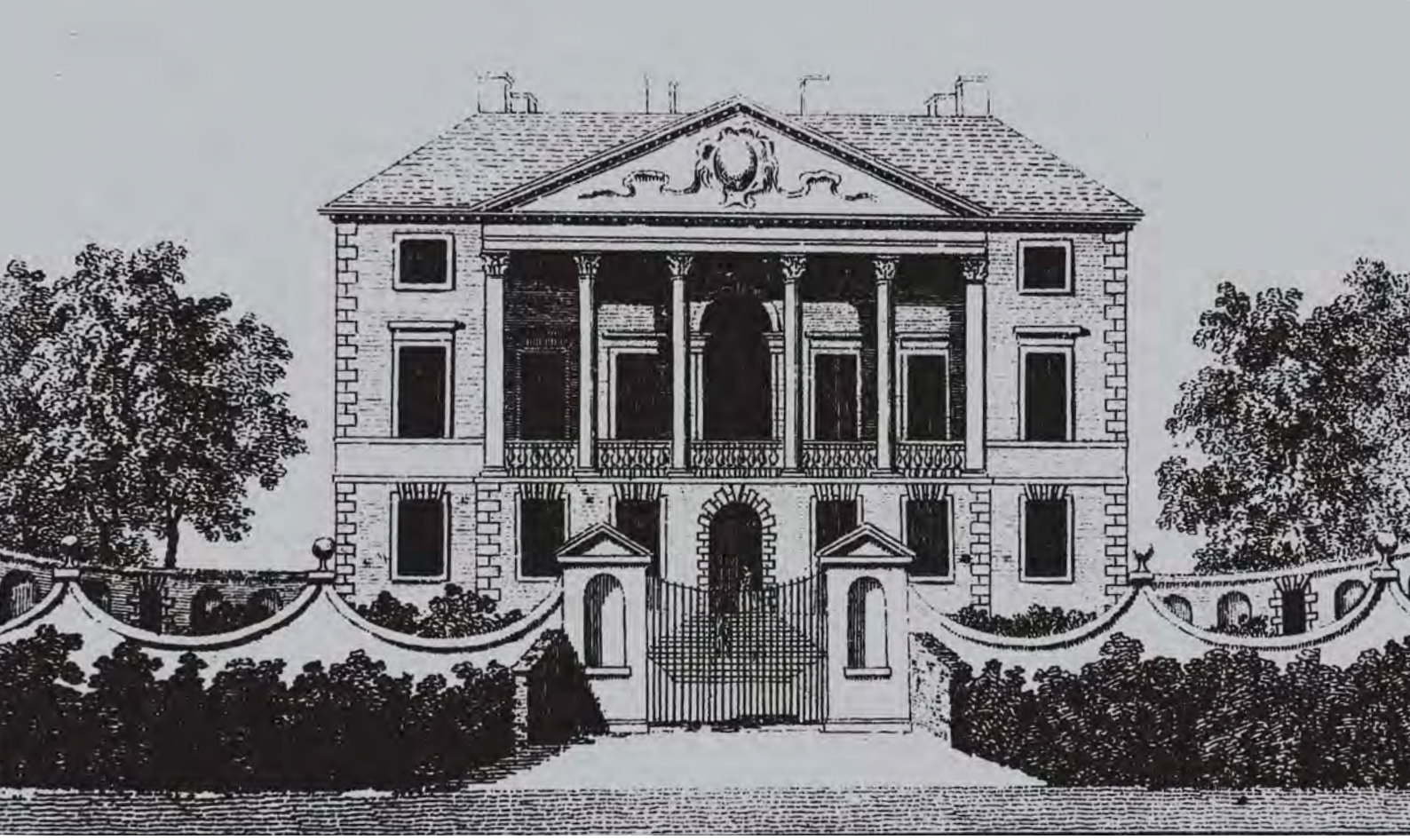

Gunnersbury Park
London W3

London Borough of Hounslow

Historic environment assessment

September 2013

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Note: site outlines may appear differently on some figures owing to distortions in historic maps. North is approximate on early maps.

Summary

The Ealing Borough Council has commissioned Museum of London Archaeology (MOLA) to provide archaeological consultancy at Gunnersbury Park, Pope's Lane, London W3. The park lies within the London Borough (LB) of Hounslow but is jointly maintained by both Ealing and Hounslow Councils. The 72-hectare park is listed Grade II on the English Heritage Register of Parks and Gardens of Special Historic Interest and contains 22 listed buildings. It is one of the top historic assets that are 'at risk' in the country.*

Ealing Borough Council has secured a round one Heritage Lottery Funding (HLF) heritage grant and Parks for People funding to update the conservation management plans (CMPs) for Gunnersbury House and Gunnersbury Park and for the development and design of regeneration proposals. The archaeological desk-based assessment will contribute to both the update of the CMPs and also to inform the regeneration proposals for the park.

The assessment comprised a desk-based study and site walkover survey with the aim of providing general information on the Park using documentary, cartographic and archaeological sources, including results from archaeological investigations in the close proximity of the Park, in order to record and identify features associated with the landscape history and occupation of the site, including presence or absence of historic features, their character, extent integrity, state of preservation and quality.

It has not been intended to produce a detailed history of Gunnersbury Park, as a number of such histories have already been written. The main output from the study is a database of archaeological heritage assets and an assessment of the nature, importance, survival and condition of known and identified archaeological features. While the report provides general recommendations, the forthcoming updated CMP will provide a strategic overview of the extant cultural heritage resources, along with recommendations for the future enhancement and management of the Park.

For the purposes of this assessment, the site was divided into six 'zones' (Zones 1–6) associated with key historic elements, land use and archaeological potential. The nature of possible archaeological survival within each zone is summarised as follows:

- ***Zone 1: Historic houses and formal grounds.*** *The main potential is for remains of the mid-18th century Palladian mansion house and associated outbuildings and formal landscaping (medium to high heritage significance) along with late-18th and 19th century buildings and landscape features (low to medium significance). Buried remains of the medieval manor, known as 'The Frowyks', might be present (medium to high significance).*
- ***Zone 2: Ornamental parkland****. The zone has a high potential for later medieval arable cultivation remains (medium significance) and buried remains associated with features shown on historic maps from 1777 onwards (low to medium significance).*
- ***Zone 3: Coles Hole and Potomac Lake****. The zone has high potential for post-medieval industrial quarrying and associated pottery and tile manufacture (medium significance).*
- ***Zone 4: former Old Brentford Common Field****. The zone has a high potential for later medieval arable cultivation and post-medieval quarrying activity and Second World War remains (low significance).*
- ***Zone 5: North playing fields (northern part).*** *This zone high potential for remains of the foundations of a Second World War gun emplacement formerly located within this zone (medium significance if extensive and well preserved).*
- ***Zone 6: former kitchen gardens****. The zone has high potential for buried remains associated with features shown on historic maps from 1777 onwards along with garden features and planting (low to medium significance).*

In general, all six zones have a low to moderate potential for prehistoric remains and a low potential for Roman remains. There is very little evidence of activity dated to these periods within the wider study area. A number of prehistoric flints have been recovered from the park

in the past, although the location of the findspots is not known; some may have been retrieved from Coles Hole/the Potomac Lake. The site was located some distance from the main Roman road network and was probably within a rural landscape of woodland and scattered farms and fields. A springline in the north-eastern part of the part may have attracted early settlement, along with the fertile gravel terraces on which the site lies.

In general, although there has been relatively little later 20th century development within any of the zones which would have caused substantial or widespread impacts to potential archaeological assets, it is likely that later post-medieval activity, especially the quarrying, landscaping and estate building activities which occurred in Zones 1, 3 and 4 in the late-18th and 19th centuries (in themselves of archaeological interest) will have partially or completely removed archaeological remains dated to earlier periods. Localised bomb damage sustained during the Second World War is also a factor. It is not currently understood how widespread this damage was throughout the war; however, data obtained covering the period of the Blitz (1940–1941) shows considerable damage concentrated in Zones 1–3 and 5.

The proposals for Zone 1 would generally involve shallow groundworks related to preliminary topsoil removal, minor landscaping, tree planting and building repairs. Such works may result in localised truncation of any archaeological features beneath existing foundations, vegetation and topsoil. The proposals to Zone 2 would potentially have the greatest impact, involving the relocation of the current Pitch and Putt to Zone 5 and re-landscaping to create a sporting centre. The details of the biodiversity, landscape and access improvements to the Potomac Lake are not currently known but it is assumed that groundworks, including topsoil stripping, would form part of these works. The creation of a new Pitch and Putt in Zone 5 would potentially remove the foundations of Second World War buildings. These works would potentially result in the truncation or removal of archaeological remains, reducing the significance of any affected assets to negligible.

1 Introduction

1.1 Origin and scope of the report

1.1.1 The Ealing Borough Council has commissioned Museum of London Archaeology (MOLA) to provide archaeological consultancy at Gunnersbury Park, Pope's Lane, London W3 (National Grid Reference 518733 178873: *Fig 1*). The park lies within the London Borough (LB) of Hounslow but is jointly maintained by both Ealing and Hounslow Councils.

1.1.2 The 72-hectare park (hereafter 'the site') is listed Grade II* on the English Heritage Register of Parks and Gardens of Special Historic Interest, and contains 22 listed buildings. It is one of the top historic assets that are 'at risk' in the country. The principal areas of the park are the historic core in the north-eastern corner of the park, comprising Gunnersbury Park House, Gunnersbury House and gardens; the outer estate ornamental parkland to the west and south of the core; the wooded Potomac Lake and gothic tower in the south-western corner of the park; and the 18th century walled garden in in the east.

1.1.3 Ealing Borough Council has secured a round one Heritage Lottery Fund (HLF) heritage grant and Parks for People funding to update the conservation management plans (CMPs) for Gunnersbury House and Gunnersbury Park and for the development and design of regeneration proposals. The main regeneration work would be carried out under round two of the HLF grant, which the council is seeking to apply for in March 2014.

1.1.4 The archaeological consultancy will contribute to both the update of the CMPs and also to inform the regeneration proposals for the park. It takes the form of a staged programme of work with each stage informing the next, with local public involvement and educational elements throughout the project. The stages comprise:

- *Stage 1 – Archaeological desk-based assessment*. The report draws upon a broad range of archaeological, documentary and cartographic sources along with site walkover inspections in order to put Gunnersbury Park into its full historic environment context. It assesses the likely presence and significance of any known or potential archaeological assets, along with factors which may have compromised survival.
- *Stage 2 – topographic survey*. Informed by Stage 1, along with existing topographic survey data, this stage will target areas of possible archaeological remains visible as earthworks for enhanced topographic survey by MOLA surveyors, using the latest surveying equipment.
- *Stage 3 – targeted field investigations*. Non-intrusive geophysical survey and limited archaeological field evaluation in the form of trial pits or trenches, informed by Stages 1 and 2, would be carried out in key areas in order to clarify the nature, extent, date and significance of any subsurface archaeological remains. The results would feed into the CMPs and design proposals.

1.1.5 A considerable amount of investigation has already been carried out of the park and manor house, and the current report draws on the following documents:

- *The Gunnersbury Park Estate Conservation Management Plan* produced in June 2008 (Chris Blandford Associates).
- *Gunnersbury Park Landscape Conservation Statement* produced in February 2012 (Sarah Couch Historic Landscapes).
- *Gunnersbury Park Built Heritage Conservation Statement* produced in February 2012 (Purcell Miller Tritton LLP).

1.1.6 These documents are largely concerned with the built heritage and historic landscapes of the park. The present archaeological report focuses on known and

potential buried heritage assets considered to be significant because of their historic, evidential, aesthetic and/or communal interest. These are largely below ground and not visible, but can include traces above ground in the form of earthworks and parchmarks. Such remains form an integral part of the landscape and our understanding of it, from the earliest times onwards, and can make a valuable contribution to enhancing understanding of the visible and extant heritage elements, which may be associated.

1.1.7 The present assessment has been carried out in accordance with the project brief (EBC Nov 2012) and to standards specified by the Institute for Archaeologists (IfA Oct 2012/Nov 2012), English Heritage (2008), and the Greater London Archaeological Advisory Service (GLAAS 2009). Under the 'Copyright, Designs and Patents Act' 1988 MOLA retains the copyright to this document.

1.1.8 Note: within the limitations imposed by dealing with historical material and maps, the information in this document is, to the best knowledge of the author and MOLA, correct at the time of writing. Further archaeological investigation, more information about the nature of the present buildings, and/or more detailed proposals for redevelopment may require changes to all or parts of the document.

1.2 Designated heritage assets

1.2.1 Gunnersbury Park is a Grade II* Registered Park and Garden of Special Historic Interest. The full English Heritage listing of the park is included in section 13. The park is a heritage asset of national significance and lies within the Gunnersbury Park Conservation Area. The conservation area is characterised by the park's long history of ownership as a private estate, most notably by the 17th century lawyer and politician John Maynard; Princess Amelia, daughter of King George II, in the 18th century; and the Rothschild family in the 19th and early-20th centuries. The estate became a public park in 1926. Documentary and cartographic records attest to the alteration and development of the estate throughout the later post-medieval period, through landscaping and the construction and reconstruction of manor buildings by each owner.

1.2.2 Gunnersbury Park contains 22 Grade II and Grade II* listed buildings, including historic houses, a lodge, a classical-style temple, a boathouse and pavilion, gateways and arches, walls, fountains and outbuildings. As stated in the CMP 'a cultural, historic and visual focus' is provided by the Grade II* listed Gunnersbury Park House ('the Large Mansion'), built in 1802, and the Grade II listed Gunnersbury House ('the Small Mansion'), also built in 1802, located in the north-eastern corner of the park. More detailed summaries of all the built heritage assets within the park are included in the Gunnersbury Park Built Heritage Conservation Statement (Purcell Miller Tritton LLP, February 2012).

1.2.3 The site does not lie within an area designated as an Archaeological Priority Area by Hounslow Council. There are no scheduled monuments within the site or its vicinity.

1.3 Aims and objectives

1.3.1 For Gunnersbury Park the primary aims of the survey and investigations are to record and identify features associated with the landscape history and occupation of the site, including presence and absence of historic features, their character, extent integrity, state of preservation and quality. The project brief (EBC) sets out the key objectives, namely:

- To investigate the main periods of landscape interest, dating to the late 17th and 18th centuries, the first decade of the 19th century, and alterations to below ground structures and landscape in the early decades of the 20th century.

to assess whether there is any evidence of previous buildings and gardens including the original manor house. These largely fall within the historic core area (Zone 1, see section 3.1.3 below and

- to provide a record of the site prior to any conservation or restoration works and will inform the development of detailed proposals for the site. The need for further research and survey will be identified.

1.3.2 The understanding of the archaeological resource will allow an assessment of its merit leading to formulation of a strategy to ensure future recording, preservation and management of the resource. The findings will be used to inform an update of the 2008 Conservation Management Plan (CBA 2008), along with the historic environment elements of the 10-year Park Management and Maintenance Plan. It is also intended that the proposed works be integrated into a public outreach programme alongside the LB Ealing Outreach and Learning Team to develop and deliver a range of community archaeology activities and learning opportunities linked to the archaeology investigation and survey work.

1.3.3 The present, archaeological desk-based assessment report forms the first stage of the archaeological consultancy intended to fulfil the project aims, and has the following objectives:

- identify the presence of any known or potential buried heritage within the park, in particular within the key interest areas (see Section 6, Archaeological Potential and Significance);
- describe the significance of such assets, including their date, character, extent, integrity, state of preservation and quality (see section 10 for planning framework and section 9 for methodology used to determine significance);
- assess the likely impacts upon the significance of the assets arising from a range of possible development proposals; and
- provide recommendations for Stages 2 and 3.

1.3.4 The report will be updated and modified throughout the course of the project, and the final version will set out recommendations and a strategy to ensure future recording, preservation and management of the heritage assets within the park.

2 Methodology and sources consulted

2.1 Desk-based assessment

2.1.1 For the purposes of this report the documentary and cartographic sources, including results from any archaeological investigations in the site and a study area around it, were examined in order to determine the likely nature, extent, preservation and significance of any buried heritage assets that may be present within the site or its immediate vicinity. This study has been used to determine the potential for previously unrecorded heritage assets of any specific chronological period to be present within the site.

2.1.2 In order to set the site into its full archaeological and historical context, information was collected on the known historic environment features within a 1km-radius study area around the area of proposed development, as held by the primary repositories of such information within Greater London. These comprise the Greater London Historic Environment Record (HER) and the London Archaeological Archive and Research Centre (LAARC). The HER is managed by English Heritage and includes information from past investigations, local knowledge; find spots, and documentary and cartographic sources. LAARC includes a public archive of past investigations and is managed by the Museum of London. The study area was considered through professional judgement to be appropriate to characterise the historic environment of the site. Occasionally there may be reference to assets beyond this study area, where appropriate, e.g., where such assets are particularly significant and/or where they contribute to current understanding of the historic environment.

2.1.3 In addition, the following sources were consulted:

- MOLA – Geographical Information System (GIS) with English Heritage spatial data on statutory designations including scheduled monuments, registered parks and gardens, and listed buildings.
- English Heritage – National Record for the Historic Environment (NHRE). The NHRE is generally not as comprehensive as the GLHER but can occasionally contain additional information.
- LB Ealing – topographic survey data of the historic core area (received May 2013); preliminary proposals and design information (received December 2012); an archaeological watching brief report for Gunnersbury Park Dairy (AOC 2008); Princess Amelia's Bathhouse archaeological survey and assessment (CgMs 2001).
- Chris Blandford Associates – The Gunnersbury Park Estate Conservation Management Plan (June 2008).
- Sarah Couch Historic Landscapes – Gunnersbury Park Landscape Conservation Statement (February 2012).
- Purcell Miller Tritton LLP – Gunnersbury Park Built Heritage Conservation Statement (PMT February 2012).
- Gunnersbury Park Museum – historic maps, published histories and archaeological collections.
- Chiswick Library Local Studies Room – historic maps and published histories.
- Ealing Library Local Studies – historic maps and published histories.
- Landmark Envirocheck – historic Ordnance Survey maps from the first edition (1860–70s) to the present day.
- British Geological Survey (BGS) – solid and drift geology digital map; online BGS geological borehole record data.

- Internet – web-published material including LPA local plan, and information on conservation areas and locally listed buildings.

2.1.4 A heritage tree survey (PMT 2013); hydrology survey, and wall survey (University of East Anglia Heritage Landscape Group 2013) are currently being carried out and it is hoped that when the results are available, they will be used in conjunction with this report to further understanding of the archaeological potential and historical development of Gunnersbury Park.

2.1.5 Fig 3 and Fig 4 show the location of known historic environment features within the site and surrounding study area. These have been allocated a unique historic environment assessment reference number (**HEA 1**, **2**, etc.), which is listed in a gazetteer at the back of this report and is referred to in the text. Known assets which are located within the site itself have an HEA 1, 2 or 3 prefix (e.g. **HEA 1A**, **1B**, **2A**, **3A** etc.). Only those statutorily listed buildings within the site are included.

2.1.6 Section 11 sets out the criteria used to determine the significance of heritage assets. This is based on four values set out in English Heritage's *Conservation principles, policies and guidance* (2008), and comprises evidential, historical, aesthetic and communal values. The report assesses the likely presence of such assets within (and beyond) the site, factors which may have compromised buried asset survival (i.e. present and previous land use), as well as possible significance.

2.1.7 Section 12 contains a glossary of technical terms. A full bibliography and list of sources consulted may be found in section 13. This section includes non-archaeological constraints and a list of existing site survey data obtained as part of the assessment.

2.2 Consultation

2.2.1 The author wishes to acknowledge the kind and invaluable assistance of various people who contributed to the preparation of this report.

2.2.2 Jan Anderson of LB Ealing kindly provided topographic and project information.

2.2.3 Professor James Wisdom and Val Bott of the Friends of Gunnersbury Park and Museum (FGPM; Registered Charity no 286310) have extensive knowledge on the history of Gunnersbury Park having had close involvement with the park and museum over many years. Val Bott provided comments on the gazetteer and features map included with this report in order to ensure that it presents a comprehensive picture of the known archaeology of the site.

2.2.4 Vanda Foster, curator of the Gunnersbury Museum, provided information on the location of various relevant archives within the museum, as well as additional information on the historical development of Gunnersbury Park.

2.2.5 Sarah Dhanjal, MOLA's public outreach specialist for the project liaised with Ellie Lewis-Nunes from the LB of Ealing in order to determine the scope of public involvement in the various stages of the project.

2.3 Aerial photographs

2.3.1 The assessment included an examination of selected vertical and oblique (specialist) aerial photographs covering the Gunnersbury Park area as held by the National Air Photograph Library at the English Heritage National Monuments Record in Swindon. The coversearch included 125 vertical air photographs and 67 oblique photographs from the 1940s to the present day. No parchmarks of possible subsurface archaeological features were identified. The vertical photographs did however show the extent of the Second World War gun battery and barracks in the western half of the site.

2.4 Site walkover inspection

2.4.1 The assessment included two initial reconnaissance site visits carried out on the

20th of May and the 4th of June 2013, as well as a more detailed walkover inspection carried out on the 2nd of July in order to determine the topography, existing land use/the nature of the existing buildings on the site, and to provide further information on areas of possible past ground disturbance and general historic environment potential. Observations made on the site visit have been incorporated into this report, with additional features noted on the features map and gazetteer.

2.4.2 The area of the former kitchen gardens and greenhouses in the centre of the northern part of the site were not accessed as it is under private ownership and lies outside the HLF bid area. The former stable block in the eastern part of the site was fenced off and not accessed. Some areas such as parts of the pitch and putt course and the area to the east were heavily overgrown with vegetation and were not inspected.

2.4.3 The main findings of the walkover include various parchmarks in the northern and central parts of the West Field. These were thought to indicate below ground remains associated with the Second World War and later use of the site. Low ridges to the south of the former tennis courts are possibly remains of former arable use. Low earthwork mounds and ridges were noted which indicate landscaping remnants within the historic core. The majority of the features identified during the site walkover have an HEA 3 prefix.

2.4.4 At least three north-south linear ground depressions were noted on the site visit in the northern half of the western part of the site, with one extending across almost the length of the western edge of the field. These mark the line of 20th century pipelines; a small pipe was exposed in one short section.

2.5 Public engagement

2.5.1 A key element of the project is public engagement. Following the initial research and site visits, a number of key themes for further desk-based research have been identified. The FGPM were approached in order to draw on local knowledge and interest in documentary research related to the history and development of the park.

2.6 Limitations of Stage 1

2.6.1 The main limitation to the assessment of effects on buried heritage assets is the nature of the archaeological resource – buried and not visible – which means it can be difficult to accurately predict the presence and likely significance of buried heritage assets, and the impact of the scheme upon such assets, based primarily on a desk based sources.

2.6.2 The principle sources of information on heritage resources are the GLHER and the LAARC, which list known archaeological sites and finds. The information listed in the gazetteer provides an initial indication of assets present rather than a definitive list of all potential archaeological assets because the full extent of a buried heritage resource cannot be known prior to site-specific archaeological field investigation.

2.6.3 The park has seen little formal and systematic archaeological investigation in the past, although information from documentary and cartographic sources, along with investigations in the study area, has helped to build up a picture of the likely potential for archaeological remains within the site. Current understanding is however particularly limited for periods not present in the historical record (prehistoric, Roman and early medieval periods).

3 Site location, topography and geology

3.1 Site location

3.1.1 Gunnersbury Park (the site) is situated within the London Borough of Hounslow, set between Brentford and Acton to the south of Pope's Lane, London W3 (centre-point: NGR 518733 178873; Fig 1)

3.1.2 The site is bounded by Pope's Lane to the north, Gunnersbury Avenue (A406: North Circular Road) to the east, Kensington Cemetery to the south-east, office blocks and associated car-parking to the south, Lionel Road to the south-west, and terrace houses and gardens fronting Lionel Road to the north-west. The site falls within the historic parish of Ealing (1582), later forming a part of the parish of Old Brentford (1828), and lay within the county of Middlesex prior to being absorbed into the administration of the Greater London Borough of Hounslow.

3.1.3 For the purposes of this assessment, the site has been divided into six zones associated with key historic elements, land use and archaeological potential. These are shown on Fig 2 and comprise:

- ***Zone 1: Historic houses and formal grounds***. This zone is located in the north-eastern part of the site and includes the site of 17th century manor house; Gunnersbury Park House (the 'Large Mansion' and current Gunnersbury Museum), Gunnersbury House (the 'Small Mansion' to the east of the former), the 17th and 18th century terrace and formal landscaped gardens and associated buildings to the north-west and south-east of these houses. It includes the Temple, Temple Lake, Princess Amelia's Bathhouse, the Orangery and South Lawns and the infilled Horseshoe Pond, the gothic ruins and former Japanese Garden, and the East Walled Gardens.
- ***Zone 2: Ornamental parkland***. This zone lies in the south-eastern part of the site, south of Zone 1 and comprises an open grassed field bordered by mature trees. It formed a large area of ornamental parkland which lay directly to the south of the Large and Small Mansions. Zones 1, 2 and 6 (the former kitchen gardens; see below) formed the entirety of the estate until its extension to the west by the Rothschilds in the mid-19th century.
- ***Zone 3: Coles Hole and the Potomac Lake***. This zone is located in the south-western part of the site and includes the former early 18th century brickearth extraction pit, later the Potomac Lake, and the Potomac Tower and Pulhamite Rockery.
- ***Zone 4: former Old Brentford Common Field***. This zone covers the western-central part of the site and comprises open fields. The ground slopes gradually down to the south. It includes the site of the Rothschilds' former Polo Field.
- ***Zone 5: North playing fields***. This zone lies to the north of Zone 4 and comprises open playing fields. It was formerly the site of a WWII gun emplacement and associated barracks.
- ***Zone 6: former kitchen gardens***. This zone lies in the centre of the northern part of the site and is currently a fenced area used by the gardeners. There are a number of greenhouses. This zone is not included in the HLF grant application area.

3.2 Topography

3.2.1 Topography can provide an indication of suitability for settlement, and ground levels can indicate whether the ground has been built up or truncated, which can have implications for archaeological survival (see section 5).

3.2.2 Gunnersbury Park lies across three gravel terraces (see section 3.3 below) which slope down from north to south towards the Thames, *c* 450m south of the site. At the northern end of the site, adjacent to Pope's Lane, ground levels at the highest point of the site lie at *c* 26.0m Ordnance Datum (OD). At their lowest point, at the southern corner of the site adjacent to the Great West Road, ground levels lie at *c* 10.0m OD. LB Ealing provided a detailed (1:200 scale) levelled topographic survey of the historic core area in the north-eastern part of the site (including the South Lawns and Temple), carried out in 2012 (Longdin and Browning Drg 6641-1 Rev 0, 02/01/2013).

3.2.3 Although the general slope from north to south towards the River Thames was observed during the site visit, it was also evident that the natural topography has been considerably altered as part of landscaping works during the post-medieval period. Areas have been levelled and flattened for the construction of manor buildings, including the Large and Small Mansions in the north-eastern parts of the park. These areas are mainly confined to the north-eastern part of the park. There are also areas in the vicinity of the former Horseshoe Pond where raised and/or excavated areas are overgrown with plants; these are probably evidence of former garden walls and drained, in-filled water features.

3.2.4 The large open field areas in the western part of the park have been less obviously altered and have not been previously developed with buildings (although a WWII artillery site was located at the northern end); however, there is documentary evidence that quarrying for brickearth may have been carried out in the southernmost part of the fields in the 17th–19th centuries (beyond and to the north of the quarrying which was carried out at the Potomac Lake) and that the excavated areas were gradually levelled for agriculture/pasture and the creation of a polo field by the Rothschilds in the 1860s. The existing pitch-and-putt golf course in the centre of the site has had localised levelling and landscaping, whilst the periphery is overgrown and the ground level obscured. It occupies a field which dates back at least to the 1860s 25": mile Ordnance Survey map (Fig 15), which was used as a holding pen for cattle before this became a public park.

3.3 Geology

3.3.1 Geology can provide an indication of suitability for early settlement, and potential depth of remains. Fig 5 shows the drift and solid geology of the site and its vicinity, derived from British Geological Survey digital data.

3.3.2 London occupies part of the Thames Basin, a broad syncline of Chalk filled in the centre with Tertiary sands and clays. In most of London, this Tertiary series of bedrock consists of London Clay. Above the bedrock lie the Pleistocene (Quaternary) fluvial deposits of the River Thames arranged in flights or gravel terraces. These terraces represent the remains of former floodplains of the river, the highest being the oldest with each terrace becoming progressively younger down the valley side. The site straddles three of these gravel terraces which slope down towards the Thames, *c* 450m to the south of the site.

3.3.3 The northern terrace comprises Lynch Hill Gravels. The Lynch Hill Gravels are one of oldest terraces and known to contain the highest concentration of flint artefacts from the Lower and Middle Palaeolithic period (*c* 800,000 BC–35,000 BC), including rare and important *in-situ* material within fine-grained lenses within the gravels. Such lenses are almost impossible to predict. British Geological Society (BGS) data indicates that the northern part of the site, approximately 25% of the total site area, is located on Lynch Hill Gravels. A thin east-west band of London Clay outcrops between this terrace and the one to the south. The two mansion houses and the higher terrace on which they are located – extending to a strip on the south side of the Round Pond – are located on the outcrop of Clay. The outcrop of Clay may have been a deciding factor in the locating the existing and earlier buildings in the part of the site.

3.3.4 The middle terrace, forming the geology of the majority (*c* 60%) of the site (central area), comprises Taplow Gravels. A thin band of lower Kempton Park Gravels runs along the south-eastern boundary of the site, which, in the south-western corner of the site, is overlain by Langley Silt Formation, also known as 'brickearth'. This geology makes up the remaining *c* 15% of the site.

3.3.5 Brickearth is a fine-grained deposit laid down as alluvium and/or wind-blown deposits during the last glaciation around 17,000 BC in the London area. Although the BGS data indicates that only a small portion of the site lies on brickearth, a past investigation in the north-east of the site, on the Lynch Hill/Taplow Gravels, discovered post-medieval wall foundations cut into natural brickearth, which indicates that brickearth is present across a wider area, in the northern part of the site. There are likely to be surviving pockets of brickearth across the site, particularly in the southern and western areas, where historic brickearth extraction activities are known to have been carried out.

3.3.6 There is no geotechnical data available for the site itself. Data is available for three past investigations within the study area, although all were carried out at some distance to the south of the site in developed areas. The results are presented in the table below.

Table 1: Levels of natural geology recorded during archaeological investigations close to the site

Site	Distance/direction from site	Street Level	Top of brickearth	Top of gravels
The Pinnacle, Chiswick Roundabout W4 (**HEA 5**)	c 420m to the south-east of the site	10.5–11.5m OD	10.6m OD (truncated by basement / ground slab)	Not reached
1 High Street, Brentford TW8 (**HEA 8**)	*c* 430m to the south of the site	7.0–8.0m OD	7.3m OD (truncated by ground slab)	6.3m OD
Kew Bridge House, Brentford TW8 (**HEA 10**)	*c* 445m to the south of the site	7.0m OD	3.2–5.3m OD (truncated by basement slab)	Not reached

3.3.7 The results show that to the south of the site, brickearth had been directly truncated by basements and ground slabs to depths of 0.0–1.7m below ground level (bgl). In the one investigation where natural gravels were reached, these lay *c* 1.0–1.5mbgl. Although the results of these investigations potentially give some indication of levels in the southern part of the site, they cannot be used to predict levels across the site as a whole due to its considerable size and variation in ground levels. However, considering the lack of previous development across the site as a whole, natural brickearth/gravels are predicted to lie fairly close to the current ground level beneath the topsoil/subsoil, perhaps within 0.5–1.0m of the ground surface, with a thickness of *c* 2.0m.

3.4 Hydrology

3.4.1 The closest natural major watercourse is the River Thames, *c* 450m to the south of the site. The River Brent, a tributary of the Thames, lies *c* 1.5km to the west.

3.4.2 It is clear from the number of water features in the park that there is a ready supply of natural water in the north-eastern part of the park. This is probably derived from a natural springline located along the boundary of the east-west outcrop of impermeable London Clay, which lies beneath the mansion houses (see above).

3.4.3 There is a pond at the junction of Gunnersbury Lane and Pope's Lane just north of the main park entrance and several water features within the north-east of the park including the Round Pond (**HEA 1G**), the former Horseshoe Pond (**HEA 1L**), a Bath

House (**HEA 1W**) and Japanese Garden water features (**HEA 3T**) in the eastern edge of the site. There was also a large pond in the south-eastern part of what is now the Pitch and Putt course, with an iron pipe extending to the south of this. The Potomac Lake in the south-western part of the site is a waterfilled quarry. North-south linear depressions of at least three pipes were noted in the western half of the site. It is very likely that these are connected through various subterranean pipes and water management features.

4 Archaeological and historical background

4.1 Overview of past investigations

4.1.1 Four archaeological investigations have been carried out in the site in the past and a further ten have been carried out within a 1km-radius study area, although six of these are concentrated to the south of the site in the area of Kew Bridge Road, Brentford. The lack of investigations within the site and its immediate vicinity mean that, with the exception of the later post-medieval period (late-17th to 20th centuries), the site is not well understood archaeologically. This is particularly true of the prehistoric to early medieval periods, for which there is no literary or cartographic evidence. It should be noted that Gunnersbury Museum holds a large collection of archaeological material which has only recently begun to be catalogued. Very little of this is likely to be directly related to the park itself; however, there may be artefacts recovered from the park held in this collection, the majority of which has been bequeathed to the museum by private collectors and may not been included in the GLHER record. Palaeolithic artefacts which are recorded on museum index cards as having been recovered from the park were viewed during a visit to the museum and have been described in this report.

4.1.2 Detailed reports are available for three of the four archaeological investigations which have been carried out within the site. These date to 1997 (**HEA 1C**), 2001 (**HEA 2X**) and 2008 (**HEA 1B**). All were carried out in the 'historic core' (Zone 1) of the park and were intended to reveal further information about known and existing historic buildings and building foundations on the site.

4.1.3 In 1997, during the digging of a trench to replace a burst water main in the north-eastern part of the site, *c* 75m north of the Large Mansion, a number of wall foundations were discovered (**HEA 1C**). The West London Archaeological Field Group (WLAFG) was subsequently commissioned to carry out an archaeological investigation. By plotting the wall foundations onto an Ordnance Survey map and comparing them to 18th and 19th century maps, it was possible for WLAFG to identify three separate foundations as belonging to former garden boundary walls; the earliest of which dated to *c* 1658–1777, with the other two dating to the late-18th to early-19th centuries.

4.1.4 In 2001, an archaeological and historic building investigation was carried out on the site of Princess Amelia's Bathhouse (**HEA 2X**) which revealed three main elements to the structure. The shell grotto probably dates to the late-18th century, and was built to the west of and incorporating a stretch of the 17th century garden wall, with a crudely-built arcade of flint and pottery wasters, probably dated to the early-19th century. A room was added alongside the eastern part of the wall in the early-19th century. An enclosed area to the north functioned as a fernery or garden grotto with cement-work 'rocks' and 'stalactites', through which tiny water pipes ran to maintain humidity. Water exited beneath the floor of the southern room.

4.1.5 The 2008, a limited archaeological observation (**HEA 1B**) was carried out within the area of the former Gunnersbury Park Dairy in the north-western part of the site. Four geotechnical test pits were excavated to determine the character of foundations associated with a modern toilet block to ascertain whether they had any relationship with the former dairy buildings; however, the foundations were discovered to be modern concrete and no archaeological remains were recovered.

4.1.6 Geophysical resistivity and ground penetrating radar surveys were carried out in the north lawn and East Walled Garden by Birkbeck College archaeology department students in 2012 (**HEA 2Y**; no site code). Detailed results of this investigation have not been made available to LB Ealing and it has therefore not been possible to incorporate them into this report.

4.1.7 The closest investigations to the park, at 41–53 Ealing Road (**HEA 51**) *c* 140m to the west, in the area of South Ealing Cemetery, uncovered only a possible 18th

century culvert cutting subsoil. An investigation at Carbery Avenue, (**HEA 4**), *c* 385m to the north-east of the park, discovered natural gravels overlaid by alluvial clay and subsoil, as well as substantial ground-levelling dumps. All other past investigations were carried out to the south of the site, clustered around the junction of Kew Road and Kew Bridge Road. In this area, the majority of archaeological remains uncovered dated to the post-medieval period; however, evidence of prehistoric activity along the Thames bank was also uncovered in the form of flint flakes and tools dated from the Mesolithic to the Bronze Age periods.

4.1.8 The results of the investigations suggest that the Thames was utilised throughout the prehistoric period as a source of food, water and transportation, which is also supported by the distribution of prehistoric artefacts to the south of Gunnersbury Park (outside the site). This distribution is not limited to the riverbank however; scattered remains have also been discovered to the east and west of the park, including unprovenanced finds of Palaeolithic flint flakes and tools from the site itself. This suggests that the well-drained gravel terraces to the north of the river, including the site, were areas of prehistoric activity. Evidence for Roman activity is very sparse and limited to the find of a single Roman coin. There is also little physical evidence of medieval activity, although the centre of a medieval manor known as 'Ealingbury Manor' is listed on the Greater London HER as being located to the immediate north-east of Gunnersbury Park (**HEA 16**).

4.2 Prehistoric period (800,000 BC–AD 43)

4.2.1 The Lower (800,000–250,000 BC) and Middle (250,000–40,000 BC) Palaeolithic saw alternating warm and cold phases and intermittent perhaps seasonal occupation. During the Upper Palaeolithic (40,000–10,000 BC), after the last glacial maximum, and in particular after around 13,000 BC, further climate warming took place and the environments changed from steppe-tundra to birch and pine woodland. It is probably at this time that England saw continuous occupation. Erosion has removed much of the Palaeolithic land surfaces and finds are typically residual. As mentioned in section 3.3.3, the Lynch Hill Gravels, which form the geology of the northern part of Gunnersbury Park, are known to contain the highest concentration of flint artefacts from the Lower and Middle Palaeolithic period (*c* 800,000 BC–35,000 BC). Although there is no provenance, the Gunnersbury Museum holds a collection of Palaeolithic flint flakes and tools, including a large hand-axe and an adze referred to on the index card records as 'the Crook Collection'. There are at least two boxes of finds which make up this collection. Several of the individual pieces are recorded on the cards as having been discovered in 1873. A findspot of Palaeolithic flint handaxes and flakes (**HEA 13**) is also located at the northern edge of the park to the rear of houses fronting Pope's Lane. It is not known whether this is a reference to the Crook Collection or a separate findspot. In any case, the finds, which are well-preserved, indicate Palaeolithic activity in the park.

4.2.2 As well as flint flakes and tools, an antiquarian report describing the excavation of a clay pit in a field 'near Brentford' (Trimmer W K 1813, 103, 131–137), details animal remains dated to the Palaeolithic period which were recovered during the works, including '…the teeth and bones of both the African and Asiatic elephant, teeth of a hippopotamus, bones, horns, and the teeth of an ox'. The field is described as being '…about half a mile north of the Thames at Kew Bridge; its surface is about twenty-five feet above the Thames at low water.' Its exact location is not known, however, the report may be describing 'Cole's Hole', a large, deep clay pit located in the south-western part of the park. The clay pit/pottery was sold to the Rothschilds in the 1860s and was converted into a boating lake known as the Potomac (**HEA 2J**).

4.2.3 Away from the immediate area of the park, a Lower Palaeolithic handaxe was also found by chance 350m to the north-east of the site (**HEA 47**). In the southern part of the study area, a pointed handaxe dated to the Lower Palaeolithic (**HEA 25**) is listed by the GLHER as having been discovered *c* 415m to the south at the junction of

Kew Bridge Road and Chiswick High Street. An assemblage of Palaeolithic mammalian remains (**HEA 36**) is also listed in approximately the same location, 400m to the south. A further assemblage of Palaeolithic mammalian remains (**HEA 30**) was discovered *c* 400m to the south-west of the site at Great West Road in Brentford during the construction of the Simmonds Aerocessories A.R.P. Shelter in the 1930s.

4.2.4 The Mesolithic hunter-gather communities of the postglacial period (10,000–4000 BC) inhabited a still largely wooded environment. The river valleys such as the Thames, 450m to the south, and its tributary the Brent, 1.5km to the west, would have been favoured in providing a predictable source of food (from hunting and fishing) and water, as well as a means of transport and communication. Evidence of activity is characterised by flint tools rather than structural remains. Worked and burnt flints of possible Mesolithic or Neolithic date (**HEA 7**) were discovered as part of an archaeological investigation *c* 325m to the south of the site at Kew Bridge Road. The GLHER also records finds of early Mesolithic to late Neolithic flint implements slightly closer to the site (*c* 275m to the south) (**HEA 23**), which may be a separate findspot or possibly a duplicated entry.

4.2.5 The Neolithic (4000–2000 BC) is usually seen as the time when hunter gathering gave way to farming and settled communities, and forest clearance occurred for the cultivation of crops and the construction of communal monuments. Pollen records indicate forest clearance over large areas of the British Isles during this period. Other than the burnt flints of possible Mesolithic to Neolithic date (**HEA 7** and **23**) mentioned in section 4.2.4 above, early Neolithic pottery was discovered in a shallow pit during a past investigation close to the Thames at Kew Bridge House (**HEA 12**) *c* 475m to the south of the site. A pointed stone Neolithic axe (**HEA 28**) was also discovered along the Thames foreshore *c* 500m to the south. The only remains discovered a considerable distance to the north of the Thames were a battered flint flake and notched scraper (**HEA 20**) discovered *c* 340m to the west of Gunnersbury Park, in Ealing and Old Brentford Cemetery (**HEA 19**).

4.2.6 The Bronze Age (2000–600 BC) is characterised by technological change, when copper and then bronze eventually replaced flint and stone as the main material for everyday tools. It is seen as a period of increasing social complexity and organised landscapes, probably due to increasing pressure on available resources. All discoveries of Bronze Age remains from the study area have been made close to the River Thames. Bronze Age 'material' (unspecified) was discovered within the fill material of later features during a past investigation at Kew Bridge House (**HEA 12**) *c* 475m to the south of the site. An investigation at Kew Bridge Road (**HEA 10**), *c* 440m to the south of the site, recovered two pieces of worked Bronze Age flint within the fill of probable medieval ditches. A horse harness (chape) dated to the Bronze Age (**HEA 27**) was also discovered at Kew Bridge *c* 480m to the south-east of the site.

4.2.7 During the Iron Age (600 BC–AD 43), the climate deteriorated with colder weather and more rainfall. The period is characterised by expanding population, which necessitated the intensification of agricultural practices and the utilisation of marginal land. Hillforts were established in lowland Britain, linked to tribal land ownership. Evidence for Iron Age activity within the study area comprises chance finds of a Belgic un-inscribed tin coin (**HEA 14**) discovered at Old Brentford *c* 20m to the east of the park boundary, and the findspot of Iron Age tin coins *c* 345m to the north-east (**HEA 44**).

4.2.8 In summary, the remains recovered from the study area suggest that prehistoric activity was concentrated along the Thames foreshore to the south of the site. The higher gravel areas to the north of the River Thames, including Gunnersbury Park, may have been sporadically occupied from the Palaeolithic to the Neolithic periods, as evidenced by discoveries of flint tools from the park and surrounding areas. Evidence for Neolithic, Bronze Age and Iron Age activity to the north, west and east of the site is limited to isolated chance finds. There is no evidence for significant

Bronze Age activity to the north of the Thames despite several chance finds from Kew Bridge. The single Iron Age coin discovered to the east of Gunnersbury Park suggests that the study area was similarly not densely populated in this period. Although the results may be skewed by the greater number of archaeological investigations carried out to the south of the site, the relative scarcity of finds suggests that the park and its immediate vicinity were not perhaps not densely nor continuously populated in the later prehistoric period.

4.3 Roman period (AD 43–410)

4.3.1 Shortly after the Roman invasion of Britain in AD 43 the main settlement of London (*Londinium*) was established on the north side of the Thames, *c* 9km north-east of the park. The Thames provided a convenient highway for water transport, opening up a vast range of trade routes (Hall and Merrifield, 1993). Numerous farms and villas would have been located outside the city walls which would have supplied the city with food and household goods (Mills and Whipp 1980, 4) along the network of roads feeding into and out of *Londinium*. A major Roman road leading out from London to the west ran through the Borough of Hounslow. This road is believed to have run through Acton Green and along the line of Chiswick High Road, Kew Bridge Road and Brentford High Street (Clegg 1991, 30), *c* 375m to the south-west of the park. Only two excavations (site codes: BRE70 and BRE77) have recorded the road surface and drainage ditches around Brentford High Street.

4.3.2 During the Roman period Brentford was a small settlement located at the point where the River Brent flows into the Thames (*ibid*, 32) *c* 1.5km to the south-west of the park. Numerous excavations have revealed that the settlement was probably a ribbon development, stretched along the road for 400–600m. It was also unlikely to have been prosperous as only the remains of clay and timber buildings have been recorded (*ibid*, 33).

4.3.3 During this period, the site would have lain at some distance from the main settlement at Brentford and there is very little evidence for Roman activity, although a Roman coin (a *dupondius* of the Emperor Hadrian) dated to the 2nd–3rd century (**HEA 1F**) was discovered in the eastern part of the site. A Roman coin was found by chance outside the site on Gunnersbury Lane (**HEA 45**), 265m to the north-east.

4.3.4 No other archaeological evidence of Roman activity has so far been discovered within the study area. It is likely that Roman occupation and activity was concentrated to the south-west of the site at Brentford. The single coin discovered in the site may have been deposited by a number of means and does not necessarily indicate settlement. The lack of finds suggests the site and its immediate vicinity lay within unoccupied woodland in this period, although as with the prehistoric, the small amount of past archaeological investigation with the site and across the study area means that current understanding regarding the nature and extent of Roman activity is limited.

4.4 Early medieval (Saxon) period (AD 410–1066)

4.4.1 Following the withdrawal of the Roman army from England in the early-5th century AD the whole country fell into an extended period of socio-economic decline. Around the 9th and 10th century, the local parochial system began to replace the earlier Saxon Minster system, with formal areas of land centred on nucleated settlement served by a parish church.

4.4.2 The site was located in the manor (estate) of Ealing (Ealingbury). The place name of Ealing possibly derives from the Anglo-Saxon *Gillingas*, meaning ‘Gilla’s people’, who appear in the records of the late-7th century (Robbins 1953). The manor is mentioned in a charter issued by Aethelred of Mercia in AD 698, at which time there was probably a small settlement. In AD 704, Ealing manor become part of the manor of Fulham (*Fulanham*), suggested by a charter recording the grant of land from the Bishop of Hereford to the Bishop of London (Gelling 1979). Ealing is

mentioned again in AD 942 in a will of Theodred, Bishop of London. The main settlement probably grew up in the area of the later medieval village of Ealing in the centre of the manor, *c* 1km to the north-west of the park.

4.4.3 A second settlement, Brentford, grew up in the south of the manor beside the River Thames. Brentford was first recorded in AD 705 when the kings of Wessex and Essex met there and Offa, king of Mercia, held a council in AD 780. Archbishop Jaenbeorth also held a synod there in AD 781. The name has generally been assumed to refer to the ford over the River Brent, although it may have referred to the crossing of the Thames. The strategic importance of the ford is highlighted by the battle of Brentford, fought on the south bank between King Edmund Ironside and King Canute in AD 1016 (VCH *Middlesex* vii, 113–120). The settlement probably grew up along Brentford High Street *c* 375m to the south of the park, which approximately followed the line of the old Roman road to Silchester (*ibid*, 101–105).

4.4.4 A number of booklets on the history of the park record that the old name for Gunnersbury was 'Gonyldesberry' or 'Gunyldesbery'. In the early part of the 11th century it is believed to have been the residence of Gunyld or Gunylda, niece to King Canute (Some Historical Notes on Gunnersbury Park, Chiswick Library Local Studies Room, MP 2699).

4.4.5 No evidence of early medieval activity has been recorded within the park or the immediate surrounding area, although this may reflect the limited amount of past archaeological investigation. In all likelihood the park lay in woodland or possibly open fields throughout this period.

4.5 Later medieval period (AD 1066–1485)

4.5.1 Ealing is not mentioned in Domesday Book (AD 1086) as it formed part of the Bishop of London's extensive manor of Fulham (VCH *Middlesex* vii, 105–13). The main settlements in the area were the villages of Ealing, *c* 1km to the north-west, and Brentford, *c* 375m to the south.

4.5.2 The Ealing manor house, named Ealingbury, lay some distance from the settlement centres lay to the north of the north-eastern boundary of the park at the junction of Gunnersbury Lane and Pope's Lane (VCH *Middlesex* vii, 123–128) (**HEA 44**; note that the GLHER misplaces the location on Lillian Grove – see **HEA 16**). The house was demolished after 1935. It is first mentioned in 1422, and was later known as Ealingbury House (1813), and Ealingbury or Gunnersbury Manor House (1835). The manor was owned by the Bishop of London until the 19th century and demesne (land farmed directly by the landowner) lay to the south and east of Gunnersbury Park; some of the farmland was interspersed with other estates and some was included in Gunnersbury Park (VCH *Middlesex* vii, 123–128).

4.5.3 The GLHER (**HEA 1E**) places the centre site of the medieval hamlet of Gunnersbury in the north-eastern part of the site, although there is no reference source or supporting evidence for a settlement here. If there was a small settlement it would have comprised only several properties, probably beside the Ealing manor house and road junction, and might conceivably have been within the northern edge of the north-eastern part of the site prior to the formation of the Gunnersbury Park estate in the mid-14th century.

4.5.4 By the mid-14th century parts of Ealing manor were sold off and this included land that became Gunnersbury manor, which included the site. The estate is first mentioned in 1378 when it was held of the Bishop of London and included 228 acres. The Victoria County History (VCH *Middlesex* vii, 123–128) sets out the estate ownership from the 14th century, which is not repeated here. No manor house is mentioned but one evidently existed by 1464 when Sir Thomas Frowyke was born at Gunnersbury.

4.5.5 By 1593 an 'ancient' house, formerly of the Frowykes, was located to the south-east of Ealing village. This may have been the house in which John Maynard lived whilst his new mansion was being built by John Webb in the north-east part of the site in

the 1650s (see section 4.7.6). Its exact location is not known but it has been suggested that The Frowykes was possibly located close to the later, 17th century, house in the area of the kitchen gardens (**HEA 2R**), to the west of the Temple and Temple Gardens (James Wisdom, FGPM, *pers. comm.*).

4.5.6 There may have been a small settlement close to the north-eastern corner of the site beside the junction of Pope's Lane and Gunnersbury Drive. The GLHER locates the conjectured location of the centre of a medieval hamlet here (**HEA 1E**; GLHER MLO68897), although it is not clear what information this is based on. As the location of the medieval manor house is not currently known the location of the hamlet as listed on the GLHER may be inaccurate.

4.5.7 Other than possible medieval settlement in the north-eastern corner of the site, the majority of the park would have probably comprised agricultural land throughout the later medieval period. Nichols' 1777 map of the Parish of Ealing (Fig 7) indicates that the western half of the site was the 'Old Brentford Common Field' (**HEA 2F**) and would have been such in this period, when it was either used for pasture and the rough grazing of livestock, or cultivated strips of arable land. Part of the site was used for small-scale hand-dug brickearth extraction (see section 4.6.8) as was carried out in the south-western part of the site in the post-medieval period. As communally owned land it is unlikely that this area was ever built on.

4.5.8 Known medieval finds in the study area comprise the chance finds of a medieval *bulla* dating to the mid-12th century (**HEA 15**), 65m to the north-west of the site. The MOLA site visit noted a series of low (<0.1m high) east-west ridges on the south side of the former tennis courts in the southern-central part of the site (the southern part of Zone 2) (**HEA 3I**). These are possibly the remains of medieval ridge and furrow (the corrugated remains of medieval ploughing). A site visit carried out by heritage specialists from Purcell UK in July 2013 also noted an area of ground ridges along the eastern boundary of the playing fields and the ornamental parkland (**HEA 3U**), although these are thought to be post-medieval narrow ridges, rather than medieval ridge and furrow.

4.6 Post-medieval period (AD 1485–present)

4.6.1 This section discusses the general development of the area during this period, along with the brickearth extraction and brick and tile manufacture in Brentford Common Field and the area of the Potomac in the western part of the site. Section 4.7 focuses on the later development of the estate land and buildings within the boundaries of the present Gunnersbury Park.

4.6.2 The area around the Gunnersbury estate has changed drastically over the last two hundred years, from a rural landscape of agricultural use and scattered farmsteads in the 17th to late-19th centuries to an extensive suburban development in the west of London. The main settlement was focussed to the south at Old Brentford, beside the River Thames. Notable settlement to the north, in the study area around the site included the (medieval) Gunnersbury manor house, The Frowykes, which was probably in the north-eastern part of the site, and the Ealingbury Manor House (**HEA 44**) to the north of the north-east of the Park, on the north side of Pope's Lane. The latter was said to have been a fine house with well-appointed outbuildings but was sacked in 1642 and was uninhabitable in 1647 (VCH *Middlesex* vii, 123–128). It was later either rebuilt or remodelled but in 1898 still contained substantial 17th century elements, and was a large redbrick and tiled house of three storeys. It was modernized in 1935 and later demolished (*ibid*).

4.6.3 The area, in particular Brentford to the south, was badly hit by the "The Great Plague" in the 1660s (Shrewsbury 1970, 483) with a large majority of burials taking place in the fields around Old Brentford (Lysons 1795, 223–240). Cartographic sources from the 19th century locate a possible plague pit in an area noted as "Deadmen's Graves" (**HEA 40**) *c* 330m to the south-west of Gunnersbury Park, although the presence of human remains has never been verified as the pit has

never been excavated.

4.6.4 The earliest map consulted is Rocque's map of 1741–45 (Fig 6) which shows that the majority of the study area to the north, east and west of the site lying within open arable fields or pasture. The land in the southern part of the study area, at Brentford to the south-west, and along the Thames, was divided into smaller plots and used for as nursery gardens at this time.

4.6.5 Nichols' 1777 map of the Parish of Ealing (Fig 7) shows the majority of the area within open fields, although evidence of extensive clay extraction in the Brentford area (for pottery production) is illustrated by numerous large clay pits located to the west and south-west of the site.

4.6.6 There was no significant suburban development within the study area around the site until the late-19th century. A comparison between the Ordnance Survey 1st and 2nd edition 6'': mile maps of 1868–74 and 1896 (not reproduced to illustrate the whole study area) shows the massive extent of suburban building development which occurred within this period as a result of improved transport networks into and out of Inner London, including the construction of the North and South Western Junction Railway in 1869 and the Metropolitan District Railway Hounslow and Ealing Extensions in the 1870s.

4.6.7 Prior to its inclusion within the formal estate/park boundaries, parts of the western half of the site were dug for brickearth extraction and industrial pottery/tile manufacture. This has been the subject of documentary research carried out by museum and heritage consultant Val Bott of the FGPM and is discussed in more detail in her recent article 'Brentford Brick-Makers and Potters' (Bott 2011, *Brentford and Chiswick Local History Journal* 20).

4.6.8 Although brickmaking is only occasionally mentioned in historic documents concerning Brentford, it appears from historic maps showing clay ponds immediately to the west, and documentary records describing the occupants of neighbouring plots as brickmakers, that Old Brentford Common Field, which now forms the southern and central-western parts of the site (Zones 3 and 4) was used for brickearth extraction and for agricultural use, probably for grazing and arable cultivation. The will of James Barratt Snr, dated to 1750, describes the plots of land he bequeathed to two of his sons, comprising a total of three and a half acres within Old Brentford Field. To his son Thomas the will states he had the 'liberty… to dig and take Brick Earth… at the end thereof leaving the Land level on the surface thereof' (Bott 2011, 1–2). The quote sums up the difficulty of locating former extraction pits and analysing how extensive extraction works were, as the majority would have been filled in and levelled for later use, probably as pasture. The MOLA site visit noted no visible evidence of quarry pits within the site.

4.6.9 Coles Hole, which was converted into the Potomac Lake (**HEA 2J**) in the late-19th century, was bequeathed in 1719 by Richard Goodwin to his son-in-law John Browne; both were Brentford brick-makers. It is possible that the pit was named after an earlier owner. The depth of the excavation and the presence of an adjacent kiln suggest that good quality tile-clay, rather than brickearth, was produced (Bott 2011, 2). The Coles Hole Pottery passed through various hands and was eventually sold to the Rothschilds in 1861 as part of the extension of their estate.

4.6.10 Mounds of spoil from the quarrying activities and probably subsequent landscaping of the lake as a formal garden feature are present on the edges of the park to the south, south-east and west of the lake. These are several metres high and covered with mature trees and vegetation.

4.7 Development of Gunnersbury Estate and Park

4.7.1 The later post-medieval history of the Gunnersbury Estate and its development from the late-17th to mid-20th centuries has been the subject of numerous reports and publications (see paras 1.1.5 and 2.1.3). These have focused on prominent buildings and water features – both past and surviving – which were formerly the

property of various notable estate owners. This historic 'core' area of the estate is concentrated in the north-eastern part of the park (Zone 1), where the majority of its surviving 18th and 19th century buildings are located. As the estate buildings and their ownership history have already been extensively researched and published, key development phases are only briefly summarised.

Phase 1: pre-1656 ownership

4.7.2 The Frowyke and Spelman families occupied Gunnersbury in the 15th and 16th centuries. As discussed above, the location of the original, medieval, Gunnersbury manor house is not known, but is likely to have been in the north-eastern part of the site, on or in the vicinity of the later buildings here, or possibly slightly further west in the area of the Kitchen Gardens.

4.7.3 It has been suggested that the north-south path through the centre of the South Lawns, formerly known as 'Love Lane' (**HEA 2Q**), follows the line of an ancient, possibly medieval or early post-medieval, boundary as it appears consistently in historic maps and later forms the boundary between the two 19th century properties.

4.7.4 Although there is no documentary evidence, it has been noted by James Wisdom of the FGPM that the noticeable 'kink' in the line of the present-day Gunnersbury Avenue/North Circular, where it reaches the north-eastern part of Gunnersbury Park and veers sharply to the east, may represent a man-made shift of the road to accommodate the estate grounds, at least by the 17th or early-18th century, as it is shown on historic maps. The best cartographic evidence for this comes from Rocque's 1741–45 map (Fig 6) and Nichol's 1777 parish map (Fig 7) which show the former Gunnersbury Lane (Gunnersbury Avenue) as an otherwise straight road leading north to Ealing. The impression from these maps is that the road has been shifted to eastwards to make way for the mansion and formal gardens. The former road may be reflected by the alignment of the avenue shown between the two 'canals' to the south of the mansion on Rocque's map. It is also possible that changes to the road alignment occurred earlier; supported by the occupation of Gunnersbury in the 15th and 16th centuries and the likelihood that an earlier mansion was located in approximately the same part of the park as the subsequent mansions.

4.7.5 During this period the western half of the site lay outside the estate and within open fields, probably still within communal ownership and used for arable cultivation or pasture. Parts of the field were also subject to small-scale hand dug quarrying, as discussed above.

Phase 2: Webb's Palladian Villa and Formal Gardens 1656–1739

4.7.6 By 1656, the Gunnersbury estate was in the ownership of the prominent lawyer and politician, John Maynard. In 1658–63, a Palladian 'Gunnersbury House' was built (**HEA 2W**), designed by the architect John Webb, in the north-eastern corner of the site. The estate continued to pass down through Maynard's descendants following his death in 1690 until 1739.

4.7.7 The house, which is shown on Rocque's map of 1741–45 (Fig 6) and on Nichols' map of 1777 (Fig 7), was probably situated between and slightly to the north of the two existing Gunnersbury mansion houses. J Norris Brewer, writing in 1816 (*c* 16 years after the mansion was demolished), describes the subsequent Gunnersbury House and Gunnersbury Park House (see sections 4.7.21–4.7.33 below) as built on a terrace which 'ran before the house built by the architect Webb' and added, in a footnote, that 'that [earlier] mansion chiefly occupied the space between the two present houses' (Brewer 1816, 339).

4.7.8 Neither Rocque's nor Nichol's map is accurately surveyed enough to be able to use GIS to georeference ('rubbersheet') over the current Ordnance Survey mapping in order to provide an accurate location for the 17th century house. The main reference points in attempting to place the building by eye are the Horseshoe Pond,

the round pond to the west, and the Pope's Lane junction to the north. The MOLA site visit noted no above ground evidence for the building location, although there is a slight (*c* 0.3m) rise in the ground level of the small car park/area of hardstanding north of the western end of the Small Mansion, (**HEA 3V**), which might be evidence of ground disturbance and levelling associated with this building.

Phase 3: Expansion and development of the 18th century landscape by Henry Furnese and Princess Amelia 1739–1801

4.7.9 In 1739, the Gunnersbury estate was sold to the MP Henry Furnese, who acquired a total of 116.5 hectares (288 acres). Rocque's map of 1741–45 (Fig 6) is small scale and shows the location of settlements and roads as well as the general topography and landscape of the Gunnersbury estate, which appears to have extended as far south as the East Stables (**HEA 2C**). It is not known whether Rocque's map shows a garden which is contemporary with Webb's house or an accurate representation of the grounds when the map was drawn. The map shows Gunnersbury House as a square building with a western wing and several outbuildings. The main, formal, entrance is on Pope's Lane (then named Folly Lane) with an open yard/drive to the north of the house. To the south are formal gardens with two linear north to south aligned canals to the south, on either side of a central path which extends into open parkland beyond as an avenue of trees. The site visit found no evidence of either the canals, which may have shared the same water source as the later Horseshoe Pond partially occupying their former footprints, or a line of extant mature trees marking the avenue.

4.7.10 To the west of the house and formal gardens (in the area of the current Pitt and Putt course) is a large orchard. This is bounded by the road which ran from the Old Brentford High Street to Gunesbury (Gunnersbury), which ran along the boundary of the original estate, and which survives today as the kinked footpath alongside the children's playground and Bowling Green. South of the orchard is an arable field; the site visit noted a series of low (<0.1m high) east-west ridges here (**HEA 3I**), which are possibly the remnants of ridge and furrow. Rocque's map shows the western part of the site as open pasture in the north and arable cultivation in the south.

4.7.11 Furness implemented a number of changes in the landscape, likely commissioning William Kent to undertake the work, although it is difficult to associate any of the current extant features within the park to Kent (CBA 2008, 26). J Norris Brewer comments that there were numerous cedars of Lebanon 'supposed to have been planted by Kent who laid out the gardens shortly after the year 1740' (Brewer 1816, 339), suggesting some uncertainty. It was at this time that the Round Pond (**HEA 1G**) and Horseshoe Pond (**HEA 1I**) (now drained) were designed. Features such as these marked a transition from the gardens being a formal landscape to becoming one which was informal in nature (CBA 2008, 26). It is possible that it was at this time that Kent built an early form of the Temple (**HEA 1K**). The Cedar Grove which lay to the south of the Horseshoe Pond is also likely to date from this period.

4.7.12 Gunnersbury House overlooked the formal garden and open parkland beyond and had wide views across the Thames. A description by Defoe in 1742 stated that the house had *"an exceeding fine prospect of the county of Surrey, the River Thames, and all the meadows on the Borders for some Miles, as also a good Prospect of London…"* (CBA 2008, 24–25). The landscape at this time was formal in nature, comprising walled gardens and possibly ponds and pavilions, though this is not known for certain (*ibid*).

4.7.13 In 1761, Henry Furness's sister, Elizabeth Pearce, sold the estate to Princess Amelia, daughter of King George II. In this year a book was published which included paintings of Gunnersbury House by S Wade. The front cover shows Wade's illustration of the south front of the Gunnersbury House. Nichols' 1777 map of the Parish of Ealing (Fig 7) shows the house with two projecting wings. It is not a

detailed map and the representation of the house is indicative. To the south the semi-circular Horseshoe Pond (**HEA 1I**) is shown, with garden buildings to the east. The map shows a building with a tower which appears to be a chapel at the perimeter of the landscaped gardens to the south-west of the house (**HEA 2E**) and a tower/monument feature of unknown function, possibly with a spire, in the south-western corner of the parkland landscape (**HEA 2G**). It is uncertain whether these features were located 'decoratively' on the map or whether they were indeed substantial structures, although one plan from a deed of sale dated 1801 (Fig 9) shows small structures in similar locations. They were presumably demolished when the estate was divided and sold in the late-18th century. The MOLA site visit noted no evidence of these structures visible above ground.

The 1777 map shows the house and formal gardens with the Horseshoe Pond to the south enclosed by a boundary wall. The MOLA site visit noted that sections of this brick wall survive in various locations. The eastern wall survives but has possibly been partly rebuilt (**HEA 3K**). The eastern section of the southern wall (**HEA 2V**) survives but in a ruinous state; it is unclear whether this is a later rebuild incorporating elements of a building shown here on the 1847 map (Fig 12 and Fig 13

Fig 13) and Ordnance Survey 1st edition 6'': mile map of 1868–74 (Fig 15 and Fig 16

4.7.14 *Fig 16*). A very short section of the southern end of the west wall survives on the south side of the Orangery (**HEA 3D**). It was possibly retained in order to hide an iron water tank.

4.7.15 It was during the period of Princess Amelia's ownership that the Round Pond (**HEA 1G**) was formed, and the grounds comprised a stable yard, kitchen garden, orchard and orangery. It is also believed that she may have had a pleasure garden feature such as a cascade or grotto and that the Temple (**HEA 1K**) was used as a social building (CBA 2008, 27–28). It is thought that the extant Temple building was built either by William Chambers, Thomas Ripley or John Oldfield (Purcell Miller Tritton LLP 2012). Elements of the formal landscape continued to survive at this time. Princess Amelia purchased additional land in 1770 and 1785 and the gardens roughly correspond to the formal area of Gunnersbury Park seen today (CBA 2008, 27–28).

4.7.16 The building known as "Princess Amelia's Bathhouse", (**HEA 1W**), which lay just below the east end of the terrace, is actually thought to date from as late as the early-19th century. In 2000–2001 an archaeological and historic building investigation was carried out on the site of the bathhouse (**HEA 2X**). The investigation uncovered three main elements of the structure, representing phased development from the late-18th to the early-19th century (CgMs 2001).

4.7.17 Princess Amelia died in 1786. The estate at the time included a greenhouse, pinery and hothouse (CBA 2008, 29). It was advertised for sale but by 1788 had still not sold and was put up for auction. Col Gilbert Ironside bought the main part of the estate, which passed to Walter, and then to Andrew Stirling in the 1790s. In 1794, Walter Stirling sold the estate to Henry Crawford, who in turn sold it to John Morley in 1799. A painting of Gunnersbury House, entitled 'Gunnersbury House in Middlesex, the Seat of Walter Stirling Esq', produced in 1796 by Evans Walker, is shown in Fig 8. Morley divided the estate into 13 speculative lots, as shown on a deed of sale dated to 1801 (Fig 9).

4.7.18 In *c* 1801–2 Morley demolished Webb's mansion, as shown on an indenture plan dated to 1802 (Fig 10) which also shows the site divided into lots. Following the demolition of Webb's mansion, but prior to the sale of the lots, William Raven Esq. resided in a house occupying the north-eastern corner of Lot 2 (**HEA 2K**). This house, which may have been situated on the site of a much earlier building, had been demolished by the time an estate map was produced in 1835.

4.7.19 As the 1802 map is not a detailed survey, it is not possible to georeference and place Raven's house accurately in relation to modern mapping. However, in 1997,

during the digging of a trench to replace a burst water main, three separate wall foundations were discovered in the area to the north of the Large Mansion (**HEA 1C**). The summary report suggested that these possibly belonged to former garden boundary walls associated with features shown on 18th century and later maps, but it is possible that they might have been associated with Raven's house. The location of the walls in relation to modern and later post-medieval (18th and 19th century) features is shown in Fig 11. The MOLA site visit noted no evidence of ground disturbance at this location suggesting the site of the house, although three mature trees were noted to the north, beside the boundary wall (**HEA 2K**). Two are located along the current park boundary and one is set back. Their positioning suggests deliberate planting but not necessarily simply a border along the northern boundary; it is possible that these represent surviving remnants of a former entrance leading to the house of William Raven.

4.7.20 All but three of the lots shown on Morley's indenture plan had been purchased by Alexander Copland by 1802, whilst Lot 1 (the site of the Small Mansion) was purchased by Cosser in 1802. The division of the estate forms Phase 4 of the estate, discussed below.

Phase 4: Division of the estate and the construction of the Large and Small Mansions 1801–1889

<u>The Large Mansion</u>

4.7.21 Alexander Copland had constructed the present Gunnersbury Park House, known as the Large Mansion (**HEA 1R**), by 1802. He acquired all but three of Morley's lots in 1802–1806, excluding Lot 1 (see 'Small Mansion', below). A plan of the cellar of the Large Mansion (not reproduced) implies that the house was built in two stages, as there are load-bearing walls thick enough to be outside walls. It is possible that the house was extended by Copland in the early 1820s, with the pink saloon and dining room added to the southern end to create a balanced façade (CBA 2008, 33).

4.7.22 Both Gunnersbury Park House (the Large Mansion) and Gunnersbury House (the Small Mansion) are currently situated on a terrace of raised ground which is likely to comprise re-deposited natural gravels and clays. The function of the terrace was to maximise the potential for views of the formal gardens, ponds and landscape to the south of the mansions. The terrace was observed during the site walkover survey as rising *c* 2.0–3.0m from the level of the lawns to the south, with a fairly steep incline leading to the mansions. The terrace is marked on Kretschmar's map of 1847 (Fig 12) (see section 4.7.25 below) and has probably been a feature since landscaping works were carried out for Princess Amelia's house in the 18th century.

4.7.23 Nathan and Lionel Rothschild acquired Copland's property in 1835 following his death. Sidney Smirke was commissioned to enlarge the house and construct stables, the orangery and a portico to the north lodge, as well as a glass conservatory on the east wing and numerous interior building alterations (CBA 2008, 34). The estate map of 1835 (not reproduced) shows the division in land ownership of the eastern part of the site between Alexander Copland, who owned the majority of the former estate, Thomas Farmer (who had bought Lot 1 in 1828), and the Bishop of London, who owned a small, square section of open field in the area of former farm building (**HEA 2H**). A clear boundary wall is shown running straight down the middle of the landscaped gardens, separating Copland and Farmer's land and mansions and cutting through the middle of the Horseshoe Pond (**HEA 1I**).

4.7.24 The Tithe map of 1839 (not reproduced as the sheet does not cover the entire site area) shows the large mansion along with the fish pond, temple and horseshoe pond, to the west of the small mansion. The 'Model Farm' (CBA 2008) (**HEA 2H**) is also shown in the north-western part of the ornamental parkland (Zone 2). The accompanying Tithe apportionment records that sections of the estate, in the southern part of the park, were being leased from the Bishop of London in this

period. Following the death of Nathan Rothschild and his wife, the estate passed to their eldest son in *c* 1850.

4.7.25 Kretschmar's map of 1847 (Fig 12 and Fig 13) shows the two separate properties. As it is a survey of Copland's property this part of the estate is shown in detail. The map shows a number of buildings which are no longer extant in the area of the existing café. A small circular well, fountain or ornamental feature survives as a small circular rockery (**HEA 2Z**), otherwise none of the buildings here have visible remains above ground. Several landscape features on the map are still extant; much of the belt of mature trees along the southern and western edges of the estate is still present. A small copse of trees is shown in the south-eastern field; the site visit noted trees at this location although they seem more recent. The stable block of the 'Farm Yard' building in the western part of the site survives (**HEA 2N**), unless this is a later, late-19th century structure. The exact date of the buildings is uncertain as the farm is largely un-documented; in the early-20th century it was recorded as being used as a 'traditional' farm on the Rothschilds' estate (CBA 2008, 35). The map shows a scarp slope (shaded line) defining the edge of the landscaped terrace to the south of the Round Pond ('Upper Lake'). This survives as the slope down from the terrace to the South Lawns, and also as a low bank with a mature tree (**HEA 3M**) to the south-west of the Round Pond.

4.7.26 Kretschmar's map is the first to clearly illustrate the area to the west of the mansions (Zone 6; outside the HLF bid area) as kitchen gardens; they continued to function as such until the late-20th century, and performed an important function as a source of fresh fruit and vegetables for the estate residents. A map of the Large Mansion dated to 1855 (not reproduced) shows the site in more detail with a number of the features within the landscape. The kitchen gardens had been expanded a great deal during this period and were used to supply the Rothschilds' other London houses, and more farm buildings had been built on the western edge of the estate (*ibid*). In addition, rose beds and fruit trees were planted near to the orangery, separate from an orchard which was planted in the north-west corner of the inner park by 1865. The outer park had a row of trees along the southern boundary, along with an alcove.

4.7.27 A major change to the estate occurred in the early 1860s when the land to the south and west of the park was purchased, included Coles Hole, a former clay pit. A map attached to a deed of sale from George Robinson, a brickmaker, to the Rothschilds (Fig 14), dated to 1861, shows Coles Hole clay pit and its associated kiln and pottery building (illustrated in red) to the south-east and south-west. Coles Hole was subsequently converted by the Rothschilds into the Potomac – an ornamental boating lake. The kiln (the smallest of the structures coloured in red on the plan) was converted into the Potomac Tower (**HEA 2D**).

4.7.28 The Ordnance Survey 1st edition 6'': mile map of 1868–74 (Fig 15 and Fig 16) shows the area around the former Coles Hole free of trees and clearly demarcated from the surrounding open fields in the western part of the site. All the former buildings surrounding the pit have been demolished with the exception of the kiln. In the north-eastern part of the site, a number of buildings which formerly lay to the north of the Large Mansion and are shown on Kretschmar's 1847 map, have been demolished. At this time, the two 'halves' of the north-eastern part of the site were still under separate ownership, with the Rothschilds owning only the western side, and the boundary wall between the two mansions is clearly shown on the map.

<u>The Small Mansion</u>

4.7.29 It is not known exactly when Gunnersbury House, known as the "Small Mansion" (**HEA 1T**) was constructed. It is likely that it was built by Cosser, who originally purchased Morley's Lot 1 in 1802 and was in occupation by that time. Cosser died in 1806 and the house was subsequently purchased by Major Morrison. A description of the property is available from 1828 which mentions a coach house, stables, lawn and pleasure ground, walled fruit and vegetable gardens, gothic dairy (previously

the bath house), a brewhouse and outbuildings, as well as the horseshoe pond and meadow land (CBA 2008, 32).

4.7.30 In 1828 the property was bought by Thomas Farmer, who made alterations during the 1830s and 1840s. The Gothic Ruins (**HEA 2A**) were constructed mid-19th century by W.W. Pocock to screen the Rothschild stables (**HEA 2C**). The entrance gate and East Lodge (**HEA 1V**) were built in 1837 and the stables (**HEA 2C**) modified in 1844. As shown on the 1835 Tithe map, the 1839 Tithe map (not reproduced) shows the site divided into two distinct areas, with both Gunnersbury House (the Small Mansion) and Gunnersbury Park House (the Large Mansion) depicted, along with their surrounding grounds and garden features. It was during this period that the ornamental fowl house was built by Pocock's son, south-west of Princess Amelia's Bath House (CBA 2008, 32).

4.7.31 Kretschmar's map of 1847 (Fig 12 and Fig 13) shows Farmer's property and the Small Mansion in little detail and only the buildings and ponds are shown, with no planting scheme or other detail. The map shows a building in the very north-eastern corner of the site which is no longer extant; a low mound (**HEA 3B**) was observed on the site visit which is probably formed from the demolition rubble of the building.

4.7.32 Following Farmer's death in 1859 J H Atkinson acquired the property, the Ordnance Survey 1st edition 6'': mile map of 1868–74 (Fig 15 and Fig 16) shows the full extent of the property. In the north-east corner of the site a range of buildings with a small pond in the centre is shown, and the grounds north of the house contain a path layout which is similar to that which exists today. The Bath House lay to the east, with terraces beyond leading to an oval bed which still survives. A small fountain was situated to the west, and glasshouses were situated along the wall which had originally been the wall of the 17th–18th century garden, beyond the Horseshoe Pond (CBA 2008, 33)

4.7.33 Following James Hudson's appointment as head gardener in 1876, until his retirement in 1919, a number of changes were made. This included the production of palms, ferns and tree ferns in the glasshouses, and the introduction of a vinery, pinehouse and fruit and vegetable production within the grounds. In addition a rose garden was planted near to the Bath House (*ibid*).

Phase 5: Rothschilds' reunification of the estate 1889–1925

4.7.34 In 1889 the Rothschilds purchased Gunnersbury House (the Small Mansion) and its land and brought Gunnersbury Park back into single private ownership (CBA 2008, 37). The Ordnance Survey 2nd edition 6": mile map of 1896 (Fig 17) shows the gardens much as they had been 30 years earlier, even with the dividing wall remaining. However, by 1899 the wall had been removed and the driveway to Gunnersbury House had been extended eastwards. To the south of the house, the landscape was slightly cleared in order to provide wider views, with "finely proportioned evergreens" commanding the landscape (Gardeners' Chronicle 1880 in CBA 2008, 37). Plant houses were installed within the grounds for the cultivation of exotic flowers and fruit, and water lilies were cultivated within the eastern part of the Horseshoe Pond.

4.7.35 The bamboo garden is first referenced in 1899, in addition to other new luxurious features such as a "fountain walk" (*ibid*, 38). The Japanese garden was planted in October 1900 by Hudson, the gardener responsible for the majority of the garden features. This resembled a wild garden more than a Japanese garden, and was laid out between the gothic ruin and the old south wall of Princess Amelia's park. It included a number of water features; a series of dried-out sculpted ponds of concrete or puddled clay are still extant (**HEA 3T**) and are all that survive above ground.

4.7.36 The Ordnance Survey 6": mile map of 1920 (Fig 18) and the 25": mile map of 1915 (not reproduced) show that the Rothschilds had created a polo field within the central section of the western playing fields (**HEA 2O**) (the former Brentford

Common Field in the western side of the park) prior to WWI. A long pavilion and stable buildings (**HEA 2N**) were located to the east of the polo field at the site of the model farm, in the centre of the site. The MOLA site visit noted no clear evidence of levelling and this part of the field is still on a very gradual slope to the south. The western part did however seem to be less uneven than elsewhere.

4.7.37 Following the death of Leopold Rothschild in 1917, his son Lionel decided to sell the estate for public use (*ibid*, 39). The Rothschilds gradually began to sell off land which they possessed in the locality. The boroughs of Ealing and Acton bought 193 acres of the Rothschilds estate in 1925. Of this, 186 acres became the present-day Gunnersbury Park, whilst the remainder was built upon (CBA 1998, 26).

Phase 6: Public ownership of Gunnersbury Park 1925–present day

4.7.38 The park was opened to the public on 21 May 1926 by Sir Neville Chamberlain. In 1928 Gunnersbury Museum was opened in the Large Mansion. By the mid-1930s the park had acquired new recreational and municipal features, including a miniature golf course, tennis courts, bowling greens and a boating lake (the Round Pond). Until the 1940s the park appears to have been managed largely as it had been under the Rothschilds (SCHL 2012, 11–15).

4.7.39 In 1939, at the beginning of WWII, a heavy anti-aircraft artillery (HAA) site (**HEA 1D**) was constructed in the north-western part of the site. Associated barracks and stores buildings were located to the east (**HEA 2S**). Based on mapping carried out by 'Bomb Sight' (http://www.bombsight.org/; accessed 27-06-2013) the park appears to have sustained considerable bombing during the Blitz (7th September 1940–21 May 1941), with *c* 30 bombs dropped in the park. These were mainly concentrated within the former estate and ornamental parkland in the eastern part of the park, (Zones 1 and 2) and immediately to the north and east of the Potomac Lake, in the south-western corner of the park (Zone 3). The extent of post-Blitz WWII bombing of the site (and subsequent bomb clearance) is not currently known.

4.7.40 Figs 19–21 are aerial photos of the site which were taken between August 1944 and August 1947, showing the site during and shortly after WWII. Fig 19 is small-scale and shows the entire site, including the complex of buildings and clearly demarcated areas associated with the HAA. The WWII gun emplacement and associated grounds to the south are shown in more detail in Fig 20. Fig 21 shows the north-eastern 'historic core' and parkland areas of the site (Zones 1 and 2) in more detail, with the eastern part of the Horseshoe Pond in-filled whilst the western half remains intact.

4.7.41 Post-WWII Ordnance Survey maps show no significant changes to the layout and key built features of the park other than the clearing of the anti-aircraft artillery and barracks site in the late-1940s (with the area reverting back to open playing fields). A miniature golf course had been constructed to the south-west of the mansion and landscaped gardens by the early-1960s, as shown on the Ordnance Survey 6": mile map of 1966–67 (Fig 22). Between the mid-1930s and the late-1940s the eastern half of the Horseshoe Pond was filled in. The western section of the pond was not in-filled until the 1980s. An aerial photo dated to 12th May 1971 (Fig 23) shows the extent of clearance of WWII structures.

4.7.42 A detailed walkover inspection of the site was carried out on the 2nd of July 2013 in order to determine the topography, existing land use/the nature of the existing buildings on the site, and to provide further information on areas of possible past ground disturbance and general historic environment potential. The walkover proceeded in a sequence from Zone 1 in the north-eastern part of the site, to Zone 6 in the northern-central part. Notable features within Zone 1 included three mature trees located along the northern boundary wall of the park, roughly opposite the eastern end of the Large Mansion (**HEA 1R**). This may represent tree-planting in the area of a former 17th century entrance to the estate. A bricked-up, vaulted chamber set well below the current ground level of the park, against the park boundary wall

and opposite Princess Amelia's Bathhouse (**HEA 1W**) was also observed (**HEA 3C**) (Fig 24), which may have been a former entrance to the park in the 18th century. The eastern estate boundary wall, of mid-19th century or earlier date (**HEA 3K**) is shown in Fig 25, close to the Gothic Ruins, with a section of the earlier 17th–18th century wall – still partly clad in modern concrete – in the foreground to the left.

4.7.43 Estate boundaries and ornamental features created as part of landscaping works were also observed. These include a line of exposed concrete kerbstone, representing the south-eastern edge of the ornamental Horseshoe Pond (**HEA 1I**) (Fig 26). A section of the 17th–18th century estate boundary wall (**HEA 3D**) was also observed running north-south along the western wall of the Orangery (**HEA 1Z**) (Fig 27), which formerly separated the estate or present 'historic core' from the open fields in the western part of the site.

4.7.44 To the south of the formal garden in the parkland (Zone 2), a landscaped, curved earthen mound (**HEA 3E**) was observed opposite, and respecting the alignment of the Horseshoe Pond (Fig 28). Further to the south and west within Zone 2, a circle of trees (**HEA 3G**) (Fig 29) may mark out the edge of a former pond or bomb crater, whilst low ridges (**HEA 3I**) to the south of the former tennis courts (Fig 30) are possibly remains of former medieval arable use.

4.7.45 Much of Zone 3 (Coles Hole and the Potomac Lake) (**HEA 2J**) is overgrown and inaccessible, as shown on Fig 31. A late-19th century drinking fountain base was observed, however, to the south-west of the lake, as were large overgrown spoil mounds in the very south-western corner of the park; evidence of the scale of excavations required for clay extraction and the subsequent creation of the ornamental lake.

4.7.46 Although the western open playing fields in Zones 4 and 5 are currently undeveloped, various parchmarks attest to previous land use. Several of the parchmarks observed are thought to indicate below ground remains associated with the Second World War use of the site, including those shown in Fig 32, to the south of the former HAA (**HEA 3O**), in the area of the former polo field, and Fig 33, which shows various parchmarks on the site of the former HAA (**HEA 1D**). At least three north-south linear ground depressions were noted on the site visit in Zone 5, with one extending across almost the length of the western edge of the field. These mark the line of 20th-century pipelines; a small pipe was exposed in one short section.

5 Factors affecting archaeological survival

5.1 Introduction

5.1.1 The following section discusses past impacts in the park divided into the six main zones identified: generally developments which may have compromised archaeological survival, eg, building foundations or quarrying, identified primarily from historic maps, the park walkover survey, and information on the likely depth of deposits. It goes on to consider factors which are likely to have compromised asset survival.

5.1.2 Although there has been relatively little 20th century development within each of the six zones which would have caused substantial or widespread impacts to potential archaeological assets, it is likely that later post-medieval activity, especially the quarrying, landscaping and estate building activities which occurred in Zones 1, 3 and 4 in the late-18th and 19th centuries, (in themselves of archaeological interest) will have locally partially or wholly removed archaeological remains dated to earlier periods.

5.1.3 Localised bomb damage sustained during the Second World War is another key factor. It is not currently understood how widespread this damage was; however, data obtained from 'Bomb Sight' (http://www.bombsight.org/; accessed 27-06-2013) (see section 4.7.39) shows the park sustained considerable bombing during the Blitz (7th September 1940–21 May 1941). The damage was concentrated mainly within Zones 1–3 and 5. The extent of post-Blitz WWII bombing of the site (and subsequent bomb clearance) is not currently known.

5.2 Zone 1: Historic houses and formal grounds

5.2.1 The greatest impacts to pre-19th century archaeological remains in the 'historic core' of the park will have been the construction of the current mansions and their associated landscaped gardens in the early-19th century. Both mansions contain basement cellars to a depth of *c* 3.0mbgl. Any earlier archaeological remains will have been removed from within the footprint of these basements. Other buildings on the site with basements, cellars or sub-basements include the Temple (**HEA 1K**) and Princess Amelia's Bathhouse (**HEA 1W**), where earlier archaeological remains will similarly have been removed during below ground foundation works.

5.2.2 During the site walkover survey it was evident that the natural topography has been considerably altered as part of garden landscaping works. Areas have been slightly levelled (terraced) for the construction of the manor buildings and to create desirable views to/from them. Slight terracing may have resulted in the removal of earlier archaeological remains where the natural slope has been in-cut.

5.2.3 This zone, along with Zones 2, 3 and 5 was most heavily bombed during the WWII Blitz. Of the seven bombs recorded, none appear to have hit any of the (then) existing estate buildings, however, it is possible that bomb damage resulted in the infilling of the eastern part of the Horseshoe Pond. Other in-filled bomb craters (from which archaeological remains are likely to have been entirely removed) may be located within this zone.

5.2.4 This zone contains the public utilities buildings for the park, including a modern café and toilets. The construction of shallow foundations and associated services for these buildings (assumed to be less than 1.0m deep), as well as the modern repair and replacement of services for the 19th century mansions, will have removed archaeological remains from within their footprints, to the maximum depth of excavation.

5.2.5 Other than localised removal of archaeological remains from within the footprints of service trenches, the majority of developments in this zone dating from the mid-20th century onwards, including the laying of garden paths and tarmac for the car parks

to the north of the mansion buildings (*c* 0.2–0.3m deep), will have caused minimal impacts to archaeological remains, the majority of which, such as cut features (eg pits and ditches) are likely to survive intact.

5.3 Zone 2: Ornamental parkland

5.3.1 The parkland in Zone 2 is likely to have received less formal landscaping than the grounds immediately to the south of the mansions, particularly in the southern open fields, which appear to have been used as pasture, occasionally leased to other occupiers throughout the late-18th and 19th centuries. Artificial levelling and landscaping in the area of the Pitch and Putt may have had an impact upon archaeological remains., However, the site walkover did not reveal evidence of extensive levelling/landscaping and it is possible that archaeological remains may survive beneath the current landscaped area.

5.3.2 Isolated bomb damage occurred within Zone 2 during the Blitz, concentrated in the area of the Pitch and Putt and the south-eastern corner of the zone. Any archaeological remains will have been entirely removed from within the footprint of any bomb craters. Other than these areas of impact, archaeological remains are likely to have been preserved.

5.4 Zone 3: Coles Hole and Potomac Lake

5.4.1 Quarrying for tile-clay resulted in the creation of the Potomac (**HEA 2J**), which was recreated as an ornamental boating lake by the Rothschilds in the 1860s. The lake is several metres deep and its creation will have resulted in the removal of any earlier archaeological remains located within its footprint. An antiquarian report describing the excavation of a clay pit in a field 'near Brentford' (Trimmer W K 1813, 103, 131–137), details animal remains dated to the Palaeolithic period which were recovered during the works (see section 4.2.2). It is though that the report refers to the digging of Coles Hole/the Potomac.

5.4.2 The Potomac Lake escaped a direct hit from a bomb during the Blitz according to the 'Bomb Sight' map. However, seven bombs were dropped immediately to the east of the lake which would have resulted in the removal of archaeological remains from within any bomb craters. This area may have included a tile-kiln/pottery located to the east of the lake.

5.4.3 Archaeological remains, if present, are likely to be preserved beneath the Coles Hole/Potomac Lake spoil mounds on the western and southern sides of the lake.

5.5 Zone 4: former Old Brentford Common Field

5.5.1 This area lies adjacent to, and to the north of, the Potomac Lake, a former tile-clay quarry. Documentary sources, identified in research carried out by Val Bott of FGPM, attests to the use of the Old Brentford Common Field for brickearth extraction by various land-owners. Quarrying for clay and brickearth, to likely depths of several metres, will have entirely removed earlier archaeological remains from the footprints of former quarry pits.

5.5.2 The northern part of the zone was used as a polo field (**HEA 2O**) by the Rothschilds in the early-20th century. The site walkover survey noted no clear evidence of substantial levelling associated with the polo field, which was located on a slight southward slope.

5.5.3 During WWII this zone formed part of the gun emplacement and barracks area; however, it does not appear to have contained any of the auxiliary buildings, which were all located in Zone 5, to the north (see section 5.6 below).

5.5.4 In summary, the greatest past impact in this zone will have been isolated areas of late-18th and 19th century quarrying, which will have entirely removed earlier archaeological remains. Other than this, only localised services are likely to have removed archaeological remains.

5.6 Zone 5: North playing fields (northern part)

5.6.1 The greatest impact to this part of the site would have been the construction of the WWII gun emplacement (**HEA 1D**) and the associated WWII barracks, outbuildings and service trenches which occupied the central and eastern parts of Zone 5. The foundations of the gun emplacements themselves may have been substantial, with all or parts of the structure sunk into the ground to depths of up to 1.0–1.5m. These will have severely truncated, or removed entirely, earlier archaeological remains from within their footprint. Archaeological remains may survive between or beneath these truncations, however. Temporary buildings were probably built on concrete slab foundations that might have entailed up to 0.5m ground disturbance. Cut features such as pits and ditches would potential survive beneath this truncation and also beneath any areas of superficial disturbance for hardstanding. Whilst remains of the WWII gun emplacement and barracks will have truncated earlier remains, they are in themselves of archaeological interest.

5.6.2 It is uncertain whether brickearth quarrying would have extended as far north as Zone 5. There is no cartographic or documentary evidence to suggest that this part of the site was quarried. Any isolated areas of quarrying in the later post-medieval period will have entirely removed archaeological remains dating to earlier periods.

5.6.3 Isolated bomb damage occurred along the dividing boundary between Zones 5 and 6. Any archaeological remains will have been entirely removed from within the footprint of any bomb craters.

5.7 Zone 6: former kitchen gardens

5.7.1 The earliest map consulted which clearly defines this area is Kretschmar's map of 1847, marking it out as the kitchen garden area for the estate. The area continued to be used as kitchen gardens and allotments from the mid-19th to the late-20th century. It is currently privately owned and run by Capel Manor College and is occupied by various greenhouses and other structures used for fruit and vegetable cultivation. The majority of the zone to the west is covered in tarmac hardstanding and contains large greenhouses, sheds, portacabins used as offices, and designated parking areas, whilst the eastern part of the zone is undeveloped and lies in open ground containing small sheds and greenhouses. The construction of portacabins, greenhouses and sheds with very shallow foundations (assumed to be less than 0.3m deep), and the laying of tarmac, will have had minimal impacts to archaeological remains, which are likely to remain largely intact. Service trenches are likely to have entirely removed archaeological remains from within their footprints; however, these will have had only localised impacts across the zone as a whole.

6 Archaeological potential and significance

6.1.1 The nature of possible archaeological survival within each zone is summarised here, taking into account the levels of natural geology and the level and nature of later disturbance and truncation discussed above.

6.1.2 It should be noted that current understanding of the nature and extent of human activity on the site prior to the later post-medieval period is severely limited by the lack of past archaeological investigation within the site and surrounding study area.

6.2 Zone 1: Historic houses and formal grounds

Prehistoric period

6.2.1 *Zone 1 has moderate potential for prehistoric remains*. Although there is no known evidence of prehistoric activity within this part of the site, this may reflect the limited past archaeological investigation. The nature and extent of prehistoric settlement in the area is currently little understood and is based on chance finds of isolated flint artefacts within the general study area and from the Potomac Lake during its excavation. This part of the site is however partly located on the Lynch Hill Gravels, one of the older gravel terraces, which has potential for *in-situ* Palaeolithic material, as discussed in section 4.2.2, Zone 1 straddles a band of impermeable London Clay exposed at the interface between two gravel terraces, and this is probably responsible for the availability of natural a water source (eg springlines) which has been utilised in the later post-medieval landscaping. A ready and predictable water supply on fertile and well-drained gravel soils of the terrace would have been a first choice for any early settlement of the area. Water will also have attracted game. Prehistoric remains, if present, would be of **high** heritage significance if extensive. Isolated artefacts would be of **low** significance.

Roman period

6.2.2 *Zone 1 has low potential for Roman remains*. A ready supply of water from springs would have attracted early settlement and farming, as in the prehistoric, although there is currently little evidence of Roman occupation in the area other than a single coin found by chance in the area of the Pitch and Putt. The site was located some distance from the main Roman road network and was probably within a rural landscape of woodland and scattered farms and fields.

Early and later medieval periods

6.2.3 *Zone 1 has moderate potential later medieval remains and a low potential for early medieval remains*. The Gunnersbury estate is first mentioned in the mid-14th century and the associated manor house, and known as 'The Frowyks' was possibly located in the north-eastern corner of the site. It may have been beside the Gunnersbury Lane and the road junctions, beside the natural springlines, and on or near the later, 18th century, manor house. If present, buried remains of the medieval manor, such as foundations, ditches, rubbish and cess pits and associated yards and garden features etc. would be of **medium** to **high** significance, depending on the nature, extent and survival of the remains. This would be derived from their potential evidential and historical value.

Post-medieval period

6.2.4 *Zone 1 is the 'historic core' and has high potential for post-medieval remains*. The main potential is for remains associated with the mid-18th century Palladian mansion house designed by architect John Webb for John Maynard, which was probably located to the north of and between the two existing mansion houses, along with associated outbuildings and formal landscaping. Some elements of the

original landscaping are still evident in the park layout today, for example the depression defining the western half of the Horseshoe Pond, and some of the mature trees. Below ground remains might include foundations, cellars, ditches, pits, wells and other water management features, and buried landscaped features. These would be of **medium** to **high** heritage significance, depending on the nature of the remains, derived from their evidential and historical value, and possibly communal value if any exposed remains were in some way utilised in a heritage interpretation strategy (eg interpretation boards).

6.2.5 Zone 1 also has potential for the remains of buildings and landscape features shown on historic maps from the 19th century. This includes the William Raven's mansion which was occupied in the 18th century following the demolition of Webb's mansion house and which is shown on Morley's plan of 1802. The house was located to the north of the Large Mansion. Such remains would be of **low** to **medium** heritage significance, derived from the evidential and historical value.

Research themes

6.2.6 Key archaeological (buried heritage) research priorities (RP) within in Zone 1 are as follows:

- **RP1**: Establishing, through archaeological survey, the exact location of the mid-18th-century mansion house, along with the nature and extent of any associated built remains (eg outbuildings) surviving below ground.
- **RP2:** Establishing, through archaeological survey, the location, nature, survival and significance of buildings and associated features shown on historic maps from the 19th century, in particular Raven's mansion.
- **RP3:** The identification and recording (and dissemination) of surviving buried elements of various phases of formal landscaping of the park. This might include planting beds, pathways, rockeries, and the method of construction and extent of the landscaped ponds and Japanese Garden features.
- **RP4:** The identification, mapping and assessment of buried water management features, including subterranean water pipes, wells and tanks. These probably formed part of an extensive connected system that utilised the natural springs in the area.
- **RP5:** Locating the site of the medieval manor house and associated features, along with the nature, extent, survival and significance of the remains.
- **RP6:** Determining the presence, nature and extent of prehistoric, Roman and early medieval (Saxon) activity.

6.3 Zone 2: Ornamental parkland

Prehistoric and Roman periods

6.3.1 *The potential for remains of these periods is as Zone 1: moderate for prehistoric and low for Roman*. This part of the site is located on the gravel terrace and sufficiently close to natural water sources to have a similar potential as Zone 1. The extent of ground disturbance and archaeological survival of ancient land surfaces within the Pitch and Putt is uncertain, although it does appear to be fairly localised, with mature trees and vegetation between fairways.

Early and later medieval periods

6.3.2 *Zone 2 has a high potential to contain later medieval arable cultivation remains. The potential for early medieval activity is low.* Linear ridge bumps noted south of the tennis courts on the site visit are possibly remnants of ridge and furrow (corrugated

earthwork remnants of medieval ploughing), which have been eroded down by subsequent (post-medieval) ploughing. Such remains are of **medium** heritage significance in that there are still traces visible above ground; a rare survival of what once would have been a common feature present across the fields of much of medieval Europe, but which has since been almost entirely removed. Archaeological investigation would be needed to confirm their date. Heritage significance would be derived from the evidential and historical value, in enhancing understanding of the use of the south-western corner of the Gunnersbury estate.

Post-medieval period

6.3.3 *Zone 2 has high potential to contain post-medieval remains*. This includes buried foundations associated with features shown on historic maps from 1777 onwards, in particular the 'chapel' and 'monument/tower', and farm buildings along the western edge of the zone. There is also potential for field boundary ditches that pre-date the inclusion of the zone within the open parkland, a pond, and subterranean water management features. Footings of buildings and parkland features and water management would be of **low** to **medium** significance depending on the nature and survival of the remains. This would be derived from the evidential and historical value, in particular the collective group value with other assets across the Gunnersbury estate and in the historic core (Zone 1). Early field boundaries would be of **low** significance.

Research themes

6.3.4 Key archaeological (buried heritage) research priorities (RP) within in Zone 2 are as follows:

- **RP7**: Establishing, through archaeological survey, the date of the low earthworks south of the tennis courts noted on the site visit (**HEA 3I**).
- **RP8:** Establishing, through archaeological survey, the location, nature, survival and significance of buildings and associated features shown in the parkland on historic maps from 18th century, in particular the 'chapel' (**HEA 2E**) in the area of the children's playground, and the monument/tower feature (**HEA 2G**) in the south-western corner of the estate, which are both shown on the 1777 map.
- **RP9:** The identification and recording (and dissemination) of surviving buried landscape features in the open parkland. This would include the pond in the south-eastern corner of the Pitch and Putt (**HEA 2I**), and might include earlier field boundaries that predate the mid-18th century estate ownership.

6.3.5 Two themes from Zone 1 also apply to Zone 2:

- **RP4:** The identification, mapping and assessment of buried water management features. A raised water pipe was noted on the site visit (**HEA 2Q**), extending south of the pond.
- **RP6:** Determining the presence, nature and extent of prehistoric, Roman and early medieval (Saxon) activity.

6.4 Zone 3: Coles Hole and Potomac Lake

Prehistoric and Roman periods

6.4.1 *The potential for remains of these periods is as Zone 1: moderate for prehistoric and low for Roman*. This part of the site is located some distance from the probable springline in Zone 1, suggesting a lower potential for the prehistoric. The zone has also seen considerable ground disturbance associated with post-medieval quarrying. However, it is possible that a number of Palaeolithic flint implements, flakes (waste from flint manufacture) and animal bones, indicating *in-situ* remains,

were retrieved during the quarrying in the area in the early 19th century. The exact provenance of the finds is not known but it is possible they were from the extraction activities at Coles Hole and for the Potomac Lake, which was a notable quarry in the area. The significance of *in-situ* Palaeolithic finds would potentially be **high** or **very high**, derived from their evidential value, as such remains are very rare and typically have not be subject to modern archaeological excavation and recording techniques. Isolated and residual (outside the context originally deposited) flint tools and flakes would be of **low** significance.

Early and later medieval periods

6.4.2 *Zone 3 has low potential for remains of these periods*. Much of this area has been subject to post-medieval quarrying which will have removed any remains of this period. There are areas in this zone that have not been disturbed although there is no evidence to suggest the presence of any significant features.

Post-medieval period

6.4.3 *Zone 3 has high potential to contain post-medieval remains*. The main potential is for evidence of industrial activity in the form of quarrying and associated pottery and tile manufacture. Kilns and industrial features may survive below ground at the western end of the lake. This area was heavily overgrown at the time of the site visit, which may have obscured any above ground evidence of subsurface features. The large spoil heaps on the southern and western sides of the lake are of limited interest. Surviving remains of tile and pottery kilns would be of **medium** heritage significance. Further quarrying evidence would be of **low** significance.

6.4.4 The zone also has potential for remains of water management features, associated with the Potomac Lake, including a small dried-up artificial channel extending from the south-eastern corner of the lake. The remains would be of **low** to **medium** significance.

Research themes

6.4.5 Key archaeological (buried heritage) research priorities (RP) within in Zone 3 are as follows:

- **RP10**: Clarifying, through archaeological survey, the full nature, extent, date and significance of any industrial remains associated with post-medieval tile and pottery manufacture and quarrying activity.
- **RP11:** The identification and recording (and dissemination) of surviving buried features associated with the creation of the Potomac Lake in the mid-19th century.
- **RP12**: determine through further documentary research and possibly archaeological investigation, the potential for *in-situ* Palaeolithic material in the area of the former quarry.

6.5 Zone 4: former Old Brentford Common Field

Prehistoric and Roman periods

6.5.1 *The potential for remains of these periods is as Zone 1: moderate for prehistoric and low for Roman*. This part of the site is located on the gravel terrace and sufficiently close to natural water sources to have a similar potential as Zone 1. The field has seen no built development or extensive modern ground disturbance from mechanised ploughing or major landscaping, and consequently there is reasonable archaeological survival potential for archaeological remains outside any infilled post-medieval quarry pits (if present). Inspection of air photographs and the site walkover identified no obvious archaeological features visible on the surface. Cut features such as ditches and pits may be present beneath the topsoil however and beneath

any colluvial deposits (hillwash) from further up the slope (if present).

Early and later medieval periods

6.5.2 *The potential for remains of these periods is as Zone 2: high potential for later medieval arable cultivation and low potential for early medieval activity*. Although the inspection of air photographs and the site walkover identified no evidence of medieval ridge and furrow earthworks, documentary sources identify this zone as the Old Brentford Common Field. As such it may either have been under arable cultivation or used for pasture and rough grazing. As communally owned land it is unlikely to have ever been built on. Buried remnants of ridge and furrow would be of **low** significance, derived from the evidential and historical value, and would confirm the past use of this part of the site in the later medieval period.

Post-medieval period

6.5.3 *Zone 4 has a mixed potential for post-medieval remains*. During this period parts of the common land may have been subject to small scale hand-dug quarrying activity as at Coles Hole/Potomac Lake (Zone 3) with former quarry pits subsequently infilled. The site visit and inspection of air photographs identified no evidence of such activity however and the potential is considered moderate. Evidence of quarrying would be of **low** heritage significance, derived from the historical value in enhancing understanding of the extent of such activity. Zone 4 also has a high potential for unidentified remains associated with the use of the field during the Second World War, and air photographs show an enclosed large circular area here, whilst the walkover inspection noted several dark rectangular parchmarks of associated or later (possibly modern) features. Such remains would be of **low** significance.

6.5.4 A site visit carried out by heritage specialists from Purcell UK in July 2013 noted an area of ground ridges along the eastern boundary of the playing fields and the ornamental parkland. These are thought to be post-medieval narrow 'rig' ridges, rather than medieval ridge and furrow. Buried remnants of ridge and furrow would be of **low** significance, derived from their evidential and historical value.

Research themes

6.5.5 Key archaeological (buried heritage) research priorities (RP) within in Zone 4 are as follows:

- **RP13**: Clarifying, through archaeological survey, the full nature, extent, date and significance of any post-medieval quarrying activity.
- **RP14:** Clarifying, through archaeological survey, the presence and survival of any later medieval agricultural activity.

6.5.6 One theme from Zone 1 also applies to Zone 4:

- **RP6:** Determining the presence, nature and extent of prehistoric, Roman and early medieval (Saxon) activity.

6.6 Zone 5: North playing fields (northern part)

Prehistoric and Roman periods

6.6.1 *The potential for remains of these periods is as Zone 1: moderate for prehistoric and low for Roman*. This part of the site is located on the gravel terrace and sufficiently close to natural water sources to have a similar potential as Zone 1. Much of the northern field has seen development associated Second World War use. Whilst the works are unlikely to have entailed major ground excavations or extensive or deep foundations, this will have partially or completely removed any prehistoric or Roman archaeological remains locally. Cut features might however survive beneath areas of hardstanding and beneath temporary structures.

Early and later medieval periods

6.6.2 *Zone 5 has low potential for early or later medieval remains*. It apparently lay outside the area of Old Brentford common field, but may have been under arable cultivation or pasture. The site visit identified no above ground evidence of cultivation of field boundaries. A late 1940s air photograph shows cultivation marks in the north-eastern corner of the zone but these are probably contemporary with the photograph.

Post-medieval period

6.6.3 *Zone 5 has high potential for post-medieval remains*. Air photographs dated to the 1940s show a WWII anti-aircraft gun emplacement and barracks across this part of the site. Although no above ground remains are visible, there are extensive parchmarks noted on the site walkover inspection, where the grass growth is stunted, suggesting that subsurface features such as hardstanding and slab/raft footings for temporary structures are still present, immediately beneath the topsoil. WWII remains would potentially be of **medium** significance if extensive and if enhanced with oral history accounts from local people. This would be derived from the evidential, historic and possibly communal value of the remains.

Research themes

6.6.4 Key archaeological (buried heritage) research priorities (RP) within in Zone 5 are as follows:

- **RP15**: Clarifying, through archaeological survey, the survival and significance of the WWII anti-aircraft gun emplacement and barracks.
- **RP16:** Clarifying, through archaeological survey, the presence and survival of any later medieval agricultural activity.

6.6.5 One theme from Zone 1 also applies to Zone 5:

- **RP6:** Determining the presence, nature and extent of prehistoric, Roman and early medieval (Saxon) activity.

6.7 Zone 6: former kitchen gardens

Prehistoric and Roman periods

6.7.1 The potential for remains of these periods is as Zone 1: moderate for prehistoric and low for Roman.

Early and later medieval periods

6.7.2 *Zone 6 has low potential for early or later medieval remains*. It is possible that the medieval manor house was located here, although it is more likely to have been on or in the vicinity of the 18th century mansion house, and within the Gunnersbury estate proper.

Post-medieval period

6.7.3 *Zone 6 has a high potential for post-medieval remains*. This zone covers the former kitchen gardens and there is potential for surviving remains of buildings shown on historic maps from the mid-19th century onwards, along with garden features and planting beds. Such remains would be of **low** to **medium** heritage significance, depending on whether these significantly contributed to the collective group value of the other buildings and features on the 19th century estate.

Research themes

6.7.4 Key archaeological (buried heritage) research priorities (RP) within in Zone 6 match

several of those of Zone 1:

- **RP2:** Establishing, through archaeological survey, the location, nature, survival and significance of buildings and associated features shown on historic maps from the mid-19th century, in particular the kitchen garden buildings and garden features.
- **RP5:** Locating the site of the medieval manor house and associated features, along with the nature, extent, survival and significance of the remains.
- **RP6:** Determining the presence, nature and extent of prehistoric, Roman and early medieval (Saxon) activity.
- **RP6:** Determining the presence, nature and extent of prehistoric, Roman and early medieval (Saxon) activity.

7 Archaeological implications of the proposals

7.1 Proposals

7.1.1 The aim of the project is to create a park and museum of outstanding quality. This will require a holistic approach rather than piecemeal regeneration and because of the scale of the requirements, three phases or tranches of work would be carried out over a 15 year period.

7.1.2 The proposals outlined here are based on the preliminary masterplan (LB Ealing 2013) which will be finalised following the input of various studies, including an updated Conservation Management Plan outlining the significance and needs of the heritage assets. The present archaeological assessment will inform this overarching document, originally prepared in 2008 (CBA 2008).

Phase One

7.1.3 Phase One has developed into the 2012 HLF Parks for People and Heritage Grant bids. The former comprises two main components; the restoration of the landscape and restoration of the historic buildings. The latter is concerned with the large mansion, the Gunnersbury Park Museum and its collections, and as it is assumed for the purposes of this assessment that this will not to entail ground disturbance, it is not discussed further.

7.1.4 The following elements of Phase One would potentially have an archaeological impact:

- Restoration of the historic core around the two mansions, the terrace, and café areas.
- Restoration of the South Lawns including reinstatement of the Horseshoe Pond, along with the renovation of the East Walled Garden as a working kitchen garden.
- Improvements to the café hub landscape with repairs to the Round Pond.
- Relocation of the Pitch and Putt course to the North Field to open access and improve historic landscape vistas.
- Tree management to restore the heritage views throughout the park.
- Create wildflower meadow on the site of the disused tennis courts.
- Restoration of Pulhamite features in Potomac Lake.
- Repair and restoration of the kitchen garden and boundary walls.

Phase Two

7.1.5 Phase Two focuses on the Small Mansion and Stables (and possibly the East Lodge and Bath House) and further repairs to structures and parkland. The latter will include a range of biodiversity, landscape and access improvements around the Potomac Lake.

Phase Three

7.1.6 Phase Three will create a sporting centre in the western part of the park with new landscaping around the Pitch and Putt following relocation in Phase One, reuse of the model farm buildings, amenity facilities improvements and car parking, children's playground refurbishment, improvements and repair works to the Japanese Garden and a re-assessment of the space and use of the Walled Garden. This might include relocation of the grounds maintenance depot, and access to the car park and heritage core.

7.2 Implications

7.2.1 Whilst the future proposals would require planning consent and listed building consent, this section provides a general indication the likely archaeological implications of these preliminary proposals. Any form of proposed ground disturbance is relevant because this could potentially truncate or entirely remove any archaeological assets within the footprint of the works. This is particularly the case over much of the site, where natural brickearth/gravels are predicted to lie fairly close to the current ground level beneath the topsoil/subsoil, perhaps within 0.5–1.0m of the ground surface (see section 3.3.7 above). This archaeological assessment does not include the impact of the proposals on the historic buildings or their settings and this will be covered elsewhere in the CMP.

7.2.2 Removal of topsoil or hardstanding/tarmac is a likely requirement for any groundwork is a potential impact as it exposes any archaeological remains that may be present immediately beneath the topsoil/hardstanding, which is then truncated by subsequent movement of vehicles and plant involved in construction activities (ie through rutting and compaction). In addition, it is possible that topsoil removal without archaeological supervision may result in overstripping, which would have an impact upon archaeological remains located beneath the topsoil, or understripping, where archaeological features are concealed beneath a thin layer of topsoil but are then exposed and unprotected from subsequent construction activities. Subsequent landscaping would have further impact upon any remains which had survived the initial topsoil strip.

Zone 1: Historic houses and formal grounds

7.2.3 The majority of the proposals relevant to Zone 1 in Phases One and Two would generally involve shallow groundworks related to minor landscaping, tree planting and building repairs. Such works may result in localised truncation of archaeological remains (eg later medieval and post-medieval features) beneath existing foundations, vegetation and topsoil. The truncation or removal of such features would reduce their significance to **negligible**. The reinstatement of the Horseshoe Pond would involve excavating the in-filled area, which dates between the 1930s (eastern side) and 1980s (western side), and is of negligible archaeological significance.

Zone 2: Ornamental parkland

7.2.4 The proposals to the area of the Pitch and Putt would potentially have the greatest impact to archaeological remains within the site, involving the relocation of the current course to Zone 5 in Phase One. In Phase Three this area would be re-landscaped to create a sporting centre. The sporting centre would make use of the existing Model Farm buildings for changing facilities.

7.2.5 Were new sports buildings, toilets, refreshment rooms etc. to be constructed, there would be implications to archaeological (prehistoric or later) remains from building foundations which would potentially truncate or remove archaeological remains from shallow deposits (with assumed depths of up to 1.0m). The truncation or removal of archaeological remains would reduce their asset significance to **negligible**.

7.2.6 Re-landscaping of the grounds, depending on the scope and depth of the works, may also result in the truncation or removal of archaeological remains, reducing asset significance to **negligible**.

Zone 3: Coles Hole and Potomac Lake

7.2.7 It is assumed that the restoration of the Pulhamite features adjacent to the Potomac Lake would not involve intrusive groundworks which would cause archaeological impacts.

7.2.8 The details of the biodiversity, landscape and access improvements to the Potomac

Lake to be carried out in Phase 2 are not currently known but it is assumed that groundworks, including topsoil stripping, would form part of these works. The effects are summarised in section 7.2.2 above. Deeper groundworks would potentially severely truncate or entirely remove archaeological remains, reducing asset significance to **negligible**.

Zone 4: former Old Brentford Common Field

7.2.9 Although there are no specific proposals identified for this zone it is possible that the re-landscaping works to be carried out in Zone 3 around the Potomac Lake (see section 7.2.8 above), or the creation of sports areas (including a Pitch and Putt) in Zones 2 and 5 (see section 7.2.4–7.2.6 above and section 7.2.10 below) may extend into this area, which would have similar implications for any archaeological remains affected by groundworks.

Zone 5: North playing fields (northern part)

7.2.10 The creation of a new Pitch and Putt in the area of the former WWII HAA in Phase Three, involving preliminary topsoil removal and landscaping works, would have an impact across an extensive area, affecting the foundations of WWII buildings across this area. The removal of these foundations would reduce their asset significance to **negligible**.

7.2.11 Any previously unrecorded remains pre-dating the WWII features, for example evidence of prehistoric or later activity, would also be partially or completely removed by the works.

Zone 6: former kitchen gardens

7.2.12 This area is privately owned and lies outside the HLF bid area. It will not be included as part of the proposed works and is not considered further.

8 Conclusion and recommendations

8.1.1 The assessment has confirmed that Gunnersbury Park has a wide-ranging archaeological potential, enabling heritage to become one of the principal factors that can assist regeneration and public engagement. This potential ranges from buried prehistoric and medieval farmed landscapes on the terrace gravels and brickearth, through to World War II defences and the municipal uses that represent the latest phase in the historical development of the park.

8.1.2 For the early periods (prehistoric to medieval), prior to the establishment of the park, it is mainly a general background potential which has not yet been supported by much direct archaeological evidence. Nevertheless, on analogy with the range of archaeological evidence recovered from investigations on the same topography elsewhere in the Thames Valley, the potential exists. Thus, absence of evidence is not evidence of absence. Further archaeological investigation could significantly advance understanding and appreciation of the significance of prehistoric, Roman and Saxon settlement and land use within what was then an entirely rural landscape.

8.1.3 The principal heritage theme is the history of the park from the 17th century and its origins in the presence of a potential medieval settlement, possibly a house, in the north-eastern corner of the park. It is clear from the documented history and the wide range of standing 17th–19th century structures that these assets are under-utilised, presenting a real opportunity for public engagement with the past by means of a coherent 'master theme'. Here, the idea of change over time is quite straightforward to demonstrate because of the diversity of visible heritage assets extending from buildings to earthworks, water features and planting schemes. For example, where an avenue is shown on historic maps and now contains evidence of re-planting (via trees of different species and ages) the principle of change can be readily understood.

8.1.4 It is highly likely that there is a similar range of buried multi-phase archaeological features that can assist considerably in the telling of the story of the park, not least because of the strong public interest in archaeological investigations and discoveries. Sub-themes in the history of the park that have the most potential for surviving buried archaeological evidence to support interpretation and presentation initiatives include the following:

- Medieval origins – the hypothesis of an original roadway running north-west between the later Horseshoe Pond and principal mansions, possibly associated with a medieval nucleus and house in the north-eastern corner of the park
- Water supply system – did the pond to the north of Pope's Lane serve as a header tank for a water supply system feeding the lakes in the park?
- 17th and 18th century park: the location of the 17th century house, walled estate, and ornamental gardens
- The Victorian (19th century) park: the story of the Rothschilds
- World War II (eg, the role of the local Home Guard and gun emplacements in the park)
- Post-war municipal landscaping and park use

8.1.5 The more recent periods are within living memory and present outreach and social/oral history opportunities, including working with local schools.

8.1.6 Detailed suggestions for further archaeological investigations and outreach/research work are given in the Appendix in Section 15.

9 Gazetteer of known historic environment assets

9.1.1 The table below represents a gazetteer of known historic environment sites and finds within the 1km-radius study area around the site. The gazetteer should be read in conjunction with Fig 2.

Abbreviations
AOC – AOC Archaeology Ltd
ASL – Archaeological Solutions Ltd
LAARC – London Archaeological Archive and Research Centre
MoLAS – Museum of London Archaeology Service (now named MOLA)
OA – Oxford Archaeology
PCA – Pre-Construct Archaeology
WA – Wessex Archaeology
WLAGF – West London Archaeological Field Group

HEA No.	Description	Site code/ HER No.
1A	**Gunnersbury Park** The area in which Gunnersbury Park is situated was, in the Middle Ages, an estate owned by the bishops of London, part of the Manor of Fulham. By 1656 Gunnersbury had been purchased by Sir John Maynard (1602–90). Maynard engaged the architect John Webb (1611–72), pupil and relative of Inigo Jones, to build a new manor house on the estate. Gunnersbury estate was purchased by Henry Furness, MP and art collector, in 1739. A map surveyed in 1741 (Rocque) shows a formal layout south of the house, with the main axis, at one point flanked by formal canals, aligned on the house and continuing south through the pleasure grounds in the form of an avenue. It is thought (Butcher *et al* 1993) that Furness engaged William Kent, who he knew socially, to enlarge and alter the estate. Kent's professional connection is evident from a payment of £55 received from Furness in April 1743. Kent may have created the Temple and the Round Pond (see **HEA 1I**) for Furnese. The estate went through several changes of ownership in the mid-18th century and was purchased in 1762 by Princess Amelia, second daughter of George II, who made changes to the house and grounds. These include the surviving Doric temple (**HEA 1H**) but the building known as "Princess Amelia's Bathhouse" is thought to date from a later period, perhaps even the 19th century. Alexander Copland's memo book mentions that Lancelot 'Capability' Brown laid out the park in 1754, however, there is no other known documentary evidence linking the park to Brown. Princess Amelia enjoyed entertaining at Gunnersbury and her guests included Horace Walpole who was then living at Strawberry Hill, Twickenham. The present public park comprises the parkland of John Webb's Gunnersbury House, which stood on a raised terrace at the northern end of the park. The house was a red brick three-storey building of seven bays with a Corinthian portico. It was an Anglicised version of Palladio's *Vill Badoer* and was one of the first villas built on the edge of London. The house was demolished in 1800 and the grounds divided into thirteen lots. The two later mansions are believed to have been built on the site of the demolished 18th century house (which is thought to have lain between, and slightly to the north of, the mansions). The park is Grade II* listed.	MLO25634 1000808 DLO32855
1B	**Gunnersbury Park Dairy, Gunnersbury Park, Gunnersbury Avenue** An archaeological watching brief was carried out at the site of Gunnersbury Park Dairy, by AOC Archaeology Group in 2008. Four geotechnical pits were excavated to determine the character of foundations associated with a toilet block in advance of redevelopment to see if they were associated with the historic dairy. However, the foundations were observed to be based on concrete footings, indicating a	GUP08 ELO8709

HEA No.	Description	Site code/ HER No.
	late-19th or early-20th century date. No remains of the floor level of the supposed dairy building were found.	
1C	**Gunnersbury Park Museum, Popes Lane, Acton** The approximate conjectured location of William Raven's mansion, as shown on Morley's indenture plan of 1802. An archaeological investigation was carried out by WLAFG in 1997. The remains of 17th to early-19th century wall foundations were discovered, which were identified as former garden features/boundaries associated with the Gunnersbury estate. It is likely however that these features were associated with William Raven's mansion (shown in the same approximate location) which was occupied in the 18th century and is shown on Morley's indenture plan of 1802 in this approximate area. Three mature trees along the northern edge of the park to the north (**HEA 2K**) are possibly the only surviving remnants of a formal entrance at this location which may have led to Raven's house. The MOLA site visit in July 2013 noted no visible above ground remains at this location.	GPM97 MLO71424
1D	**Gunnersbury Park** The park was used as an HAA (heavy anti-aircraft) artillery site in WWII. The earliest date upon which the HAA is listed as present in the sources is 31st January 1940 and the latest is 9th December 1943. The MOLA site visit in July 2013 noted numerous parchmarks in the grass across the northern part of the field, where grass growth had been stunted. It is possible that the grass and thin topsoil overlies former hardstanding associated with the defences. Notable parchmarks have a separate gazetteer entry.	MLO68273
1E	**Gunnersbury Park** The conjectured site of the medieval hamlet of Gunnersbury, as plotted on the GLHER. This is likely to represent a conjectured centre-point. As the location of the medieval manor house itself is not known this is unlikely to be an accurate location and the GLHER provides no reference sources. The MOLA site visit in July 2013 noted no visible above ground remains at this location that might suggest the presence of settlement here.	MLO68897
1F	**Gunnersbury Park** Findspot of a Roman coin dated to the 2nd–3rd century (a *dupondius* of the Emperor Hadrian; Alexandria mint), found by chance and noted on the GLHER.	MLO2608
1G	**Gunnersbury Avenue, Gunnersbury Park** The Round Pond (also known as the Upper Lake). The pond and the Horseshoe Pond (**HEA 1I** below) are the likeliest survivors of William Kent's work at Gunnersbury in the 1740s. The Doric Temple (**HEA 1K**) is on the north side of the lake.	MLO32626
1H	**Gunnersbury Avenue, Gunnersbury Park** The site of a former post-medieval chapel. The chapel fronted the terrace at the western side of Webb's house. It was built for Princess Amelia in 1767–68, possibly to designs by William Chambers. It was described as 'as finely decorated as anything I ever saw' and was demolished along with the rest of the house in 1800.	MLO32605
1I	**Gunnersbury Avenue, Gunnersbury Park** The site of a former post-medieval pond known as the 'Horseshoe Pond'. This and the round pond (**HEA 1G**) may be features of William Kent's work at Gunnersbury in the 1740s. Allowed to drain and was filled in between 1935 and 1965, as shown on OS mapping. A section of the bridge between the two ponds is still extant and contains mortared brick and occasional pulhamite pieces in its makeup. Just south-west of the bridge, beside a mature tree, is an exposed 1m- long section of the stone kerb that once surrounded the pond, as noted on the MOLA site visit in July 2013. The eastern part of the pond is now a level area with some mature and semi-mature trees, and the pond extent is not apparent. The western pond is defined by a shallow depression and has been partially filled with planting and two pulhamite rockeries.	MLO38553

HEA No.	Description	Site code/ HER No.
1J	**Gunnersbury Park** Kitchen garden wall, including carved door and wrought iron gate. Brick wall and gateway with impost bands iron gate and carved door in doorway. Reputedly built by Princess Amelia out of the profits from gambling. Grade II listed.	1080336
1K	**Gunnersbury Park** Temple probably built before 1760. Probably on Princess Amelia's instructions in the five years of negotiations preceding the purchase of Gunnersbury House. Mentioned in letter of sale to her. Red brick with stone tetrastyle Doric portico on stylobate of five steps. Columns have square bases. Entablature with guttae, triglyphs and carved metopes. Pediment with cartouche and garlands in tympanum. Wall of portico had dado and 2 semi-circular arched niches for plaster-cast statues on pedestals. Door surround of architrave, frieze between consoles, cornice and pediment. Ceiling has octagonal caissons. Welsh slate roof. Cellars. Grade II* listed.	1080331
1L	**Gunnersbury Park** North entrance gateway of Gunnersbury Park. Dated to the early-19th century. Four tall stucco piers with pilasters entablatures original lamps. Central two-fold cast iron gates of imposing, florid Neo-classical design. Grade II listed.	1080333
1M	**Gunnersbury Park** North Lodge of Gunnersbury Park. Early-19th century. Stucco, one-storey. Welsh slate low pitched roof with wide eaves. Tetrastyle Doric portico with mutules to pediment. Casement windows with glazing bars. Grade II listed.	1294205
1N	**Gunnersbury Park** The site of a former Grade II listed stone fountain near the Refreshment Room which is no longer extant.	1189601 (no longer extant)
1O	**Gunnersbury Park** Dairy. 18th century. Probably built by Princess Amelia. One-storey stucco. Front has I of five round-headed stuccoed arches with rusticated heads and entablature above. Now derelict and used for storage. Grade II listed.	1189569
1P	**Gunnersbury Park** Series of six iron lamp standards, of various designs, at the front of Gunnersbury Park Mansion. The lamp standards were all restored in 1981. One was stolen in early 2013. Grade II listed.	1358315
1Q	**Gunnersbury Park** Archway to the south-west of Gunnersbury Park House. 18th century archway. Cement-rendered brick with stone imposts and open pediment. Coffered reveal containing two segmental niches with stone pedestals. Grade II listed.	1189543
1R	**Gunnersbury Park** Gunnersbury Park House, **Large Mansion**. Country house, now a museum. Built in 1801–28 by and for Alexander Copland; remodelled 1836 by Sydney Smirke for Nathan Rothschild. Stucco over brick; slate roofs; stuccoed brick stacks. Plan has service area to right of main body of house; centred on entrance hall and rear ante-room. Italianate style. Three storeys. Grade II* listed.	1358312
1S	**Gunnersbury Park** Archway at east end of terrace, Gunnersbury Park Mansion. Dated to the early-19th century. Stucco with pediment, round-headed arch and impost bands. Grade II listed.	1358313
1T	**Gunnersbury Park** Gunnersbury House, **Small Mansion**. The smaller of the two houses built	1080330

HEA No.	Description	Site code/ HER No.
	to replace that demolished after Princess Amelia's death in 1786. It was either constructed by Cossler in 1802–1806, or by Major Morrison post-1806. It is first known from an illustration dated to 1828. War damage to interior. Two storeys with cornice and pierced roof parapet. Stucco. 1837–44. Service wing added by Pocock in 1837–44 fronted on the south by an Orangery. A fowl-house and aviary was situated close to the house, probably to the south. The house was lent to gentile guests of the Rothchild's for weekend use. Grade II listed.	
1U	**Gunnersbury Park** Archway to Gunnersbury Park (west of east entrance lodge to Gunnersbury Lane). Stucco. Early-19th century. Pedimented. Greek fret ornament. Semi-circular arch. Grade II listed.	1080332
1V	**Gunnersbury Park** East Lodge of Gunnersbury Park, with archway and entrance gateway dated to the early-19th century. In a derelict condition. Grade II listed.	1080334
1W	**Gunnersbury Park** Gothic outbuildings east of Gunnersbury House, including arcade grotto shelter and room known as Princess Amelia's bath house. The shell grotto probably dates to the late-18th century, and was built to the west of and incorporating a stretch of the 17th century garden wall, with a crudely-built arcade of flint and pottery wasters, probably dated to the early-19th century. A room was added alongside the eastern part of the wall in the early-19th century. An enclosed area to the north functioned as a fernery or garden grotto with cement-work 'rocks' and 'stalactites', through which tiny water pipes ran to maintain humidity. Water exited beneath the floor of the southern room. Grade II listed.	1358314
1X	**Gunnersbury Park** Gateway near Princess Amelia's Bathhouse dated to the late-18th century which cuts through the 17th century wall. Grade II listed.	1189563
1Y	**Gunnersbury Park** Boundary wall at Gunnersbury Park. Constructed in 1658–63 by John Webb for Sir John Maynard. Wall runs north-south from east gateway, returning west at the south end for 22 metres. Dark red brick laid in English bond, of a type found in the 17th and early-18th century buildings in Brentford and Chiswick, which were almost certainly made locally. Grade II listed.	1322060
1Z	**Gunnersbury Park** Orangery in Gunnersbury Park, built against east side of and incorporating 17th century wall. Dated to the early-19th century, possibly constructed by Smirke Junior, *c* 1836–37. Stucco and painted stone, glass roof, windows poorly restored in the 1990s. On the west side are the remains of a heated greenhouse. The wall against the back (west) wall of the Orangery probably incorporates waste brick from local brickfields. Grade II* listed.	1294227
2A	**Gunnersbury Park** Gothic ruins on borders of former Japanese gardens. Built for owner of Small Mansion to conceal Rothschild family's stables in the mid-19th century. The ruins are first shown on Kretschmar's map of 1847. Grade II listed.	1080335
2B	**Gunnersbury Park** West stables in Gunnersbury Park. Stables. Dated to the mid-19th century and possibly incorporating an earlier structure. Remains of Gothic sham to rear built in 1837–40 by William Fuller Pocock for Thomas Farmer of Gunnersbury House. Grade II listed.	1096950

HEA No.	Description	Site code/ HER No.
2C	**Gunnersbury Park** East stables in Gunnersbury Park. Dated to the 19th century, remodelled in 1836 by Sydney Smirke for Nathan Rothschild. Substantial florid cartouche above central arch. Grade II* listed.	1358316
2D	**Gunnersbury Park** Gothic boathouse and pavilion on south bank of Potomac Lake. Site of a former pottery from at least 18th century. Built by the Rothschild family, probably by adapting the kiln. Symmetrical design of square plan basement and ground floor. Octagonal 1st and 2nd floors. The firm of James Pulham, who made artificial rocks, was responsible for rocks in the Potomac and for the cladding of the Potomac boathouse. Grade II listed.	1189588
2E	**Gunnersbury Park** The possible site of a former temple, chapel or pavilion, shown lying in the north-western part of Princess Amelia's Gunnersbury estate lands on the 1777 parish map. There are no above-ground remains of this building – it is uncertain whether it was located 'decoratively' on the map or whether they were substantial structures. It is not shown on later 19th century maps.	---
2F	**Gunnersbury Park** Old Brentford's Common Field, which lay immediately to the west of Princess Amelia's Gunnersbury estate lands, and is marked on the 1777 parish map, was acquired by the Rothschilds and is now laid out as sports fields. The MOLA site visit in July 2013 noted a slightly uneven grassed field but not clear evidence of earthworks, for example medieval ridge and furrow corrugated earthworks that would have formed by medieval ploughing.	---
2G	**Gunnersbury Park** The possible site of a former temple, chapel or pavilion, shown lying in the south-western part of Princess Amelia's Gunnersbury estate lands on the 1777 parish map. There are no above-ground remains of this building – it is uncertain whether they were located 'decoratively' on the map or whether they were substantial structures. It is not shown on later 19th century maps. The MOLA July 2013 site visit noted only scattered trees at this location and no above ground evidence of a structure here.	---
2H	**Gunnersbury Park** Farm buildings (used as sports changing rooms until damaged by fire), in cottage orné style, shown on the Ordnance Survey 1st edition 25": mile map of 1866. In the approximate location of an earlier farmyard shown on the Tithe map of 1839 and Kretchmar's 1847 map. The farm is recorded as having been used as a 'traditional' or 'model' farm under the ownership of the Rothschilds.	---
2I	**Gunnersbury Park** The location of a former pond (no longer existing) shown on the Ordnance Survey 1st edition 25": mile map of 1866. This area is heavily overgrown at the time of the MOLA site visit in July 2013 and it was not possible to confirm whether there are any visible remains of the pond.	---
2J	**Gunnersbury Park** The approximate centre location of the former 'Cole's Hole and Old Pottery' (now the Potomac Lake and boathouse) shown on the Ordnance Survey 1st edition 25": mile map of 1866. It is almost certain that Palaeolithic animal remains were discovered during clay extraction at Cole's Hole in the early19th century, including '…the teeth and bones of both the African and Asiatic elephant, teeth of a hippopotamus, bones, horns, and the teeth of an ox' prior to the filling in of the hole in the 1860s no evidence that the hole was filled in. Though it is not clear from the antiquarian report of 1813 exactly which field or clay pit is being referred to, the Ealing Parish Land Tax in 1804, for example, shows Trimmer (who recorded the Palaeolithic finds) occupied Coles Hole Field (5½ acres) with	---

HEA No.	Description	Site code/ HER No.
	a small tenement, mill house, a new building and a long hackhouse. Coles Hole is mentioned in a will of 1719 and the depth of the clay pit indicates that they excavated high quality clay here for at least 150 years. In contrast shallow brickearth deposits seem to have been filled and returned to horticulture after extraction (*Philosophical Transactions Royal Society of London* 1813 **103**, 131–137). Excess material/spoil from the quarry or later landscaping of the lake is present at the edges of the park nearby to the west and south. This mounding is covered with vegetation including a number of mature trees.	
2K	**Gunnersbury Park** Three mature trees noted on the MOLA site visit in July 2013. Two are located along the current park boundary and one is set back. Their positioning suggests deliberate planting; it is possible that these represent the only surviving remnants of a former park entrance, possibly the main entrance leading to the 18th/19th century house of William Raven (**HEA 1C**), shown on Morley's indenture plan of 1802.	---
2L	**Gunnersbury Park** The location of a former pottery at the eastern edge of the present Fish Pond (Potomac) shown on the Ordnance Survey 1st edition 25": mile map of 1866. A deed records the purchase of the pottery by the Rothschilds in 1861.The area is heavily overgrown and was not accessed during the MOLA site walkover in July 2013.	---
2M	**Gunnersbury Park** The location of former perimeter-belt planting to the west of the extended, 19th century park. Shown on the Ordnance Survey 1st and 2nd edition 25: mile maps of 1866 and 1896.	---
2N	**Gunnersbury Park** The former stud stables attached to the farm building (see HEA 2H). Shown on the Ordnance Survey 2nd edition 25": mile map of 1896. The front of the building has a timber ornamental face; the original brick stable block is visible behind this in the service yard.	---
2O	**Gunnersbury Park** The location of the former polo field – part of the Rothschild's estate – shown on the Ordnance Survey 25": mile maps of 1915 (3rd edition) and 1920. The MOLA site visit in July 2013 noted no clear evidence of levelling and this part of the field is still on a very gradual slope to the south. The western part did seem to be less bumpy than elsewhere.	---
2P	**Gunnersbury Park** The location of a former long pavilion. (The 1950s refreshment pavilion occupies part of the former footprint.) Shown on the Ordnance Survey 25: mile map of 1920.	---
2Q	**Gunnersbury Park** 'Love Lane'; a north-south path which has divided the eastern and western sides of the site since at least the mid-18th century. The earliest map consulted illustrating Love's Lane is Rocque's map of 1741–45.	---
2R	**Gunnersbury Park** The kitchen gardens. The gardens have been a distinct landscape feature of the Gunnersbury estate throughout the 19th and 20th centuries and are marked on historic maps dating from 1847 onwards (Kretschmar's map). This area was not accessed for the MOLA site visit and is under private ownership and used for greenhouses and a college.	---
2S	**Gunnersbury Park** The location of WWII barracks associated with the HAA artillery site. No visible above ground remains such as earthworks or parchmarks were noted on the MOLA site visit in July 2013.	---
2T	**Gunnersbury Park** Rectangular buildings shown on an illustration of the deed of sale of Cole's Hole Pottery to the Rothschilds in 1861, used for pottery manufacturing. The area is heavily overgrown and was not accessed	---

HEA No.	Description	Site code/ HER No.
	during the MOLA site walkover in July 2013.	
2U	**Gunnersbury Park** Rectangular buildings shown on an illustration of the deed of sale of Cole's Hole Pottery to the Rothschilds in 1861. Presumably these were used for pottery manufacturing, to the east and south of the lake. No visible above ground remains were noted on the MOLA site visit in July 2013.	---
2V	**Gunnersbury Park** Brick wall noted on MOLA site visit in July 2013. The date of the wall is uncertain but is possibly of 19th century origin. The wall follows the line of the mid-18th century Gunnersbury Park boundary as shown on the 1777 map. The wall is in ruinous condition and appears to have had buildings backing onto it on its southern side – probably the buildings shown on the 1847 map.	---
2W	**Gunnersbury Park** The location of the 17th century Gunnersbury manor house, shown on Rocque's map of 1746 and the 1777 parish map. The exact location of the former manor house is not known, however, the historic maps indicate that the present Large and Small Mansions are both partially situated above the foundations of the earlier house, which may have been positioned between the two buildings. The MOLA site visit in July 2013 noted a slight (0.3m) rising in ground level in the area of the car park / hardstanding to the north of the western end of the Small mansion – possibly indicating ground disturbance associated with the house.	---
2X	**Queen Amelia's Bathhouse, Gunnersbury Park** In 2001 an archaeological and historic building investigation was carried out on the site of Princess Amelia's Bathhouse by CgMs Consulting. The investigation uncovered three main elements of the structure, representing phased development (see **HEA 1W**).	No site code
2Y	**Gunnersbury Park** A geophysical resistivity and ground penetrating radar surveys were carried out in the north lawn (to the north of the Large and Small Mansions and the East Walled Garden by Birkbeck College archaeology department students in 2012. The results of this investigation have not been made available to MOLA or LB Ealing.	No site code
2Z	**Gunnersbury Park** The location of a complex of outbuildings shown on sales particulars dated to 1835. The area has been landscaped and planted for the café and play area, with no visible evidence of the former buildings noted on the MOLA site visit in July 2013, other than a small circular planted rockery at the location of a circular feature shown on the map of 1847. It is possibly reuse/modification of the feature (infilled well or ornamental feature?).	---
3A	**Gunnersbury Park** Memorial in the form of an iron stake with a small plague with the words: "In memory of Ms 'Laurie' Lawrence 1990". Noted on the MOLA site visit in July 2013.	---
3B	**Gunnersbury Park** Low 0.5m-high mound noted on the MOLA site visit in July 2013. Possibly landscaped and planted rubble remains from one or more buildings first show at this location on the Ordnance Survey 1st edition map of 1868–74.	---
3C	**Gunnersbury Park** Raised east-west walkway over two brick arches (two visible on north face, one infilled in south face and rest obscured) noted on the MOLA site visit in July 2013. The walkway was created as an approach to the formal late-19th century entrance to the grotto shelter and former bathhouse (**HEA 1W**). No remains of an entrance are obvious in the build of the park boundary wall on its east (external) face, although it is possible that this section of wall and the wall north of it up to the main road junction is a later rebuild. There are fragments of masonry and brick from former structures dumped at the base of the park wall.	---

HEA No.	Description	Site code/ HER No.
3D	**Gunnersbury Park** A short section of brick wall extending southwards from the rear of the Orangery. This is likely to be the remnants of the original mid-18th century estate boundary wall, shown on the map of 1777. Note on the MOLA site visit in July 2013. On the south side of a wall is an iron tank and pipe.	---
3E	**Gunnersbury Park** Terrace scarp slope noted on the MOLA site visit in July 2013. The 0.5–1.0m high slope demarcating the edge of the formal Southern Lawns lies just south of the existing path and extends from the south-west of the Orangery to just west of the path than runs south the former bridge between the Horseshoe Ponds.	---
3F	**Gunnersbury Park** Small roughly oval 1m-high mound with young/semi-mature trees on top, noted on the MOLA site visit in July 2013. The mound is possibly the only clear remnants of the curvilinear boundary of the formal landscaped gardens extending to the south of the Orangery, shown on historic maps from 1847 onwards. Alternatively it might be more recently landscaping.	---
3G	**Gunnersbury Park** Small copse of young/semi-mature trees, shown on historic maps from 1847 onwards and noted on the MOLA site visit in July 2013.	---
3H	**Gunnersbury Park** North-south raised linear grassed ridge 1.0–1.5m high noted on the MOLA site visit in July 2013. Concrete pipe visible along the top beneath the grass in places. The feature follows a field boundary first shown on the Ordnance Survey 2nd edition map of 1896. The boundary extends up to a round pond to the north, shown on maps from 1847 onwards (**HEA 2I**); the pipe is probably associated with the pond water management.	---
3I	**Gunnersbury Park** Low earthwork ridges in the field to the south of the former tennis courts, noted on the MOLA site visit in July 2013. The ridges are aligned east-west and very shallow (<0.1m) are possibly the remnants of ridge and furrow (the corrugated remains of medieval ploughing), or alternatively are remains of later ploughing. Although the field was in the south-western part of the Gunnersbury estate (rather than the Common Fields), Rocque's map of 1741–45 shows the field under arable cultivation.	---
3J	**Gunnersbury Park** The southern boundary of the park is defined by a brick wall of mid-19th century or earlier date. To the north of it is a band of mature trees, on either side of the footpath. Noted on MOLA site visit in July 2013.	---
3K	**Gunnersbury Park** The northern two-thirds of the eastern boundary of the park are defined by a brick wall of mid-19th century or earlier date. Noted on MOLA site visit in July 2013. The northern third is possibly a later rebuild over a surviving earlier course. The wall has been broken open for several later entrances; see **HEA 3C**; and beside the substation south of the former Stable block.	---
3L	**Gunnersbury Park** The central section of the northern boundary of the park is defined by a brick wall of mid-19th century or earlier date. The eastern section has been replaced by iron railings, possibly set into the base of the original wall. Noted on MOLA site visit in July 2013.	---
3M	**Gunnersbury Park** Low 0.3m-high east-west linear ridge with a mature tree. Noted on MOLA site visit in July 2013. The feature is probably the remnants of a landscaped bank shown on the map of 1847.	---
3N	**Gunnersbury Park** Polo mounting stand. Low 0.3m high by 2m long brick wall fenced off and apparently in the process of being repaired noted on MOLA site visit in July 2013. A linear capping stone nearby. The mounting stand is associated with the former polo field to the south-west (**HEA 2F**).	---
3O	**Gunnersbury Park**	---

HEA No.	Description	Site code/ HER No.
	Seven dark rectangular parchmarks noted on MOLA site visit in July 2013. The marks are approximately 5m north-south by 1.5m east-west. Six are in an east-west row. Two have shaved off drainage pipes beside the external corner. These are likely to be associated with the use of the site during the Second World War and are possibly communal blocks.	
3P	**Gunnersbury Park** Dark rectangular parchmark noted on MOLA site visit in July 2013. The mark is larger than the others noted to the south (**HEA 3O**) and is approximately 10m east-west by 4m east-west. The features are possibly associated with the use of the site during the Second World War.	---
3Q	**Gunnersbury Park** Two rectilinear parchmarks in the form of light grass delineating walls on three sides, of two large buildings 15m east-west by 10m north-south. Noted on MOLA site visit in July 2013. The buildings possibly related to the use of the site during the Second World War	---
3R	**Gunnersbury Park** Late-19th century drinking fountain base noted on MOLA site visit in July 2013.	---
3S	**Gunnersbury Park** Brick wall along southern edge of levelled tarmac car park area associated with a small square building shown on the Ordnance Survey 6" map of 1920. Noted on MOLA site visit in July 2013.	---
3T	**Gunnersbury Park** Japanese Garden. Planted in October 1900 by Hudson, the gardener responsible for the majority of the garden features. This resembled a wild garden more than a Japanese garden, and was laid out between the gothic ruin and the old south wall of Princess Amelia's park. It included a number of water features; a series of dried-out sculpted ponds of concrete or puddled clay are still extant and are all that survive above ground.	---
3U	**Gunnersbury Park** A site visit carried out by heritage specialists from Purcell UK in July 2013 noted an area of very shallow ground ridges along the eastern boundary of the playing fields and the ornamental parkland, thought to be post-medieval narrow 'rig' ridges rather than medieval ridge and furrow.	---
3V	**Gunnersbury Park** A rise in ground level noted by MOLA during a site visit in July 2013 in the small car park / area of hardstanding to the north of the western end of the Small Mansion which might be evidence of ground disturbance and levelling associated with the building.	---
3W	**Gunnersbury Park** Short section of brick wall / arch observed during MOLA site visits in June and July 2013. Based on the appearance of the brickwork, the wall is perhaps an ornamental feature contemporary with Princess Amelia's bathhouse, i.e. dated to the late-18th century. It lies parallel and to the west of the 17th century eastern boundary wall.	---
3X	**Gunnersbury Park** A raised area of ground to the east of the Small Mansion. It is not known whether this is modern or a deliberate former landscape feature associated with the Small Mansion.	---
4	**Carbery Avenue, Ealing** An archaeological evaluation was carried out by ASL in 2003. Natural gravels were overlaid by alluvial clay and topsoil, though significant levels of made ground were revealed, particularly in the eastern half of the site where the slope of the natural topography had been levelled.	CYV03
5	**Great West Quarter, Great West Road, Hounslow** An archaeological evaluation was carried out by OA in 2006. Natural clay was located, overlaid by successive soil layers of probable agricultural origin dated to the 18th century. A single 20th century feature containing iron sheeting was recorded, as well as several modern brick walls and associated tarmac. Modern services were also identified at various	EGH06

HEA No.	Description	Site code/ HER No.
	locations across the site.	
6	**The Pinnacle, Chiswick Roundabout** An archaeological watching brief was carried out by MoLAS in 1998. Natural brickearth was overlaid by disturbed brickearth and then agricultural soil, and was cut by six parallel bedding trenches. Two of the bedding trenches produced sherds of 18th century pottery; one was cut by a 19th century pit and another by a brick-lined soakaway.	PCW98 ELO4256 MLO73418 MLO73419 MLO73420
7	**1–12 Green Dragon Lane, Brentford** An archaeological evaluation was carried out by MoLAS in 1992. Worked and burnt flint of possible Mesolithic/Neolithic date was found. Foundations of early-19th century cottages were located.	GDL92
8	**Former gasworks, High Street, Brentford** An archaeological evaluation was carried out by PCA in 2000. There are no further details of this investigation listed on the LAARC.	HSO00
9	**1 High Street, Brentford** An archaeological evaluation was carried out by MoLAS in 1997. Cutting natural gravels and, on the north side of the site, brickearth, were three small post-medieval pits, an 18th century ditch aligned at right-angles to the High Street, and several brick structures. Of particular interest were the remains of a large building on the eastern side of the site, identified on 19th century maps (dating back to 1839) as a malthouse. Walls abutting the malthouse were dated to the 19th century, as was a brick-lined soakaway.	BFH97 ELO2784 MLO71292 MLO71293 MLO71294 MLO71295
10	**Kew Bridge Road, Kew Road, Brentford** An archaeological evaluation was carried out by PCA in 2003. In the south of the site the natural brickearth was cut by medieval ditches; these probably related to 12th and 13th century field systems. Two pieces of worked flint, probably of Bronze Age date, were recovered from them. The brickearth was overlaid by post-medieval garden and agricultural soils which were being reworked into the 18th and 19th centuries. Above these, extensive levelling and dumping had taken place across the site, particularly to the south. A number of brick structures were recorded, the earliest of the structures being a malthouse which appears on 18th and 19th century maps. The malthouse was extended during the 19th century and other later structures or extensions were constructed across the majority of the site.	KWB03
11	**Kew Bridge House, Kew Bridge Road, Brentford** An archaeological evaluation was carried out by MoLAS in 1992. Erosion and deposition of river-laid gravels and sands was succeeded by alluvium dating to the 15th century or later. Above this a metalled surface may have been related to the construction, probably in the 17th century, of a clay and timber pile embankment against the Thames. Erosion of the embankment was followed by dumping, either as repairs or reclamation, and then pitting. Chalk foundations/footings of a building were recorded succeeded by further reclamation dumps, possibly for brick buildings of 18th and 19th century date. Above were more dumps and pits. The remains of two post-medieval buildings in the same location were found through excavation in 1992. Two brickwork walls, one aligned east-west and the other north-south, may form all that remains of a single building. This structure is cut by a later wall which relates to a later building on the site. The later building has a brickwork floor on its eastern side, which is probably a cellar. There is an outside surface area to the south. The building was probably residential accommodation and appears to have fronted onto Kew Bridge Road. It may be the remains of the 19th and early-20th century house of Thomas Layton, number 22 Kew Bridge Road.	KBH92 MLO63054 052501 052502 052503 052504 052505 052506 052507
12	**Kew Bridge House, Kew Bridge Road, Brentford** An archaeological excavation was carried out by WA in 2007. Prehistoric activity was identified on the site, evidenced by the recovery of Early Neolithic pottery from a shallow scoop (pit) and of Bronze Age material in later features. This may mean that the north bank of the Thames was the	KBG07 MLO99441

HEA No.	Description	Site code/ HER No.
	focus of sporadic activity in prehistory, but that intermittent flooding episodes meant that it was unsuitable for settlement. Series of late medieval or early post-medieval ditches were revealed, suggesting the enclosure of parcels of land, probably for agriculture. One of these ditches, aligned roughly W–E, seems to have acted as a protection against flooding from the River Thames. Initial post-medieval activity on the site comprised the artificial raising of the ground level through dumping, and the construction of a brick building close to the eastern edge of the site. Subsequent developments included the construction of a new western wing for this building, and the construction of a public house on the southern half of the site late in the 18th century.	
13	**Gunnersbury Park, Pope's Lane** The findspot of Palaeolithic flint handaxes and flakes.	MLO2147
14	**Old Brentford, east of Gunnersbury Park** The findspot of a Belgic un-inscribed tin coin dated to the Iron Age period.	MLO2191
15	**Berryway, north-west of Gunnersbury Park** The findspot of a later medieval bulla of Baldwin IV of Jerusalem (1143-1163) was found in the topsoil of a rear garden.	MLO68416
16	**Lillian Avenue, north-east of Gunnersbury Park** Site of the Gunnersbury Farm/Gunnersbury Lodge, shown on 19th century maps. The GLHER misplaces the site of Ealingbury Manor at this location; it was located further west on Pope's Lane (see **HEA 44**).	---
17	**Gunnersbury Cemetery, Gunnersbury Avenue** The site of a cemetery dated to the mid-20th century. It was opened as the New Kensington Cemetery in 1929.	054112
18	**Carville Crescent, west of Gunnersbury Park** Site of landfill taken from British Geological Survey data supplied to the Environment Agency. It is not known whether this site was made or worked land, and the date of infill is unknown, although all are of 19th to 20th century date (see **HEA 21** and **22** below).	MLO72670
19	**Ealing and Old Brentford Cemetery/South Ealing Cemetery** Dated to the late-19th century (the cemetery was laid out in 1861)	054109
20	**South Ealing Cemetery** The findspot of a notched Neolithic scraper & battered flint flake. Discovered by A. Lewis in South Ealing Cemetery.	MLO13617
21	**Clayponds Gardens** The location of a former post-medieval landfill site; landfill probably occurred following brickearth extraction (see **HEA 18** above).	MLO72694
22	**Green Dragon Lane, Brentford** The location of a former post-medieval landfill site; landfill probably occurred following brickearth extraction (see **HEA 18** above).	MLO72698
23	**1–12 Green Dragon Lane and Kew Bridge Pumping Station, Green Dragon Lane, Brentford** An archaeological evaluation was carried out (company/date not known) which revealed early Mesolithic–late Neolithic burnt flint implements and the location of a post-medieval building, pumping station and water tower.	ELO3349 MLO63047 MLO63049 MLO64092 MLO64096
24	**Chiswick High Road** The location of a post-medieval landfill site (see **HEA 18** above).	MLO72697
25	**Stile Hall Parade** The findspot of a pointed handaxe dated to the Lower Palaeolithic period. (Discovered in 1972.)	MLO2140
26	**Sydney House, Stile Hall Gardens** A post-medieval house. Sydney House, later called Stile Hall, may have lain on the site of an earlier house. Replaced in the late-18th century and altered in the late-19th century, before its demolition in 1891.	MLO68854
27	**Kew Bridge, Hounslow** The findspot of a horse harness (chape) dated to the late Bronze Age.	MLO22934
28	**River Thames, near Kew Bridge** The findspot of a pointed stone Neolithic axe.	MLO68785

HEA No.	Description	Site code/ HER No.
29	**Ferry Lane, Brentford** Stoneware kiln furniture and waste found during Department of Greater London Archaeology/West London Archaeological Field Group site watch in 1980. These records may relate to the site entered in the London Arch round-up for 1980 which found 18th century kiln furniture including spacer pads and saggars with biscuit fired pottery. Thought to have been dumped to consolidate the Brentford foreshore.	MLO22064
30	**Great West Road, Beecham Road, Brentford, Hounslow** An assemblage of Palaeolithic mammalian fossils was uncovered during the construction of the Simmonds Aerocessories A.R.P. Shelter in the basement of the main Simmonds Aerocessories building in the 1930s.	MLO102951
31	**Old Gas Works, High Street, Brentford, Hounslow** The location of a former post-medieval landfill site (see **HEA 18** above).	MLO72715
32	**4–6 Brentford High Street, Hounslow** Location of a former post-medieval almshouse.	MLO74401
33	**Green Dragon Lane, Hounslow** Post-medieval railway. A narrow gauge railway has been introduced to the site since it became a museum in 1975.	MLO64098
34	**Green Dragon Lane, Hounslow** A waterwheel in working order has been introduced to the site since it became a museum in 1975. Beam engines were introduced to the site in 1855 when water began to be pumped from Hampton. There are four large Cornish beam engines, one Bull engine and one 1930s diesel engine original to the site.	MLO64094 MLO64095
35	**Kew Bridge Road, Hounslow** The Grand Junction Waterworks Company was formed in 1811 and built a pumping station at Chelsea. In 1828 it was discovered that this had been pumping raw diluted sewage to over 7000 families in West London for drinking purposes. As a result of the ensuing scandal, the company were obliged to build a new pumping station up-river at Kew Bridge in 1835–36. The two 1820-built Boulton and Watt engines from Chelsea were transferred to the main engine house; one still remains at Kew. The pumping station was extended at several times. The other engine house dates from two periods, half (with a 90in Cornish beam engine) from 1845–46 and half (with a 100in Cornish engine) from 1869–70. The chimney has been demolished although the standpipe tower, dating from 1867, is still standing and is a prominent landmark. The major losses have been the coal weighing machinery and the original boilers. Despite this, it is one of the largest collections of 19th century industrial buildings to remain *in situ*. It today houses a collection of five pumping engines and is run as a museum.	MLO25523
36	**Kew Bridge Road, Hounslow** Palaeolithic mammalian remains were found during railway excavations approximately 90m from Kew Bridge. These finds are now housed in the Natural History Museum.	MLO103112
37	**Kew Bridge Road, Brentford, Hounslow** An archaeological evaluation was undertaken at Kew Bridge Road by PCA in 2003. The evaluation comprised five trenches. Natural sands and gravels were overlain by brickearth, into which medieval field boundaries had been cut. Early post medieval garden and agricultural soils overlay the boundaries. A number of brick structures were recorded, the earliest being a malt house which appears on 18th century maps. The malt house was extended in the 19th century and other new buildings were constructed over the majority of the site.	ELO781 MLO76250
38	**Kew Bridge Road, Brentford, Hounslow** An archaeological evaluation was carried out by (company/date not known) which identified post-medieval features, including an 18th–19th century malt house.	1469049
39	**Claypond's Hospital, Hounslow** Infectious diseases hospital built in 1904 to designs by Sydney Eydmann.	1076378

HEA No.	Description	Site code/ HER No.
40	**'Dead Man's Graves', Brentford** Said to be the burial site of plague victims from the reign of Charles II. May be associated with palaeolithic finds - Trimmer's 1813 article mentions two find spots. The Ealing Parish Land Tax returns for the early 1800s show that in addition to Coles Hole he also occupied this field which has a series of ponds – former clay pits – shown on the 1777 and 1866 maps.	397825
41	**Kew Bridge, Hounslow** The location of two WWII hexagonal pillboxes.	1421491
42	**Church of St. James, Brentford** The site of a church built in 1897.	528399
43	**North Circular Road, Brentford** The location of a WWII pillbox.	1427816
44	**The Manor House/Manor Farm** Site of the former medieval Ealingbury Manor house and moat, dated to the 15th century. Known as Ealingbury Manor House in 1422, Ealingbury House 1813 and later as Gunnersbury Manor House in 1835. Modernised in 1935 and later demolished. 'The Manor House' or 'Manor Farm' is shown 19th century maps. Buildings are also shown here on Rocque's mid-18th century map. The GLHER misplaces the site of the manor on Lillian Grove to the east.	397824 MLO23092
45	**Gunnersbury Lane** A Roman coin of Constantine the Great was discovered here.	397819
46	**Gunnersbury Lane** The findspot of Iron Age tin coins.	397834
47	**Gunnersbury Lane** The findspot of a Lower Palaeolithic hand-axe.	1130412
48	**Lionel Primary School, Brentford** The approximate location of clay ponds adjacent to 'Old Brentford Common Field', as shown on the 1777 parish map.	---
49	**Junction of Gunnersbury Lane and Pope's Lane** Buildings (possibly stables or outbuildings) with an associated pond which formed the very north-eastern corner of the Gunnersbury Estate (as marked on 18th and 19th century maps, including the 1777 parish map and Kretschmar's 1847 map) which were demolished for the construction/widening of Gunnersbury Lane.	---
50	**Gunnersbury Lane** The section of Gunnersbury Lane to the north of the park is shown as a prominent through-route to Ealing on historic maps. John Rocque's map of 1745 appears to show that the north-south lane was diverted to enlarge the parkland belonging to the 17th century Gunnersbury mansion.	---
51	**41–53 Ealing Road, Brentford** An archaeological watching brief was carried out by MoLAS in 1999. Subsoil above the natural brickearth was cut by a probable culvert, dating to the 18th century.	

10 Planning framework

10.1 Statutory protection

Planning (Listed Buildings and Conservation Areas) Act 1990

10.1.1 The Act sets out the legal requirements for the control of development and alterations which affect buildings, including those which are listed or in conservation areas. Buildings which are listed or which lie within a conservation area are protected by law. Grade I are buildings of exceptional interest. Grade II* are particularly significant buildings of more than special interest. Grade II are buildings of special interest, which warrant every effort being made to preserve them.

10.2 National Planning Policy Framework

10.2.1 The Government issued the National Planning Policy Framework (NPPF) in March 2012 (DCLG 2012). One of the 12 core principles that underpin both plan-making and decision-taking within the framework is to 'conserve heritage assets in a manner appropriate to their significance, so that they can be enjoyed for their contribution to the quality of life of this and future generations' (DCLG 2012 para 17). It recognises that heritage assets are an irreplaceable resource (para 126), and requires the significance of heritage assets to be considered in the planning process, whether designated or not. The contribution of setting to asset significance needs to be taken into account (para 128). The NPPF encourages early engagement (i.e. pre-application) as this has significant potential to improve the efficiency and effectiveness of a planning application and can lead to better outcomes for the local community (para 188).

10.2.2 NPPF Section 12: Conserving and enhancing the historic environment, is produced in full below:

> **Para 126**. Local planning authorities should set out in their Local Plan a positive strategy for the conservation and enjoyment of the historic environment, including heritage assets most at risk through neglect, decay or other threats. In doing so, they should recognise that heritage assets are an irreplaceable resource and conserve them in a manner appropriate to their significance. In developing this strategy, local planning authorities should take into account:
>
> - the desirability of sustaining and enhancing the significance of heritage assets and putting them to viable uses consistent with their conservation;
> - the wider social, cultural, economic and environmental benefits that conservation of the historic environment can bring;
> - the desirability of new development making a positive contribution to local character and distinctiveness; and
> - opportunities to draw on the contribution made by the historic environment to the character of a place.
>
> **Para 127**. When considering the designation of conservation areas, local planning authorities should ensure that an area justifies such status because of its special architectural or historic interest, and that the concept of conservation is not devalued through the designation of areas that lack special interest.
>
> **Para 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.

Para 129. Local planning authorities should identify and assess the particular significance of any heritage asset that may be affected by a proposal (including by development affecting the setting of a heritage asset) taking account of the available evidence and any necessary expertise. They should take this assessment into account when considering the impact of a proposal on a heritage asset, to avoid or minimise conflict between the heritage asset's conservation and any aspect of the proposal.

Para 130. Where there is evidence of deliberate neglect of or damage to a heritage asset the deteriorated state of the heritage asset should not be taken into account in any decision.

Para 131. In determining planning applications, local planning authorities should take account of:

- the desirability of sustaining and enhancing the significance of heritage assets and putting them to viable uses consistent with their conservation;
- the positive contribution that conservation of heritage assets can make to sustainable communities including their economic vitality; and
- the desirability of new development making a positive contribution to local character and distinctiveness.

Para 132: When considering the impact of a proposed development on the significance of a designated heritage asset, great weight should be given to the asset's conservation. The more important the asset, the greater the weight should be. Significance can be harmed or lost through alteration or destruction of the heritage asset or development within its setting. As heritage assets are irreplaceable, any harm or loss should require clear and convincing justification. Substantial harm to or loss of a grade II listed building, park or garden should be exceptional. Substantial harm to or loss of designated heritage assets of the highest significance, notably scheduled monuments, protected wreck sites, battlefields, grade I and II* listed buildings, grade I and II* registered parks and gardens, and World Heritage Sites, should be wholly exceptional.

Para 133. Where a proposed development will lead to substantial harm to or total loss of significance of a designated heritage asset, local planning authorities should refuse consent, unless it can be demonstrated that the substantial harm or loss is necessary to achieve substantial public benefits that outweigh that harm or loss, or all of the following apply:

- the nature of the heritage asset prevents all reasonable uses of the site; and
- no viable use of the heritage asset itself can be found in the medium term through appropriate marketing that will enable its conservation; and
- conservation by grant-funding or some form of charitable or public ownership is demonstrably not possible; and
- the harm or loss is outweighed by the benefit of bringing the site back into use.

Para 134. Where a development proposal will lead to less than substantial harm to the significance of a designated heritage asset, this harm should be weighed against the public benefits of the proposal, including securing its optimum viable use.

Para 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.

Para 136. Local planning authorities should not permit loss of the whole or part of a heritage asset without taking all reasonable steps to ensure the new development will proceed after the loss has occurred.

Para 137. Local planning authorities should look for opportunities for new development within Conservation Areas and World Heritage Sites and within the

setting of heritage assets to enhance or better reveal their significance. Proposals that preserve those elements of the setting that make a positive contribution to or better reveal the significance of the asset should be treated favourably.

Para 138. Not all elements of a World Heritage Site or Conservation Area will necessarily contribute to its significance. Loss of a building (or other element) which makes a positive contribution to the significance of the Conservation Area or World Heritage Site should be treated either as substantial harm under paragraph 133 or less than substantial harm under paragraph 134, as appropriate, taking into account the relative significance of the element affected and its contribution to the significance of the Conservation Area or World Heritage Site as a whole.

Para 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.

Para 140. Local planning authorities should assess whether the benefits of a proposal for enabling development, which would otherwise conflict with planning policies but which would secure the future conservation of a heritage asset, outweigh the disbenefits of departing from those policies.

Para 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.

10.3 Greater London regional policy

The London Plan

10.3.1 The overarching strategies and policies for the whole of the Greater London area are contained within the London Plan of the Greater London Authority (GLA July 2011). Policy 7.8 relates to Heritage Assets and Archaeology:

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.

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.

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.

10.4 Local planning policy

10.4.1 The Borough of Hounslow's Local Plan currently comprises the Unitary Development Plan (UDP), Brentford Area Action Plan and the Employment Development Plan Document. The Local Plan documents will be revised to take into account the policies in the NPPF as part of a new Local Plan which is being prepared. In the meantime, for the UDP, due weight will be given to relevant policies according to their degree of consistency with the NPPF (London Borough of Hounslow website, accessed 27th September 2012).

10.4.2 The UDP (London Borough of Hounslow 2003) was approved in December 2003 and was amended and saved as of 28th September 2007 by direction from the Secretary of State. It determines the position of archaeology as a material consideration in the planning process. The Council's principal policies and statements on archaeology in the borough are as follows:

POLICY ENV- B.3.2 Sites of Archaeological Importance

The Council will promote the conservation, protection and enhancement of the archaeological heritage of the Borough and its interpretation and presentation to the public. Where development may affect land of archaeological significance or potential, the Council will expect applicants to have properly assessed and planned for the archaeological implications of their proposals.

Within the Council's Archaeological Priority Areas (Map ENV-B3) and for other sites of archaeological potential (as identified by archaeological advisors to the Council):

(i) A written assessment of the likely archaeological impact of development (archaeological statement) will be required as part of the documentation needed to complete a planning application.

(ii) The Council may require that an on-site assessment by trial work (archaeological field evaluation) is carried out before any decision on the planning application is taken.

The Council will seek to ensure that the most important archaeological remains and their settings are permanently preserved in situ and if unscheduled and of national importance are given statutory protection. In such cases, if preservation in situ is both desirable and feasible, the Council will require the development design to accommodate this objective.

Where the preservation of archaeological remains in situ is not appropriate, the Council will require that no development takes place on a site until archaeological investigations have been carried out by an investigating body to be nominated or approved by the Council and such investigations shall be in accordance with a detailed scheme to be approved in advance by the Council. Where feasible, the Council will negotiate the provision of facilities for public viewing during the period of excavation.

10.4.3 The Council has designated a number of Archaeological Priority Areas in the borough. The site does not lie within one of these Areas.

11 Determining significance

11.1.1 'Significance' lies in the value of a heritage asset to this and future generations because of its heritage interest, which may be archaeological, architectural, artistic or historic. Archaeological interest includes an interest in carrying out an expert investigation at some point in the future into the evidence a heritage asset may hold of past human activity, and may apply to standing buildings or structures as well as buried remains. Known and potential heritage assets within the site and its vicinity have been identified from national and local designations, HER data and expert opinion. The determination of the significance of these assets is based on statutory designation and/or professional judgement against four values (EH 2008):

- *Evidential value*: the potential of the physical remains to yield evidence of past human activity. This might take into account date; rarity; state of preservation; diversity/complexity; contribution to published priorities; supporting documentation; collective value and comparative potential.
- *Aesthetic value*: this derives from the ways in which people draw sensory and intellectual stimulation from the heritage asset, taking into account what other people have said or written;
- *Historical value*: the ways in which past people, events and aspects of life can be connected through heritage asset to the present, such a connection often being illustrative or associative;
- *Communal value*: this 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.

11.1.2 Table 2 gives examples of the significance of designated and non-designated heritage assets.

Table 2: Significance of heritage assets

Heritage asset description	Significance
World heritage sites Scheduled monuments Grade I and II* listed buildings English Heritage Grade I and II* registered parks and gardens Protected Wrecks Heritage assets of national importance	Very high (International / national)
English Heritage Grade II registered parks and gardens Conservation areas Designated historic battlefields Grade II listed buildings Burial grounds Protected heritage landscapes (e.g. ancient woodland or historic hedgerows) Heritage assets of regional or county importance	High (national/ regional/ county)
Heritage assets with a district value or interest for education or cultural appreciation Locally listed buildings	Medium (District)
Heritage assets with a local (ie parish) value or interest for education or cultural appreciation	Low (Local)
Historic environment resource with no significant value or interest	Negligible
Heritage assets that have a clear potential, but for which current knowledge is insufficient to allow significance to be determined	Uncertain

11.1.3 Unless the nature and exact extent of buried archaeological remains within any given area has been determined through prior investigation, significance of is often uncertain.

12 Glossary

Alluvium	Sediment laid down by a river. Can range from sands and gravels deposited by fast flowing water and clays that settle out of suspension during overbank flooding. Other deposits found on a valley floor are usually included in the term alluvium (eg peat).
Archaeological Priority Area/Zone	Areas of archaeological priority, significance, potential or other title, often designated by the local authority.
Brickearth	A fine-grained silt believed to have accumulated by a mixture of processes (eg wind, slope and freeze-thaw) mostly since the Last Glacial Maximum around 17,000BP.
B.P.	Before Present, conventionally taken to be 1950
Bronze Age	2,000–600 BC
Building recording	Recording of historic buildings (by a competent archaeological organisation) is undertaken *'to document buildings, or parts of buildings, which may be lost as a result of demolition, alteration or neglect',* amongst other reasons. Four levels of recording are defined by Royal Commission on the Historical Monuments of England (RCHME) and English Heritage. Level 1 (basic visual record); Level 2 (descriptive record), Level 3 (analytical record), and Level 4 (comprehensive analytical record)
Built heritage	Upstanding structure of historic interest.
Colluvium	A natural deposit accumulated through the action of rainwash or gravity at the base of a slope.
Conservation area	An area of special architectural or historic interest the character or appearance of which it is desirable to preserve or enhance. Designation by the local authority often includes controls over the demolition of buildings; strengthened controls over minor development; and special provision for the protection of trees.
Cropmarks	Marks visible from the air in growing crops, caused by moisture variation due to subsurface features of possible archaeological origin (i.e. ditches or buried walls).
Cut-and-cover [trench]	Method of construction in which a trench is excavated down from existing ground level and which is subsequently covered over and/or backfilled.
Cut feature	Archaeological feature such as a pit, ditch or well, which has been cut into the then-existing ground surface.
Devensian	The most recent cold stage (glacial) of the Pleistocene. Spanning the period from *c* 70,000 years ago until the start of the Holocene (10,000 years ago). Climate fluctuated within the Devensian, as it did in other glacials and interglacials. It is associated with the demise of the Neanderthals and the expansion of modern humans.
Early medieval	AD 410 – 1066. Also referred to as the Saxon period.
Evaluation (archaeological)	A limited programme of non–intrusive and/or intrusive fieldwork which determines the presence or absence of archaeological features, structures, deposits, artefacts or ecofacts within a specified area.
Excavation (archaeological)	A programme of controlled, intrusive fieldwork with defined research objectives which examines, records and interprets archaeological remains, retrieves artefacts, ecofacts and other remains within a specified area. The records made and objects gathered are studied and the results published in detail appropriate to the project design.
Findspot	Chance find/antiquarian discovery of artefact. The artefact has no known context, is either residual or indicates an area of archaeological activity.
Geotechnical	Ground investigation, typically in the form of boreholes and/or trial/test pits, carried out for engineering purposes to determine the nature of the subsurface deposits.
Head	Weathered/soliflucted periglacial deposit (ie moved downslope through natural processes).
Heritage asset	A building, monument, site, place, area or landscape positively identified as having a degree of significance meriting consideration in planning decisions. Heritage assets are the valued components of the historic environment. They include designated heritage assets and assets identified by the local planning authority (including local listing).
Historic environment assessment	A written document whose purpose is to determine, as far as is reasonably possible from existing records, the nature of the historic environment resource/heritage assets within a specified area.
Historic Environment Record (HER)	Archaeological and built heritage database held and maintained by the County authority. Previously known as the Sites and Monuments Record
Holocene	The most recent epoch (part) of the Quaternary, covering the past 10,000 years during which time a warm interglacial climate has existed. Also referred to as the 'Postglacial' and (in Britain) as the 'Flandrian'.

Iron Age	600 BC – AD 43
Later medieval	AD 1066 – 1500
Last Glacial Maximum	Characterised by the expansion of the last ice sheet to affect the British Isles (around 18,000 years ago), which at its maximum extent covered over two-thirds of the present land area of the country.
Locally listed building	A structure of local architectural and/or historical interest. These are structures that are not included in the Secretary of State's Listing but are considered by the local authority to have architectural and/or historical merit
Listed building	A structure of architectural and/or historical interest. These are included on the Secretary of State's list, which affords statutory protection. These are subdivided into Grades I, II* and II (in descending importance).
Made Ground	Artificial deposit. An archaeologist would differentiate between modern made ground, containing identifiably modern inclusion such as concrete (but not brick or tile), and undated made ground, which may potentially contain deposits of archaeological interest.
Mesolithic	12,000 – 4,000 BC
National Monuments Record (NMR)	National database of archaeological sites, finds and events as maintained by English Heritage in Swindon. Generally not as comprehensive as the country SMR/HER.
Neolithic	4,000 – 2,000 BC
Ordnance Datum (OD)	A vertical datum used by Ordnance Survey as the basis for deriving altitudes on maps.
Palaeo-environmental	Related to past environments, i.e. during the prehistoric and later periods. Such remains can be of archaeological interest, and often consist of organic remains such as pollen and plant macro fossils which can be used to reconstruct the past environment.
Palaeolithic	700,000–12,000 BC
Palaeochannel	A former/ancient watercourse
Peat	A build up of organic material in waterlogged areas, producing marshes, fens, mires, blanket and raised bogs. Accumulation is due to inhibited decay in anaerobic conditions.
Pleistocene	Geological period pre-dating the Holocene.
Post-medieval	AD 1500 – present
Preservation by record	Archaeological mitigation strategy where archaeological remains are fully excavated and recorded archaeologically and the results published. For remains of lesser significance, preservation by record might comprise an archaeological watching brief.
Preservation in situ	Archaeological mitigation strategy where nationally important (whether Scheduled or not) archaeological remains are preserved *in situ* for future generations, typically through modifications to design proposals to avoid damage or destruction of such remains.
Registered Historic Parks and Gardens	A site may lie within or contain a registered historic park or garden. The register of these in England is compiled and maintained by English Heritage.
Residual	When used to describe archaeological artefacts, this means not *in situ,* ie Found outside the context in which it was originally deposited.
Roman	AD 43 – 410
Scheduled Monument	An ancient monument or archaeological deposits designated by the Secretary of State as a 'Scheduled Ancient Monument' and protected under the Ancient Monuments Act.
Site	The area of proposed development
Site codes	Unique identifying codes allocated to archaeological fieldwork sites, eg evaluation, excavation, or watching brief sites.
Study area	Defined area surrounding the proposed development in which archaeological data is collected and analysed in order to set the site into its archaeological and historical context.
Solifluction, Soliflucted	Creeping of soil down a slope during periods of freeze and thaw in periglacial environments. Such material can seal and protect earlier landsurfaces and archaeological deposits which might otherwise not survive later erosion.
Stratigraphy	A term used to define a sequence of visually distinct horizontal layers (strata), one above another, which form the material remains of past cultures.
Truncate	Partially or wholly remove. In archaeological terms remains may have been truncated by previous construction activity.
Watching brief (archaeological)	An archaeological watching brief is '*a formal programme of observation and investigation conducted during any operation carried out for non–archaeological reasons.*'

13 Gunnersbury Park registered park and garden list entry

Name: GUNNERSBURY PARK

List entry Number: 1000808

An C18 formal garden, altered mid C18 with some involvement from William Kent. The grounds were developed in the later C18 for Princess Amelia and extended in the mid C19 by Baron Lionel de Rothschild. The site became a public park in 1925.

HISTORIC DEVELOPMENT

The area in which Gunnersbury Park is situated was, in the Middle Ages, an estate owned by the bishops of London, part of the Manor of Fulham. By 1656 Gunnersbury had been purchased by Sir John Maynard (1602-90). Maynard engaged the architect John Webb (1611-72), pupil and relative of Inigo Jones, to build a new manor house on the estate. Gunnersbury estate was purchased by Henry Furness, MP and art collector, in 1739. A map surveyed in 1741 (Rocque, 1746) shows a formal layout south of the house, with the main axis, at one point flanked by formal canals, aligned on the house and continuing south through the pleasure grounds in the form of an avenue. It is thought (Butcher et al 1993) that Furness engaged William Kent, who he knew socially, to enlarge and alter the estate. Kent's professional connection is evident from a payment of £55 received from Furness in April 1743. Princess Amelia, favourite daughter of George II, purchased Gunnersbury Park in 1761 and set about improving and extending the estate. Princess Amelia enjoyed entertaining at Gunnersbury and her guests included Horace Walpole who was then living at Strawberry Hill (qv), Twickenham.

The Princess continued to use Gunnersbury as her summer residence until her death in 1786, after which the property passed through a number of owners until 1800 when it was purchased by John Morley, a floorcloth manufacturer of Chelsea. Morley demolished the Webb house and divided the estate into thirteen lots, with a view to development, thus causing the creation of two separate estates, a partition which was to last for eighty-seven years. In 1802 Alexander Copland (c 1774-1834), a partner of the architect Henry Holland, bought ten of the thirteen lots and Stephen Cosser bought Lot 1, the north-east side of the estate. Copland subsequently purchased the remaining two lots having already built himself 'The Large Mansion', Gunnersbury Park. 'The Small Mansion', Gunnersbury House, was built to the east either by Cosser (Lysons and Brewer 1816), or his successor Major Alexander Morrison who bought the former Lot 1 land in 1807 (Faulkner 1845). In 1828 the Gunnersbury House estate was purchased by Thomas Farmer who lived there, with Copland as his neighbour, until 1835 when Gunnersbury Park was bought by Nathan Mayer Rothschild. The new owner immediately contacted J C Loudon about improving the approach to the house from Pope's Lane. It is not known if Loudon's proposals were put into effect. Rothschild died the following year, having never resided at Gunnersbury, but the Rothschild family, who in 1889 reunited the site, continued to live at Gunnersbury until 1925. During that time Lionel Rothschild bought land to the south-west including a clay pit which he made into a pond. The family continued to improve the estate and Gunnersbury became renown for its horticultural excellence and often featured in the gardening press of the late C19 and early C20.

After the death of Leopold de Rothschild in 1917 the estate was broken up and gradually sold off. In 1925 75ha, including both houses and the garden buildings, were purchased for public use by the then boroughs of Acton and Ealing, with Middlesex County Council contributing to the cost. The park was formally opened to the public by Neville Chamberlain, MP, on 21 May 1926. In the early years of the park's public ownership many of the horticultural practices continued, but with increased provision for recreation. During the

Second World War the playing fields accommodated anti-aircraft positions and new roads were made.

The park continues (1999) in public ownership.

DESCRIPTION

LOCATION, AREA, BOUNDARIES, LANDFORM, SETTING Gunnersbury Park is situated in the suburbs of West London, c 1km south of Acton. Chiswick House (qv) is c 2km to the south-east, and Syon Park (qv) c 2km to the south-west. Walpole Park (qv), Ealing is c 2km to the north. The 75ha site is bounded to the north by the backs of houses on the south side of Pope's Lane (B4491). Pope's Lane provides the boundary to the north-east corner, and Gunnersbury Avenue (A406 North Circular) the boundary to the east. The southern boundary is made up of to the west, a belt of factories, and to the east Kensington Cemetery. A local road, Lionel Road, provides the southern half of the west boundary with the backs of houses in the same road forming the boundary to the north-west. The site slopes down generally from north to south.

ENTRANCES AND APPROACHES The main entrance is through the north gateway (listed grade II) on Pope's Lane. The impressive early C19 iron gates are hung from four tall stucco piers with entablatures and original lamps. Inside the gates to the east is the North Lodge (listed grade II). Sidney Smirke added a Doric portico to the Lodge c 1835, which is now (1999) used as offices by the Park Wardens and houses an information service. The curving drive, flanked by C19 lamp standards (listed grade II), continues in a south-easterly direction towards the two mansions, Gunnersbury Park and Gunnersbury House, which face north-west and are fronted by lawns. The surviving lamp standards have been restored (late 1990s) and replica replacements made where necessary. To the south-east of the North Lodge is the East Lodge (listed grade II). Now (1999) in poor condition, the Lodge stands to the north of the drive which leads from Gunnersbury Avenue to Gunnersbury House. The Lodge was built by William Fuller Pocock for Thomas Farmer c 1837 after the park was divided and Gunnersbury House built. A pair of lodges guard the third entrance at the extreme south of the site. This entrance was made by 1891 to provide access to the estate from Kew Bridge railway station. A fourth entrance to the west of the main, north entrance provides (1999) access to the parking area and the playing fields. In the mid C19 it led to the Kitchen Garden (OS 1865). Lesser pedestrian entrances are to be found to the east of the stables, along the western boundary, and in the north-west corner of the site.

PRINCIPAL BUILDINGS Situated to the north-east of the site and set on the top of a broad east/west terrace overlooking the pleasure grounds and parkland, is Gunnersbury Park (listed grade II*). This building is referred to historically as 'The Large Mansion', to distinguish it from 'The Small Mansion' (listed grade II) which lies to the north-east. The three-storeyed stuccoed mansion has a slate roof and stuccoed brick stacks. The entrance front has a porte-cochere with paired Tuscan columns; a bow window surrounded by a conservatory decorates the east side. To the south, the garden front has a three-storey centre with tall, arched first-floor windows above a ground-floor Tuscan loggia. The Large Mansion was built by 1802 for Alexander Copland, probably to his own design. It was bought by Nathan Mayer Rothschild in c 1835 and was substantially remodelled by Sydney Smirke. He added the north-east parlour and south-west dining room and encased all in a handsome stucco exterior. The mansion has, since 1929, housed the Gunnersbury Park Museum with social history collections and Victorian kitchens.

To the east of Gunnersbury Park lies Gunnersbury House, 'The Small Mansion' (listed grade II). Built by 1828 after the Gunnersbury House estate was bought by Thomas Farmer, it now (1999) houses the Small Mansion Arts Centre in its main rooms.

GARDENS AND PLEASURE GROUNDS The pleasure grounds are laid out around the mansions to the north-east of the site. Inside the main entrance the drive divides, the main,

eastern branch curving to the south towards Gunnersbury Park. The western branch leads to the Italian Garden, planted out with roses in the C19 style. First recorded as the Italian Garden in c 1880, the garden has been known by various names: the circular garden in 1835, when it was surrounded by roses on wirework; the Temple Garden in 1906, when there is the first reference to water around the sundial; and an 'old time garden' in 1910 (Butcher et al, 1993). South of the Italian Garden the path divides around the Temple and the Round Pond. The Temple (listed grade II*) overlooks the Round Pond from which it is separated by low iron railings and a narrow sloping lawn. The brick building has a white wooden pedimented south front with four Doric columns and a frieze with bucrania attached. Built for Princess Amelia, probably by Sir William Chambers (CL 1982), the building was known in the late C18 as the Dairy. Many of the cedars which were planted around the Temple were lost in the storms of 1987 and some replanting has been undertaken. The Round Pond, now (1999) partly enclosed in C20 iron railings, is first shown on Nichol's map of 1777 and is thought (CL 1982) to date from the ownership of Princess Amelia; it was probably made at the same time as the Temple. Since the 1920s the Pond has been used as a boating lake and is also used as a stock pond for fish.

The western branch of the path proceeds south-west around the Temple and Pond with the Kitchen Garden (now, 1999, a commercial nursery) and the C20 Bowling Greens to the west, and on into the park. The eastern branch of the path continues south around the Pond, past the C20 refreshment room and children's playground to the east. After c 80m this path divides, the branch to the west curving between the southern end of the Pond and the C20 golf course before meeting up opposite the Kitchen Garden with the path from the north. The eastern branch swings east towards Gunnersbury Park before turning south where it divides. The path to the east leads south to the terrace, while the southern path continues to the south, passing steps which lead up through an C18 archway (listed grade II) onto the terrace to the east. Made from cement-rendered brickwork with stone imposts and an open pediment, the arch has coffered reveals and contains two segmental niches with stone pedestals. The terrace extends for c 200m along the south front of both Gunnersbury Park and Gunnersbury House. A tarmac path embellished with wooden seats leads along the top of a grass slope. The lack of ornamentation is in contrast to the descriptions of the terrace during the period of the Rothschilds' ownership when the gardening periodicals of that time described it as being decorated with many pot-grown plants, some of which were trained up the walls (Gunnersbury Park Museum Archive). From the terrace there are views to the south-east over open lawns with peripheral plantings, most of which appear to date from the C20. A line of trees marks the former division between the Gunnersbury Park and Gunnersbury House estates. Between c 1828, when the estate was first divided, and 1889, when it was reunited, the land to the west went with the former and land to east with the latter. A depression in the lawn marks the site of Horseshoe Pond, the east end of which is marked by the (?C18) cement-rendered, brick-built sham bridge, and the west end by a C20 rock garden. Made between 1741 (Rocque) and 1777 (Map of the Parish of Ealing), the Horseshoe Pond was set directly below the Webb mansion. When the estate was divided the lake was also split in two but was maintained as water until the late C20 when first the eastern part and then the western part dried up. To the south of the rock garden is the Orangery (listed grade II) built by Smirke c 1836-7 to overlook the Horseshoe Pond. The glazed building has a central semicircular bay with engaged Doric columns to the east.
The wide tarmac path along the top of the terrace continues past first Gunnersbury Park and then Gunnersbury House. To the east of the latter, north of the terrace, is the site of the abandoned herbaceous garden. The path continues along the terrace and through an early C19 arcade (listed grade II as part of a complex of a late C18/early C19 gothic outbuildings to the south). The arcade has four Tudor arches and a battlemented top. The outbuildings include a grotto shelter, and a room known as Princess Amelia's Bath House. Derelict in 1999, these buildings have attracted grant aid with a view to restoration. The path terminates at the eastern boundary wall alongside Gunnersbury Avenue. From this point a path leads south to the east of the gothic outbuildings and continues alongside the eastern boundary wall, over the sham bridge, to the Gothic Ruins. Listed grade II, the brick-built ruins were made for the Rothschild family in the mid C19. To the south of the Ruins is the Japanese

Garden; constructed on land which formerly belonged to the Gunnersbury House estate, the garden, which was carefully designed by James Hudson (gardener to Leopold Rothschild) after Japanese models, was completed just after 1900. To the south-east of the Japanese Garden are the stables (listed grade II) built by Sidney Smirke for Nathan Rothschild, with the north range constructed on the border with the Gunnersbury House estate. In order to screen the buildings, Thomas Farmer decorated his side with Gothic-style elevations. The path continues to the west of the stables and into the parkland.

PARK The c 60ha of open parkland extends from the south round to the north of the pleasure grounds. The park is today (1999) given over to recreation. A public golf course dominates the central area with sports pitches and open areas to the west and the south. Boundary planting shown on an estate map of 1847 (Kretschmar) survives and it was after this date that the Rothschilds expanded the parkland to the west, using part of the land as a Polo field and part for agricultural purposes. In addition to farmland, in 1861 the Rothschilds acquired a former clay pit and tile kiln to the south-west of the property, transforming the pit into the Potomac Pond and the kiln into the Gothic Boathouse (listed grade II). J W Pulham was responsible for the elevations of the boathouse and also for the rockery that decorates the path to the east of the lake.

KITCHEN GARDEN The walled Kitchen Garden, which lies immediately to the west of the Round Pond, is not open to the public. Its is currently (1999) used by two private organisations as a commercial nursery and for horticultural training. The ground was included in the estate by the beginning of C19 and is shown as Lot 3 on the Sale map of 1802. The OS map of 1865 shows a number of glasshouses and fruit trees in the area. As well as fruit and exotic plants the gardens were famous for their vineries, orchids, and pineapples (guidebook 1993).

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Ealing Library Local Studies
Gunnersbury Park Museum

14.4 Cartographic sources

Rocque, 1741–45 'Exact Survey of the City of London Westminster and Southwark and the Country 10 Miles Round'
Nichol's Ealing parish map 1777 (Gunnersbury Museum)
Morley's indenture plan showing the eastern (estate) part of the site divided into 13 lots (1802) (Gunnersbury Museum)
Kretschmar's map of 1847 showing only the eastern (estate) part of the site (Gunnersbury Museum)

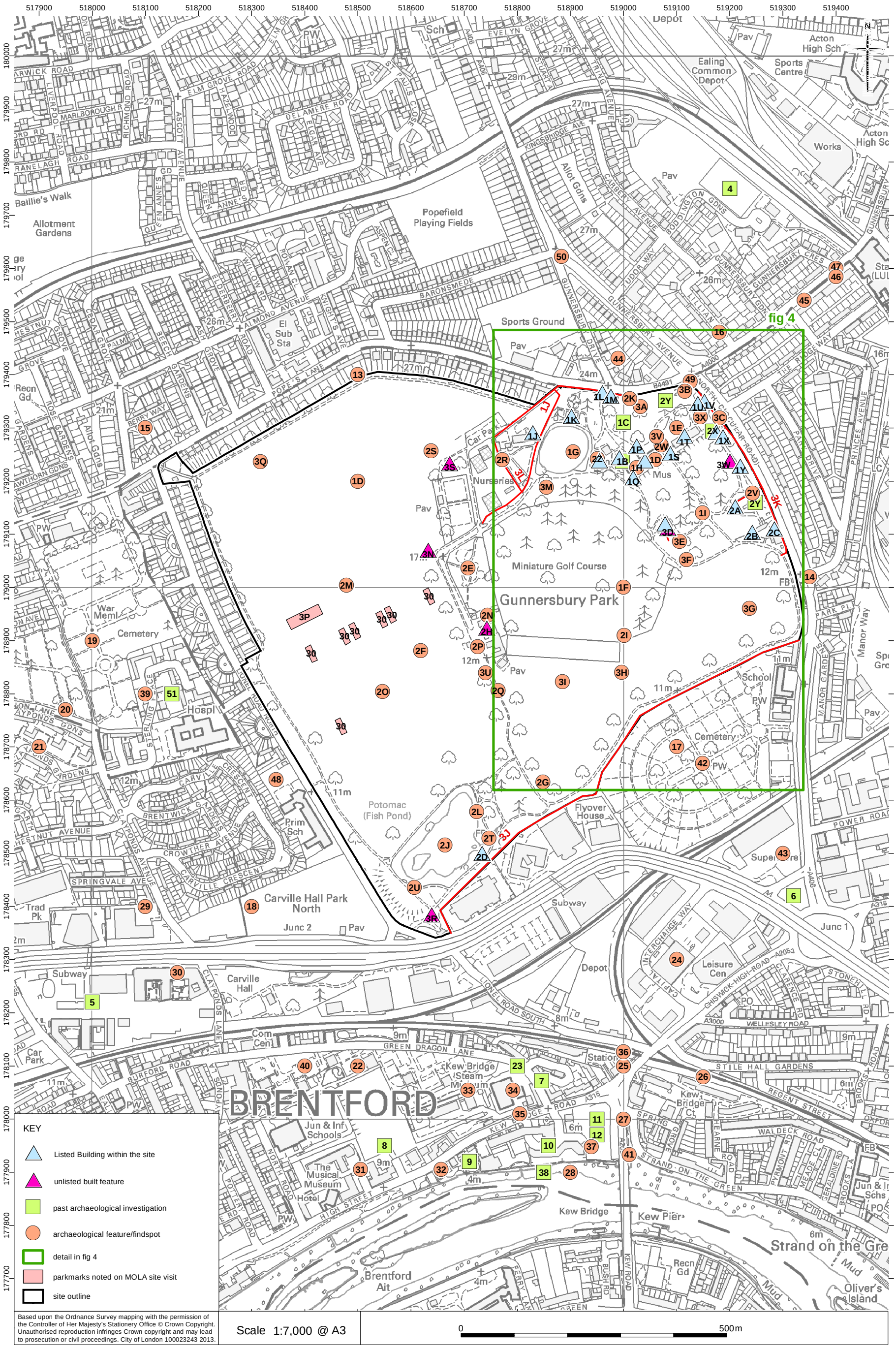
Ordnance Survey maps
Ordnance Survey 1st edition 6": mile map of 1868–74
Ordnance Survey 2nd edition 6": mile map of 1896
Ordnance Survey 6": mile map of 1920
Ordnance Survey 6": mile map of 1966–67

15 Appendix 1: Options for site-based archaeological investigations

Zone	Location	Investigation method	Intended outcome of specific method	Main driver rationale (research / masterplan impact area)	Follow up	Investigation date	Constraints
Zone 1: Historic houses and formal grounds	Whole zone	LiDAR survey	The LiDAR data (available at 0.1m vertical resolution with readings at 0. 5m intervals) would provide a high resolution topographic map of the whole zone, which is currently only partly surveyed. This may reveal topographic anomalies otherwise indistinguishable on the ground and help to clarify areas for further investigation, in particular the area south of the Horseshoe Pond.	**PHASE 1 impact**: the information would inform the updated CMP with a full topographic survey. Archaeological impacts in this area may occur under the masterplan proposals	Geophysics and trial trenches.	Acquire and process data end of July (project variation)	n/a
	South Lawn (Horseshoe Pond)/ Orangery	Geophysics (recommended)	The location and extent of the pond can be mapped and digitised from historic maps. Geophysics could be used here to address primary research (rather than impact) aims; it could for example be used to determine whether the two linear ponds shown on Rocque's map are indeed this shape or whether this was a crude depiction of the Horseshoe Pond. More ephemeral features may not be picked up by this survey method. Geophysics could also be used to confirm the line of the historic boundary wall on the 1777 map (partly extant)	**PHASE 1 impact:** the pond would be restored as part of the masterplan proposals. **Primary research**: the surveys could be extended outside the area of the Horseshoe Pond in order to determine whether any early landscape features survive below ground, including the estate boundary wall shown on the 1777 map (and partly extant).	Trial trench.	n/a	None in eastern pond area. Western pond area has some planting and rockeries. Trial trenches would require hoarding off this public area. Temporary impact on views.
		Trial trench (x 2–4 recommended)	To establish the nature of the construction of the Horseshoe Pond, specifically: type/nature/survival of pond kerb, pond lining (puddled clay?) and nature of infill. As noted above, the survey could also be research-driven, to inform on earlier landscaping north of the Horseshoe Pond and confirming the line (and possible buried survival) of the boundary wall. Depending on the results of the geophysics survey, trial trenches would confirm the presence, nature, extent, date and survival of any remains.		Results would inform the updated CPM.	w/c 19th and 27th August 2013	
	East Walled Gardens	Geophysics (optional)	LB Ealing: brief requirement to inform updated CPM. MOLA recommendation: use alternative survey method (trial trenches). Geophysics is unlikely to pick up ephemeral features expected in this zone (eg former plant beds etc).	**PHASE 1 impact:** the garden would be renovated as a working kitchen garden. Superficial ground disturbance anticipated.	MOLA alternative proposal: go straight to trial trenches (see below).	n/a	This area is fairly overgrown with vegetation and scattered allotments. Areas may need to be cleared prior to geophysical survey (to confirm). Trial trenches would require hoarding off this public area. Possible removal of planting allotment areas dependant on trench location.
		Trial trench (x1 optional)	To establish the nature and survival of the post-medieval use of the area as gardens, eg the survival of buried plant beds, paths, etc.		Results would inform the updated CPM.	w/c 19th and 27th August 2013	
	North Lawn area	Geophysics (recommended)	Geophysics survey would be designed to locate the presence, nature, extent and survival of features associated with the mid-17th century mansion house. Radar survey would be used for hardstanding and onto adjacent grassed areas. The survey area could be extended across the area to include other features shown on historic maps, eg, early 19th century outbuildings, gardens conjectured area of Raven's mansion, and possibly use to search for the site of the medieval house (location not known but possibly in the general area)	**Long term research:** The location of the original mid-17th century mansion house is a key research priority. This area does however appear to lie outside proposed impact zones in the masterplan (confirm with LB Ealing).	Trial trench.	w/c 12th and 19th August 2013	The likely site of the mansion house possibly straddles an area of grass and a raised car park/hardstanding area. A wall separates the two areas. The car park would need to be cleared of cars. Trial trenches would require hoarding off this public area. The hardstanding would have to be dug up and the car park surface reinstated if a trench was placed here.
		Trial trenches (x 1–3 recommended)	Depending on the results of the LiDAR and geophysics survey, trial trenches would confirm the presence, nature, extent, date and survival of any buried archaeological remains.		Results would inform the updated CPM.	w/c 19th and 27th August 2013	
Zone 2: Ornamental parkland	Whole zone	LiDAR survey	The LiDAR data would provide a high resolution topographic map of the whole zone, which is currently unsurveyed. This may reveal anomalies otherwise indistinguishable on the ground and help to clarify areas for further investigation, in particular south of the former tennis courts.	**PHASE 1 impact**: the information would inform the updated CMP with a full topographic survey. Archaeological impacts in this area would occur under the masterplan proposals.	Geophysics and trial trenches.	Acquire and process data end of July	n/a
	Children's' playground	Geophysics (optional)	Geophysics survey would be designed to locate the presence, of features associated with a chapel building shown at this approximate location on the 1777 map.	**PHASE 3 impact (possible)**: depending on the nature of ground disturbance proposed as part of the playground refurbishment, there may be an archaeological impact at this location. **Long term research**: the information would establish a key research question as to the nature of this early estate feature.	Trial trench.	w/c 12th and 19th August 2013	The playground area does not appear to have areas suitable for either geophysics or a trial trench (to confirm). A trial trench would require hoarding off a part of the playground. The surface would have to be dug up and reinstated if a trench was placed here.
		Trial trench (x1 optional)	Depending on the results of the geophysics survey, a trial trench would confirm the presence, nature, extent, date and survival of any buried remains of the chapel.		Results would inform the updated CPM.	w/c 19th and 27th August 2013	
	South-western corner of the estate.	Geophysics (optional)	Geophysics survey would be designed to locate the presence, of features associated a chapel building shown at this approximate location on the 1777 map.	**Long term research**: the information would establish a key research question as to the nature of this early estate feature.	Trial trench.	w/c 12th and 19th August 2013	There are scattered trees with root systems, but reasonable access for surveys (to confirm).
		Trial trench (x1 optional)	Depending on the results of the geophysics survey, a trial trench would confirm the presence, nature, extent, date and survival of any buried archaeological remains.		Results would inform the	w/c 19th and 27th August	

Zone	Location	Investigation method	Intended outcome of specific method	Main driver rationale (research / masterplan impact area)	Follow up	Investigation date	Constraints
					updated CPM.	2013	
	Area south of former tennis courts	Geophysics (optional)	Geophysics survey (magnetometer) would be designed to establish the full extent of the possible ridge and furrow at this location, including any buried (non-visible elements).	**Long term research**: the information would be designed to establish the nature and possibly the date of the low earthworks south of the tennis courts (possible medieval ridge and furrow).	Trial trench?	w/c 12th and 19th August 2013	None anticipated.
		Trial trench (x1 optional)	To determine the nature of the possible ridge and furrow earthworks to the south of the tennis courts. *(Note: would a trial trench on ridge and furrow be able to confirm nature?)*		Results would inform the updated CPM.	w/c 19th and 27th August 2013	If the remains are ridge and furrow they are a rare survival. The trench will remove such remains within its footprint.
	Pitch and putt	Trial trench (x1 optional)	To determine general archaeological survival potential in this area. Half has been landscaped for the pitch and putt, which will have truncated any archaeological remains that might be present. Other areas have mature trees and have probably remained largely undisturbed, where survival potential is likely to be high. The trench is limited in size and the area is large and the results will have limited value. Consider relocating. Landscaping of this area would require more intensive trial trenching (a least a 5% sample of the total area of proposed disturbance) in order to provide a meaningful assessment.	**PHASE 1 impact:** the current area of the Pitch and Putt is to be re-landscaped. The archaeological potential of this area is largely unknown, other than that it was open parkland on the Gunnersbury Estate during the post-medieval period.	Results would inform the updated CPM.	w/c 19th and 27th August 2013	Parts are quite overgrown; particularly around the perimeter.
Zone 3: Coles Hole and Potomac Lake	Whole zone	LiDAR survey	The LiDAR data would provide a high resolution topographic map of the whole zone, which is currently unsurveyed. This will include rockery features and spoil mounds beside the lake, which are currently partly covered with vegetation (LiDAR penetrates vegetation cover).	**PHASE 2 impact**: the information would inform the updated CMP with a full topographic survey. Archaeological impacts in this area may occur under the masterplan proposals.	Geophysics and trial trenches.	Acquire and process data end of July	n/a
	Potomac Tower and the Pulhamite rockery	Geophysics	This area would probably be unsuitable for geophysical survey due to the uneven ground and vegetation cover (to confirm).	**PHASE 2 impact (possible):** restoration of the Pulhamite features adjacent to the lake. Details of biodiversity, landscape and access improvements are not currently known but may have an archaeological impact. **Primary research**: the information would address a key research priority and enhance current understanding in this part of the park and inform the updated CMP.	Trial trench.	w/c 12th and 19th August 2013	Vegetation growth and uneven ground are the main constraints (to confirm). Low vegetation that you can walk through may not hinder geophysics survey. Higher vegetation would need to be cleared beforehand.
		Trial trench (x1 recommended)	Depending on the results of the geophysics survey, a trial trench would confirm the presence, nature, extent, date and survival of any buried archaeological remains associated with the creation of the rockery and Potomac Lake in the mid-19th century.		Results would inform the updated CPM.	w/c 19th and 27th August 2013	
	East of the lake	Geophysics (recommended)	Geophysics survey would be designed to locate the presence, of features associated with any industrial remains associated with tile and pottery manufacture.		Trial trench.	w/c 12th and 19th August 2013	
		Trial trench (x 1–2 recommended)	The trench would clarify the full nature, extent, date and significance of any industrial remains associated with post-medieval tile and pottery manufacture.		Results would inform the updated CPM.	w/c 19th and 27th August 2013	
Zone 4: former Old Brentford Common Field	Whole zone	LiDAR survey	The LiDAR data would provide a high resolution topographic map of the whole zone, which is currently unsurveyed. This may reveal topographic anomalies otherwise indistinguishable on the ground and help to clarify areas for further investigation	**PHASE 3 impact (possible)**: the information would inform the updated CMP with a full topographic survey. Archaeological impacts in this area may occur under the masterplan proposals.	Geophysics and trial trenches.	Acquire and process data end of July	n/a
	East-west strip across central section	Geophysics (optional)	Geophysics survey (resistivity) would be designed to locate the presence and extent of any previously unrecorded archaeological remains, eg, quarry pits, buried remains of medieval ridge and furrow cultivation, and possible archaeological features dating from the prehistoric and Roman periods.	**PHASE 3 impact (possible)**: the area may be disturbed as part of the reinstatement of sports pitches. **Long term research**: To enhance general understanding of this part of the park. Little is currently known other than that this area was common field in the later medieval and possibly used for arable cultivation or pasture, and possibly clay/brickearth extraction.	Trial trench.	w/c 12th and 19th August 2013	None anticipated. Public open field.
		Trial trench (x1 optional)	Depending on the results of the geophysics survey, a trial trench would confirm the presence, nature, extent, date and survival of any buried archaeological remains.		Results would inform the updated CPM.	w/c 19th and 27th August 2013	
Zone 5: North playing fields (northern part)	Whole zone	LiDAR survey	The LiDAR data would provide a high resolution topographic map of the whole zone, which is currently unsurveyed. This may reveal topographic anomalies otherwise indistinguishable on the ground and help to clarify areas for further investigation	**PHASE 3 impact**: the information would inform the updated CMP with a full topographic survey. Archaeological impacts in this area would occur under the masterplan proposals.	Geophysics and trial trenches.	Acquire and process data end of July	n/a
	Footprint of WWII features	Trial trench (x 2–3 recommended)	The location and extent of the WWII defences is shown on aerial photographs; geophysical survey would add little value. Trial trenches would confirm the presence, nature, extent, date and survival of any buried remains associated with the WWII anti-aircraft gun emplacement and barracks.	**PHASE 3 impact**: this area would be heavily landscaped as part of the relocation of the pitch and putt course.	Results would inform the updated CPM.	w/c 19th and 27th August 2013	None anticipated. Public open field.
Zone 6 former kitchen gardens	No survey proposed in this zone; outside HLF grant application area. See desk-based assessment for general research themes in this area.						

Fig 1 Site location map



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Scale 1:7,000 @ A3

0 500m

Fig 3 Historic environment features map of the site and wider study area

Historic environment assessment © MOLA 2013

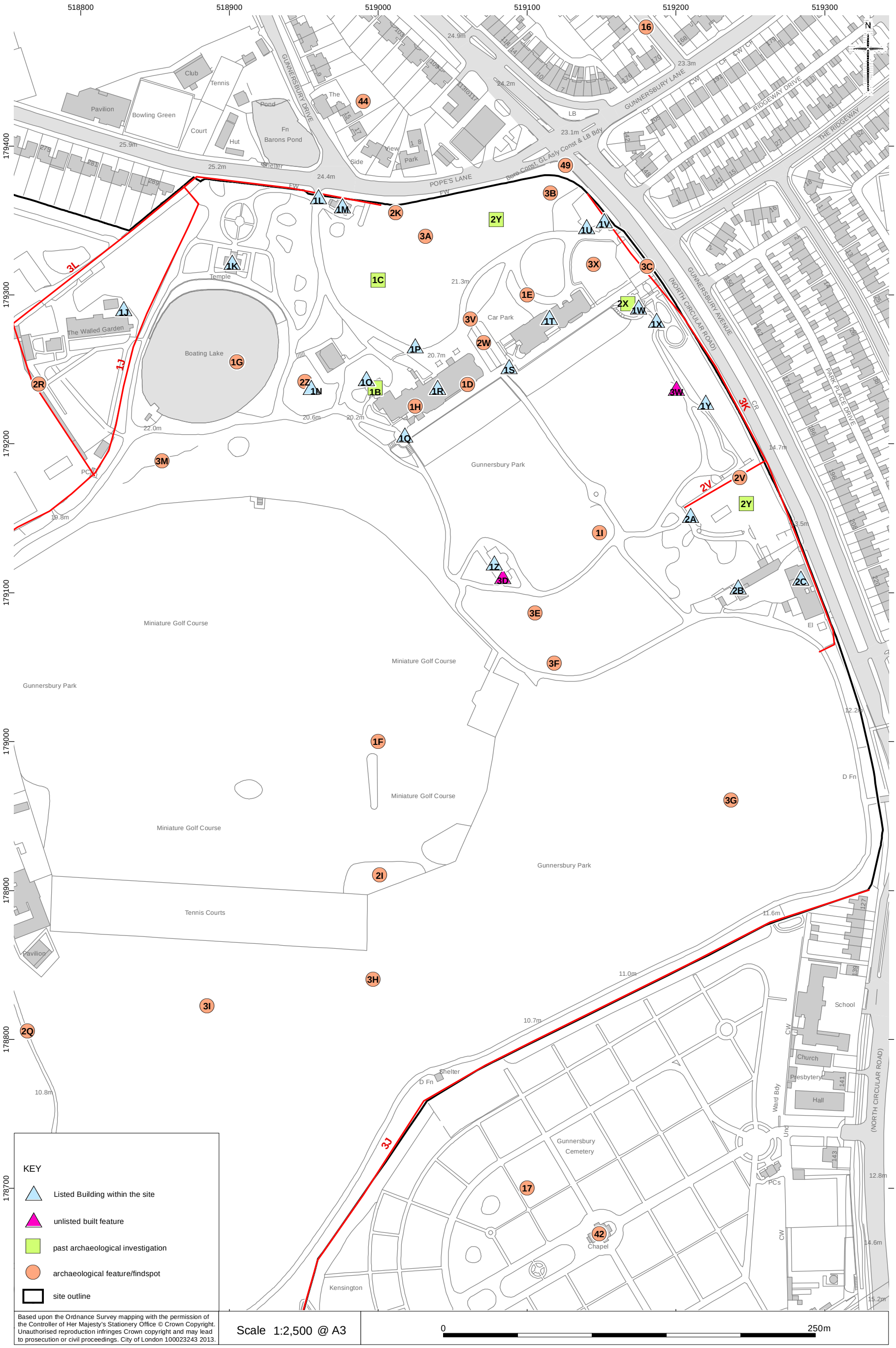

Fig 4 Historic environment features map focusing on Gunnersbury Park, with an inset of the historic core

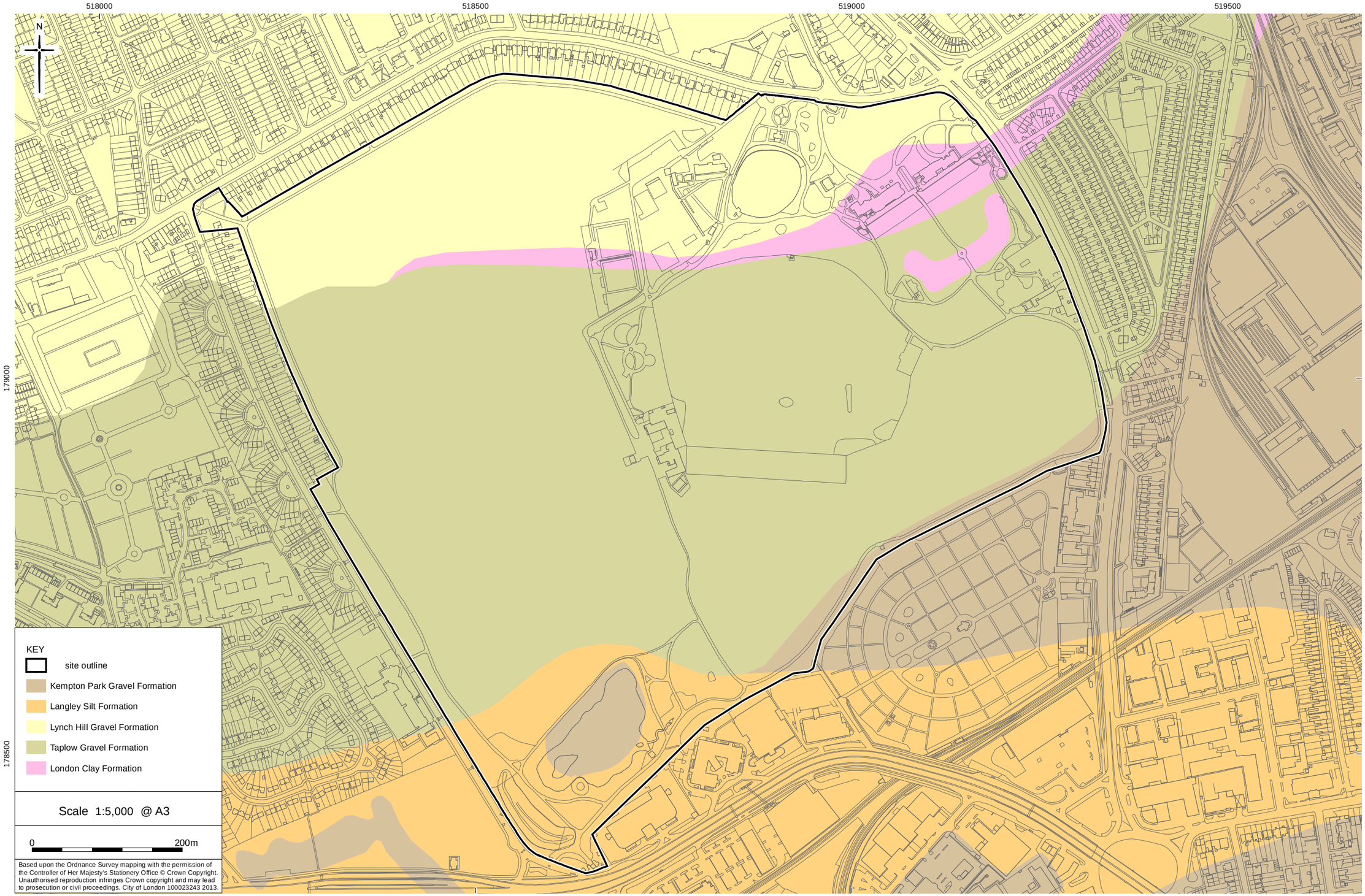

Fig 5 The geology of the site (British Geological Survey digital data)

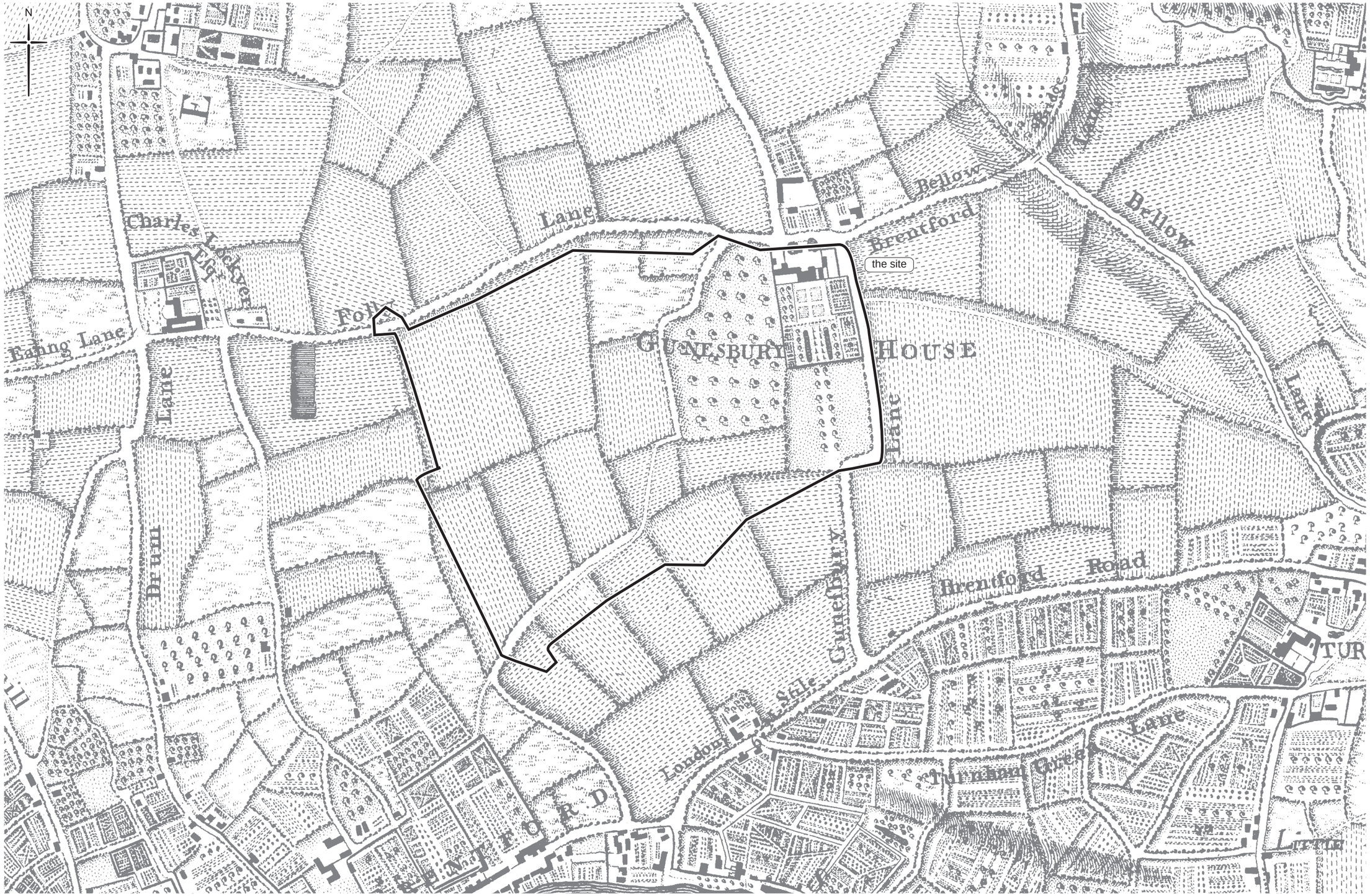

Fig 6 Rocque's map of 1741–45

Fig 7 Nichol's Ealing parish map 1777

Fig 8 A painting of Gunnersbury House dated to *c* 1796 by Evans Walker (image kindly supplied by James Wisdom of the Friends of Gunnersbury Park and Museum)

Historic environment assessment © *MOLA 2013*

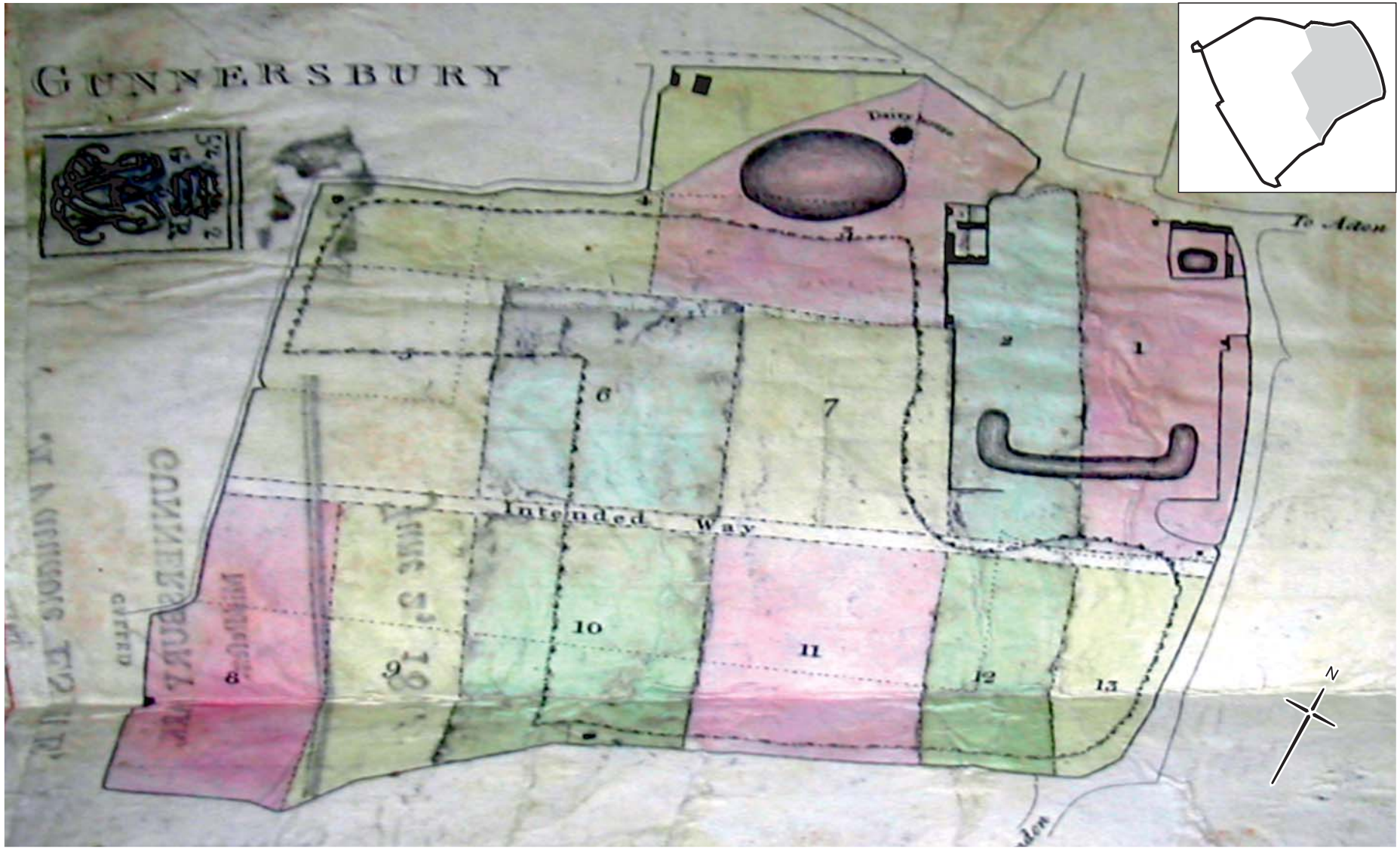

Fig 9 Plan included in a deed of sale of the estate (the eastern part of the site) showing the site divided into 13 lots (1801) (Ealing Civic Centre)

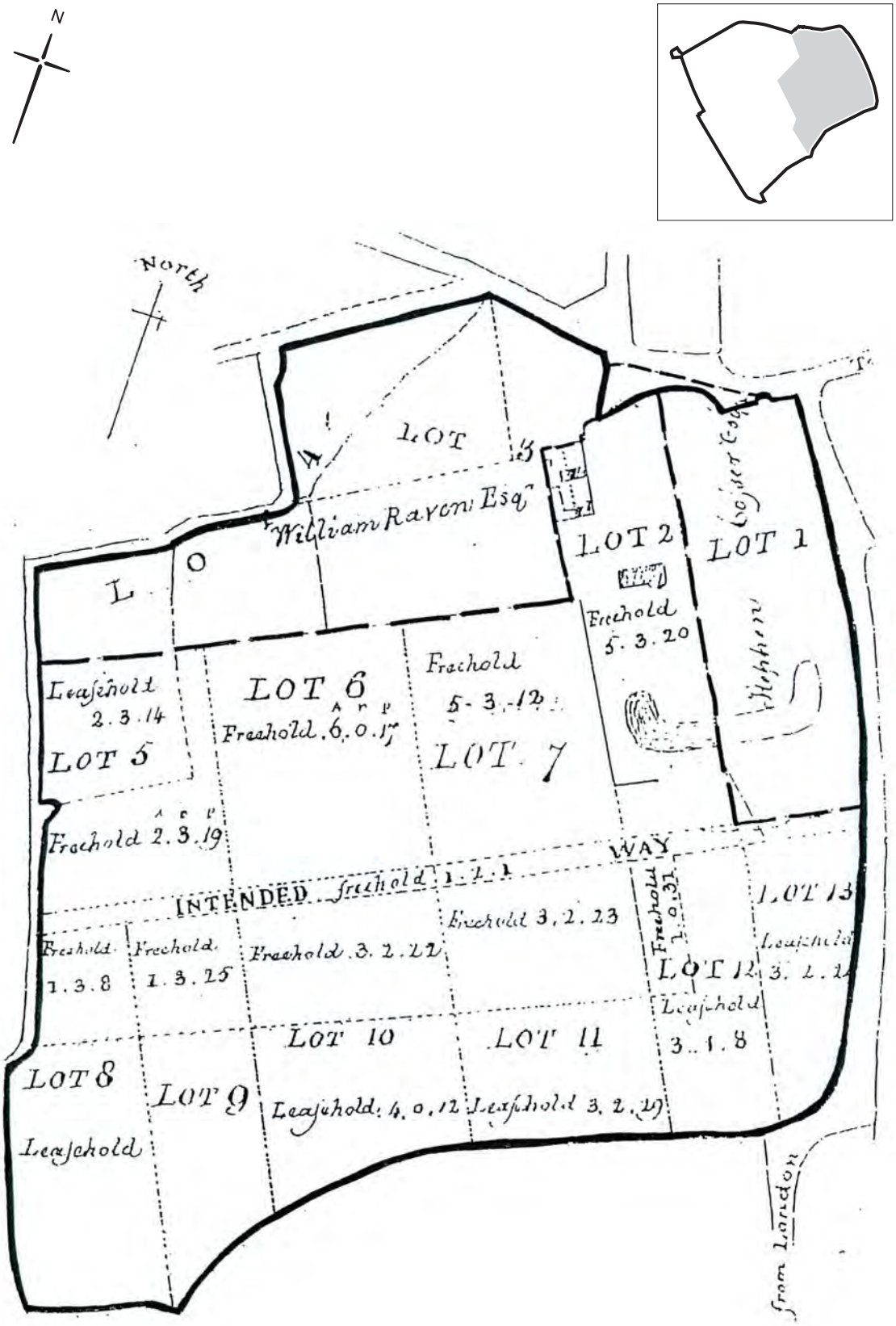

Fig 10 Morley's indenture plan showing the eastern (estate) part of the site divided into 13 lots (1802)

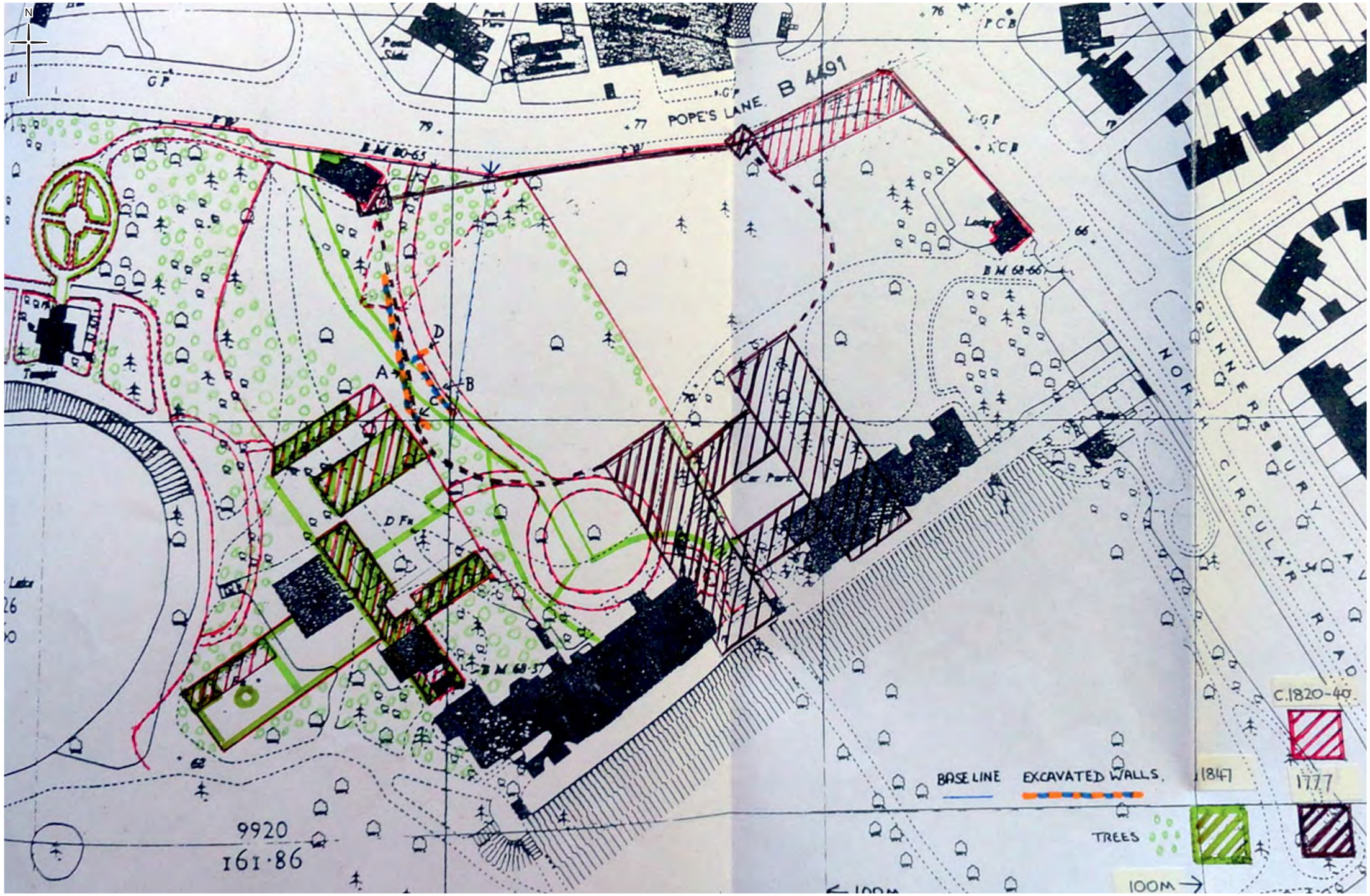

Fig 11 Diagram of historic garden walls (shown in blue and orange dashed line) excavated by the West London Archaeological Field Group (WLAFG) in 1997. The walls were marked on a modern Ordnance Survey map and shown in relation to known features derived from Nichol's parish map of 1777, Kretschmar's map of 1847 and estate and Tithe maps dated to the 1830s, as shown on the colour key

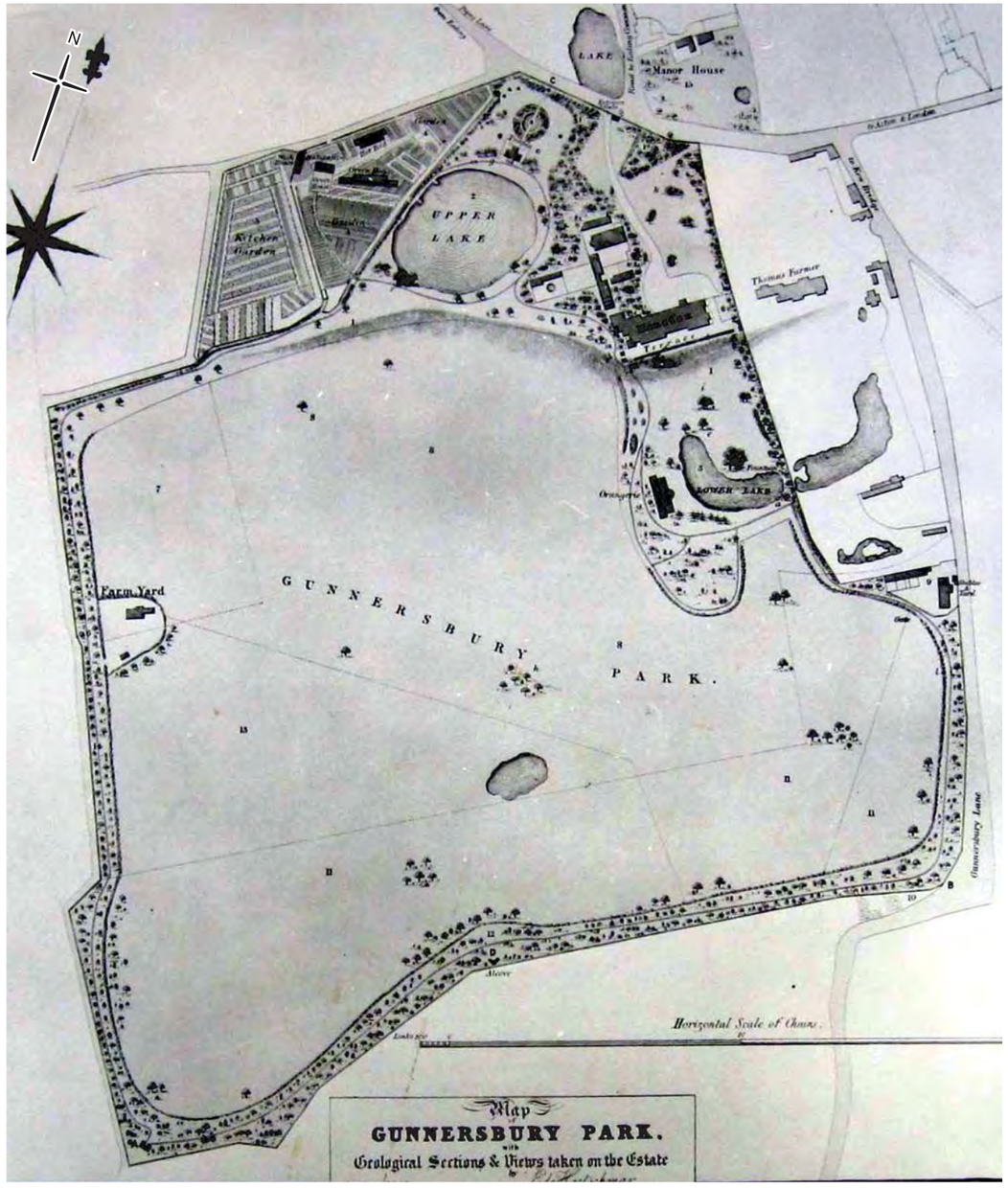

Fig 12 Kretschmar's map of 1847 showing only the eastern (estate) part of the site

Fig 13 Kretschmar's map of 1847 overlaid over modern OS mapping

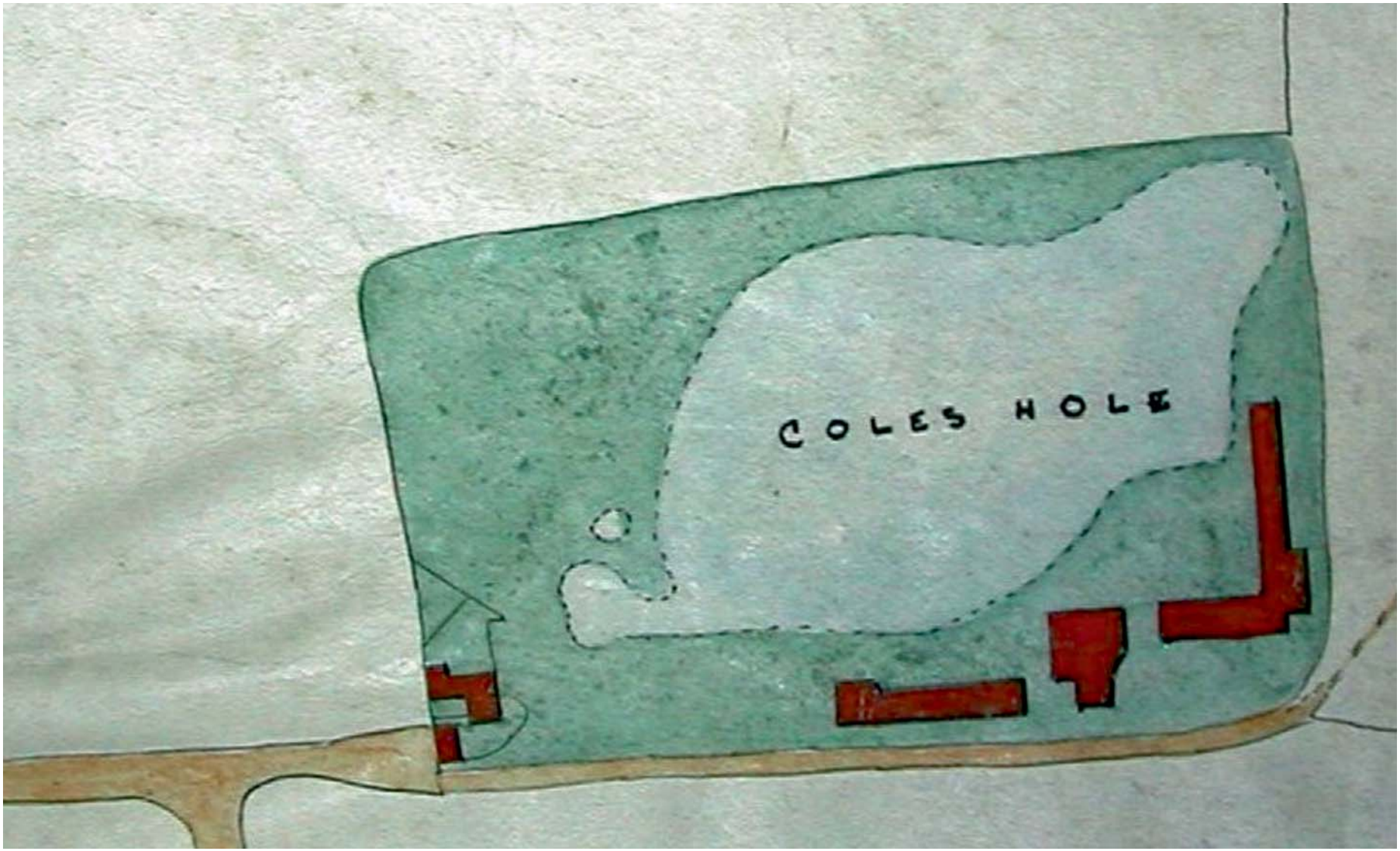

Fig 14 Plan included in a deed of sale of Coles Hole from George Robinson to the Rothschilds (1861) (Ealing Civic Centre; cropped image kindly supplied by Val Bott of the Friends of Gunnersbury Park and Museum)

Historic environment assessment © MOLA 2013

Fig 15 Ordnance Survey 1st edition 6": mile map of 1868–74

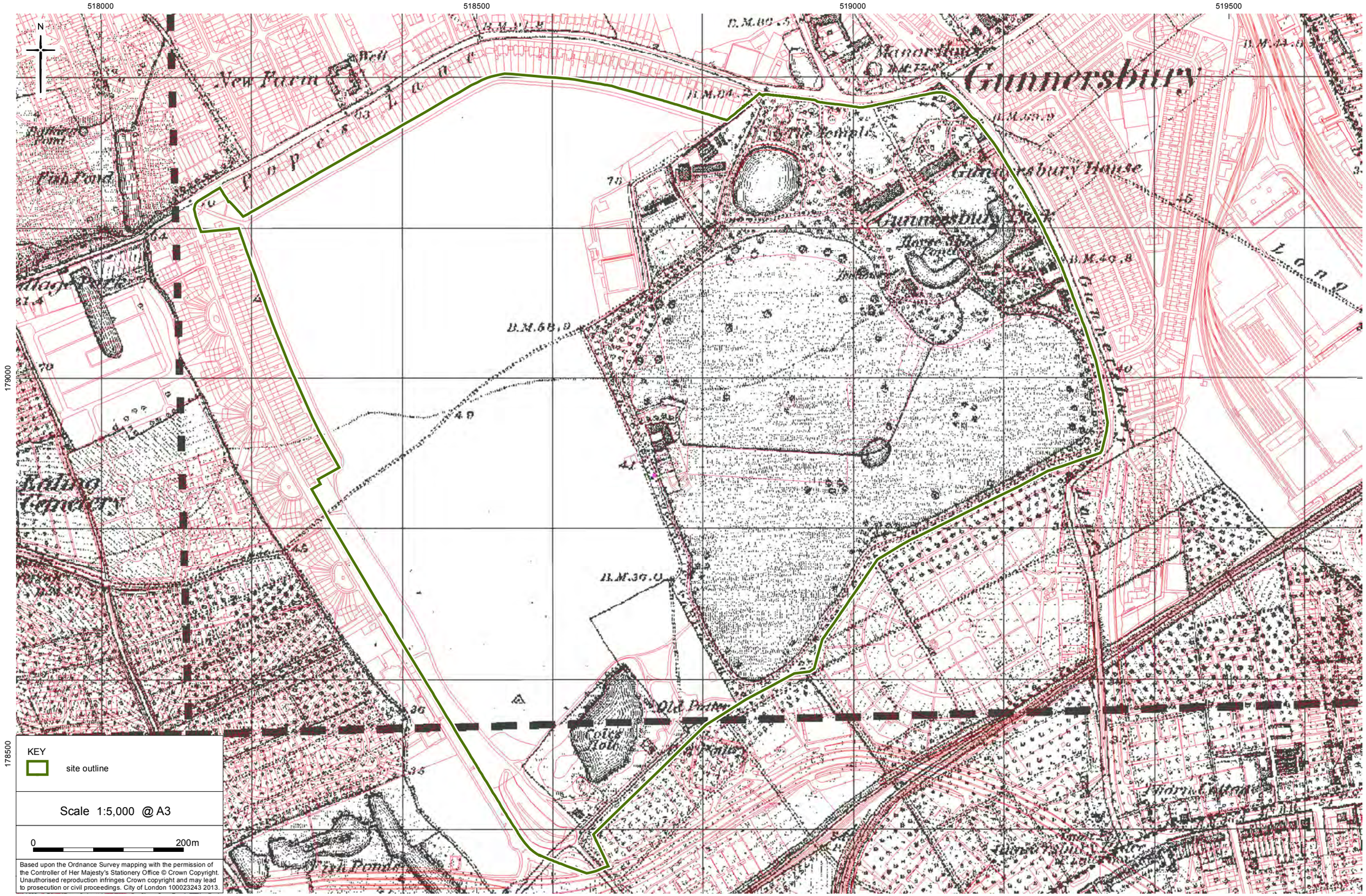

Fig 16 Ordnance Survey 1st edition 6": mile map of 1868-74 to show contrast with current Ordnance Survey mapping

Fig 17 Ordnance Survey 2nd edition 6": mile map of 1896

Fig 18 Ordnance Survey 6": mile map of 1920

Fig 19 An aerial photograph of the entire site showing the layout of the WWII gun emplacements and barracks in the north-western part of the site, dated to 7th of August 1944 (English Heritage Archives, RAF/106G/LA/29, library number 8314)

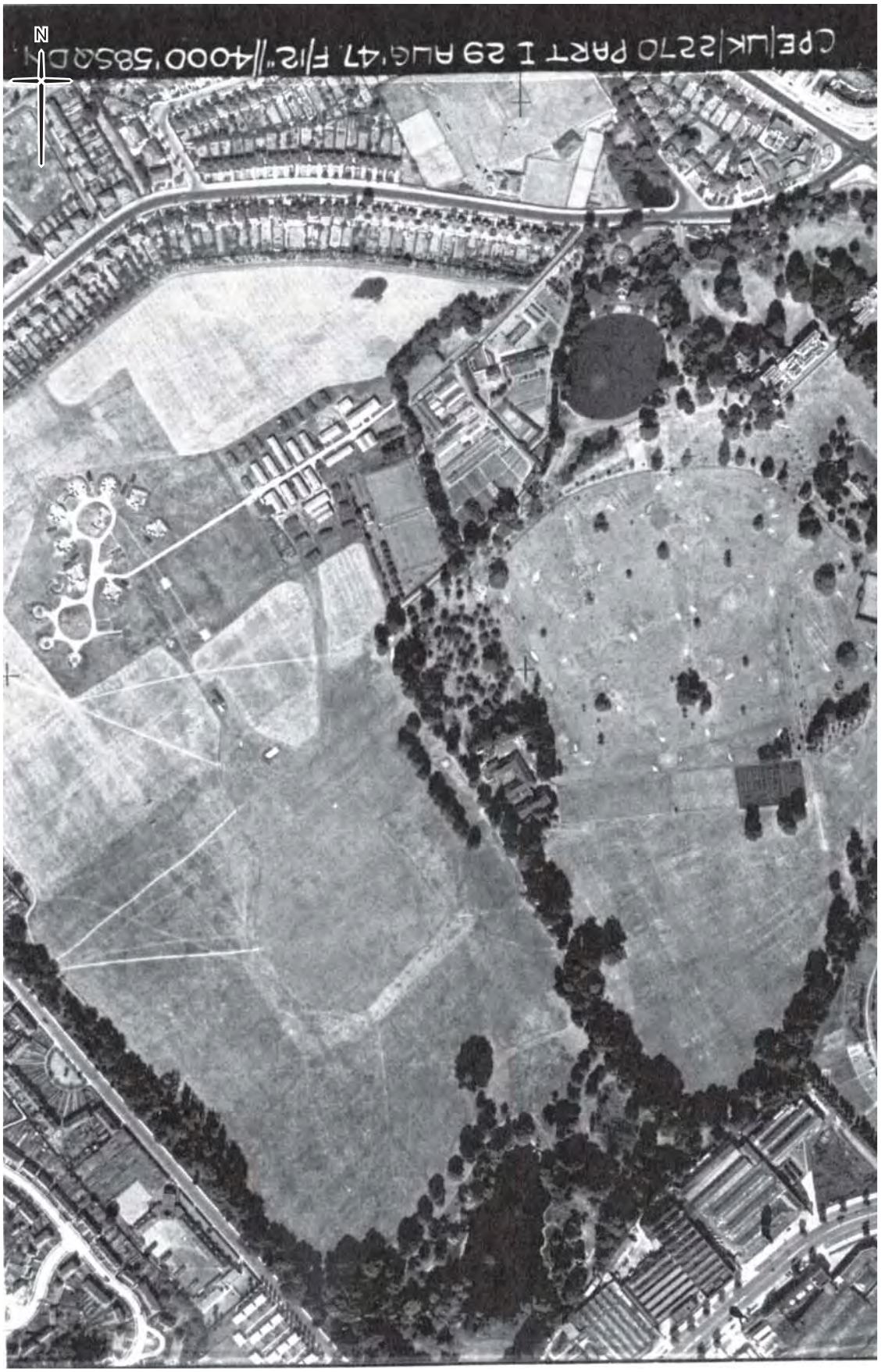

Fig 20 Aerial photograph of the site, showing detail of the WWII gun emplacements, dated to 29th August 1947 (English Heritage Archives, RAF/CPE/UK/2270, library number 736, 5008)

Fig 21 Aerial photograph showing an overview of the north-eastern part of the site, (the historic houses and gardens), dated to 29th August 1947 (English Heritage Archives, RAF/CPE/UK/2270, library number 736, 5007)

Fig 22 Ordnance Survey 6": mile map of 1966–67 showing eastern half of Horseshoe Pond filled in

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Fig 23 Aerial photograph of the northern part of the site, showing the WWII gun emplacements removed, dated to 12th May 1971 (English Heritage Archives, MAL/71074, library number 5917, 78)

Fig 24 A bricked-up, vaulted chamber adjacent to the park boundary wall opposite Princess Amelia's Bathhouse and immediately to the south of a raised east-west walkway over two brick arches (HEA 3C); possibly part of a former 19th century entrance into the estate, looking south (MOLA, 02/07/2013)

Fig 25 The 17th-18th century boundary wall (with cement scars from the former greenhouse) is shown to the left, with the present eastern 19th century park boundary wall shown in the background, looking east (HEA 3K), taken close to the Gothic Ruins (MOLA, 02/07/2013)

Fig 26 A line of exposed cement kerbstone forming part of the south-eastern edge of the Horseshoe Pond (HEA 1I), looking north (MOLA, 02/07/2013)

Fig 27 A section of the original 17th-18th century estate boundary wall adjacent to the eastern wall of the Orangery, looking south-east (HEA 3D) (MOLA, 02/07/2013)

Fig 28 A landscaped, curved earth mound to the south of the Horseshoe Pond (HEA 3E) which is probably an original landscape feature contemporary with the pond and designed to enhance its apperance, looking north (MOLA, 02/07/2013)

Fig 29 A ring of trees in the south-eastern part of the park (HEA 3G), looking north; possibly the site of a former pond or in-filled WWII bomb crater (MOLA, 02/07/2013)

Fig 30 Arable cultivation marks to the south of the tennis courts (HEA 3I), looking north (MOLA, 02/07/3013)

Fig 31 The Potomac Lake (HEA 2J), looking north-west (MOLA, 02/07/2013)

Fig 32 A parchmark in Zone 4 (HEA 3O), to the south of the former WWII heavy anti-aircraft base, looking north (MOLA, 02/07/2013)

Fig 33 Various parchmarks located on the site of the former WWII heavy anti-aircraft base (HEA 1D), looking south-west (MOLA, 02/07/2013)