D16								
9.50-9.90	U4			50 blows		(8.50)			
Remarks Combined gas / groundwater monitoring standpipe installed to 6.0 m; 5.0 m response zone							Scale (approx) 1:50	Logged By MP	
							Figure No. J07105.BH03		



Geotechnical &
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Tytenhanger House
Coursers Road
St Albans
AL4 0PG

Site

160 Bromley Road, Catford, London SE6 2UP

Borehole
Number
BH03

Boring Method

Cable Percussion

Casing Diameter

150mm cased to 10.50m

Ground Level (mOD)

20.00

Client

Catford Properties Ltd

Job
Number
J07105

Location

Dates

19/04/2007

Engineer

MMP Design

Sheet
2/3

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
10.00	D17						... as previous	x	
11.00-11.45	SPT N=32	10.50	DRY	4,6/7,7,9,9				x	
11.00	D18							x	
11.00-11.45	D19							x	
12.00	D20					(8.50)		x	
12.50-12.90	U5			50 blows				x	
13.00	D21							x	
14.00-14.45	SPT N=31	10.50	DRY	5,6/7,7,8,9	6.00	14.00	Very stiff grey silty fissured CLAY with partings of silt	x	
14.00	D22							x	
14.00-14.45	D23							x	
15.00	D24							x	
15.50-15.90	U6			50 blows				x	
16.00	D25							x	
17.00-17.45	SPT N=39	10.50	DRY	6,8/8,9,10,12		(6.45)		x	
17.00	D26							x	
17.00-17.45	D27							x	
18.00	D28							x	
18.50-18.90	U7			50 blows				x	
19.00	D29							x	
20.00-20.45	SPT N=38	10.50	DRY	6,7/8,9,9,12				x	

Remarks

Scale
(approx)
1:50

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Figure No.
J07105.BH03



Geotechnical &
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Associates

Tyltanhanger House
Coursers Road
St Albans
AL4 0PG

Site

160 Bromley Road, Catford, London SE6 2UP

**Borehole
Number**

BH03

Boring Method

Cable Percussion

Casing Diameter

150mm cased to 10.50m

Ground Level (mOD)

20.00

Client

Catford Properties Ltd

**Job
Number**

J07105

Location**Dates**

19/04/2007

Engineer

MMP Design

Sheet

3/3

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
20.00 20.00-20.45	D30 D31				-0.45	(6.45) 20.45	... as previous Complete at 20.45m	<div><div></div><div></div><div></div></div>	

Remarks

Scale
(approx)






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Logged
By

MP

Figure No.

J07105.BH03

 Geotechnical & Environmental Associates		Tyttenhanger House Coursers Road St Albans AL4 0PG		Site 160 Bromley Road, Catford, London SE6 2UP		Borehole Number BH04			
Boring Method Cable Percussion		Casing Diameter 150mm cased to 6.00m		Ground Level (mOD) 20.10		Client Catford Properies Ltd		Job Number J07105	
		Location		Dates 20/04/2007		Engineer MMP Design		Sheet 1/2	
Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.15	D1	1.00	DRY	1,0/1,0,2,2 Slow Inflow(1) at 1.30m.	19.90	(0.20) 0.20	Concrete		
0.50	D2				(1.10)	Made Ground (brown silty sandy clay with brick, gravel, clinker and ash)			
0.90 1.00-1.45 1.00-1.45 1.30	D3 SPT N=5 D4 B1				18.80	1.30	Medium dense brown sandy GRAVEL		
2.00-2.45 2.10	CPT N=9 D5				18.00	(0.80) 2.10	Firm becoming stiff brownish grey silty fissured CLAY with partings of silt and sand		
3.00-3.40	U1	4.00	DRY	28 blows		(2.40)			
3.50	D6								
4.00-4.45 4.00-4.45	SPT N=19 D7					3,3/4,5,4,6			
4.50	D8					15.60	4.50		
5.00-5.30	U2	6.00	DRY	41 blows					
5.40	D9								
6.40 6.50-6.95 6.50-6.95	D10 SPT N=21 D11					4,4/5,5,5,6			
7.40	D12								
8.00-8.40	U3	6.00	DRY	44 blows					
8.50	D13					(8.00)			
9.50-9.95 9.50 9.50-9.95	SPT N=26 D14 D15					4,5/5,6,7,8			
Remarks Combined gas / groundwater monitoring standpipe installed to 3.0 m; 2.0 m response zone								Scale (approx) 1:50	Logged By MP
								Figure No. J07105.BH04	



Geotechnical &
Environmental
Associates

Tytenhanger House
Coursers Road
St Albans
AL4 0PG

Site

160 Bromley Road, Catford, London SE6 2UP

**Borehole
Number
BH04**

Boring Method

Cable Percussion

Casing Diameter

150mm cased to 6.00m

Ground Level (mOD)

20.10

Client

Catford Properties Ltd

**Job
Number
J07105**

Location**Dates**

20/04/2007

Engineer

MMP Design

**Sheet
2/2**

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
10.50	D16						... as previous	x	
11.00-11.40	U4			50 blows		(8.00)		x	
11.50	D17							x	
12.50-12.95	SPT N=34	6.00	DRY	6,7/8,8,9,9	7.60	12.50	Very stiff grey silty fissured CLAY with partings of silt	x	
12.50	D18							x	
12.50-12.95	D19							x	
13.50	D20							x	
14.00-14.40	U5			50 blows				x	
14.50	D21					(5.50)		x	
15.50-15.95	SPT N=38	6.00	DRY	8,8/9,9,9,11				x	
15.50	D22							x	
15.50-15.95	D23							x	
16.50	D24							x	
17.00-17.40	U6			50 blows				x	
17.50	D25							x	
18.50-18.95	SPT N=45	6.00	DRY	10,10/9,10,12,14	2.10	18.00	Very stiff grey silty fissured CLAY with partings of silt and sand	x	
18.50	D26					(2.00)		x	
18.50-18.95	D27							x	
19.50	D28							x	
19.50-19.90	U7			50 blows				x	
20.00	D29				0.10	20.00		x	

Remarks

**Scale
(approx)**

1:50

**Logged
By**

MP

Figure No.

J07105.BH04

<div>GEA</div> <div>Geotechnical & Environmental Associates</div>				Tyttenhanger House Coursers Road St Albans AL4 0PG		Site 160 Bromley Road, Catford, London SE6 2UP			Borehole Number BH05	
Boring Method Cable Percussion		Casing Diameter 150mm cased to 7.50m		Ground Level (mOD) 19.84		Client Catford Properies Ltd			Job Number J07105	
		Location		Dates 24/04/2007		Engineer MMP Design			Sheet 1/2	
Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	
0.20	D1	1.00	DRY	2,3/1,0,1,3	19.64	(0.20)	Concrete			
0.50	D2				19.34	0.20 (0.30)	Made Ground (brick and concrete hardcore)			
1.00-1.45	SPT N=5				18.84	0.50 (0.50)	Made Ground (black silty clay with brick and gravel)			
1.00	D3				18.54	1.00 (0.30)	Made ground (black silty clay with hydrocarbon odour)			
1.00-1.45	D4	1.30	Medium dense dark brown sandy GRAVEL							
1.30	B1	(1.10)								
2.00-2.45	CPT N=21	2.00	DRY	4,5/5,6,5,5	17.44	2.40	Firm brownish grey silty fissured CLAY with partings of silt			
2.40	D5	21 blows				(2.10)				
3.00-3.40	U1									
3.50	D6									
4.00-4.45	SPT N=15	4.00	DRY	2,3/3,4,4,4	15.34	4.50	Stiff grey silty fissured CLAY with partings of silt			
4.00-4.45	D7	Seepage(1) at 5.00m. 29 blows				(2.00)				
4.50	D8									
5.00-5.40	U2									
5.50	D9	6.50	DRY	4,4/5,6,8,9	13.34	6.50	Stiff becoming very stiff grey silty fissured CLAY with partings of silt and sand			
6.50-6.95	SPT N=28									
6.50	D10									
6.50-6.95	D11									
7.50	D12	50 blows								
8.00-8.40	U3									
8.50	D13									
9.50-9.95	SPT N=31	7.50	DRY	5,6/6,7,9,9						
9.50	D14									
9.50-9.95	D15									
Remarks Combined gas / groundwater monitoring stanpipe installed to 6.0 m; 5.0 m response zone								Scale (approx) 1:50	Logged By MP	
								Figure No. J07105.BH05		



Geotechnical &
Environmental
Associates

Tyttenhanger House
Coursers Road
St Albans
AL4 0PG

Site

160 Bromley Road, Catford, London SE6 2UP

**Borehole
Number
BH05**

Boring Method		Casing Diameter		Ground Level (mOD)		Client		Job Number	
Cable Percussion		150mm cased to 7.50m		19.84		Catford Properties Ltd		J07105	
		Location		Dates		Engineer		Sheet	
				24/04/2007		MMP Design		2/2	
Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
10.50	D16						... as previous	x	
11.00-11.40	U4			50 blows				x	
11.50	D17							x	
12.50-12.95	SPT N=31	7.50	DRY	6,7/9,10,0,12		(9.00)		x	
12.50	D18							x	
12.50-12.95	D19							x	
13.50	D20							x	
14.00-14.40	U5			50 blows				x	
14.50	D21							x	
15.50-15.95	SPT N=37	7.50	DRY	7,7/7,9,10,11	4.34	15.50	Very stiff grey silty fissured CLAY with partings of silt	x	
15.50	D22							x	
15.50-15.95	D23							x	
16.50	D24							x	
17.00-17.40	U6			50 blows				x	
17.50	D25					(4.50)		x	
18.50-18.95	SPT N=41	7.50	DRY	7,8/8,10,10,13				x	
18.50	D26							x	
18.50-18.95	D27							x	
19.50	D28							x	
19.50-19.80	U7			50 blows				x	
19.90	D29				-0.16	20.00		x	
Remarks								Scale (approx)	Logged By
								1:50	MP
								Figure No. J07105.BH05	



Geotechnical &
Environmental
Associates

Tyttenhanger House
Coursers Road
St Albans
AL4 0PG

Site

160 Bromley Road, Catford, London SE6 2UP

Borehole
Number

BH06

Boring Method

Cable Percussion

Casing Diameter

150mm cased to 10.50m

Ground Level (mOD)

19.80

Client

Catford Properties Ltd

Job
Number

J07105

Location

Dates

25/04/2007-
26/04/2007

Engineer

MMP Design

Sheet

1/2

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.20	D1				19.60	(0.20)	Concrete		
0.50	D2				19.30	0.20 (0.30)	Made Ground (brick and concrete hardcore)		
						0.50	Made Ground (brown silty sandy clay with gravel and brick)		
1.00-1.45	SPT N=30	1.00	DRY	3,5/7,7,7,9		(0.80)			
1.00	D3				18.50	1.30	Medium dense brown silty sandy GRAVEL		
1.00-1.45	D4					(1.10)			
1.30	B1								
2.00-2.45	CPT N=27	2.00	DRY	2,4/6,6,8,7		2.40	Firm becoming stiff brownish grey silty fissured CLAY with partings of silt		
2.40	D5				17.40				
3.00-3.40	U1			28 blows		(2.10)			
3.50	D6								
4.00-4.45	SPT N=16	4.00	DRY	2,2/3,4,4,5		4.50	Stiff grey silty fissured CLAY with partings of silt		
4.00-4.45	D7				15.30				
4.50	D8								
5.00-5.40	U2			41 blows		(3.00)			
5.50	D9								
6.50-6.95	SPT N=23	6.50	DRY	4,4/4,5,7,7		7.50	Stiff becoming very stiff grey silty fissured CLAY with partings of silt and sand		
6.50	D10				12.30				
6.50-6.95	D11								
7.50	D12								
8.00-8.40	U3			Slow Inflow(1) at 8.00m. 50 blows					
8.50	D13								
9.50-9.95	SPT N=31	9.50	DRY	4,5/6,8,8,9					
9.50	D14								
9.50-9.95	D15								

Remarks

Combined gas / groundwater monitoring standpipe installed to 3.0 m; 2.0 m response zone

Scale
(approx)

1:50

Logged
By

MP

Figure No.

J07105.BH06



Geotechnical &
Environmental
Associates

Tyttenhanger House
Coursers Road
St Albans
AL4 0PG

Site

160 Bromley Road, Catford, London SE6 2UP

Borehole
Number
BH06

Boring Method

Cable Percussion

Casing Diameter

150mm cased to 10.50m

Ground Level (mOD)

19.80

Client

Catford Properties Ltd

Job
Number
J07105

Location

Dates

25/04/2007-
26/04/2007

Engineer

MMP Design

Sheet
2/2

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
10.50	D16						... as previous	x	
11.00-11.40	U4			50 blows				x	
11.30	D17							x	
12.30	D18							x	
12.50-12.95	SPT N=35	10.50	DRY	5,7,7,8,9,11				x	
12.50-12.95	D19							x	
13.20	D20					(9.50)		x	
14.00-14.40	U5			50 blows				x	
14.50	D21							x	
15.50-15.95	SPT N=40	10.50	DRY	6,8/9,9,10,12				x	
15.50	D22							x	
15.50-15.95	D23							x	
16.50	D24							x	
17.00-17.40	U6			50 blows	2.80	17.00	Very stiff grey silty fissured CLAY with partings of silt	x	
17.50	D25							x	
18.50-18.95	SPT N=44	10.50	DRY	5,8/9,10,12,13		(3.00)		x	
18.50	D26							x	
18.50-18.95	D27							x	
19.50	D28							x	
19.50-19.90	U7			50 blows				x	
20.00	D29				-0.20	20.00		x	

Remarks

Scale
(approx)

1:50

Logged
By

MP

Figure No.

J07105.BH06



Geotechnical &
Environmental
Associates

Tyttenhanger House
Coursers Road
St Albans
AL4 0PG

Site

160 Bromley Road, Catford, London SE6 2UP

Borehole
Number
BH07

Boring Method
Cable Percussion

Casing Diameter
150mm cased to 6.00m

Ground Level (mOD)
20.20

Client
Catford Properties Ltd

Job Number
J07105

Location

Dates
27/04/2007

Engineer
MMP Design

Sheet
1/2

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.20	D1				20.00	(0.20) 0.20	Tarmac		
0.50	D2					(1.10)	Made Ground (dark brown silty sandy clay with gravel, brick, ash, concrete, tarmac and clinker)		
1.00-1.45 1.00 1.00-1.45 1.30	SPT N=7 D3 D4 D5	1.00	DRY	2,1/1,2,2,2 Seepage(1) at 1.30m.	18.90	1.30	Firm brown mottled bluish grey silty CLAY with rootlets		▽1
2.00-2.40	U1			17 blows		(1.90)			
2.50	D6								
3.00-3.45 3.00-3.45 3.20	SPT N=15 D7 D8	3.00	DRY	2,2/3,3,4,5 Seepage(2) at 3.40m.	17.00	3.20	Firm becoming stiff brownish grey silty fissured CLAY with partings of silt		▽2
4.00-4.30	U2			42 blows					
4.40	D9								
5.00-5.45 5.00-5.45	SPT N=19 D10	5.00	DRY	3,3/4,4,5,6		(3.30)			
5.50	D11								
6.50 6.50-6.90	D12 U3			48 blows	13.70	6.50	Stiff becoming very stiff grey silty fissured CLAY with partings of silt and sand		
7.00	D13								
8.00-8.45 8.00 8.00-8.45	SPT N=26 D14 D15	6.00	DRY	4,4/5,6,7,8					
9.00	D16								
9.50-9.90	U4			50 blows					

Remarks
Combined gas / groundwater monitoring standpipe installed to 4.0 m; 3.0 m response zone

Scale (approx)
1:50

Logged By
MP

Figure No.
J07105.BH07



Geotechnical &
Environmental
Associates

Tytenhanger House
Coursers Road
St Albans
AL4 0PG

Site

160 Bromley Road, Catford, London SE6 2UP

Number
BH08

Excavation Method

Open Drive Percussive Lined
Sampler

Dimensions

Ground Level (mOD)

20.10

Client

Catford Properties Ltd

Job
Number
J07105

Location

Dates

03/05/2007

Engineer

MMP Design

Sheet
1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.40	D1			19.87	(0.23) 0.23	Concrete (reinforced)		
					(0.57)	Made Ground (brown silty slightly sandy clay with gravel and occasional brick)		
1.00-1.45 1.00	CPT N=19 D2	DRY	3,5/5,4,5,5	19.30	0.80	Medium dense pale brown silty sandy very clayey GRAVEL		
					(0.90)			
1.80	D3		Seepage(1) at 1.80m.	18.40	1.70	Medium dense greyish brown silty sandy clayey GRAVEL		Σ1
2.00-2.45	CPT N=24	1.80	1,5/5,6,7,6		(1.00)			
				17.40	2.70	Firm brownish grey silty CLAY		
3.00-3.45 3.00	CPT N=12 D4	1.80	2,2/2,3,3,4	17.10	(0.30) 3.00			
						Complete at 3.45m		

Remarks

Scale
(approx)

1:50

Logged
By

MP

Figure No.

J07105.BH08



Geotechnical &
Environmental
Associates

Tyttenhanger House
Coursers Road
St Albans
AL4 0PG

Site

160 Bromley Road, Catford, London SE6 2UP

Number
BH09

Excavation Method

Open Drive Percussive Lined
Sampler

Dimensions

Location

Ground Level (mOD)

20.10

Dates

03/05/2007

Client

Catford Properties Ltd

Engineer

MMP Design

Job
Number
J07105

Sheet
1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.40	D1			19.89	(0.21) 0.21	Concrete (reinforced)		
					(0.49)	Made Ground (black silty sand and gravel with abundant ash, clinker and tarmac)		
1.00-1.45 1.00	CPT N=14 D2	DRY	1,1/2,5,3,4	19.40	0.70	Firm brown silty slightly sandy CLAY with occasional gravel		
					(0.70)			
1.60	D3			18.70	1.40	Medium dense becoming loose pale brown clayey sandy GRAVEL		
2.00-2.45	CPT N=11	1.80	Moderate Inflow(1) at 1.80m. 2,2/3,2,3,3		(2.10)			
3.00-3.45	CPT N=3	1.80	1,1/2,1,0,0					
				16.60	3.50	Firm brownish grey slightly silty CLAY		
4.00-4.45 4.00	SPT N=11 D4	1.80	1,1/2,2,3,4		(0.95)			
				15.65	4.45	Complete at 4.45m		

Remarks

Standpipe piezometer installed to a depth of 4.0 m; 3.0 m response zone

Scale
(approx)

1:50

Logged
By

MP

Figure No.
J07105.BH09

GEA Geotechnical & Environmental Associates				Tyttenhanger House Coursers Road St Albans AL4 0PG		Site 160 Bromley Road, Catford, London SE6 2UP		Number BH10
Excavation Method Open Drive Percussive Lined Sampler		Dimensions		Ground Level (mOD) 20.10		Client Catford Properties Ltd		Job Number J07105
		Location		Dates 03/05/2007		Engineer MMP Design		Sheet 1/1
Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.30	D1	DRY	0,0/3,2,3,3	19.88	(0.22)	Concrete (reinforced)		
0.60	D2			19.70	0.22 (0.18) 0.40	Made Ground (dark brown silty clayey sand and gravel with ash, clinker and concrete fragments)		
1.00-1.45	CPT N=11				(0.90)	Firm greenish brown silty CLAY with a mild organic odour		
1.50	D3	1.50	Moderate Inflow(1) at 1.50m.	18.80	1.30	Medium dense becoming loose brownish grey silty clayey sandy GRAVEL		
2.00-2.45	CPT N=27		3,6/7,7,6,7		(1.70)			
3.00-3.45	CPT N=9		1,1/1,2,3,3	17.10	3.00	Firm brownish grey slightly silty CLAY		
3.00	D4	1.50	2,2/3,4,5,6		(1.45)			
3.20	D5							
4.00-4.45	SPT N=18			15.65	4.45	Complete at 4.45m		
4.00	D6							
Remarks Standpipe piezometer installed to a depth of 4.0 m; 3.0 m response zone							Scale (approx) 1:50	Logged By MP
							Figure No. J07105.BH10	



Geotechnical &
Environmental
Associates

Tyttenhanger House
Coursers Road
St Albans
AL4 0PG

Site

160 Bromley Road, Catford, London SE6 2UP

Number
BH11

Excavation Method

Drive-in Window Sampler

Dimensions

Location

Ground Level (mOD)

20.10

Client

Catford Properties Ltd

Dates

03/05/2007

Engineer

MMP Design

Job
Number
J07105

Sheet
1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.30	D1			19.88	(0.22) 0.22	Concrete (reinforced)		
0.70	D2				(0.88)	Made Ground (greenish grey silty slightly sandy CLAY with occasional gravel, rare bick and a hydrocarbon odour)		
1.50	D3			19.00	1.10	Pale brownish grey silty slightly clayey SAND and GRAVEL		
			Water strike(1) at 2.00m.		(1.50)			
3.00	D4			17.50	2.60	Firm brownish grey slightly silty CLAY		
					(1.40)			
				16.10	4.00	Complete at 4.00m		
Remarks							Scale (approx)	Logged By
							1:50	MP
							Figure No. J07105.BH11	

GEA Geotechnical & Environmental Associates				Tyttenhanger House Coursers Road St Albans AL4 0PG		Site 160 Bromley Road, Catford, London SE6 2UP		Number BH12	
Excavation Method Drive-in Window Sampler		Dimensions		Ground Level (mOD) 20.10		Client Catford Properties Ltd		Job Number J07105	
		Location		Dates 03/05/2007		Engineer MMP Design		Sheet 1/1	
Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description		Legend	Water
0.30	D1			20.00 19.90	(0.10) 0.10	Concrete (with embedded timber section)			
					(0.10) 0.10	Concrete			
0.60	D2			19.60	0.20	Made Ground (brown silty clayey sand and gravel with ash, clinker and rare brick)			
					(0.30) 0.50	Made Ground (brown silty slightly sandy clay with gravel and brick)			
1.00	D3			19.30	(0.30) 0.80				
						Pale brown silty clayey sandy GRAVEL			
2.00	D4		Water strike(1) at 1.75m.		(3.00)				
3.90	D5			16.30 16.10	3.80 (0.20) 4.00	Firm brownish grey silty CLAY			
						Complete at 4.00m			
Remarks						Scale (approx) 1:50		Logged By MP	
						Figure No. J07105.BH12			



Geotechnical &
Environmental
Associates

Tythenhanger House
Coursers Road
St Albans
AL4 0PG

Site

160 Bromley Road, Catford, London SE6 2UP

Number
BH13

Excavation Method

Drive-in Window Sampler

Dimensions

Ground Level (mOD)

20.10

Client

Catford Properties Ltd

Job
Number
J07105

Location





Dates

03/05/2007

Engineer

MMP Design

Sheet
1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.40	D1			20.00 19.90	(0.10) 0.10 (0.10) 0.20 (1.00)	Concrete Concrete Made Ground (dark brown silty sandy gravelly clay with ash, clinker and brick)	  	
1.50	D2			18.90	1.20 (0.80)	Pale brown silty clayey sandy GRAVEL		
				18.10	2.00	Abandoned at 2.00m		

Remarks

Groundwater not encountered
Borehole abandoned as sampling rod snapped whilst drilling from 2.0 m to 4.0 m










Scale
(approx)

1:50

Logged
By

MP

Figure No.
J07105.BH13

 Geotechnical & Environmental Associates				Tyttenhanger House Coursers Road St Albans AL4 0PG		Site 160 Bromley Road, Catford, London SE6 2UP		Number BH14		
Excavation Method Drive-in Window Sampler		Dimensions		Ground Level (mOD) 20.10		Client Catford Properties Ltd		Job Number J07105		
		Location		Dates 03/05/2007		Engineer MMP Design		Sheet 1/1		
Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description		Legend	Water	
0.40	D1			20.00 19.90	(0.10) 0.10 (0.10) 0.20 (0.80)	Concrete Concrete Made Ground (brown silty very sandy clay with gravel and brick)		  		
1.20	D2		Water strike(1) at 1.70m.	19.10	1.00	Pale brown silty clayey SAND and GRAVEL			 	
					(2.50)					
3.70	D3			16.60 16.10	3.50 (0.50) 4.00	Firm brownish grey slightly silty CLAY Abandoned at 4.00m		  		
Remarks								Scale (approx)	Logged By	
								1:50	MP	
								Figure No. J07105.BH14		

PCA

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