Desk-top Archaeological Assessment

DYLON 2, LAND FORMERLY KNOWN AS FOOTZIE OLD SPORTS GROUNDS, WORSLEY BRIDGE ROAD, LOWER SYDENHAM, LONDON, SE26 5BQ

National Grid Reference: TQ 36874 71148

June 2015

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DYLON 2, LAND FORMERLY KNOWN AS FOOTZIE OLD SPORTS GROUNDS, WORSLEY BRIDGE ROAD, LOWER SYDENHAM, LONDON, SE26 5BQ

London Borough of Bromley

on behalf of Relta Ltd

National Grid Reference
TQ 36874 71148

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SUMMARY

The site lies in the floodplain of the Pool River. Historic England has identified the need for this assessment as from its preliminary appraisal the potential for archaeology is sufficient to warrant further consideration particularly as the site is located within a river valley with the potential for peat deposits occurring across at least part of the area.

A planning application has been submitted for the redevelopment of the site to include the demolition of the existing building and the erection of a basement plus part 8/9/10/11/12 storey building comprising 296 residential units (148 x 1 bed; 135 x 2 bed; and 13 x 3 bed units) together with the construction of an estate road, 222 car parking spaces, 488 cycle parking spaces and landscaping of the eastern part of the site to form an open space accessible by the public.

A review of the existing information has identified undesignated heritage assets within the study area. Generally these comprise: archaeological finds and features dating to the Roman and Post-Medieval periods; the remains of former buildings dating to the Post-Medieval period; a local building and locally registered parks and gardens dating to the Modern period.

The significance of these heritage assets is low.

The potential for finding buried heritage assets within the study area is thought to be low for occupation sites and low for stray, residual finds.

The site has continuously remained open being common land up until the mid 19th Century when the land was enclosed and used as arable and meadow. From the early to mid 20th Century the site was used as an athletics/sports ground with pavilion buildings and tennis court enclosures on the west side and at the south end. This use has ceased and the site is currently used for a mix of storage and recycling uses with compounds and mobile structures on the west side of the site it is considered that the historic land use would not have truncated any potentially surviving archaeological deposits. and therefore there is the potential for finding buried heritage assets within the site although these are likely to be residual finds.

The proposed development is located to the west side of the site and will involve the excavation of a basement to a depth ranging from c.2.6m at the northern end to 0.1m at the southern end. This has the potential to truncate any potentially surviving archaeological deposits, however, the prospect of this is thought to be low based on the archaeological and historical evidence.

As the site is not located within an Archaeological Priority Area it is thought that archaeological fieldwork will not be required, however, the final decision rests with the London Borough of Bromley as the local planning authority, taking advice from their nominated archaeological advisors, Historic England.

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1.0 INTRODUCTION

1.1 Project background

A planning application has been submitted for the redevelopment of the site to include the demolition of the existing building and the erection of a basement plus part 8/9/10/11/12 storey building comprising 296 residential units (148 x 1 bed; 135 x 2 bed; and 13 x 3 bed units) together with the construction of an estate road, 222 car parking spaces, 488 cycle parking spaces and landscaping of the eastern part of the site to form an open space accessible by the public.

This archaeological desk-top assessment has been requested to be undertaken to support the application by Historic England.

The assessment was commissioned by Chris Francis of West & Partners on behalf of Relta Ltd, the owners of the site.

1.2 Aims and objectives

This assessment aims to:

- Establish the presence or otherwise of any identified heritage assets;
- Assess the likely impact of previous development on any identified heritage assets;
- Assess the impact which the proposed development may have on any identified heritage assets; and
- Propose research questions (if appropriate) to inform any future mitigation strategy for the protection of any identified heritage assets.

2.0 METHODOLOGY

This assessment follows the guidelines established by English Heritage (1998) and the Institute of Field Archaeologists (2001).

A visit was made to the Local Studies Section at Bromley Central Library, High Street, Bromley, Kent, BR1 1EX. Historical and geological maps and plans were consulted along with aerial photographs, books, reports, property deeds and parish records. Historic maps were photographed rather than photocopied and therefore have not been reproduced to scale.

Reports of previous archaeological work in the study area (defined as a distance of 750m from the centre of the site) and which are within the London Borough of Bromley were consulted. These included: desk top assessments; and reports on watching briefs, evaluations; and excavations.

A print out was obtained from Historic England's Greater London Archaeological Advisory Service of all entries held on the Historic Environment Record (HER) within a distance of 750m from the centre of the site, taken to be TQ 36874 71148 so as to be able to determine the nature and extent of known archaeological remains in the study area.

The internet was consulted in order to supplement information obtained from other sources such as Bromley Central Library and the HER.

A site visit was made in June 2015 to establish current land use.

Sources used within this report are listed in the bibliography.

3.0 ARCHAEOLOGY AND PLANNING

3.1 National Policy

The National Planning Policy Framework (NPPF) was published by the Government in March 2012. It replaced national policy relating to heritage and archaeology (Planning Policy Statement 5: Archaeology and Planning). Section 12 *Conserving and enhancing the historic environment* contains guidance to local authorities, developers, property owners and other stakeholders on the conservation and investigation of heritage assets. The key paragraphs are:

- 128: *In determining applications, local planning authorities should require an applicant to describe the significance of any heritage assets affected, including any contribution made by their setting. The level of detail should be proportionate to the assets' importance and no more than is sufficient to understand the potential impact of the proposal on their significance. As a minimum the relevant historic environment record should have been consulted and the heritage assets assessed using appropriate expertise where necessary. Where a site on which development is proposed includes, or has the potential to include, heritage assets with archaeological interest, local planning authorities should require developers to submit an appropriate desk-based assessment and, where necessary, a field evaluation;*

- 135: *The effect of an application on the significance of a non-designated heritage asset should be taken into account in determining the application. In weighing applications that affect directly or indirectly non-designated heritage assets, a balanced judgement will be required having regard to the scale of any harm or loss and the significance of the heritage asset;*

- 139: *Non-designated heritage assets of archaeological interest that are demonstrably of equivalent significance to scheduled monuments, should be considered subject to the policies for designated heritage assets;* and

- 141: *Local planning authorities should make information about the significance of the historic environment gathered as part of plan-making or development management publicly accessible. They should also require developers to record and advance understanding of the significance of any heritage assets to be lost (wholly or in part) in a manner proportionate to their importance and the impact, and to make this evidence (and any archive generated) publicly accessible. However, the ability to record evidence of our past should not be a factor in deciding whether such loss should be permitted.*

In the NPPF the following definitions are used:

- *Heritage assets:* A building, monument, site, place, area or landscape identified as having a degree of significance meriting consideration in planning decisions, because of its heritage interest. Heritage asset includes designated heritage assets and assets identified by the local planning authority (including local listing).

- *Archaeological interest:* There will be archaeological interest in a heritage asset if it holds, or potentially may hold, evidence of past human activity worthy of expert investigation at some point. Heritage assets with archaeological interest are the primary source of evidence about the substance and evolution of places, and of the people and cultures that made them.

- *Designated heritage assets:* A World Heritage Site, Scheduled Monument, Listed Building, Protected Wreck Site, Registered Park and Garden, Registered Battlefield or Conservation Area designated under the relevant legislation.

- *Significance:* The value of a heritage asset to this and future generations because of its heritage interest. This interest may be archaeological, architectural, artistic or historic. Significance derives not only from a heritage asset's physical presence but also from its setting.

- *Setting of a heritage asset:* The surroundings in which a heritage asset is experienced. Its extent is not fixed and may change as the asset and its surroundings evolve. Elements of a setting may make a positive or negative contribution to the significance of an asset, may affect the ability to appreciate that significance or may be neutral.

3.2 Regional Policy

The London Plan contains overarching policies for the Greater London area (GLA, March 2015). Policy 7.8 relates to heritage assets and archaeology:

> *Strategic*
> *A. London's heritage assets and historic environment, including listed buildings, registered historic parks and gardens and other natural and historic landscapes, conservation areas, World Heritage Sites, registered battlefields, scheduled monuments, archaeological remains and memorials should be identified, so that the desirability of sustaining and enhancing their significance and of utilising their positive role in place shaping can be taken into account.*
>
> *B. Development should incorporate measures that identify, record, interpret, protect and, where appropriate, present the site's archaeology.*
>
> *Planning decisions*
> *C. Development should identify, value, conserve, restore, re-use and incorporate heritage assets, where appropriate.*
>
> *D. Development affecting heritage assets and their settings should conserve their significance, by being sympathetic to their form, scale, materials and architectural detail.*
>
> *E. New development should make provision for the protection of archaeological resources, landscapes and significant memorials. The physical assets should, where possible, be made available to the public on-site. Where the archaeological asset or memorial cannot be preserved or managed on-site, provision must be made for the investigation, understanding, recording, dissemination and archiving of that asset.*
>
> *LDF preparation*
> *F. Boroughs should, in LDF policies, seek to maintain and enhance the contribution of built, landscaped and buried heritage to London's environmental quality, cultural identity and economy as part of managing London's ability to accommodate change and regeneration.*
>
> *G. Boroughs, in consultation with English Heritage, Natural England and other relevant statutory organisations, should include appropriate policies in their LDFs for identifying, protecting, enhancing and improving access to the historic environment and heritage assets and their settings where appropriate, and to archaeological assets, memorials and historic and natural landscape character within their area.*

3.3 Local Policy

At a local level heritage and archaeology are considered in the London Borough of Bromley's UDP which was adopted on 20th July 2006. The overarching policy which covers both above ground and below ground heritage assets is Policy BE16 *Ancient Monuments and Archaeology* which states:

"Planning permission will not be granted for development that would adversely affect scheduled ancient monuments or other nationally important archaeological sites, involve significant alterations to them or harm their settings.

When considering planning applications for development involving excavation or other ground works the Council will require that:

(i) within Areas of Archaeological Significance, as defined on the Proposals Map and listed in Appendix IV, a written statement of the likely is submitted in the form of an archaeological assessment (which can be desk based); where necessary information cannot be obtained by other means, an archaeological field evaluation should be carried out prior to determination;
(ii) at sites of potential archaeological importance (as defined below), where permanent preservation in situ is not justified, provision shall be made for an appropriate level of investigation and recording to be is undertaken by a recognised archaeological organisation before any development commences.

Where investigations indicate that in situ preservation is inappropriate, excavation and recovery should be carried out by a reputable archaeological body, before development commences. Any such investigations shall be in accordance with a detailed scheme to be approved in advance by the Council and the results shall be subsequently published.

Where in situ preservation is appropriate, suitable designs, land uses and management strategies will be required and the Council's archaeology strategy promoted".

As explanation for Policy BE16 the UDP goes on to state:

"6.41 Ancient monuments and archaeological remains constitute the principal surviving evidence of the Borough's past. However they are vulnerable to modern development and changes in land use and are easily lost or damaged. The Council considers that preservation of archaeological sites and ancient monuments is a legitimate objective against which the demands of development must be balanced and fully assessed. The destruction of such remains should be avoided and should never take place without prior archaeological excavation and record.

6.42 In addition to Areas of Archaeological Significance, there are locations outside these defined boundaries where archaeological remains have been found and where there may be potential for further finds. Where development is proposed within an Area of Archaeological Significance (as shown on the Proposals Map), or near a site of archaeological potential, the Council will require a preliminary archaeological site evaluation before proposals are considered. The council will seek the appropriate professional advice and will require applicants proposing development to do the same. Where the Council considers it appropriate, detailed investigation shall be carried out to an agreed written specification of work by a professionally qualified archaeological organisation or archaeological consultant.

6.43 The Council will encourage early co-operation between landowners, developers and archaeologists in accordance with the Developers Liaison Group Code of Practice, and by attaching appropriate conditions to planning consents, and/or negotiate appropriate planning obligations (section 106 agreements).

6.44 It is important to increase public awareness of the historical and archaeological heritage of the Borough and to encourage its effective management as an educational and recreational resource. The Council will promote the conservation, protection and enhancement of ancient monuments and archaeological sites and their interpretation and presentation to the public.

6.45 The following sites in the Borough have been scheduled as Ancient Monuments:

(i) Fordcroft, Poverest Road, Orpington – Romano-British Site/Anglo Saxon Cemetery
(ii) Caesar's Camp, Holwood Park, Keston - Iron Age hill fort
(iii) Camp on Keston Common, Keston – earthworks
(iv) The Temple, west of Keston Court, Westerham Road, Keston – Romano British mausoleum
(v) Romano-British villa, Crofton Road, Orpington
(vi) St. Botolph's Church, Ruxley - former mediaeval church on site of earlier church
(vii) Romano-British site, Wickham Court Farm, West Wickham – site of substantial Romano British settlement
(viii) Ice Well at High Elms.
Sites (i), (iii), (iv), (v), (vii) and (viii) are owned by the Council.

6.46 The Council has published its Archaeological Strategy and will seek to use the planning process to implement its objectives. The Strategy provides a framework for dealing with archaeological issues and draws upon Planning Policy Guidance Note 16: Archaeology and Planning published by the Department of the Environment in 1990. Supplementary planning guidance will be prepared on archaeological issues and the preparation of statements".

The site does not lie in an Area of Archaeological Priority, however, Historic England have requested that a desk-top assessment be completed because of the size of the proposed redevelopment site and its location next to the Pool River.

3.4 Assessing Significance

Current national guidance for the assessment of the significance of heritage assets is based on criteria provided by English Heritage in the document *Conservation Principles, Policies and Guidance for the Sustainable Management of the Historic Environment* (2008). Within this document significance is weighed by consideration of the potential for the asset to demonstrate the following value criteria:

- *Evidential value* derives from the potential of the physical remains to yield evidence of past human activity;

- *Historical value* derives from the ways in which past people, events and aspects of life can be connected through a place to the present;

- *Aesthetic value* derives from the ways in which people draw sensory and intellectual stimulation from a place.

- *Communal value* derives from the meanings of a heritage asset for the people who know about it, or for whom it figures in their collective experience or memory; communal values are closely bound up with historical, particularly associative, and aesthetic values, along with and educational, social or economic values.

The significance of heritage assets is summarised in the table below:

Significance	Factors determining significance
International/very high	World Heritage Site Assets of recognised international importance Assets that contribute to international research objectives
National/high	Scheduled Ancient Monuments Grade I and II* Listed Buildings Grade I and II* Registered Parks and Gardens Conservation Areas Undesignated assets of the quality and importance to be designated Assets that contribute to national research agendas
Regional/medium	Grade II Listed Buildings Grade II Registered Parks and Gardens Assets that contribute to national research agendas
Local/low	Locally listed buildings Assets compromised by poor preservation and/or poor contextual associations Assets with importance to local interest groups Assets that contribute to local research objectives
Negligible	Assets with little or no archaeological/historical interest
Unknown	The importance of the asset has not been ascertained from available evidence

Table 1. Significance of heritage assets.

4.0 SITE LOCATION, GEOLOGY AND TOPOGRAPHY

4.1 Site Location

The site is the former Footzie Old Sports Grounds at Worsley Bridge Road, Lower Sydenham, London, SE26 5BQ. It is triangular in shape and is bounded to the north by the former Dylon International works and offices, to the south-east by the Pool River and and to the west by the London to Hayes railway line. The site is currently largely open covering an area of 18,649 m^2 and measures circa 195m north south by 145m west east along the north boundary(figure 1).

The centre of the site is at TQ 36874 71148.

4.2 Geology

Sheet 270 from the British Geological Survey shows the site lying predominantly on a drift geology of clay, silt, sand and gravel. The eastern part of the site lies on alluvium which follows the course of the Pool River. The solid geology of the area comprises of London Clay (BGS, 1991).

A geotechnical investigation was undertaken by Geosphere Environmental Ltd in 2014 (Gilchrist, 2014). The investigation encountered either topsoil, asphalt or made ground at the surface to a depth of 0.6m which was underlain by either greater thicknesses of made ground or natural soils. To the east, natural soils beneath the surface materials or made ground were recorded as alluvium (organic clay, sands and gravels) from a depth of 1.00-1.65m. To the west, surface materials and/or made ground were underlain in turn by the London Clay formation from a depth of 0.2-15.00m and Woolwich formation soils from a depth of 15.00-16.00m. Shallow groundwater was encountered at depths ranging from 1.00 to 1.95m whilst groundwater was struck on penetration of the Woolwich formation soils at a depth of 15.70m (Gilchrist, 2014, 21).

The geotechnical investigation, which concentrated primarily on the west side of the site, where the development will occur, did not reveal any indication of the presence of peats (appendix 1). If these are present it may be assumed that they would occur closest to the

current course of the Pool River which is the part of the site largely unaffected by the proposed development and accordingly if present will not be disturbed by the works.

4.3 Topography

The site lies in the floodplain of the Pool River which forms the south-eastern boundary. It falls from the junction with the access road and the Phase 1 site at the north-west corner at c.26.6m OD to c.23.7m OD at the junction of the of the west boundary and the Pool River at the southern edge of the site and to c.23.8m OD next to the Pool adjacent to the north boundary (Topograhical Survey prepared by Sterling Surveys in 2008 which is incorporated in figure 2).

5.0 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

5.1 Introduction

The potential for finding archaeological activity on a site and its surrounding area is determined by a number of factors. For the earliest period, the prehistoric, there is no documentary evidence to help determine the previous use. Instead, the archaeological record, particularly other sites with similar geological, topographical and hydrological characteristics, can be used to determine the potential for any archaeological remains.

The appearance of maps and documents can help trace the historical development of a site and its surrounding area. Maps can trace the topography as well as the building, demolition and alteration of settlement indicating changes in ownership, fashion, affluence and politics.

Likewise documents can be used to trace the changing development and fortunes of a site and its surrounding environment. Past owners, the value of the land, its use (whether for agriculture, uncultivated or developed *etc.*) can be ascertained all of which can be used as supporting evidence for the historical maps.

It is therefore essential to examine the archaeological record as well as the historic maps and documents in order to build up as comprehensive a picture as possible.

The timescales used in this assessment are:

Palaeolithic	-	450,000 – 12,000 BC
Mesolithic	-	12,000 – 4,000 BC
Neolithic	-	4,000 – 2,000 BC
Bronze Age	-	2,000 – 600 BC
Iron Age	-	600 BC – AD 43
Roman	-	AD 43 – 410
Saxon	-	410 – 1066
Medieval	-	1066 – 1485
Post-Medieval	-	1485 – 1900
Modern	-	1900 – present

5.2 Greater London Historic Environment Record

An important source of designated and non-designated heritage assets is the Historic Environment Record (HER), a database of archaeological sites, scheduled ancient monuments, parks and gardens, listed buildings and aerial photographs in Greater London, held by Historic England. A print out of all entries held on the HER was obtained for an area

of c.1.5km^2 with the proposed development site at its centre, at Ordnance Survey grid reference TQ 36874 71148 (figure 3 and table 3).

The HER print out shows that there are seven designated and undesignated Heritage Assets within 750m of the site (table 3) broken down into: one find spot from the Post-medieval period; two features dating from the Roman period and five from the Post-Medieval period; six buildings (now demolished) dating from the Post-Medieval period; one building (still standing) dating to the Modern period; and two locally registered parks and gardens dating from the Post-Medieval period.

Find spots

Large fragments of 19th Century pottery including sugar moulds, flower pots and chimneys were found in a 19th Century drain (see also [6]) during an evaluation by SELAU in 1991, 730m to the north west of the site at the Sydenham Children's Hospital, Sydenham Road (**[1]** on figure 3 and table 3).

Features

The 2nd Century London-Lewis Roman Road which connected London with the south coast runs north south to the east of the site. A section of the road was found 14 inches under the ground surface 470m to the north east of the site during excavations in Meadow Close, SE6 **[2]** and its alignment further south forms the boundary between Bromley and Croydon **[3]**.

During an evaluation by SELAU in 1991 at the Sydenham Children's Hospital evidence for occupation in the form of a trackway, gully drain and pit were found which all dated from the post-medieval period **[4]**, **[5]**, **[6]** and **[7]**.

An old ploughsoil of unknown date was recorded 580m north west of the site at Kangley Bridge Road during an evaluation by SELAU in 1995 **[8]**.

Buildings

The sites of demolished Post-Medieval buildings are known through documentary sources and maps. A pre-1837 house lies 590m to the north east of the site **[9]**. It was owned by a salesman and later by leathersellers, was sold to the London County Council in 1921 and demolished in 1925 to make way for a housing estate.

A large house occupied this site before 1750 which lies 680m to the north west of the site **[10]**. It was acquired by the Council in 1900 before being demolished in 1901.

A large weather-boarded house occupied the site of the presbytery of the Church of Our Lady and St Philip Neri 700m north west of the site **[11]**. The house was demolished in 1929.

The remains of a c.1700 substantial brick building were found during an evaluation by SELAU in 1991 at Sydenham Children's Hospital, Sydenham Lane, SE6, 730m to the north west of the site **[12]**.

The remains of the former Brewery Tap public house, constructed c.1890, were found during an evaluation by MoLAS in 1993 at 6-8 Bell Street, Bell Green Lane, Sydenham, SE26, 675m to the north west of the site **[13]**.

The footings of a 20th Century sports pavilion and a pond were found during an evaluation by Archaeology South East in 2013 at Kent County Cricket Club, Worsley Bridge Road, BR3, 585m to the south west of the site **[14]**.

Lower Sydenham Library lies 705m to the north west of the site **[15]**. It was opened on 24th September 1904 and was one of the five Carnegie Libraries built in Lewisham.

Locally Registered Parks and Gardens

Two locally registered parks and gardens lie within the study area. Southend Park 420m to the north east of the site **[16]** was open land prior to development in the 1950s and Home Park 605m to the north west of the site **[17]** was acquired by Lewisham Borough Council in 1900 and opened in 1901 as a recreation ground.

5.3 Documentary and Cartographic Sources

The London to Lewes Roman Road passes to the east of the proposed site at Copers Cope farm where it lies on the flat land of the Blackheath pebble beds between the thickly forested London clay on the high ground to the east and the often marshy Pool valley to the west (www.beckenhamhistory.co.uk, first accessed 8th June 2015).

The name of Sydenham is thought to mean the home of people who keep sheep: 'syp' meaning sheep; 'en' (inga) meaning people; and 'ham' (haema) meaning home of hamlet (www.chrisbest.labour.co.uk, first accessed 8th June 2015).

Until the Enclosure Act was passed in 1810 the area would have been heavily wooded with isolated cottages amongst the trees. Incremental development took place with the construction of tracks through the woods and the present day Sydenham Road running from Upper Sydenham to Southend (www.chrisbest.labour.co.uk, first accessed 8th June 2015).

The earliest maps depicting the study area date from the 16th Century and are small scale showing little detail. Christopher Saxton's map of Kent, Surrey, Sussex and Middlesex of 1575 (figure 4) shows the settlements of Streatham and Lewisham to the north of the proposed site and Bromley to the south. The River Ravensbourne is shown to the east of the site.

John Speed's map of 1611 (figure 5) shows little change. Beckenham is shown to the south of the proposed site.

In the 1640s mineral springs with alleged healing properties, were discovered on Sydenham Common, in the present Wells Park Road and Taylor's Lane area. As demand for the water increased a number of wells were sunk to ensure adequate supplies (www.chrisbest.labour.co.uk, first accessed 8th June 2015).

John Roque's map of 1746 (figure 6) shows that the area is characterised by large open field and Sydenham Lane to the north and Kent House Lane to the west of the proposed site. Buildings lining Sydenham Lane are shown as is the River Pool. The site is shown to be fields at this time.

Andrew, Dury and Herbert's map of Kent, published in 1769 (figure 7) shows the surrounding area in some detail. The settlements of Sidenham (Sydenham), Beckenham, Bromley and Southend are clearly shown as is the River Pool. There is no detail shown for the proposed site.

The first OS map of 1798-9 at a scale of 1 inch to 3 miles (figure 8) shows the established field system at that time along with Kent House Lane. The location of the proposed development site can be identified from the field boundaries.

John Cator, a Southwark timber merchant, bought much of the land surrounding the site in the late 1700s with the intention of developing high class suburbs with large houses and tree lined roads (www.beckenhamhistory.co.uk, first accessed 8th June 2015). The Cators were to remain the major landowners until the 20th Century.

During the 19th Century Sydenham grew rapidly from a rural district to being part of suburban London as a result of five main events: the Enclosure Act of 1810 which enclosed 800 acres including Sydenham Common, in the parish of Lewisham; the opening of the Croydon Canal in 1809; the opening of the Croydon Railway line and Sydenham Station in 1839; the opening of the London to Hayes Railway line in 1857 and the opening of Lower Sydenham Station in its

current location in 1904-6; and the re-location of the Great Exhibition building to Crystal Palace in 1854 (Weinreb and Hibbert, 1987, 852-3 and www.british-history.ac.uk, first accessed 8th June 2015).

The maps (figures 9 – 11) of this period show the increasing urbanisation of the area.

The Tithe Map (figure 9) shows the size and extent of the fields when the land was surveyed by F and H E Drayson in 1838. The tithe apportionment records the landowner to be John Cator, occupied by Michael Mathew and used as arable and meadow.

The OS maps of 1870 and 1895 (figures 10 and 11 respectively) show the Mid Kent Railway line forming the western boundary of the proposed site. The proposed site remains open fields.

The OS map of 1912 (figure 12) shows the proposed site being used as an athletic ground with tennis courts in the north-west corner and a pavilion in the north-east corner. Worsley Bridge is shown crossing the River Pool to the north of the proposed site. Engineering works and allotments are shown to the west whilst terraced housing is shown along Copers Cope Road to the south east of the proposed site.

The OS map of 1933 (figure 13) shows little change in the preceding 21 years. Tennis courts are now shown along the western boundary and the pavilion building first identified on the 1912 OS map is still standing.

The aerial photograph of 1947 (figure 14) shows that development has occurred in the surrounding area, however, much of the area remains open. Light industrial units have been built along Worsley Bridge Road to the north adjoining the proposed site and to the west on the site of the former engineering works and allotments.

The OS maps of 1953 and 1991 (figures 15 and 16 respectively) show that the land use seen on the aerial photograph of 1947 remains unchanged.

During the 20th Century the surrounding area is characterised by undeveloped land, metropolitan open land and light industrial units.

6.0 ARCHAEOLOGICAL POTENTIAL AND ASSESSMENT OF SIGNIFICANCE

6.1 Introduction

The archaeological potential of the study area (the area within 750m from the centre of the site) is based upon the presence, or otherwise, of designated and undesignated heritage assets and the impact which previous and future land use has had, and will potentially have on them. Consideration should also be given to the as yet unidentified heritage assets such as

archaeological remains. This is based on information collated from existing information (maps, documents, previous fieldwork within the study area); a site visit; and professional judgement.

This assessment has identified a number of heritage assets within the study area as shown in the table below:

Heritage Asset	Designated/ Undesignated	Significance	Present within the study area?
World Heritage Site	Designated	Very high	No
Scheduled Ancient Monuments	Designated	High	No
Conservation Areas	Designated	High	No
Buildings in conservation areas	Designated	High	No
Listed buildings – Grade I and II*	Designated	High	No
Archaeological Priority Areas	Designated	High/medium	No
Listed buildings – Grade II	Designated	Medium	No
Historic parks and gardens	Designated	Medium	No
War memorials	Desig & Undes	Medium/low	No
Any other building, monument, site place area or landscape positively identified as having a degree of significance warranting consideration in planning decisions	Undesignated	Medium/low	**Yes**
Locally listed buildings	Undesignated	Low	No
Locally registered parks and gardens	Undesignated	Low	**Yes**

Table 2. Heritage assets within the study area.

6.2 Heritage Assets within the Study Area

The following undesignated heritage assets have been identified on Historic England's HER which are within the study area:

Findspots

- Post-Medieval – large fragments of pottery including sugar moulds, flower pots and chimneys [1].

Features

- Roman – London to Lewis Road [2] and [3];
- Post-Medieval – trackway [4], gullies [5], drain [6] and pit [7]; and
- Unknown – ploughsoil [8].

Local Building

- Lower Sydenham Library [15].

The following buildings and structures are no longer extant, their location being known through contemporary maps and documentary sources:

- Pre-1837 house demolished 1925 [9];
- Large pre-1750 house demolished in 1901 [10];
- Pre-1860 large weather-boarded house demolished in 1929 [11];

- 18th Century brick building [12];
- Remains of the former 19th Century Brewery Tap public house [13]; and
- Remains of the footings of a 20th Century sports pavilion [14].

Locally Registered Parks and Gardens

- Southend Park [16]; and
- Home Park [17].

6.5 Future land use including the current proposals

The site has not been used as a sports ground for some time and the former pavilion buildings and other structures, enclosures and compounds house commercial uses. These occupy the west side of the site parallel with the railway which forms the western boundary (plates 1 – 4).

A planning application has been submitted for the redevelopment of the site to include the demolition of the existing building and the erection of a basement plus part 8/9/10/11/12 storey building comprising 296 residential units (148 x 1 bed; 135 x 2 bed; and 13 x 3 bed units) together with the construction of an estate road, 222 car parking spaces, 488 cycle parking spaces and landscaping of the eastern part of the site to form an open space accessible by the public.

An area of undercroft parking is to be formed beneath the building with a ramp access parallel to the railway in the north west corner of the site. As a consequence of the natural falls across the site the depth of excavation will range from c.2.6m at the northern end to 0.1m at the southern end. This has the potential to truncate any potentially surviving archaeological deposits; however, the prospect of this is thought to be low based on the archaeological and historical evidence.

6.5 Assessment of Significance

After considering the heritage assets together with the historic land use of the study area and the future land use of the site, an assessment can be made of the significance of any impact on any potential archaeological remains.

The significance of the buried heritage assets is low for the one findspot and five features.

The significance of the standing heritage asset is low for the one local building.

The significance of the six former buildings is low.

The significance of the two locally registered parks and gardens is low.

The cartographic evidence shows that for the majority of its history the site was common land, being used for arable cultivation for c.80-100 years during the 19th Century and then as an athletics/sports ground for the 20th and early 21st Centuries. Therefore the significance of finding buried heritage assets based on the cartographic evidence is low.

The proposed development will involve a varying degree of excavation (as described above) towards the west side of the site i.e. furthest away from the Pool River and there will be adjustments to the levels to form the landscaped open space of the remainder of the site. The significance of finding buried assets following the groundworks is low.

7.0 CONCLUSIONS AND RECOMMENDATIONS

A planning application has been submitted for the redevelopment of the site to include the demolition of the existing building and the erection of a basement plus part 8/9/10/11/12 storey building comprising 296 residential units (148 x 1 bed; 135 x 2 bed; and 13 x 3 bed units) together with the construction of an estate road, 222 car parking spaces, 488 cycle parking spaces and landscaping of the eastern part of the site to form an open space accessible by the public.

A review of the existing information has identified undesignated heritage assets within the study area. Generally these comprise: archaeological finds and features dating to the Roman and Post-Medieval periods; the remains of former buildings dating to the Post-Medieval period; a local building dating and locally registered parks and gardens dating to the Modern period.

The significance of these heritage assets is low.

The potential for finding buried heritage assets within the study area is thought to be low for occupation sites and low for stray, residual finds.

The site has continuously remained open being common land up until the mid 19th Century when the land was enclosed and used as arable and meadow. From the early 20th Century the site was used as an athletics/sports ground. There is therefore the potential for finding buried heritage assets within the site although these are likely to be residual finds and that the historic land use would not have truncated any potentially surviving archaeological deposits.

The proposed development will involve a varying degree of excavation (as described above) towards the west side of the site i.e. furthest away from the Pool River and there will be adjustments to the levels to form the landscaped open space of the remainder of the site. The development has the potential to truncate any potentially surviving archaeological deposits, however, the probability for this is thought to be low based on the archaeological and historical evidence.

The geotechnical investigation, which concentrated primarily on the west side of the site, where the development will occur, did not reveal any indication of the presence of peats. If these are present it may be assumed that they would occur closest to the current course of the Pool River which is the part of the site largely unaffected by the proposed development and accordingly if present will not be disturbed by the works.

Recommendations

Due to its nature this assessment cannot confirm the presence and significance of any buried heritage assets within the site. As the site is not located within an Archaeological Priority Area it is thought that archaeological fieldwork will not be required, however, the final decision rests with the London Borough of Bromley as the local planning authority, taking advice from their nominated archaeological advisors, Historic England.

8.0 REFERENCES

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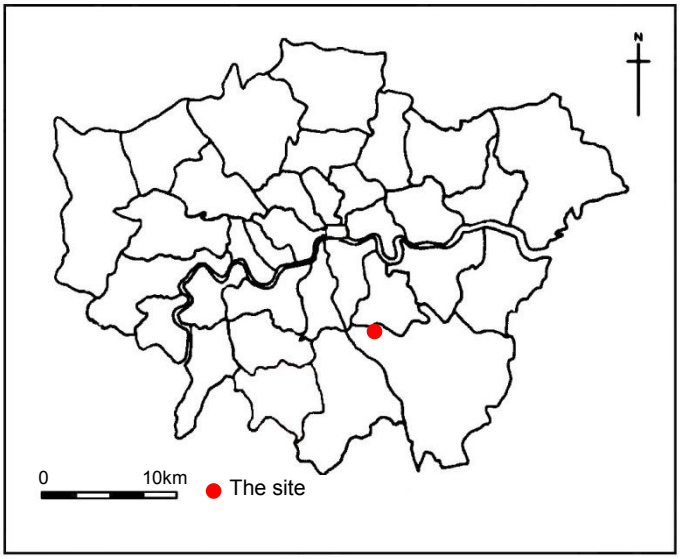


Figure 1. Location plan showing the site outlined red (not to scale)(copyright: Ian Ritchie Architects).

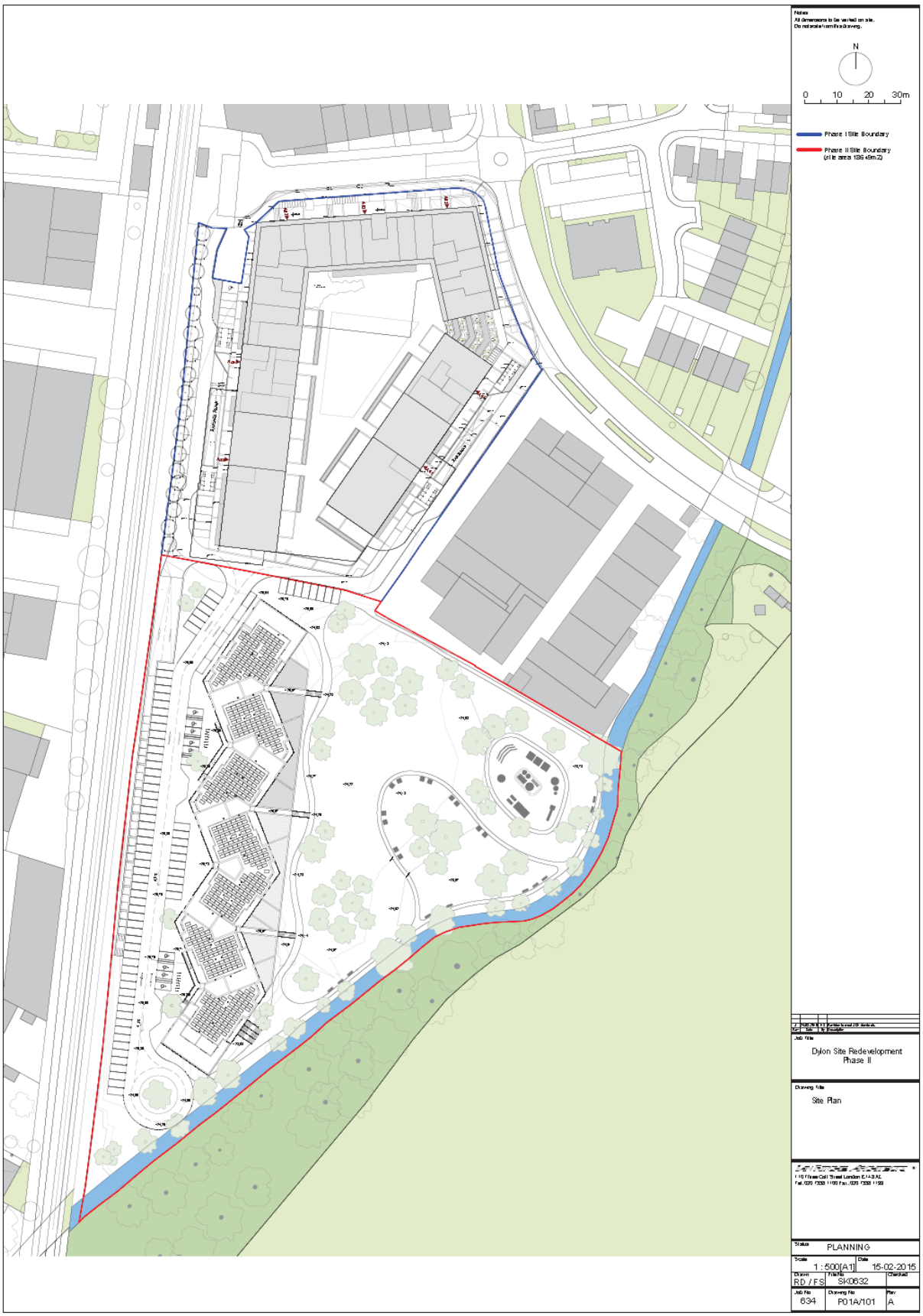
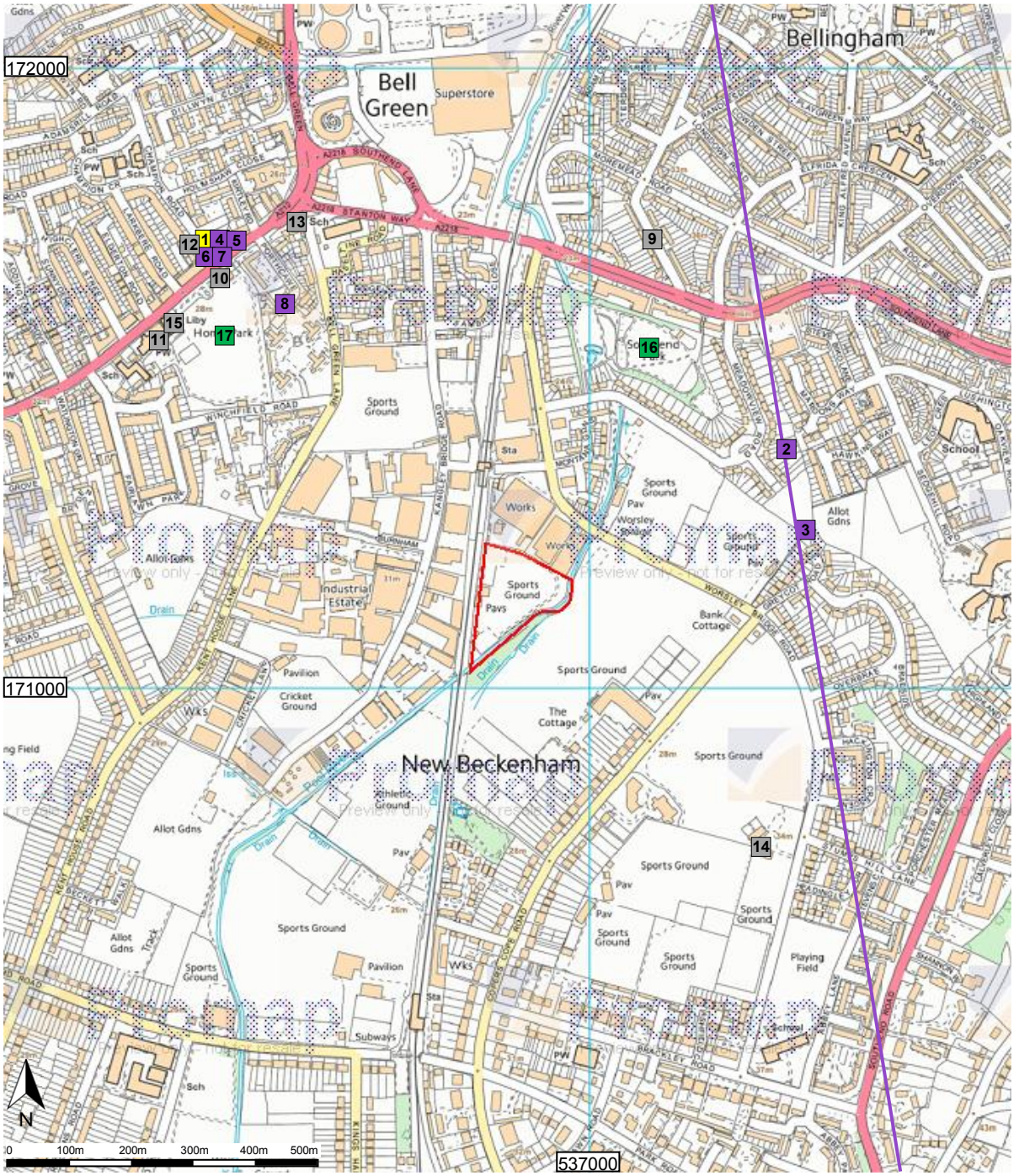


Figure 2. Proposed site layout, outlined red (not to scale)(copyright: Ian Ritchie Architects).



Key:

Site

Find spots, numbers 1

Feature, numbers 2 – 8

Alignment of the London to Lewes Roman Road

Local building/structure, numbers 9 – 15

Locally registered parks and gardens, numbers 16 – 17

Figure 3. Archaeological entries held on Historic England's Historic Environment Record (© Historic England [2015] © Crown Copyright and database right [2015]. All rights reserved. Ordnance Survey Licence number 100024900).

No.	HER no.	Address	OS Grid Ref	Period	Heritage Asset	Description
1	MLO59877	Sydenham Children's Hospital, Sydenham Road, SE26	TQ 36400 71700	Post-Medieval	Find spot	Large fragments of pottery including sugar moulds, flower pots and chimneys found in a 19th Century drain.
2	MLO2015	Meadow Close, SE6	TQ 37320 71380	Roman	Feature	Part of the London to Lewes Roman Road buried under 14 inches of soil, gravel metalling on pebbles and flint with little camber.
3	MLO19469	Beckenham	TQ 37350 71250	Roman	Feature	Part of the 2nd Century London to Lewis Roman Road cutting across Bromley which forms the boundary with Croydon.
4	MLO59870	Sydenham Children's Hospital, Sydenham Road, SE26	TQ 36400 71700	Post-Medieval	Feature	Trackway found during an evaluation by SELAU in 1991.
5	MLO59873	Sydenham Children's Hospital, Sydenham Road, SE26	TQ 36400 71700	Post-Medieval	Feature	Gullies containing 18th Century material were found during an evaluation by SELAU in 1991.
6	MLO59875	Sydenham Children's Hospital, Sydenham Road, SE26	TQ 36400 71700	Post-Medieval	Feature	Late 18th Century drain containing animals horncore was found during an evaluation by SELAU in 1991.
7	MLO59881	Sydenham Children's Hospital, Sydenham Road, SE26	TQ 36400 71700	Post-Medieval	Feature	19th Century pits were found during an evaluation by SELAU in 1991.
8	MLO66796	Kangley Bridge Road, SE26	TQ 36500 71600	Unknown	Feature	Old ploughsoil recorded during an evaluation by SELAU in 1995.
9	MLO24359	Firhill Road near junction with Southend Lane, SE6	TQ 37110 71710	Post-Medieval	Building	Pre-1837 house demolished 1925.
10	MLO25560	Sydenham Road, SE26	TQ 36390 71630	Post-Medieval	Building	Large pre-1750 house demolished in 1901.
11	MLO4630	Site of Church of Our Lady and St Philip Neri, Sydenham Road, SE26	TQ 36300 71560	Post-Medieval	Building	Pre-1860 large weather-boarded house demolished in 1929.
12	MLO59868	Sydenham Children's Hospital, Sydenham Road, SE26	TQ 36400 71700	Post-Medieval	Building	18th Century brick building found during an evaluation by SELAU in 1991.
13	MLO63466	The Brewery Tap, 6-8 Bell Green Lane, SE26	TQ 36520 71740	Post-Medieval	Building	Remains of the former 19th Century public house were found during an evaluation by MoLAS in 1993.
14	MLO106568	Kent County Cricket Club, Worsley Bridge Road, BR3	TQ 37296 70733	Post-Medieval	Building	Remains of the footings of a 20th Century sports pavilion were found during an evaluation by Archaeology South East in 2013.
15	MLO103558	Lower Sydenham Library, Sydenham Road, SE26	TQ 36323 71587	Post-Medieval	Building	Library opened in 1904 is one of the five Carnegie Libraries built in Lewisham.
16	MLO104331	Southend Park, Southend, SE6	TQ 37079 71544	Modern	Locally registered park and garden	The area was open land prior to development in the 1950s through which the River Pool meandered.
17	MLO104301	Home Park, Sydenham Road, SE26	TQ 36403 71544	Modern	Locally registered park and garden	Acquired by Lewisham Borough Council in 1900 and opened as a recreation ground in 1901.

Table 3. Archaeological entries held on Historic England's Historic Environment Record (© Historic England [2015] © Crown Copyright and database right [2015]. All rights reserved. Ordnance Survey Licence number 100024900).

Figure 4. Christopher Saxton's map of Kent, Surrey, Sussex and Middlesex, 1575 (not to scale).

Figure 5. John Speed's map of 1611 (not to scale).

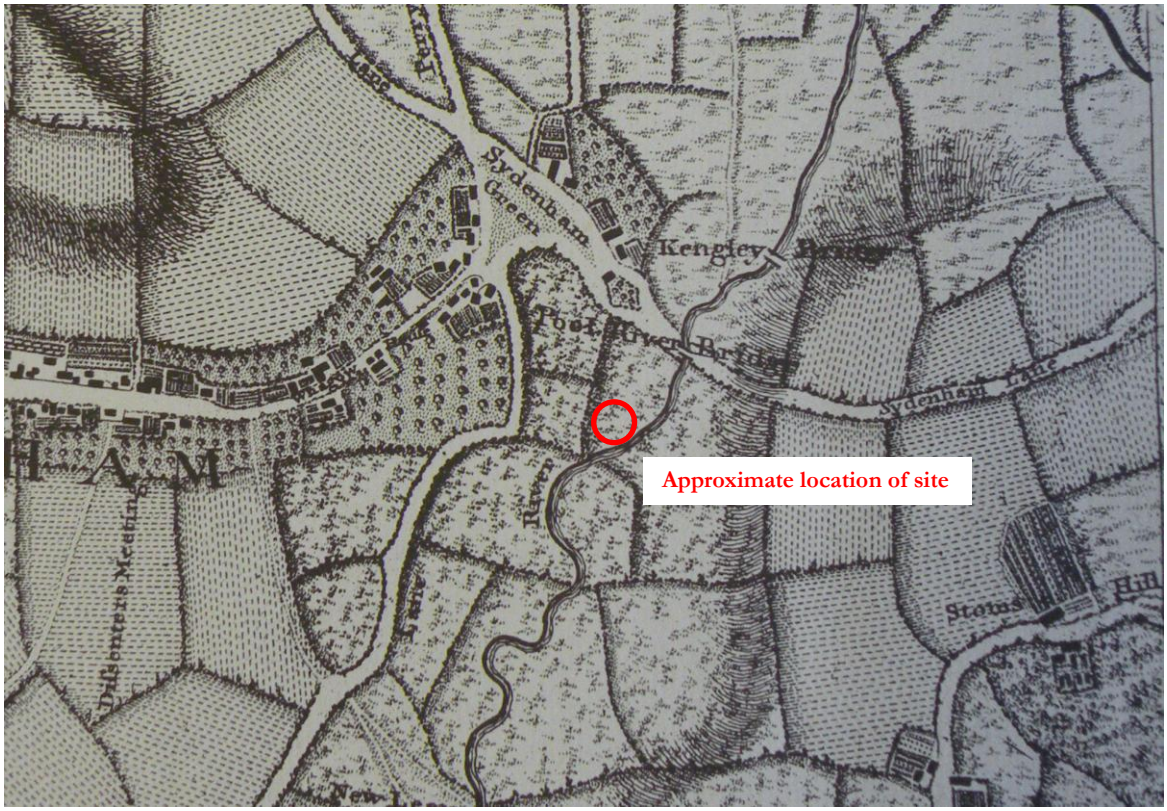


Figure 6. John Roque's map of 1746 (not to scale).

Figure 7. Andrew, Dury and Herbert's map of Kent, 1769 (not to scale).

Figure 8. OS 1 inch to 3 mile map of 1798-9 (not to scale).

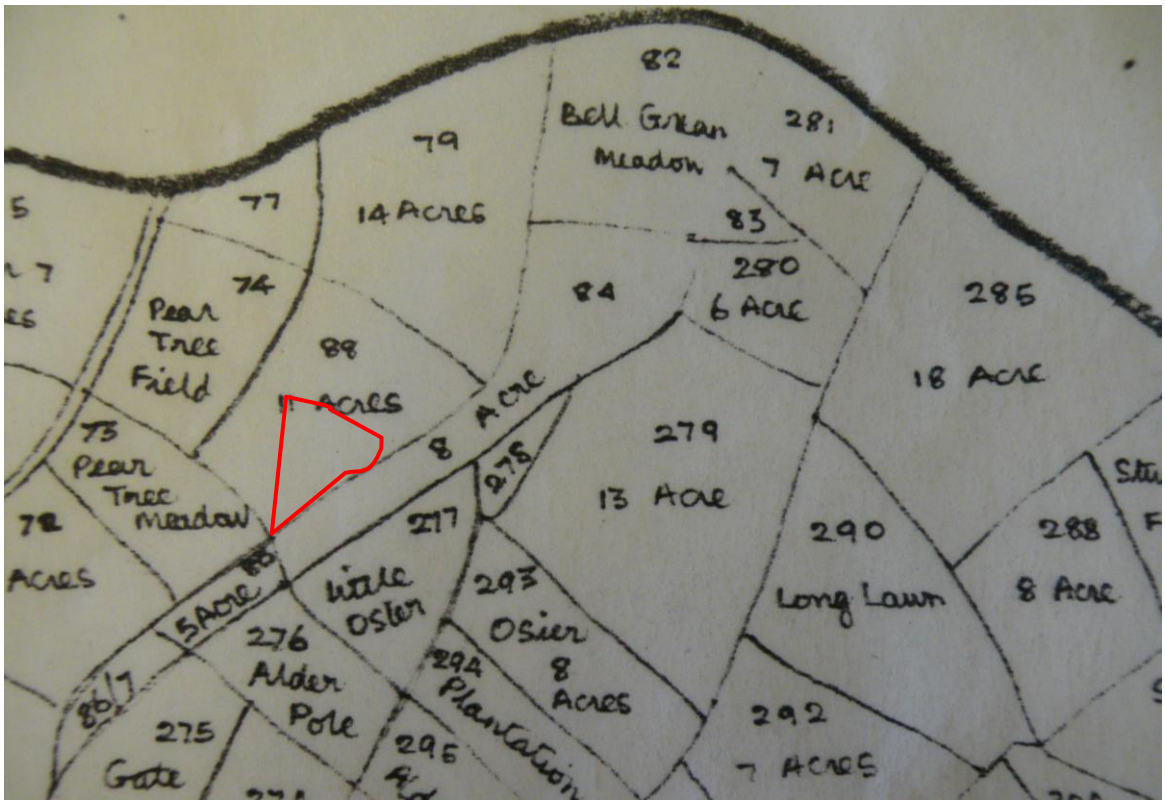


Figure 9. Tithe Map of 1838, drawn at a scale of 3 chains to 1 inch (not to scale).

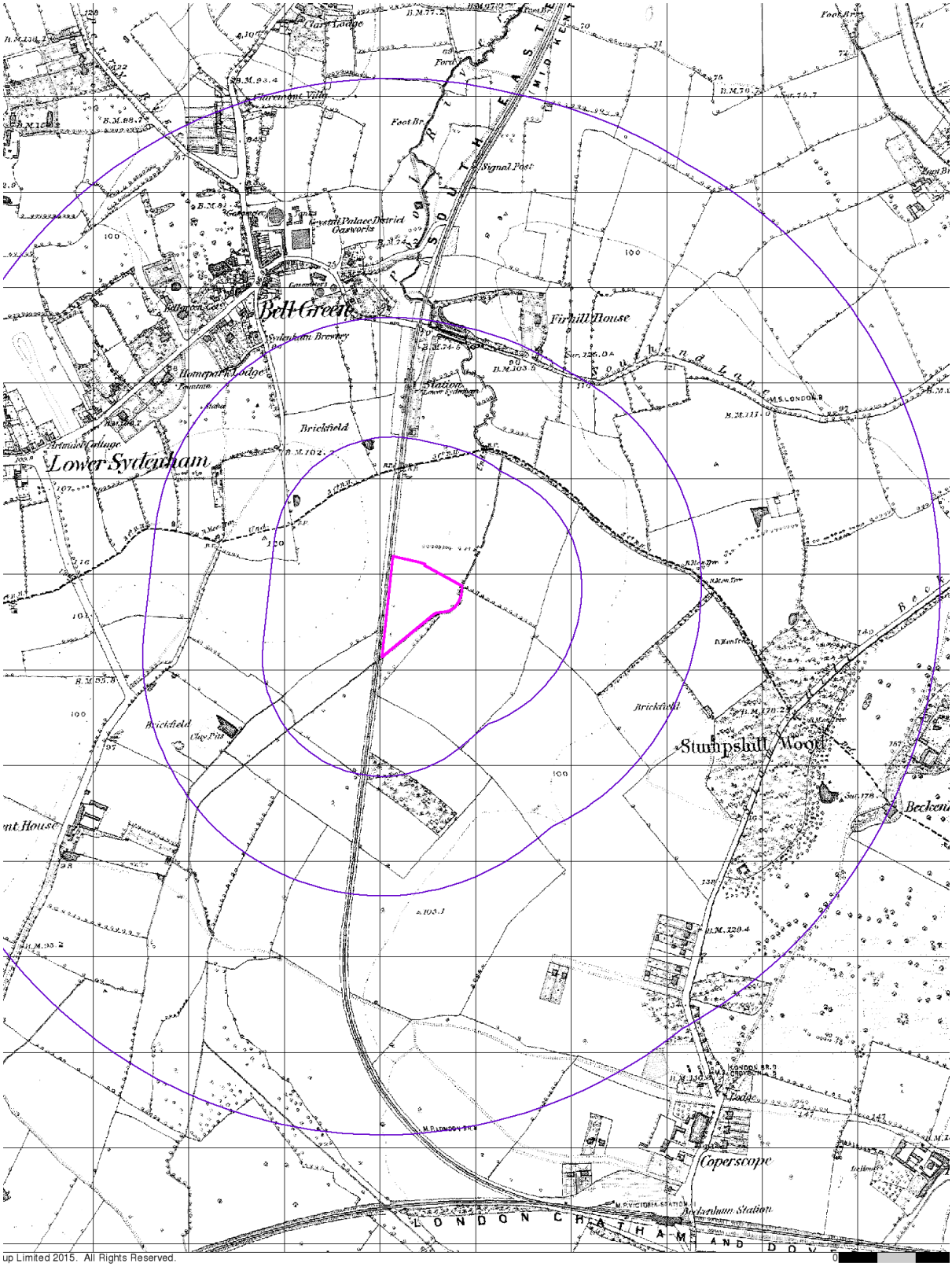


Figure 10. OS 1:10,560 map of 1870 (not to scale).

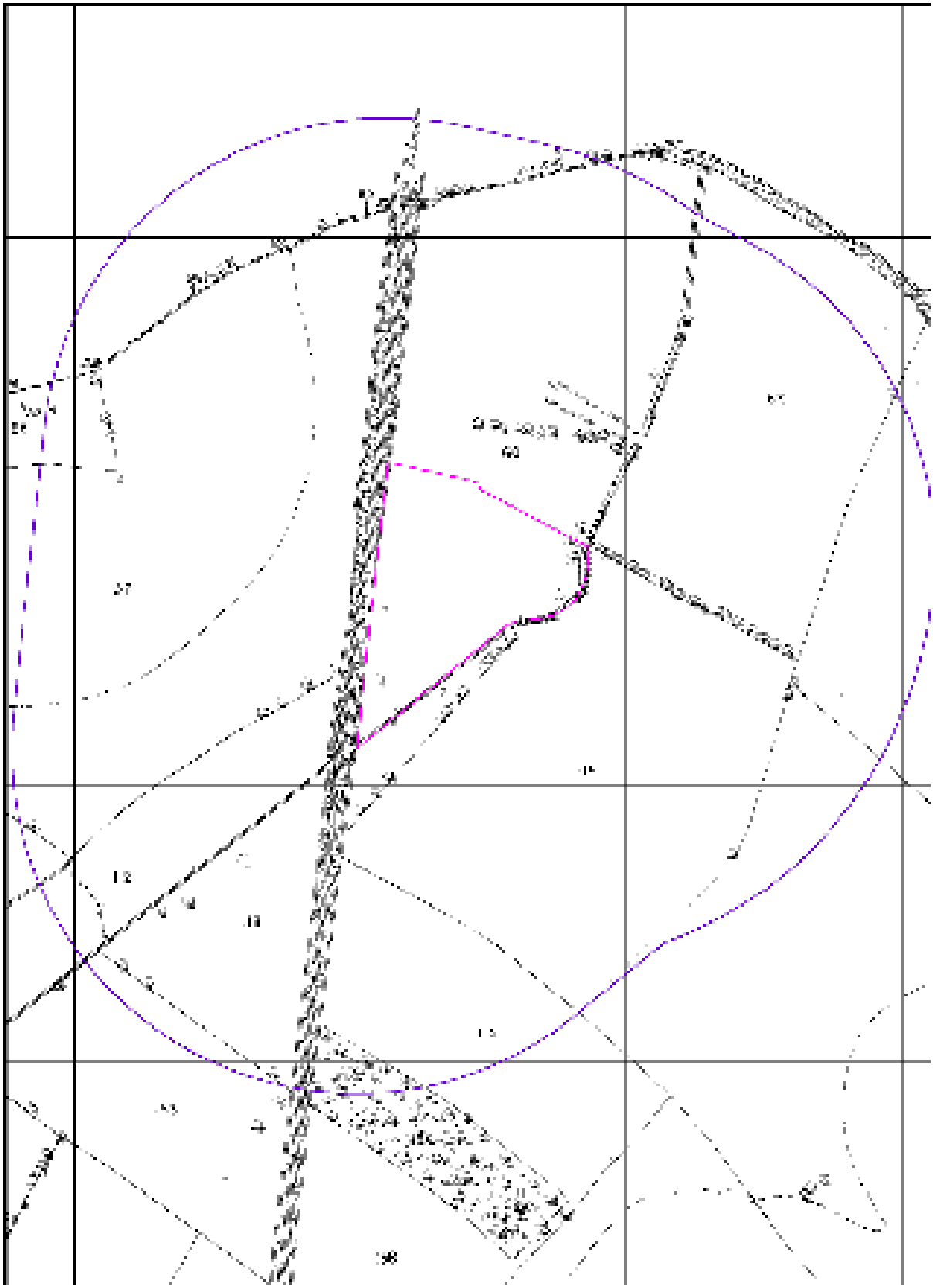


Figure 11. OS 1:2500 map of 1895 (not to scale).

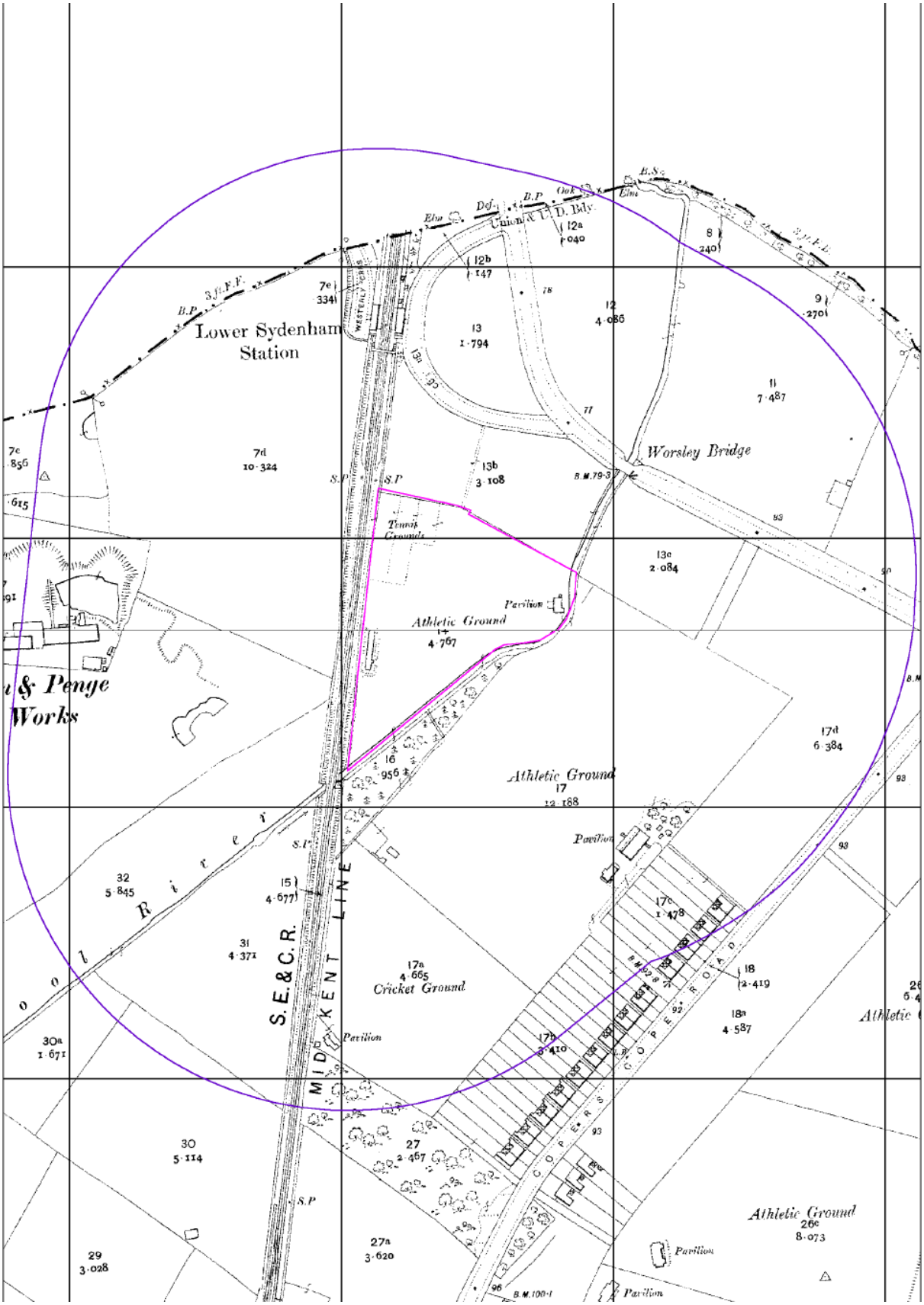


Figure 12. OS 1:2500 map of 1912 (not to scale).

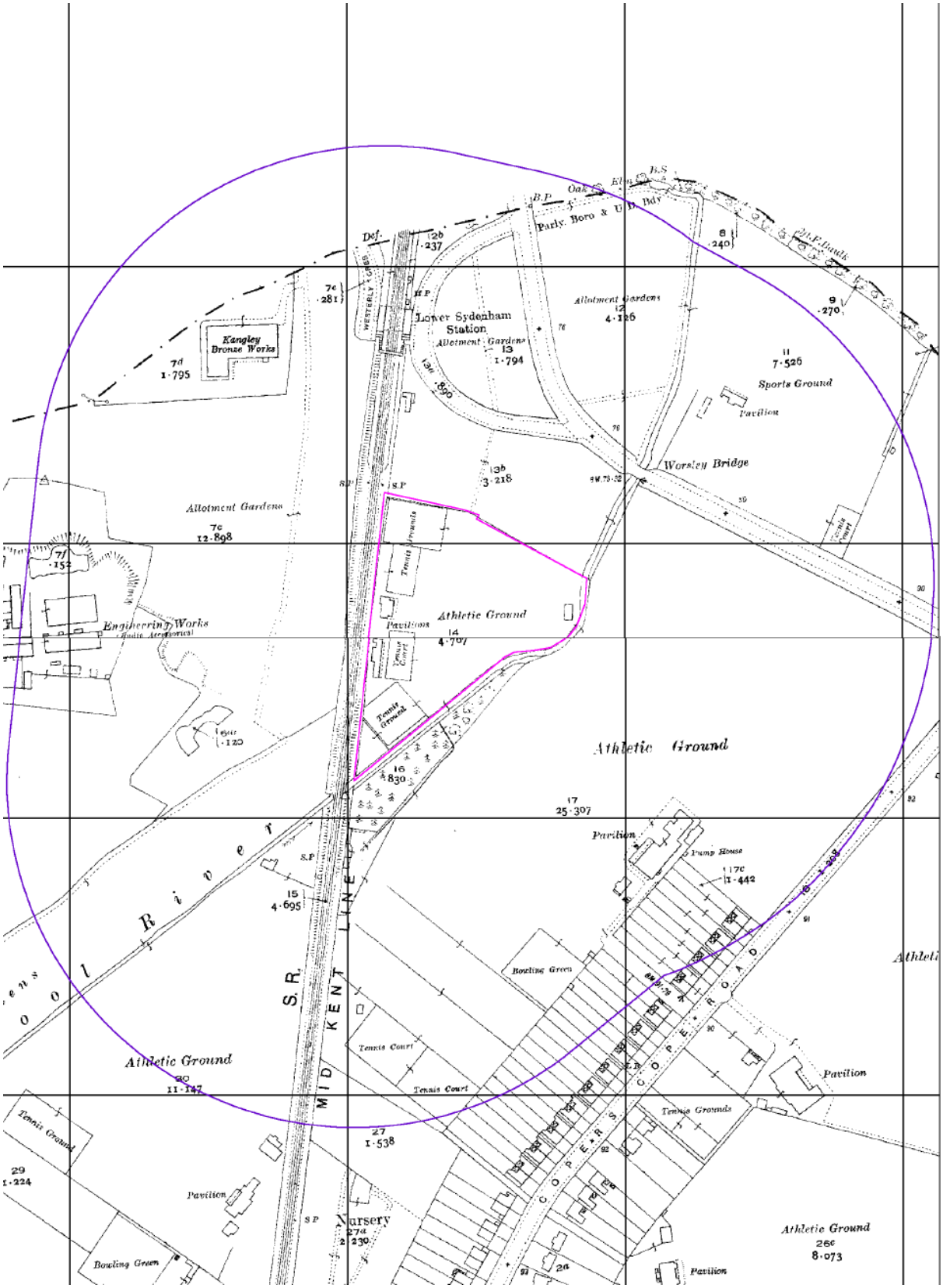


Figure 13. OS 1:2500 map of 1933 (not to scale).

Figure 14. OS 1:2500 aerial photograph of 1947-49 (not to scale).

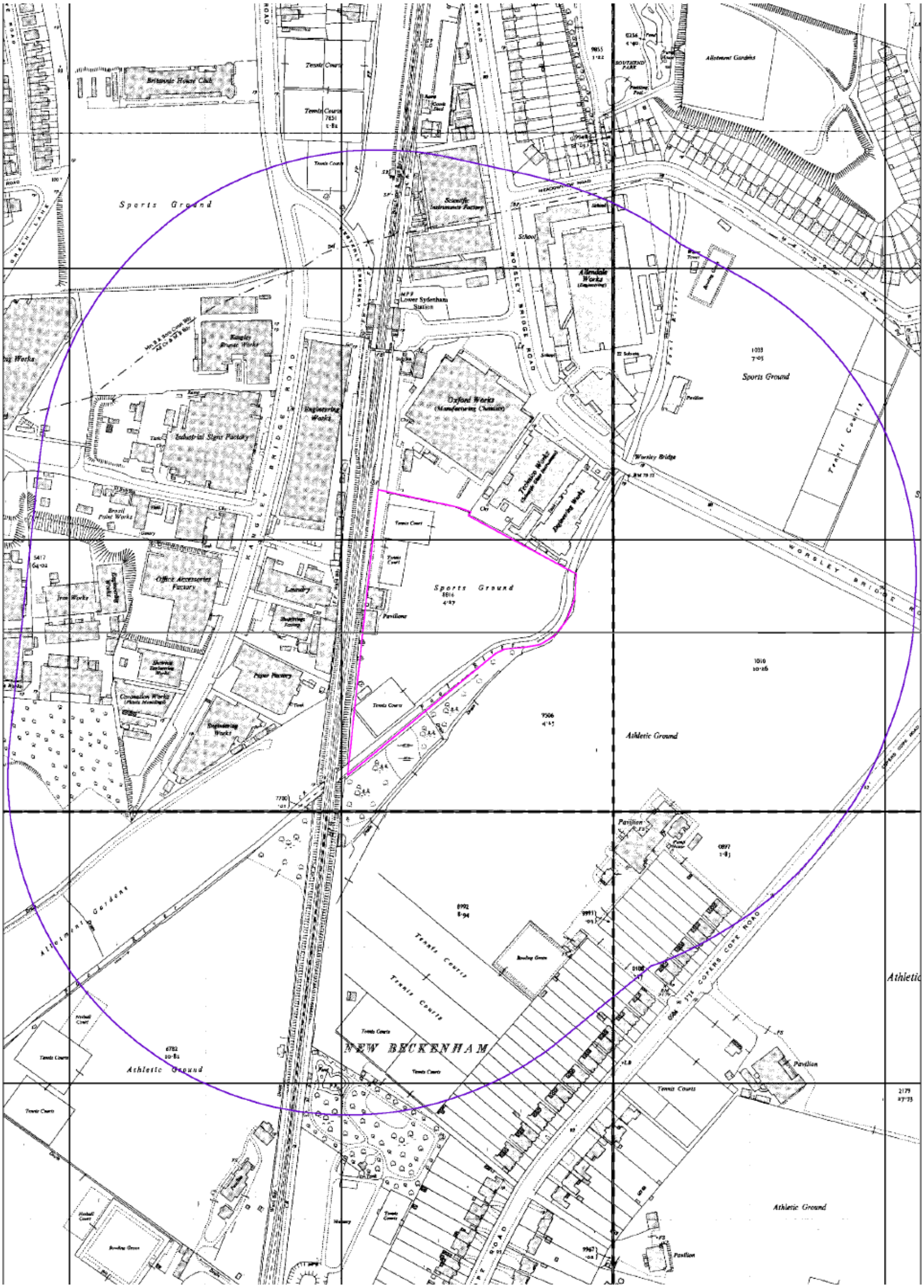


Figure 15. OS 1:2500 map of 1953 (not to scale).

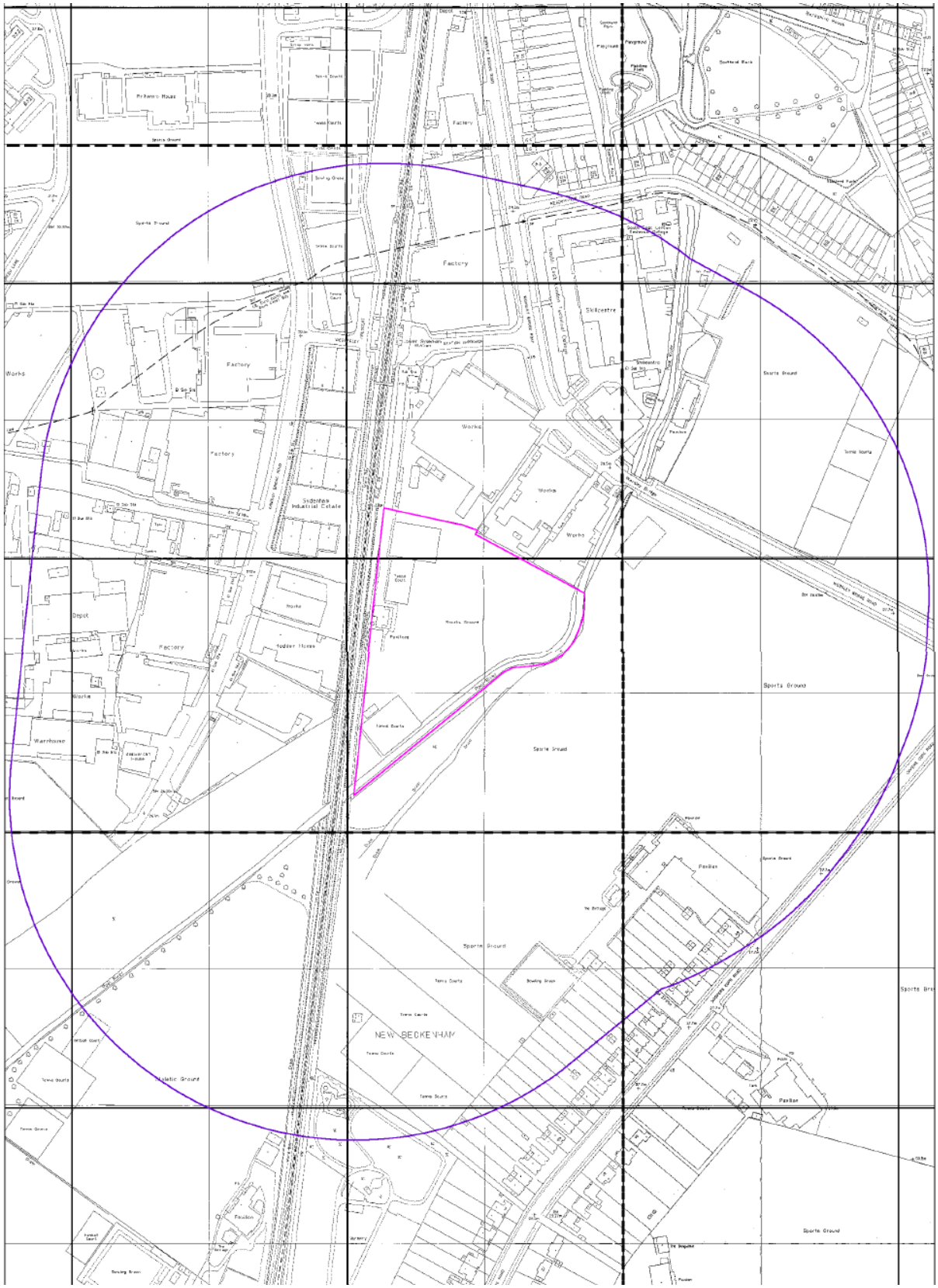


Figure 16. OS 1:1250 map of 1991 (not to scale).

Plate 1. View of the site looking north.

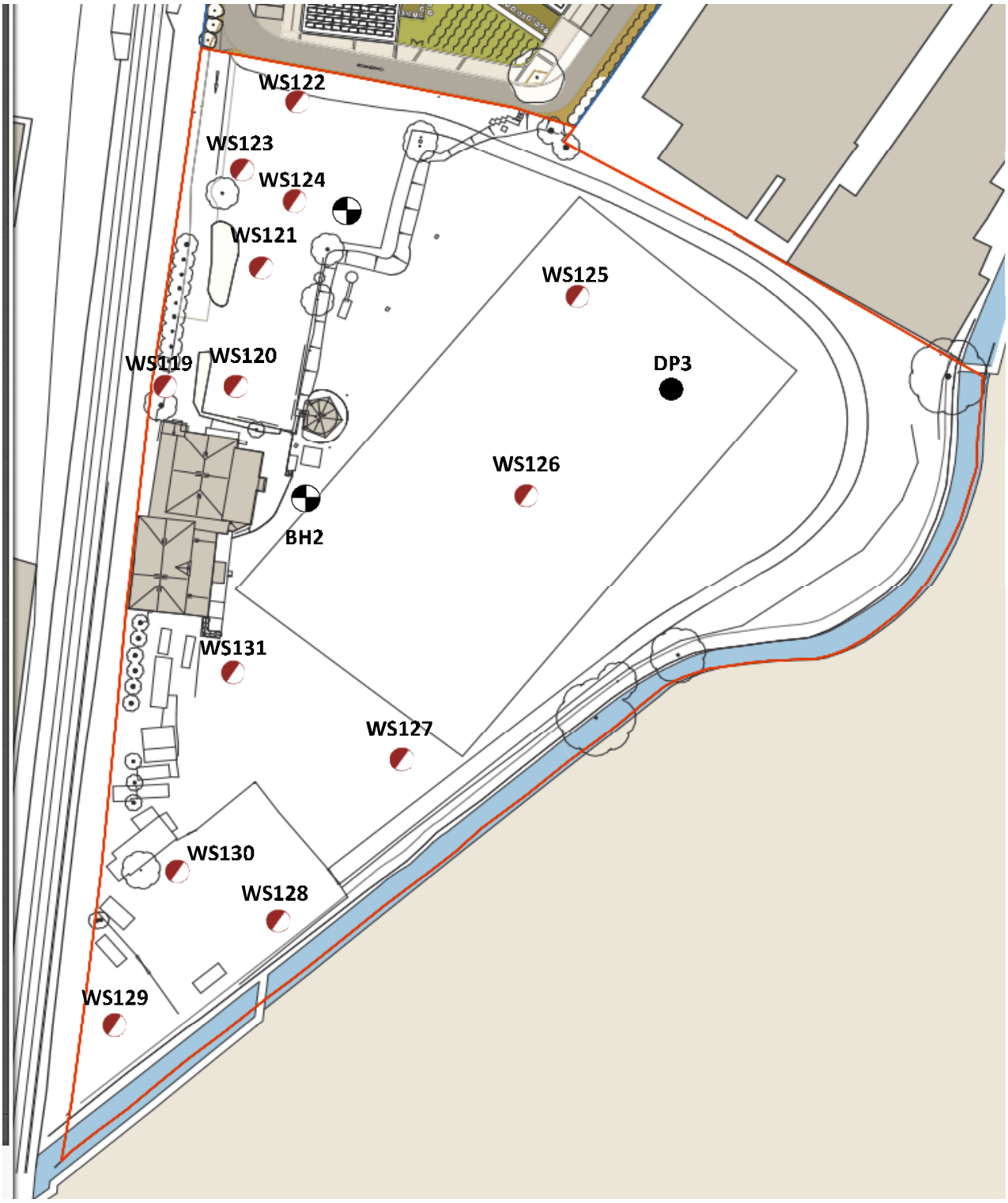
Plate 2. View of the site looking east.

Plate 3. View of the site looking south west.

Plate 4. View of the site looking west.

APPENDIX 1. Location of boreholes and borehole logs prepared by Geosphere Environmental Ltd.

geosphere environmental ltd Investigate design resolve



LEGEND:

Site Boundary

Shell and Auger Boreholes

Windowless Sampler Boreholes

Dynamic Probe Holes

N

geosphere environmental ltd
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T 01603 298 076 F 01603 289 075
E info@geosphere-environmental.co.uk

SITE	TITLE	REPORT NO.	DRAWING NO.	DATE
Former Dylon Works, Worseley Bridge Road, Lower Sydenham, London (Phase 2)	Exploratory Hole Location Plan	827,GI – PHASE 2	004 / Rev 0	04 August 2014
	CLIENT	**DRAWN BY**	**CHECKED**	**SCALE**
	Relta Ltd	SG	AD	Not to scale

CLIENT: Hill Partnerships Ltd	PROJECT: Former Dylon Works, Lower Sydenham (Phase 2)	GROUND LEVEL	HOLE No. BH5
LOGGED BY: LF FIELDWORK BY: JACKSON TEMPLATE REF: GEL AGS BH BETA	CHECKED BY: DATE:	EXCAVATION METHOD: Cable Percussion (shell and auger) Uncased to 25.5 m	COORDINATES E N DATES 10/06/2014 - 11/06/2014	SHEET 1 OF 3 PROJECT NO. 827,GI

Date/Time and Depth	Depth of Casing	Depth* of Water	Piez.	Description of Strata	Strata Leg	Strata Reduced Level	Strata Depth	Graphical Representation SPT 'N' Value (0 10 20 30 40)	Sampling/In-Situ Testing Depths	Type	No.	Blows	SPT N	Laboratory Testing <425 %	W/C %	PL %	LL %	ρ Mg/m³	Cu kN/m²	Additional Tests and Notes
10/06 08:00	0.00	Dry		ASPHALT			0.00		0											Hand pit from GL to 1.2m
				MADEGROUND (Black brown sandy fine to coarse gravel. Gravel of angular to subrounded			0.20		0.20-0.60	B	1									
				MADEGROUND (Soft to firm brown slightly gravelly CLAY. Gravel of fine to coarse subrounded to angular asphalt, brick and flint			0.60		0.60-1.00	B	2									
									1											
									1.20	D	3	2 2	11							
									1.20-1.70	B S	4	3 2 3 3								
				Firm brown/grey mottled slightly sandy CLAY (LONDON CLAY FORMATION)			1.70		1.70	D	5									
									2											
									2.00	U	6	(18)								
									2.00-2.50	B	7									
				3.00 - gypsum crystals with depth					3											
									3.00	D	8	2 3	12							
									3.00-3.50	B S	9	3 3 3 3								
									4											
									4.00	U	10	(27)								
									4.70	D	11									
				Stiff grey CLAY (LONDON CLAY FORMATION)			5.00		5											50mm diameter standpipe installed to 5.0m
									5.00	D	12	2 3	16							
									5.00-5.50	B S	13	3 4 4 5								
									6											
									6.00	U	14	(23)								
									6.70	D	15									
									7											
									7.00	D	16									
									7.50	D S	17	3 4 4 5 5 5	19							
10/06 17:00 11/06 08:00	3.00 3.00	Dry Dry							8											
									8.00	D	18									
									8.50	D	19									
									9											
									9.00	U	20	(31)								
									9.70	D	21									
									10											
									10.00	D	22									

*WATER: Standing water level; Water strikes

PIEZOMETER: Upper seal; Response zone; Lower seal

SAMPLE AND TEST KEY:
- D Small disturbed sample
- B Bulk disturbed sample
- U Undisturbed sample
- P Piston sample
- J Disturbed jar sample
- ES Environmental soil sample
- W Water Sample
- S Standard penetration test
- C Cone penetration test
- K Permeability test

Blows: SPT blows for each 75mm increment (35) Undisturbed sample blow count

SPT N: N = SPT N value (blows after seating); N*120 = Total blows/penetration including seating

<425: Sample % passing 425 micron sieve

DEPTH All depths, level and thicknesses in metres

Geosphere Environmental Ltd
Brightwell Barns, Ipswich Road,
Brightwell, Suffolk, IP10 0BJ
Telephone: 01603 298 076
Fax: 01603 298 075

HOLE No. BH5 | SHEET 1 OF 3 | PROJECT No. 827,GI

GEL AGS BH BETA 827,GI - BH, WS, DP LOGS, SYDENHAM, 09-07-14 (PHASE 2).GPJ GINT STD AGS 3 1.GDT 4/8/14

CLIENT: Hill Partnerships Ltd	PROJECT: Former Dylon Works, Lower Sydenham (Phase 2)	GROUND LEVEL	HOLE No. BH5
LOGGED BY: LF FIELDWORK BY: JACKSON TEMPLATE REF: GEL AGS BH BETA CHECKED BY: DATE:	EXCAVATION METHOD: Cable Percussion (shell and auger) Uncased to 25.5 m	COORDINATES E N DATES 10/06/2014 - 11/06/2014	SHEET 2 OF 3 PROJECT NO. 827,GI

Date/Time and Depth	Depth of Casing	Depth* of Water	Piez.	Description of Strata	Strata: Leg	Strata: Reduced Level	Strata: Depth	Graphical Representation: SPT 'N' Value (0 10 20 30 40)	Sampling/In-Situ Testing: Depths	Type	No.	Blows	SPT N	Laboratory Testing: <425 %	W/C %	PL %	LL %	ρ Mg/m³	Cu kN/m²	Additional Tests and Notes
				Stiff grey CLAY (LONDON CLAY FORMATION) *(continued)*					10.50	D S	23	4 5 5 6 7 7	25							
									11.00	D	24									
									11.50	D	25									
									12.00	U	26	(32)			30			2.02	78	Triaxial
									12.70	D	27									
									13.00	D	28									
									13.50	D S	29	4 6 7 8 8 7	30							
									14.00	D	30									
									14.50	D	31									
									15.00	U	32	(32)								
11/06 17:00 ~ 20 mins	8.00	15.70 20.30		Stiff grey CLAY with fine to coarse subrounded to rounded black flint pebbles (WOOLWICH FORMATION)			15.70		15.70	D	33									Inflow of water at 15.7m
				Grey fine to coarse SAND (WOOLWICH FORMATION)			16.00		16.00	D	34									
								69	16.50	D D C	35 36	8 11 12 14 20 4	69*							
									17.00	D	37									
									17.50	D	38									
									18.00	D S	39	7 8 9 12 13 16	50*							
									18.50	D	40									
								67	19.00	D	41									
									19.50	D S	42	8 9 13 17 20	67*							
									20.00	D	43									
								73	20.50	D	44									

*WATER: Standing water level; Water strikes

PIEZOMETER: Upper seal; Response zone; Lower seal

SAMPLE AND TEST KEY

- D Small disturbed sample
- B Bulk disturbed sample
- U Undisturbed sample
- P Piston sample
- J Disturbed jar sample
- ES Environmental soil sample
- W Water Sample
- S Standard penetration test
- C Cone penetration test
- K Permeability test

Blows: SPT blows for each 75mm increment; (35) Undisturbed sample blow count

SPT N: N = SPT N value (blows after seating); N*120 = Total blows/penetration including seating

<425: Sample % passing 425 micron sieve

DEPTH: All depths, level and thicknesses in metres

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Fax: 01603 298 075

GEL AGS BH BETA 827,GI - BH, WS, DP LOGS, SYDENHAM, 09-07-14 (PHASE 2).GPJ GINT STD AGS 3_1.GDT 4/8/14

CLIENT: Hill Partnerships Ltd	PROJECT: Former Dylon Works, Lower Sydenham (Phase 2)	GROUND LEVEL	HOLE No. BH5
LOGGED BY: LF FIELDWORK BY: JACKSON TEMPLATE REF: GEL AGS BH BETA	CHECKED BY: DATE:	EXCAVATION METHOD: Cable Percussion (shell and auger) Uncased to 25.5 m	COORDINATES E N DATES 10/06/2014 - 11/06/2014	SHEET 3 OF 3 PROJECT NO. 827,GI

Date/Time and Depth	Depth of Casing	Depth* of Water	Piez.	Description of Strata	Strata: Leg	Strata: Reduced Level	Strata: Depth	Graphical Representation: SPT 'N' Value (0 10 20 30 40)	Sampling/In-Situ Testing: Depths	Type	No.	Blows	SPT N	Laboratory Testing: <425 %	W/C %	PL %	LL %	ρ Mg/m³	Cu kN/m²	Additional Tests and Notes
11/06 17:00	21.00	22.00		Grey fine to coarse SAND (WOOLWICH FORMATION) *(continued)*					21.00	S	45	10 13 16 17 17	73*							
				21.50 - frequent shell fragments and clay pockets below 21.5m					21.50	D	46									
								75		S		10 15 17 20 13	75*							
								75		S		12 13 19 26 5	75*							
							25.50	75		S		14 11 16 18 16	75*							Borehole completed at 25.5m

*WATER ▼ Standing water level; ▽ Water strikes

PIEZOMETER: Upper seal; Response zone; Lower seal

SAMPLE AND TEST KEY

- D Small disturbed sample
- B Bulk disturbed sample
- U Undisturbed sample
- P Piston sample
- J Disturbed jar sample
- ES Environmental soil sample
- W Water Sample
- S Standard penetration test
- C Cone penetration test
- K Permeability test

Blows: SPT blows for each 75mm increment (35) Undisturbed sample blow count

SPT N: N = SPT N value (blows after seating) N*120 = Total blows/penetration including seating

<425: Sample % passing 425 micron sieve

DEPTH All depths, level and thicknesses in metres

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PROJECT No. 827,GI | SHEET 3 OF 3 | HOLE No. BH5

CLIENT: Hill Partnerships Ltd	PROJECT: Former Dylon Works, Lower Sydenham (Phase 2)	GROUND LEVEL	HOLE No. BH6
LOGGED BY: LF FIELDWORK BY: JACKSON TEMPLATE REF: GEL AGS BH BETA	CHECKED BY: DATE:	EXCAVATION METHOD: Cable Percussion (shell and auger) Uncased to 15.5 m	COORDINATES E N DATES 19/06/2014 - 18/06/2014	SHEET 1 OF 2 PROJECT NO. 827,GI

Date/Time and Depth	Depth of Casing	Depth* of Water	Piez.	Description of Strata	Strata Leg	Reduced Level	Depth	Sampling/In-Situ Testing Depths	Type	No.	Blows	SPT N	Laboratory Testing <425 %	W/C %	PL %	LL %	ρ Mg/m³	Cu kN/m²	Additional Tests and Notes
11/06 08:00	0.00	Dry		TOPSOIL (Gravelly. Gravel of fine to coarse angular to subangular brick and flint)			0.00	0.00-0.60	B	1									Hand pit from GL to 1.2m
				MADEGROUND (Soft brown gravelly, slightly sandy clay. Gravel of fine to coarse angular to subangular brick and flint)			0.60	0.60-1.00	B	2									
18/06 08:00 20 mins	0.00	1.20 0.90						1.20	D	3	1 1	8							Inflow of water at 1.2m
								1.20-1.70	B S	4	2 2 2 2								
								2.00	U	5	(20)								
				Firm brown/grey mottled slightly sandy CLAY (ALLUVIUM)			2.60 2.80	2.60	D	6			0	23	19	40			Sulphate, pH, moisture content and atterberg limit
								2.80	D	7									
				Very soft brown/grey mottled very gravelly CLAY. Gravel of fine to medium subangular to subrounded flint (ALLUVIUM)				3.00	D	8	5 6	32							
								3.00-3.50	B C	9	7 8 8 9								
18/06 17:00 20 mins	3.00	4.00 2.50						4.00	U	10	(22)		0	34	29	68	1.88	59	Inflow of water at 4m
				Fine to coarse subrounded to angular GRAVEL (ALLUVIUM)			4.10	4.10-5.00	B	11									Moisture content, atterberg limit and triaxial
				Firm to stiff grey silty CLAY (LONDON CLAY FORMATION)			5.00	5.00	D	12	4 3	15							50mm diameter standpipe installed to 5.0m
								5.00-5.50	B S	13	3 4 4 4								
								6.00	U	14	(24)								
								6.00-6.50	B	15									
								7.00	D	16									
								7.50	D S	17	4 5 5 6 7 7	25							
								8.00	D	18									
								8.50	D	19									
								9.00	U	20	(30)		0	30	28	77	1.96	74	Moisture content, atterberg limit and triaxial
								9.20-9.70	B	21									
11/06 17:00	9.00	7.00						10.00	D	22									

*WATER: Standing water level; Water strikes

PIEZOMETER: Upper seal; Response zone; Lower seal

SAMPLE AND TEST KEY:
- D Small disturbed sample
- B Bulk disturbed sample
- U Undisturbed sample
- P Piston sample
- J Disturbed jar sample
- ES Environmental soil sample
- W Water Sample
- S Standard penetration test
- C Cone penetration test
- K Permeability test

Blows: SPT blows for each 75mm increment (35) Undisturbed sample blow count

SPT N: N = SPT N value (blows after seating) N*120 = Total blows/penetration including seating

<425: Sample % passing 425 micron sieve

DEPTH All depths, level and thicknesses in metres

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PROJECT No. 827,GI | SHEET 1 OF 2 | HOLE No. BH6

GEL AGS BH BETA 827,GI - BH, WS, DP LOGS, SYDENHAM, 09-07-14 (PHASE 2).GPJ GINT STD AGS 3 1.GDT 4/8/14

CLIENT: Hill Partnerships Ltd	PROJECT: Former Dylon Works, Lower Sydenham (Phase 2)	GROUND LEVEL	HOLE No. BH6
LOGGED BY: LF FIELDWORK BY: JACKSON TEMPLATE REF: GEL AGS BH BETA	CHECKED BY: DATE:	EXCAVATION METHOD: Cable Percussion (shell and auger) Uncased to 15.5 m	COORDINATES E N DATES 19/06/2014 - 18/06/2014	SHEET 2 OF 2 PROJECT NO. 827,GI

Date/Time and Depth	Depth of Casing	Depth* of Water	Piez.	Description of Strata	Strata: Leg	Strata: Reduced Level	Strata: Depth	Graphical Representation: SPT 'N' Value (0 10 20 30 40)	Sampling/In-Situ Testing: Depths	Type	No.	Blows	SPT N	<425 %	W/C %	PL %	LL %	ρ Mg/m³	Cu kN/m²	Additional Tests and Notes
				Firm to stiff grey silty CLAY (LONDON CLAY FORMATION) *(continued)*					10.50	D S	23	4 5 6 8 8 8	30							
									11.00	D	24									
									11.50	D	25									
									12.00 12.10- 12.70	U B	26 27	(26)								
									13.00	D	28									
									13.50	D S	29	5 6 7 8 8 8	31							
									14.00	D	30									
									14.50	D	31									
				Black GRAVEL. Gravel of fine to coarse rounded to subrounded flint (WOOLWICH FORMATION)			15.00 15.45		15.00	D D C	32 33	7 8 9 9 10 13	41							Borehole completed at 15.45m

*WATER: Standing water level; Water strikes

PIEZOMETER: Upper seal; Response zone; Lower seal

SAMPLE AND TEST KEY:
- D Small disturbed sample
- B Bulk disturbed sample
- U Undisturbed sample
- P Piston sample
- J Disturbed jar sample
- ES Environmental soil sample
- W Water Sample
- S Standard penetration test
- C Cone penetration test
- K Permeability test

Blows: SPT blows for each 75mm increment (35) Undisturbed sample blow count

SPT N: N = SPT N value (blows after seating) N*120 = Total blows/penetration including seating

<425: Sample % passing 425 micron sieve

DEPTH: All depths, level and thicknesses in metres

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PROJECT No. 827,GI | SHEET 2 OF 2 | HOLE No. BH6

CLIENT: Hill Partnerships Ltd	PROJECT: Former Dylon Works, Lower Sydenham (Phase 2)	GROUND LEVEL	HOLE No. WS119
LOGGED BY: SG FIELDWORK BY: GEL TEMPLATE REF: GEL AGS BH BETA	CHECKED BY: DATE:	EXCAVATION METHOD: Windowless sampler Uncased to 2.0 m	COORDINATES E N DATES 12/06/2014 - 12/06/2014	SHEET 1 OF 1 PROJECT NO. 827,GI

Date/Time and Depth	Depth of Casing	Depth* of Water	Piez.	Description of Strata	Strata: Leg	Strata: Reduced Level	Strata: Depth	Graphical Representation: SPT 'N' Value (0 10 20 30 40)	Sampling/In-Situ Testing: Depths	Type	No.	Blows	SPT N	Laboratory Testing: <425 %	W/C %	PL %	LL %	ρ Mg/m³	Cu kN/m²	Additional Tests and Notes
				TOPSOIL (Dark grey/brown desiccated sandy clay with occasional rootlets and frequent gravel of asphalt)			0.00		0											No groundwater encountered during drilling Generic testing No collapse during drilling
				Firm becoming stiff dark yellow brown slightly sandy CLAY (LONDON CLAY FORMATION) 0.20 - 0.80 - dessicated with occasional roots 0.80 - occasional black speckling below 0.8m			0.20		0.10	J	1									
									0.50	J	2									
									1											
									1.20	J	3									
							2.00		2											Windowless sample hole completed at 2.0m
									3											
									4											
									5											
									6											

*WATER ▼ Standing water level; ▽ Water strikes

PIEZOMETER: Upper seal; Response zone; Lower seal

SAMPLE AND TEST KEY
- D Small disturbed sample
- B Bulk disturbed sample
- U Undisturbed sample
- P Piston sample
- J Disturbed jar sample
- ES Environmental soil sample
- W Water Sample
- S Standard penetration test
- C Cone penetration test
- K Permeability test

Blows: SPT blows for each 75mm increment (35) Undisturbed sample blow count

SPT N: N = SPT N value (blows after seating); N*120 = Total blows/penetration including seating

<425: Sample % passing 425 micron sieve

DEPTH All depths, level and thicknesses in metres

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HOLE No. WS119 | SHEET 1 OF 1 | PROJECT No. 827,GI

CLIENT: Hill Partnerships Ltd	PROJECT: Former Dylon Works, Lower Sydenham (Phase 2)	GROUND LEVEL	HOLE No. WS120
LOGGED BY: SG FIELDWORK BY: GEL TEMPLATE REF: GEL AGS BH BETA	CHECKED BY: DATE:	EXCAVATION METHOD: Windowless sampler Uncased to 2.0 m	COORDINATES E N DATES 12/06/2014 - 12/06/2014	SHEET 1 OF 1 PROJECT NO. 827,GI

Date/Time and Depth	Depth of Casing	Depth* of Water	Piez.	Description of Strata	Strata: Leg	Strata: Reduced Level	Strata: Depth	Graphical Representation: SPT 'N' Value (0 10 20 30 40)	Sampling/In-Situ Testing: Depths	Type	No.	Blows	SPT N	Laboratory Testing: <425 %	W/C %	PL %	LL %	ρ Mg/m³	Cu kN/m²	Additional Tests and Notes
				Asphalt			0.00		0											No collapse during drilling
				MADE GROUND (Dark grey/yellow brown slightly sandy gravelly clay. Gravel is fine to medium brick and flint)			0.20													
				Soft dark yellow brown slightly sandy CLAY with occasional black speckling (LONDON CLAY FORMATION) 0.35 - 0.60 - dessiccated 0.60 - 1.00 - tree root present 1.20 - 1.60 - becoming sandy			0.35		0.30	J	1									Generic testing
									0.50	J	2									
									1											Water seepage at 1.0m
									1.20	J	3									
							2.00		2											Windowless sample hole completed at 2.0m
									3											
									4											
									5											
									6											

*WATER ▼ Standing water level; ▽ Water strikes

PIEZOMETER: Upper seal; Response zone; Lower seal

SAMPLE AND TEST KEY
- D Small disturbed sample
- B Bulk disturbed sample
- U Undisturbed sample
- P Piston sample
- J Disturbed jar sample
- ES Environmental soil sample
- W Water Sample
- S Standard penetration test
- C Cone penetration test
- K Permeability test

Blows: SPT blows for each 75mm increment (35) Undisturbed sample blow count

SPT N: N = SPT N value (blows after seating) N*120 = Total blows/penetration including seating

<425: Sample % passing 425 micron sieve

DEPTH All depths, level and thicknesses in metres

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HOLE No. WS120 | SHEET 1 OF 1 | PROJECT No. 827,GI

CLIENT: Hill Partnerships Ltd	PROJECT: Former Dylon Works, Lower Sydenham (Phase 2)	GROUND LEVEL	HOLE No. WS121
LOGGED BY: SG FIELDWORK BY: GEL TEMPLATE REF: GEL AGS BH BETA CHECKED BY: DATE:	EXCAVATION METHOD: Windowless sampler Uncased to 2.0 m	COORDINATES E N DATES 12/06/2014 - 12/06/2014	SHEET 1 OF 1 PROJECT NO. 827,GI

Date/Time and Depth	Depth of Casing	Depth* of Water	Piez.	Description of Strata	Strata: Leg	Strata: Reduced Level	Strata: Depth	Graphical Representation: SPT 'N' Value (0 10 20 30 40)	Sampling/In-Situ Testing: Depths	Type	No.	Blows	SPT N	Laboratory Testing: <425 %	W/C %	PL %	LL %	ρ Mg/m³	Cu kN/m²	Additional Tests and Notes
				Asphalt			0.00		0											No groundwater encountered during drilling No collapse during drilling
				MADE GROUND (Black sand and gravel of clinker)			0.05													
				Firm becoming stiff yellow brown slightly sandy CLAY (LONDON CLAY FORMATION) 0.80 - occasional black speckling below 0.8m			0.60		0.80	J	1									Generic testing
				1.50 - occasional selenite crystals below 1.5m					1											
							2.00		2											Windowless sample completed at 2.0m
									3											
									4											
									5											
									6											

*WATER: Standing water level; Water strikes

PIEZOMETER: Upper seal; Response zone; Lower seal

SAMPLE AND TEST KEY

- D Small disturbed sample
- B Bulk disturbed sample
- U Undisturbed sample
- P Piston sample
- J Disturbed jar sample
- ES Environmental soil sample
- W Water Sample
- S Standard penetration test
- C Cone penetration test
- K Permeability test

Blows: SPT blows for each 75mm increment (35) Undisturbed sample blow count

SPT N: N = SPT N value (blows after seating) N*120 = Total blows/penetration including seating

<425: Sample % passing 425 micron sieve

DEPTH All depths, level and thicknesses in metres

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HOLE No. WS121 | SHEET 1 OF 1 | PROJECT No. 827,GI

CLIENT: Hill Partnerships Ltd	PROJECT: Former Dylon Works, Lower Sydenham (Phase 2)	GROUND LEVEL	HOLE No. WS122
LOGGED BY: SG FIELDWORK BY: GEL TEMPLATE REF: GEL AGS BH BETA	CHECKED BY: DATE:	EXCAVATION METHOD: Windowless sampler Uncased to 2.0 m	COORDINATES E N DATES 12/06/2014 - 12/06/2014	SHEET 1 OF 1 PROJECT NO. 827,GI

Date/Time and Depth	Depth of Casing	Depth* of Water	Piez.	Description of Strata	Strata: Leg	Strata: Reduced Level	Strata: Depth	Graphical Representation: SPT 'N' Value (0 10 20 30 40)	Sampling/In-Situ Testing: Depths	Type	No.	Blows	SPT N	Laboratory Testing: <425 %	W/C %	PL %	LL %	ρ Mg/m³	Cu kN/m²	Additional Tests and Notes
				Asphalt			0.00		0											No groundwater encountered during drilling No collapse during drilling
				MADE GROUND (Black sandy gravel of clinker)			0.35													
				Firm becoming stiff dark yellow brown CLAY (LONDON CLAY FORMATION) 0.50 - 0.55 - dark grey hydrocarbon staining			0.50		0.50	J	1									Generic testing
									1											
									1.20	J	2									
				1.50 - 2.00 - becoming sandy																
							2.00		2											Windowless sample hole completed at 2.0m
									3											
									4											
									5											
									6											

*WATER ▼ Standing water level; ▽ Water strikes

PIEZOMETER: Upper seal; Response zone; Lower seal

SAMPLE AND TEST KEY
- D Small disturbed sample
- B Bulk disturbed sample
- U Undisturbed sample
- P Piston sample
- J Disturbed jar sample
- ES Environmental soil sample
- W Water Sample
- S Standard penetration test
- C Cone penetration test
- K Permeability test

Blows: SPT blows for each 75mm increment (35) Undisturbed sample blow count

SPT N: N = SPT N value (blows after seating); N*120 = Total blows/penetration including seating

<425: Sample % passing 425 micron sieve

DEPTH All depths, level and thicknesses in metres

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PROJECT No. 827,GI | SHEET 1 OF 1 | HOLE No. WS122

GEL AGS BH BETA 827,GI - BH, WS, DP LOGS, SYDENHAM, 09-07-14 (PHASE 2).GPJ GINT STD AGS 3_1.GDT 1/8/14

CLIENT: Hill Partnerships Ltd	PROJECT: Former Dylon Works, Lower Sydenham (Phase 2)	GROUND LEVEL	HOLE No. WS123
LOGGED BY: SG FIELDWORK BY: GEL TEMPLATE REF: GEL AGS BH BETA	CHECKED BY: DATE:	EXCAVATION METHOD: Windowless sampler Uncased to 2.0 m	COORDINATES E N DATES 12/06/2014 - 12/06/2014	SHEET 1 OF 1 PROJECT NO. 827,GI

Date/Time and Depth	Depth of Casing	Depth* of Water	Piez.	Description of Strata	Strata: Leg	Strata: Reduced Level	Strata: Depth	Graphical Representation: SPT 'N' Value (0 10 20 30 40)	Sampling/In-Situ Testing: Depths	Type	No.	Blows	SPT N	Laboratory Testing: <425 %	W/C %	PL %	LL %	ρ Mg/m³	Cu kN/m²	Additional Tests and Notes
				Asphalt			0.00		0											No groundwater encountered during drilling No collapse during drilling
				MADE GROUND (Black sandy gravel of clinker with occasional fine to medium gravel of brick, concrete and flint)			0.05													
				MADE GROUND (Dark grey slightly sandy slight gravelly clay. Gravel is fine to coarse brick, flint and clinker)			0.45		0.60	J	1									
				Firm yellow brown CLAY (LONDON CLAY FORMATION) 0.87 - root at 0.87m (20mm in diameter) 0.90 - occasional fine to medium gravel of mudstone below 0.9m 1.40 - occasional pale grey partings below 1.4m			0.85		1.00	J	2									Generic testing
							2.00		2											Windowless sample hole completed at 2.0m
									3											
									4											
									5											
									6											

*WATER: Standing water level; Water strikes

PIEZOMETER: Upper seal; Response zone; Lower seal

SAMPLE AND TEST KEY

- D Small disturbed sample
- B Bulk disturbed sample
- U Undisturbed sample
- P Piston sample
- J Disturbed jar sample
- ES Environmental soil sample
- W Water Sample
- S Standard penetration test
- C Cone penetration test
- K Permeability test

Blows: SPT blows for each 75mm increment (35) Undisturbed sample blow count

SPT N: N = SPT N value (blows after seating) N*120 = Total blows/penetration including seating

<425: Sample % passing 425 micron sieve

DEPTH All depths, level and thicknesses in metres

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PROJECT No. 827,GI | SHEET 1 OF 1 | HOLE No. WS123

CLIENT: Hill Partnerships Ltd	PROJECT: Former Dylon Works, Lower Sydenham (Phase 2)	GROUND LEVEL	HOLE No. WS124
LOGGED BY: SG FIELDWORK BY: GEL TEMPLATE REF: GEL AGS BH BETA	CHECKED BY: DATE:	EXCAVATION METHOD: Windowless sampler Uncased to 2.0 m	COORDINATES E N DATES 13/06/2014 - 13/06/2014	SHEET 1 OF 1 PROJECT NO. 827,GI

Date/Time and Depth	Depth of Casing	Depth* of Water	Piez.	Description of Strata	Strata: Leg	Strata: Reduced Level	Strata: Depth	Graphical Representation: SPT 'N' Value (0 10 20 30 40)	Sampling/In-Situ Testing: Depths	Type	No.	Blows	SPT N	Laboratory Testing: <425 %	W/C %	PL %	LL %	ρ Mg/m³	Cu kN/m²	Additional Tests and Notes
				MADE GROUND (Dark grey gravelly fine to coarse sand. Gravel is roadstone, concrete and occasional fragments of metal) 0.15 - cobble of concrete present 0.20 - 0.30 - cobble of brick present			0.00 0.30		0											No groundwater encountered during drilling No collapse during drilling
				MADE GROUND (Firm dark grey slightly dessiccated slightly silty CLAY with occasional fine gravel of brick)			0.50		0.40 0.70	J J	1 2									
				Firm becoming stiff dark yellow brown/dark grey mottled CLAY with occasional rootlets (LONDON CLAY FORMATION) 1.10 - pale grey mottling with occasional black speckling and occasional dark orange brown sandy clay partings below 1.1m					1											
							2.00		2											Windowless sample hole completed at 2.0m
									3											
									4											
									5											
									6											

*WATER: Standing water level; Water strikes

PIEZOMETER: Upper seal; Response zone; Lower seal

SAMPLE AND TEST KEY

- D Small disturbed sample
- B Bulk disturbed sample
- U Undisturbed sample
- P Piston sample
- J Disturbed jar sample
- ES Environmental soil sample
- W Water Sample
- S Standard penetration test
- C Cone penetration test
- K Permeability test

Blows: SPT blows for each 75mm increment (35) Undisturbed sample blow count

SPT N: N = SPT N value (blows after seating) N*120 = Total blows/penetration including seating

<425: Sample % passing 425 micron sieve

DEPTH All depths, level and thicknesses in metres

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HOLE No. WS124 | SHEET 1 OF 1 | PROJECT No. 827,GI

CLIENT: Hill Partnerships Ltd	PROJECT: Former Dylon Works, Lower Sydenham (Phase 2)	GROUND LEVEL	HOLE No. WS125
LOGGED BY: SG FIELDWORK BY: GEL TEMPLATE REF: GEL AGS BH BETA	CHECKED BY: DATE:	EXCAVATION METHOD: Windowless sampler Uncased to 3.0 m	COORDINATES E N DATES 13/06/2014 - 13/06/2014	SHEET 1 OF 1 PROJECT NO. 827,GI

Date/Time and Depth	Depth of Casing	Depth* of Water	Piez.	Description of Strata	Strata: Leg	Strata: Reduced Level	Strata: Depth	Graphical Representation: SPT 'N' Value (0 10 20 30 40)	Sampling/In-Situ Testing: Depths	Type	No.	Blows	SPT N	Laboratory Testing: <425 %	W/C %	PL %	LL %	ρ Mg/m³	Cu kN/m²	Additional Tests and Notes
				TOPSOIL (Dark grey/brown silty sandy clay with occasional fine to medium gravel of brick, flint adn charcoal)			0.00		0											
									0.20	J	1									
				MADE GROUND (Dark grey slightly silty slightly sandy gravelly clay. Gravel if fine to coarse brick, flint, concrete and occasional metal and tile fragments)			0.35													
									0.60	J	2									Generic testing
				MADE GROUND (Coarse sandy gravel of brick, concrete and flint) 1.00 - metal railway clamp at 1.0m			1.00		1	C		1 1 0 0 0 1	1							Groundwater rose to 1.0m on completion
				Soft black PEAT (ALLUVIUM)			1.65													
									1.80	D	3									
				Soft grey brown/dark brown mottled sandy CLAY (ALLUVIUM)			2.00		2	C		0 0 1 1	4							
									2.20	J	4	1 1								
									2.30	D	5									Hole collapsed to 2.5m
							3.00		3	C		3 5 5 6 6 4	21							Windowless sample hole completed at 3.0m
									4											
									5											
									6											

*WATER: Standing water level; Water strikes

PIEZOMETER: Upper seal; Response zone; Lower seal

SAMPLE AND TEST KEY

- D Small disturbed sample
- B Bulk disturbed sample
- U Undisturbed sample
- P Piston sample
- J Disturbed jar sample
- ES Environmental soil sample
- W Water Sample
- S Standard penetration test
- C Cone penetration test
- K Permeability test

Blows: SPT blows for each 75mm increment (35) Undisturbed sample blow count

SPT N: N = SPT N value (blows after seating) N*120 = Total blows/penetration including seating

<425: Sample % passing 425 micron sieve

DEPTH: All depths, level and thicknesses in metres

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GEL AGS BH BETA 827,GI - BH, WS, DP LOGS, SYDENHAM, 09-07-14 (PHASE 2).GPJ GINT STD AGS 3 1.GDT 1/8/14

CLIENT: Hill Partnerships Ltd	PROJECT: Former Dylon Works, Lower Sydenham (Phase 2)	GROUND LEVEL	HOLE No. WS126
LOGGED BY: SG FIELDWORK BY: GEL TEMPLATE REF: GEL AGS BH BETA	CHECKED BY: DATE:	EXCAVATION METHOD: Windowless sampler Uncased to 6.0 m	COORDINATES E N DATES 13/06/2014 - 13/06/2014	SHEET 1 OF 1 PROJECT NO. 827,GI

Date/Time and Depth	Depth of Casing	Depth* of Water	Piez.	Description of Strata	Strata: Leg	Strata: Reduced Level	Strata: Depth	Graphical Representation: SPT 'N' Value (0 10 20 30 40)	Sampling/In-Situ Testing: Depths	Type	No.	Blows	SPT N	Laboratory Testing: <425 %	W/C %	PL %	LL %	ρ Mg/m³	Cu kN/m²	Additional Tests and Notes
				TOPSOIL (Pale brown silty sandy desiccated clay with occasional fine to coarse gravel of flint and occasional rootlets)			0.00		0											
				MADE GROUND (Dark grey/brown sandy gravelly clay. Gravel if fine to coarse brick, flint, clinker, ash and occasional glass fragments)			0.25		0.10	J	1									
									0.80	J	2									Generic testing
				Soft black peaty CLAY (ALLUVIUM)			1.00		1			0 0 0 0 0 1	1							Groundwater at 1.2m
									1.60	J	3									Collapse to 1.7m
									2			1 0 0 1 1 1	3							
									2.20	D	4									
				Soft dark orange brown/grey mottled sandy CLAY (ALLUVIUM)			2.60													
									3			3 2 2 2 2 1	7							
				Loose orange brown/pale grey mottled slightly clayey SAND (ALLUVIUM)			3.20													
									3.40	D	5									
				Firm becoming stiff dark grey slightly sandy CLAY (ALLUVIUM)			3.60													
									4			2 2 1 2 2 2	7							
									5			2 1 2 2 2 3	9							15% recovery at 5.0m
							6.00		6			2 2 2 3 2 4	11							<10% recovery at 6.0m Windowless sample hole completed at 6.0m

*WATER: Standing water level; Water strikes

PIEZOMETER: Upper seal; Response zone; Lower seal

SAMPLE AND TEST KEY

- D Small disturbed sample
- B Bulk disturbed sample
- U Undisturbed sample
- P Piston sample
- J Disturbed jar sample
- ES Environmental soil sample
- W Water Sample
- S Standard penetration test
- C Cone penetration test
- K Permeability test

Blows: SPT blows for each 75mm increment (35) Undisturbed sample blow count

SPT N: N = SPT N value (blows after seating) N*120 = Total blows/penetration including seating

<425: Sample % passing 425 micron sieve

DEPTH: All depths, level and thicknesses in metres

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HOLE No. WS126 | SHEET 1 OF 1 | PROJECT No. 827,GI

CLIENT: Hill Partnerships Ltd	PROJECT: Former Dylon Works, Lower Sydenham (Phase 2)	GROUND LEVEL	HOLE No. WS127
LOGGED BY: SG FIELDWORK BY: GEL TEMPLATE REF: GEL AGS BH BETA	CHECKED BY: DATE:	EXCAVATION METHOD: Windowless sampler Uncased to 6.0 m	COORDINATES E N DATES 13/06/2014 - 13/06/2014	SHEET 1 OF 1 PROJECT NO. 827,GI

Date/Time and Depth	Depth of Casing	Depth* of Water	Piez.	Description of Strata	Strata: Leg	Strata: Reduced Level	Strata: Depth	Graphical Representation: SPT 'N' Value (0 10 20 30 40)	Sampling/In-Situ Testing: Depths	Type	No.	Blows	SPT N	Laboratory Testing: <425 %	W/C %	PL %	LL %	ρ Mg/m³	Cu kN/m²	Additional Tests and Notes
				TOPSOIL (Dark brown slightly sandy clay with occasional gravel of flint)			0.00		0											
				MADE GROUND (Brown/yellow/red/white/black mottled sandy clay with frequent gravel of fine to coarse brick, concrete, clinker and ash) 0.70 - cobble of brick at 0.7m			0.20		0.10	J	1									
									0.50	J	2									
				Firm dark grey sandy silty CLAY (ALLUVIUM) 1.00 - 1.40 - becoming peaty			1.00		1	C		10 00 01	1							Groundwater encountered at 1.0m Collapse to 1.2m
									1.70	J	3									
				2.00 - occasional gravel of fine to coarse flint at 2.0m					2	C		34 33 11	8							
				Pale brown/grey SAND with frequent gravel of fine to coarse flint (ALLUVIUM)			2.70 2.90		2.80	D	4									
				Soft dark grey sandy CLAY (ALLUVIUM) 3.00 - 3.50 - frequent rounded gravel of flint					3 3.20	D C	5	12 12 22	7							
				Pale/dark brown mottled sandy GRAVEL of fine to coarse flint (ALLUVIUM)			4.00		4	C		11 22 23	9							
										C		12 22 23	9							
				Dark grey slightly clayey slightly sandy GRAVEL of rounded flint (ALLUVIUM)			5.00		5											
				Soft dark grey sandy CLAY (ALLUVIUM) 5.30 - 5.60 - frequent rounded gravel			5.30		5.40	D	6									
							6.00		6	C		21 22 23	9							Windowless sample hole completed at 6.0m

*WATER: Standing water level; Water strikes

PIEZOMETER: Upper seal; Response zone; Lower seal

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- ES Environmental soil sample
- W Water Sample
- S Standard penetration test
- C Cone penetration test
- K Permeability test

Blows: SPT blows for each 75mm increment (35) Undisturbed sample blow count

SPT N: N = SPT N value (blows after seating); N*120 = Total blows/penetration including seating

<425: Sample % passing 425 micron sieve

DEPTH: All depths, level and thicknesses in metres

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HOLE No. WS127 | SHEET 1 OF 1 | PROJECT No. 827,GI

CLIENT: Hill Partnerships Ltd	PROJECT: Former Dylon Works, Lower Sydenham (Phase 2)	GROUND LEVEL	HOLE No. WS128
LOGGED BY: SG FIELDWORK BY: GEL TEMPLATE REF: GEL AGS BH BETA CHECKED BY: DATE:	EXCAVATION METHOD: Windowless sampler Uncased to 2.0 m	COORDINATES E N DATES 20/06/2014 - 20/06/2014	SHEET 1 OF 1 PROJECT NO. 827,GI

Date/Time and Depth	Depth of Casing	Depth* of Water	Piez.	Description of Strata	Strata: Leg	Strata: Reduced Level	Strata: Depth	Graphical Representation: SPT 'N' Value (0 10 20 30 40)	Sampling/In-Situ Testing: Depths	Type	No.	Blows	SPT N	Laboratory Testing: <425 %	W/C %	PL %	LL %	ρ Mg/m³	Cu kN/m²	Additional Tests and Notes
				Asphalt			0.00		0											No collapse during drilling
				MADE GROUND (Black sandy fine to coarse gravel of clinker)			0.10													
				MADE GROUND (Dark grey hydrocarbon stained clay with slight hydrocarbon odour and occasional fine to medium gravel of brick)			0.30		0.40	J	1									Generic testing
				MADE GROUND (Dark brown sandy gravelly clay with occasional flint and blue oxidised material)			0.65													
				0.82 - cobble of concrete (0.35mm)			0.85													
				MADE GROUND (Black sandy gravel of clinker with occasional fine to medium gravel of brick)			1.00		1											
				Soft becoming firm dark grey/black peaty CLAY (ALLUVIUM) 1.50 - becoming pale grey below 1.5m					1.20	J	2									
				1.95 - frequent well rounded gravel of flint below 1.95m			2.00		2											Groundwater seepage at 1.95m Windowless sample hole completed at 2.0m
									3											
									4											
									5											
									6											

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PIEZOMETER: Upper seal; Response zone; Lower seal

SAMPLE AND TEST KEY:
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Blows: SPT blows for each 75mm increment (35) Undisturbed sample blow count
SPT N: N = SPT N value (blows after seating) N*120 = Total blows/penetration including seating
<425: Sample % passing 425 micron sieve

DEPTH All depths, level and thickness in metres

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PROJECT No. 827,GI | SHEET 1 OF 1 | HOLE No. WS128

CLIENT: Hill Partnerships Ltd	PROJECT: Former Dylon Works, Lower Sydenham (Phase 2)	GROUND LEVEL	HOLE No. WS129
LOGGED BY: SG FIELDWORK BY: GEL TEMPLATE REF: GEL AGS BH BETA CHECKED BY: DATE:	EXCAVATION METHOD: Windowless sampler Uncased to 2.0 m	COORDINATES E N DATES 20/06/2014 - 20/06/2014	SHEET 1 OF 1 PROJECT NO. 827,GI

Date/Time and Depth	Depth of Casing	Depth* of Water	Piez.	Description of Strata	Strata: Leg	Strata: Reduced Level	Strata: Depth	Graphical Representation: SPT 'N' Value (0 10 20 30 40)	Sampling/In-Situ Testing: Depths	Type	No.	Blows	SPT N	Laboratory Testing: <425 %	W/C %	PL %	LL %	ρ Mg/m³	Cu kN/m²	Additional Tests and Notes
				MADE GROUND (Black gravel of asphaly and roadstone)			0.00		0											No groundwater encountered during drilling No collapse during drilling
				MADE GROUND (Dark grey slightly sandy clay with frequent fine to medium gravel of charcoal, ash and roadstone and occasional fragments of glass and porcelain) 0.50 - becoming dark brown/slightly dark orange brown below 0.5m with occasional coarse gravel of brick			0.15		0.30	J	1									
				Soft dark brown/orange brown mottled sandy CLAY (ALLUVIUM)			1.00		1											
				1.40 - becoming pale gravel below 1.4m					1.20	J	2									
				1.90 - becoming very sandy below 1.9m																
							2.00		2											Windowless sample hole completed at 2.0m
									3											
									4											
									5											
									6											

*WATER ▼ Standing water level; ▽ Water strikes

PIEZOMETER: Upper seal; Response zone; Lower seal

SAMPLE AND TEST KEY
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- B Bulk disturbed sample
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Blows: SPT blows for each 75mm increment (35) Undisturbed sample blow count

SPT N: N = SPT N value (blows after seating) N*120 = Total blows/penetration including seating

<425: Sample % passing 425 micron sieve

DEPTH All depths, level and thicknesses in metres

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PROJECT No. 827,GI | SHEET 1 OF 1 | HOLE No. WS129

CLIENT: Hill Partnerships Ltd	PROJECT: Former Dylon Works, Lower Sydenham (Phase 2)	GROUND LEVEL	HOLE No. WS130
LOGGED BY: SG FIELDWORK BY: GEL TEMPLATE REF: GEL AGS BH BETA	CHECKED BY: DATE:	EXCAVATION METHOD: Windowless sampler Uncased to 2.0 m	COORDINATES E N DATES 20/06/2014 - 20/06/2014	SHEET 1 OF 1 PROJECT NO. 827,GI

Date/Time and Depth	Depth of Casing	Depth* of Water	Piez.	Description of Strata	Strata: Leg	Strata: Reduced Level	Strata: Depth	Graphical Representation: SPT 'N' Value (0 10 20 30 40)	Sampling/In-Situ Testing: Depths	Type	No.	Blows	SPT N	Laboratory Testing: <425 %	W/C %	PL %	LL %	ρ Mg/m³	Cu kN/m²	Additional Tests and Notes
				Asphalt			0.00		0											No groundwater encountered during drilling No collapse during drilling
				MADE GROUND (Black very sandy gravel of clinker with occasional fine to coarse gravel of brick)			0.15													
				MADE GROUND (Dark orange brown clay with frequent fine to coarse gravel of brick, flint, concrete and clinker with occasional cobble of brick)			0.30		0.50	J	1									
				MADE GROUND (Black very sandy gravel of clinker with occasional sandy clay pockets)			0.95		1											
				Firm dark brown/dark orange brown mottled CLAY with frequent dark orange brown sandy pockets (ALLUVIUM)			1.00		1.20	J	2									Generic testing
				Soft dark grey slightly peaty CLAY (ALLUVIUM)			1.85													
							2.00		2											Windowless sample hole completed at 2.0m
									3											
									4											
									5											
									6											

*WATER ▼ Standing water level ▽ Water strikes

PIEZOMETER Upper seal / Response zone / Lower seal

SAMPLE AND TEST KEY
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P Piston sample
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W Water Sample
S Standard penetration test
C Cone penetration test
K Permeability test

Blows SPT blows for each 75mm increment (35) Undisturbed sample blow count
SPT N N = SPT N value (blows after seating) N*120 = Total blows/penetration including seating
<425 Sample % passing 425 micron sieve

DEPTH All depths, level and thicknesses in metres

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HOLE No. WS130 | SHEET 1 OF 1 | PROJECT No. 827,GI

CLIENT: Hill Partnerships Ltd	PROJECT: Former Dylon Works, Lower Sydenham (Phase 2)	GROUND LEVEL	HOLE No. WS131
LOGGED BY: SG FIELDWORK BY: GEL TEMPLATE REF: GEL AGS BH BETA	CHECKED BY: DATE:	EXCAVATION METHOD: Windowless sampler Uncased to 2.0 m	COORDINATES E N DATES 20/06/2014 - 20/06/2014	SHEET 1 OF 1 PROJECT NO. 827,GI

Date/Time and Depth	Depth of Casing	Depth* of Water	Piez.	Description of Strata	Strata: Leg	Strata: Reduced Level	Strata: Depth	Graphical Representation: SPT 'N' Value (0 10 20 30 40)	Sampling/In-Situ Testing: Depths	Type	No.	Blows	SPT N	Laboratory Testing: <425 %	W/C %	PL %	LL %	ρ Mg/m³	Cu kN/m²	Additional Tests and Notes
				TOPSOIL (Dark brown slightly dessicated silty sandy clay with occasional fine to medium gravel of charcoal)			0.00		0											No groundwater encountered during drilling No collapse during drilling
									0.20	J	1									
				MADE GROUND (Dark brown gravelly sand. Gravel is fine to coarse flint, brick, clinker, concrete and ash with occasional clay pockets)			0.30													
									0.50	J	2									
				Firm dark brown/pale grey/dark orange brown mottled slightly sandy CLAY (ALLUVIUM)			1.00		1											
							2.00		2											Windowless sample hole completed at 2.0m
									3											
									4											
									5											
									6											

*WATER ▼ Standing water level ▽ Water strikes

PIEZOMETER: Upper seal, Response zone, Lower seal

SAMPLE AND TEST KEY
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Blows: SPT blows for each 75mm increment (35) Undisturbed sample blow count
SPT N: N = SPT N value (blows after seating) N*120 = Total blows/penetration including seating
<425: Sample % passing 425 micron sieve

DEPTH All depths, level and thicknesses in metres

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HOLE No. WS131 | SHEET 1 OF 1 | PROJECT No. 827,GI

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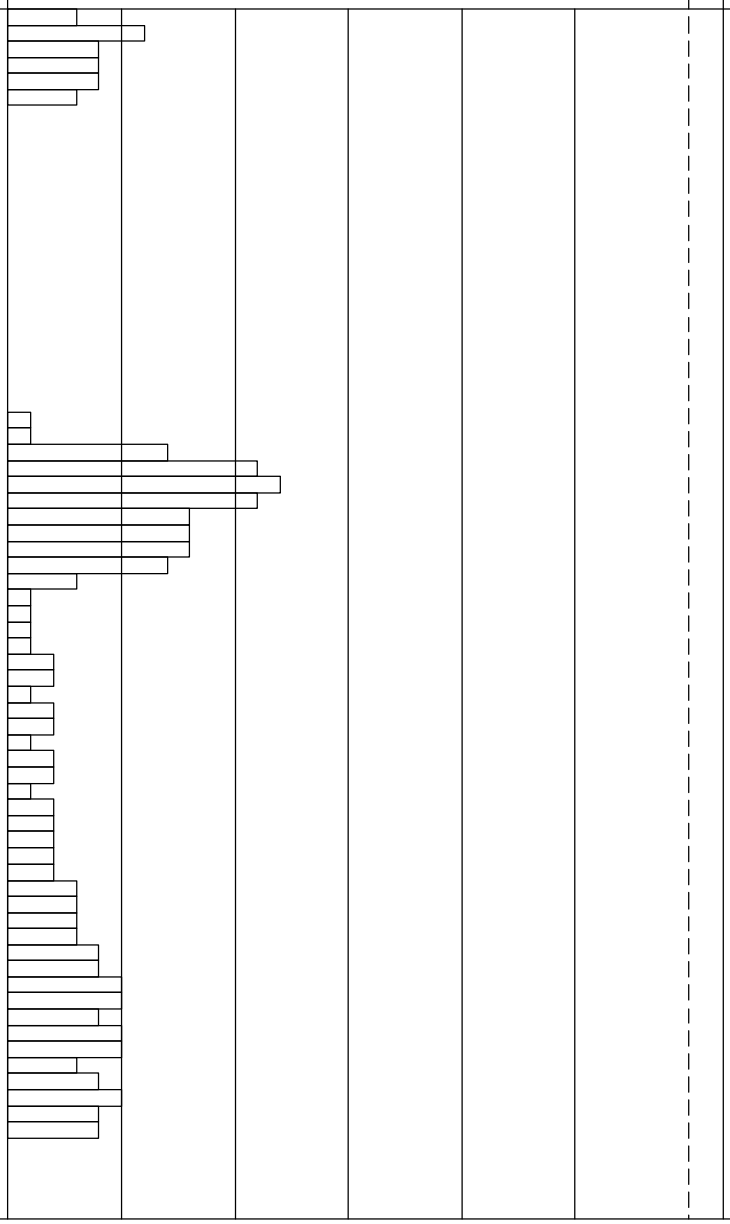
DYNAMIC PROBE LOG

Project				PROBE No
Former Dylon Works, Lower Sydenham (Phase 2)				**DP3**
Job No	Date	Ground Level (m)	Co-Ordinates ()	
827,GI	20-06-14 20-06-14			
Contractor				Sheet
Geosphere Environmental Limited				1 of 1

Depth (m)	Readings (blows/100mm)	Diagram (N100 Values)	Torque (Nm)	Remarks
1	3 6 4 4 4 3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0			
2	1 1 7 11 12 11 8 8 8 7 3 1 1 1 1			
3	2 2 1 2 2 1 2 2 1 2 2 2 2 2 3			
4	3 3 3 4 4 5 5 4 5 5 3 4 5 4 4			
5				
6				
7				



Hammer Wt (kg)	63.5
Hammer Drop (mm)	760
Cone Dia (mm)	50
Cone Type	DPSH
Damper	None

GENERAL REMARKS

All dimensions in metres Scale 1:46.875	Client Hill Partnerships Ltd	Method/ Plant Used Dynamic Probe sampling	Logged By SG

AGS3 DYNAMIC PROBE 827,GI - BH, WS, DP LOGS, SYDENHAM, 09-07-14 (PHASE 2).GPJ GINT STD AGS 3_1.GDT 1/8/14