



KNELLER HALL
Kneller Road
London TW2

London Borough of Richmond Upon Thames

Archaeological desk-based assessment

October 2022



**Kneller Hall
Kneller Road
Twickenham
TW2**

Archaeological Desk Based Assessment

NGR 514781 174253

Historic Environment Record search reference: 16835

Sign-off history

issue no.	Issue date	Prepared by	Reviewed by	Project Manager	Notes
1	09/03/2022	Silvia Barlassina (Archaeology) Judit Peresztegi (Graphics)	Rupert Featherby Lead Consultant Archaeology	Andrew Francis	Issue to client
2	14/10/2022	Silvia Barlassina (Archaeology) Jemima Dunnet (Graphics)	-	Andrew Francis	Second issue to client with updated plans and proposal
3	14/10/2022	Silvia Barlassina (Archaeology)	-	Andrew Francis	Third issue to client with further comments incorporated

MOLA code: P22-016



www.mola.org.uk

© MOLA

Mortimer Wheeler House, 46 Eagle Wharf Road, London N1 7ED

tel 0207 410 2200 email: business@mola.org.uk

Museum of London Archaeology is a company limited by guarantee

Registered in England and Wales

Company registration number 07751831 Charity registration number 1143574

Registered office Mortimer Wheeler House, 46 Eagle Wharf Road, London N1 7ED



Contents

<u>Executive summary</u>	<u>1</u>
<u>1 Introduction</u>	<u>3</u>
1.1 Origin and scope of the report	3
1.2 Designated heritage assets	3
1.3 Aims and objectives	4
<u>2 Methodology and sources consulted</u>	<u>5</u>
2.1 Sources	5
2.2 Methodology	6
2.3 Assumptions and limitations	6
<u>3 The site: topography and geology</u>	<u>7</u>
3.1 Site location	7
3.2 Topography and geology	7
<u>4 Archaeological and historical background</u>	<u>8</u>
4.1 Overview of past investigations	8
4.2 Chronological summary	8
<u>5 Statement of significance</u>	<u>14</u>
5.1 Introduction	14
5.2 Factors affecting archaeological survival	14
5.3 Archaeological potential, and significance of likely remains	15
<u>6 Impact of proposals</u>	<u>17</u>
6.1 Proposals	17
6.2 Implications	17
<u>7 Conclusion and recommendations</u>	<u>19</u>
<u>8 Gazetteer of known historic environment assets</u>	<u>21</u>
<u>9 Planning framework</u>	<u>23</u>
9.1 Statutory protection	23
9.2 National Planning Policy Framework	23
9.3 Greater London regional policy	25
9.4 Local planning policy	26
<u>10 Determining significance</u>	<u>28</u>
<u>11 Non-archaeological constraints</u>	<u>29</u>
<u>12 Glossary</u>	<u>30</u>
<u>13 Bibliography</u>	<u>32</u>
13.1 Published and documentary sources	32
13.2 Other Sources	33
13.3 Cartographic sources	33
13.4 Available site survey information checklist	33

Figures

Cover: Kneller Hall (MOLA photo, 03-02-2022)

- Fig 1 Site location
- Fig 2 Historic environment features map
- Fig 3 Glover's map of the Isleworth Hundred of 1635 (Richmond Local Studies Library)
- Fig 4 Kneller Hall, c 1715 (Richmond Local Studies Library, Accession no. LCF 15560)
- Fig 5 Rocque's map of 1746
- Fig 6 Existing and proposed lake configuration, Whitton, 1796 (Humphry Repton Red Book Seat of Samuel Prime Esqr, 1796)
- Fig 7 Enclosure map of Twickenham of 1819 (Richmond Local Studies Library)
- Fig 8 Drawing of Kneller Hall basement by George Mair, 1844–1848 (Richmond Local Studies Library, Accession no. L18134)
- Fig 9 Ordnance Survey 1st edition 25":mile map of 1865
- Fig 10 Ordnance Survey 3rd edition 25":mile map of 1915
- Fig 11 Ordnance Survey 25":mile map of 1934
- Fig 612 Kneller Hall by Bertram Harmitage (Richmond Local Studies Library, Accession no. LCF 15296)
- Fig 13 Aerial photograph of the east half of the site taken on 23rd of March 1946 (RAF/106G/UK/1271)
- Fig 14 Ordnance Survey 1:2500 map of 1960–2
- Fig 15 Ordnance Survey 1:1250 map of 1972–3
- Fig 16 Kneller Hall area, south-western part of site, looking south, towards the new "Sport Facilities" (MOLA photo, 03-02-2022)
- Fig 17 Kneller Hall area, central part of the site, looking south towards the new "Sport Pavilion" (MOLA photo, 03-02-2022)
- Fig 18 Kneller Hall main building, looking south (MOLA photo, 03-02-2022)
- Fig 19 The open land to the east of Kneller Hall, looking east (MOLA photo, 03-02-2022)
- Fig 20 Kneller Hall area, western part of site, looking north towards the new "Classroom Extension" (MOLA photo, 03-02-2022)
- Fig 21 Existing masterplan – Survey (ADP, job no 001506, dwg no ADP-00-00-DR-A-0910 and ADP-00-00-DR-A-0911, rev S2 P2, 21-09-2022)
- Fig 22 Plan showing existing buildings, proposed buildings and buildings to be demolished (ADP, job no 001506, dwg no ADP-00-00-DR-A-1005, rev S2 P2, 21-09-2022)
- Fig 23 Proposed masterplan (ADP, job no 001506, dwg no ADP-00-00-DR-A-1000, rev S2 P7, 21-09-2022)
- Fig 24 Foundation Strategy (AKS Ward, dwg no L221004-AKS-ZZ-XX-DR-S-00010, rev P01, 1:500@A1, date 05-09-2022)

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

Appendix

Groundsure large scale Ordnance Survey maps 1865–2003. Map scales: 1:1250; 1:2500. Printed scales: 1:1250; 1:2000; 1:2500,

Executive summary

DWD on behalf of their client has commissioned MOLA to carry out an Archaeological Desk Based Assessment in advance of proposed development at Kneller Hall, Kneller Road, Twickenham, TW2, in the London Borough of Richmond-upon-Thames. The scheme comprises the demolition of existing modern buildings on the site and the conversion of Kneller Hall and other ancillary buildings associated with the royal military music school to a day school (Use Class F1), together with the construction of associated new purpose-built buildings including teaching space, indoor sports facilities and sporting pavilion, and other ancillary works including landscaping, access and energy centre; internal and external alterations to Kneller Hall and the curtilage listed buildings to facilitate the day school use, including demolition and rebuilding of single storey extension to the west wing of Kneller, extension to the Band Practice Hall and re-opening of Whitton Dene site entrance.

This desk-based study assesses the impact of the scheme on archaeological remains (buried heritage assets).

Above ground heritage assets (historic structures) are not discussed in detail, but they have been noted where they assist in the archaeological interpretation of the site. Archaeological remains that may be affected by the proposals comprise:

- **Post-medieval remains.** There is moderate potential for archaeological features related to the construction of Kneller Hall's estate pre-dating the existing buildings, which may comprise dumped and levelling deposits of low significance, and masonry foundations and landscaped garden features associated with Humphry Repton, of medium significance.
- **Later-medieval remains.** There is a moderate potential for field boundary ditches of low significance related to the 11th century Whitton, which was likely to be located c 50m to the south-west of the site and the moated enclosure in the central part of the site, of low significance.

The site has low potential for prehistoric, Roman and early medieval remains. No remains dated to these periods were found within the study area. The site was probably in open field or woodlands some distance from areas of settlement until the later-medieval period.

Given the shallow depth of the archaeological deposits, any ground disturbance is likely to impact any archaeological remains. The breaking out of foundation slabs, piled foundations, spread foundations, and the planting of new trees will remove any archaeological remains within their footprint.

Given the potential for earlier phases of Kneller Hall, that it is Grade II listed and lies within the Whitton archaeological priority area, and the GLHER notes the location of a moated enclosure within the grounds to the hall, it is likely that the LPA will request further information to clarify archaeological potential and the likely impacts of the development. This could comprise of two stages: an initial geophysical survey to identify buried anomalies across the site to determine the nature and extent of any remains of the hall, landscaped garden features associated with Humphry Repton and the moated enclosure; and then depending on the results, targeted evaluation trenches to determine the significance of any remains.

The results of the evaluation would enable an informed decision in respect of an appropriate mitigation strategy for any significant archaeological remains, this might comprise targeted archaeological excavation in advance of construction and/or a watching brief during ground works for remains of lesser significance or no further work may be necessary.

In addition, a public engagement strategy may be required, in order to offset the adverse impacts on archaeology. This could comprise: presenting the history of the site and area, as well as the results of the archaeological investigation (which could involve local volunteers) on the enabling and construction hoarding and/or on a permanent public display board possibly combined with the use of social media during investigations to share information about the archaeological story unfolding from the site.

Historic building recording of Kneller Hall to understand the archaeology of the building and its significance could also be a requirement of any further work.

All archaeological work would be undertaken under the terms of a standard archaeological planning condition in consultation with Richmond's archaeological advisor, in accordance with an approved archaeological Written Scheme of Investigation (WSI).

1 Introduction

1.1 Origin and scope of the report

- 1.1.1 DWD has commissioned MOLA (Museum of London Archaeology) to prepare an Archaeological Desk Based Assessment in advance of proposed development at Kneller Hall, Kneller Road, Twickenham, TW2; National Grid Reference (NGR) 514781 174253: Fig 1. The scheme comprises the demolition of existing modern buildings on the site and the conversion of Kneller Hall and other ancillary buildings associated with the royal military music school to a day school (Use Class F1), together with the construction of associated new purpose-built buildings including teaching space, indoor sports facilities and sporting pavilion, and other ancillary works including landscaping, access and energy centre; internal and external alterations to Kneller Hall and the curtilage listed buildings to facilitate the day school use, including demolition and rebuilding of single storey extension to the west wing of Kneller, extension to the Band Practice Hall and re-opening of Whitton Dene site entrance.
- 1.1.2 This desk-based study assesses the impact of the scheme on archaeological remains (buried heritage assets). It forms an initial stage of investigation of the area of proposed development (hereafter referred to as 'the site') and may be required in relation to the planning process in order that the local planning authority (LPA) can formulate an appropriate response in the light of the impact on any known or possible heritage assets. These are parts of the historic environment which are considered to be significant because of their historic, evidential, aesthetic and/or communal interest.
- 1.1.3 This report deals solely with the archaeological implications of the development and does not cover possible built heritage issues, except where buried parts of historic fabric are likely to be affected. Above ground assets (i.e., designated and undesignated historic structures and conservation areas) on the site or in the vicinity that are relevant to the archaeological interpretation of the site are discussed where appropriate. The report does not assess issues in relation to the setting of above ground assets (e.g., visible changes to historic character and views).
- 1.1.4 Whilst the significance of above ground assets is not assessed in this archaeological report, any implications of direct physical impacts upon the archaeological interest of such assets arising from the development proposals are noted. This archaeological report is not intended to support an application for Listed Building Consent. A Heritage Statement has been prepared by Icení (Icení 2022) which considers the heritage assets on the site, their setting, significance, and impact of the development proposals and supports the application for Listed Building Consent. Where appropriate it has been referred to in this report.
- 1.1.5 The assessment has been carried out in accordance with the requirements of the National Planning Policy Framework (NPPF) (MHCLG 2021; see section 9 of this report) and relevant local planning policies. It conforms to standards specified by the Chartered Institute for Archaeologists (CIfA 2020), Historic England (EH 2008, HE 2015, 2017, 2019), and the Greater London Archaeological Advisory Service (GLAAS 2015). Under the 'Copyright, Designs and Patents Act' 1988 MOLA retains the copyright to this document.
- 1.1.6 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 Historic England's National Heritage List for England (NHL) is a register of all nationally designated (protected) historic buildings and sites in England, such as scheduled monuments, listed buildings and registered parks and gardens. The NHL includes two nationally designated heritage assets within the site: Kneller Hall and boundary walls (Grade II Listed Building, NHL no. 106580, shown as **DBA 1a** on Fig 2) and gate piers to the Royal Military School of Music (Grade II Listed Building, NHL no. 1065381, shown as **DBA 1b** on Fig 2).

- 1.2.2 The site is within the Tier 2 archaeological priority area (APA) of Kneller Hall and Whitton as determined by the London Borough of Richmond and GLAAS (Primary Reference Number 209759). Kneller Hall is the site of an extant 18th century mansion and estate and the site of an earlier 17th century house and grounds. The APA covers the site of the mansion and its grounds within which are the reported extant remains of a moated enclosure. It is classified as a Tier 2 APA because it is an important 18th Century designed (Repton) landscape, an important military site, and area of open undeveloped land with the remains of a possible moated enclosure.

1.3 Aims and objectives

1.3.1 The aim of the assessment is to:

- identify the presence of any known or potential buried heritage assets that may be affected by the proposals;
- describe the significance of such assets, as required by national planning policy (see section 9 for planning framework and section 10 for methodology used to determine significance);
- assess the likely impacts upon the significance of the assets arising from the proposals; and
- provide recommendations for further assessment where necessary of the historic assets affected, and/or mitigation aimed at reducing or removing completely any adverse impacts upon buried heritage assets and/or their setting.

2 Methodology and sources consulted

2.1 Sources

- 2.1.1 For the purposes of this report, documentary and cartographic sources including results from any archaeological investigations in the site and the 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 information 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 500m-radius study area around it, as held by the primary repositories of such information within Greater London. These comprise the Greater London Historic Environment Record (GLHER) and the Museum of London Archaeological Archive (MoL Archaeological Archive). The GLHER is managed by Historic England and includes information from past investigations, local knowledge, find spots, and documentary and cartographic sources. The MoL Archaeological Archive 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 and was agreed with Louise Davies, GLAAS Archaeology Adviser by email on 26/01/2022. Occasionally there may be reference to assets beyond this, 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 The extent of investigations as shown on Fig 2 may represent the site outline boundary for planning purposes, rather than the actual area archaeologically investigated. Where it has not been possible from archive records to determine the extent of an archaeological investigation (as is sometimes the case with early work), a site is represented on Fig 2 only by a centrepoint.
- 2.1.4 In addition, the following sources were consulted:
- MOLA – in-house Geographical Information System (GIS) with statutory designations GIS data, past investigation locations, projected Roman roads; georeferenced published historic maps; in-house archaeological deposit survival archive and archaeological publications;
 - Historic England – information on statutory designations including scheduled monuments and listed buildings, along with identified Heritage at Risk;
 - The London Society Library – published histories and journals;
 - Richmond Local Studies Library – historic maps and published histories;
 - Groundsure – 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;
 - DWD – architectural drawings (ADP, 2022), engineering drawings (AKS Ward, 2022) and existing site survey (Warner Surveys, 2021; APD, 2022); and
 - Internet – web-published material including the LPA local plan, and information on conservation areas and locally listed buildings.
- 2.1.5 The assessment included a site visit carried out on the 3rd of February 2022 in order to determine the topography of the site and 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. The inspection was carried out on all the site area, but the buildings were not entered.

2.2 Methodology

- 2.2.1 Fig 2 shows the location of known historic environment features within the study area. These have been allocated a unique assessment reference number (**DBA 1, 2**, etc), which is listed in a gazetteer at the back of this report and is referred to in the text. Conservation areas and archaeological priority areas are not shown. All distances quoted in the text are approximate (within 5m) and unless otherwise stated are measured from the nearest part of the site boundary.
- 2.2.2 Section 10 sets out the criteria used to determine the significance of heritage assets. This is based on four values set out in Historic England's *Conservation principles, policies and guidance* (EH 2008), and comprise evidential, historical, aesthetic and communal value. 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.
- 2.2.3 Section 11 includes non-archaeological constraints. Section 12 contains a glossary of technical terms. A full bibliography and list of sources consulted may be found in section 13 with a list of existing site survey data obtained as part of the assessment.

2.3 Assumptions and limitations

- 2.3.1 Further discussion and analysis of the development of Kneller Hall and its landscaped grounds, including those designed by Humphry Repton together with their significance and importance are presented in the Heritage Statement prepared by Icení (Icení 2022). The reader is directed to also read Icení's Heritage Statement, alongside reading this report.

3 The site: topography and geology

3.1 Site location

- 3.1.1 The site is located at Kneller Hall, Kneller Road, Twickenham, TW2 (NGR 514781 174253; Fig 1). The site area is 9.7ha and is bounded by Whitton Dene to the west, Old Manor Drive and Amberside Close to the north, Duke of Cambridge Close to the east and Kneller Road to the south. The site falls within the historic parish of Twickenham and lay within the county of Middlesex prior to being absorbed into the administration of the London Borough of Richmond upon Thames.
- 3.1.2 The site is c 2.8km west of the River Thames. A tributary of the Thames, the River Crane, runs roughly south-west to north-east, c 770m to the south of the site. A small tributary of the Crane, the Whitton Brook, runs along the eastern side of Rugby Road, c 510m to the east of the site.
- 3.1.3 An artificial waterway, the Duke of Northumberland's River, runs south to north c 160m east of the site. This waterway was constructed in the 16th century to provide water for mills.

3.2 Topography and geology

- 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. The underlying natural geology of a site can also provide an indication of suitability for early settlement, and potential depth of remains.
- 3.2.2 In general ground level across the study area slopes down from the west to east. It drops from c 16.2m Ordnance Datum (OD), c 655m to the west of the site and c 16.5m OD, c 490m OD to the north of the site, down to c 9.4m OD, c 490m to the east, c 9.8m OD, c 500m to the north-east and c 10.1m OD c 480m to the south-east.
- 3.2.3 A topographic survey was undertaken within the site in 2021 (Warner Surveys, job no. LT/220/0504, dwg. no. LT/220/0504/P/0001a-f, 1:200 @ A0, 22/01/2021). It indicates that ground levels within the site mirror the topography of the general area. Ground levels were recorded at 12.5m OD in the north-west of the site, 13.0m OD in the south-west, 12.0m OD in the north-east and 10.0m OD in the south-east.
- 3.2.4 A second topographic survey was undertaken within the site in 2022 (ADP, job no. 001506, dwg no. ADP-00-00-DR-A-0910, rev S2 P2, 1:500@A1, 21/09/2022). Ground levels are recorded at 12.5m OD in the north-west of the site raising to 15.60m OD in the area occupied by Kneller Hall. In the north-eastern part of the site levels have been recorded at 11.40m OD, sloping down to 10.30m OD in the south-eastern part of the site.
- 3.2.5 A site visit, carried out on the 3rd of February 2022, visually confirmed this slope and also identified that Kneller Hall had been slightly raised due to any levelling to provide a level construction surface.
- 3.2.6 The underlying geology of the site comprises the river terrace gravels of the Kempton Park Gravel Formation in the eastern half and Taplow Gravel in the western half of the site and Head deposits comprising clay, silt, sand and gravel along the northern and western boundaries.
- 3.2.7 The depth of natural geology in the site as an indicator of possible archaeological survival is discussed in detail in section 5.2.

4 Archaeological and historical background

4.1 Overview of past investigations

- 4.1.1 There have been no archaeological investigations within the site and only two within the wider study area:
- Two trial trenches excavated in 1995 by Thames Valley Archaeological Services, located by the northern boundary of the site (DBA 2). The trenches revealed a post-medieval linear feature (possibly a bedding trench?) and a possible medieval boundary or drainage feature. Natural gravel and alluvium were recorded between 10.7m and 11.6m OD; and
 - A survey made in 2009 by the Borough of Twickenham Local History Society along the Whitton Brook, located 220m to the north-east of the site (DBA 3). The brook was used as a Parish boundary marker and the boundary between the boroughs of Richmond and Hounslow roughly follows the route of the brook in this area.
- 4.1.2 Just outside the study area, 520m north-east of the site, an archaeological watching brief (site code SMX92) and an archaeological evaluation (site code SMM92) were carried out in 1992 by MoLAS on the site of South Middlesex Hospital. The results can be summarised as follows:
- An early Neolithic leaf shaped arrowhead was found in the centre of the site;
 - A series of linear ditches were recorded to the south of the site, and one contained pottery of Middle Bronze Age date;
 - Late Bronze Age pottery was found in three trenches in the north-western part of the site;
 - The northern part of the site produced field systems of post-medieval date; and
 - A Brickearth surface, generally 0.6–0.8m thick, was found between 8.7m and 11.1m OD over river terrace and gravel.
- 4.1.3 Therefore, our understanding of archaeology within the site is limited. The results of these investigations, along with other known sites and finds within the study area, are discussed by period, below. The date ranges given are approximate.

4.2 Chronological summary

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 environment changed from steppe-tundra to birch and pine woodland. It is probably at this time that Britain first saw continuous occupation. Erosion has removed much of the Palaeolithic land surfaces and finds are typically residual. There are no known finds dated to this period within the study area. Outside the study area, a large quantity of fossil mammal bones dating to c 66,000 BP were found at Summerwood Road, c 820m north-east of the site. Two lithic finds appear to be associated with the fossil bones; one from Summerwood Road and one from Mogden Sewage Works, c 900m north-east of the site.
- 4.2.2 The Mesolithic hunter-gatherer communities of the postglacial period (10,000–4000 BC) inhabited a still largely wooded environment. The river valleys would have been favoured in providing a dependable 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. There are no known finds dated to this period within the study area.
- 4.2.3 The Neolithic (4000–2000 BC), Bronze Age (2000–600 BC) and Iron Age (600 BC–AD 43) are traditionally seen as the time of technological change, settled communities and the construction of communal monuments. Farming was established and forest cleared for cultivation. An expanding population put pressure on available resources and necessitated the

utilisation of previously marginal land. There are no known finds dated to this period within the study area. Evidence of a middle Bronze Age field system has been found during archaeological investigations at South Middlesex Hospital, c 520m, outside the study area, to the northeast of the site, where three parallel ditches were recorded with Bronze Age pottery. An early neolithic leaf shaped arrowhead was found on the same site.

- 4.2.4 Based on current information, it is likely that the site was in an area of open fields or woodland during the Prehistoric period.

Roman period (AD 43–410)

- 4.2.5 Within approximately a decade of the arrival of the Romans in AD 43, the town of *Londinium* had been established on the north bank of the Thames where the City of London now stands, c 20.0km to the north-east of the site. It quickly rose to prominence, becoming a major commercial centre and the hub of the Roman road system in Britain. Small settlements, typically located along the major roads, supplied produce to the urban population, and were markets for *Londinium's* traded and manufactured goods (MoLAS, 2000, 150).
- 4.2.6 A main Roman road ran westwards from *Londinium* to *Calleva Atrebatas* (Silchester) and south-western Britain, following the course of Oxford Street, Holland Park Avenue, and Goldhawk Road in Hammersmith, which passed through a minor Roman town at Staines (Margary 1967, 57–8, 84). The Roman road is thought to follow the line of Hounslow High Street, c 1.6km north of the site (*ibid*, 85). At the point where the Roman road crossed the River Brent, c 3.7km north-east of the site, a settlement (now Brentford) was established. Several phases of occupation along the road on both sides of the River Brent during the Roman period are archaeologically attested.
- 4.2.7 It was customary for burials to be located along the roadside outside any towns or villages. Quarrying of the natural brickearth and gravel deposits may also have taken place in the area.
- 4.2.8 Remains from the Roman period were recorded outside the study area, during an investigation at South Middlesex Hospital, c 520m north-east of the site, where residual Roman pottery was found. However, no features of this date were identified. The lack of finds dated to this period, despite the suitability of the area for settlement and farming, might be a reflection of the limited amount of archaeological investigation rather than representing an accurate picture of the extent of Roman activity. Based on current information and the distance from the Roman road and known settlements, it is likely that the site was in an area of open fields or woodland.

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

- 4.2.9 Following the withdrawal of the Roman army from England in the early 5th century AD, Germanic ('Saxon') settlers arrived from mainland Europe, with occupation in the form of small villages and an economy initially based on agriculture. By the end of the 6th century a number of Anglo-Saxon kingdoms had emerged, and as the ruling families adopted Christianity, endowments of land were made to the church. Landed estates (manors) can be identified from the 7th century onwards; some, as Christianity was widely adopted, with a main 'minster' church and other subsidiary churches or chapels.
- 4.2.10 In the 9th and 10th centuries, the Saxon Minster system began to be replaced by local parochial organisation, with formal areas of land centred on settlements served by a parish church.
- 4.2.11 The first reference to Twickenham is in a charter of AD 704, which grants land at 'tuican hom' to the Bishop of London (Gelling 1979, no. 191; Sawyer 1968, no. 65). It is also mentioned in three subsequent charters, which supposedly date to AD 790, 941 and 946, although these later documents are regarded as spurious.
- 4.2.12 Although documentary evidence suggests that an estate had been established at Twickenham by the 8th century, and that land was being farmed there, no archaeological evidence has been found for Saxon settlement in the immediate vicinity of the site. The GLHER suggests the location of the 8th century settlement at Twickenham, 1.0km south-east of the site (MLO 023264). The nearest known Saxon settlement site with archaeological evidence, was investigated at Ham, c 2.8km to the south-east (Cowie and Blackmore 2008).
- 4.2.13 No remains from the early medieval period have been recorded within the study area. The site was probably in open fields or woodland some distance from the known areas of settlement

during this period

Later medieval period (AD 1066–1485)

- 4.2.14 Twickenham is not listed in the Domesday Survey of 1086, although it is mentioned in 1307 in the inquisition taken after the death of the Earl of Cornwall ‘as a hamlet appending to the Manor of Isleworth’ (Ironsides 1797, 6). The nucleus of medieval Twickenham may have been the precursor to the present Church of St Mary’s, c 1.6km south-east of the site, which may have been built by the late 11th century (VCH *Middlesex* iii 1962, 139). Little archaeological evidence has been found for the settlement, although excavations revealed a rubbish pit containing 15th-century pottery at 29 and 31 King Street, c 1.4km south-east of the site, and a medieval ditch in Church Street carpark, c 1.6km south-east of the site.
- 4.2.15 The settlement of Whitton has medieval origins, and according to the GLHER, Whitton (White Farm) was a small out-settlement of Twickenham parish by the 11th century. It may have been a settlement by AD704, but by the 12th century it consisted of cottages grouped around several lanes (**DBA 1d**). The first precise reference coming from an undated grant by Thomas de Valery, the Lord of the Manor who died in 1219. Mention is made to Radulfus, son of Gilbert of Whitton, indicating ownership going back to the 12th century (Twickenham Local History Society, 2022). The GLHER reference appears to locate the settlement within the southern boundary of the site, however, later historic mapping (Fig 3) indicates that the settlement would be c 50m to the south-west, and outside the site boundary. It is likely that the GLHER point is for reference rather than denoting its actual location.
- 4.2.16 There was a later medieval moated enclosure in the grounds of Kneller Hall (**DBA 1c**), c 60m east of the site boundary, and a moated site has also been identified c 40m to the north-east (**DBA 5**). The purpose of these enclosures is not known.

Post-medieval period (AD 1485–present)

- 4.2.17 The earliest map of the area is Glover’s map of the Isleworth Hundred of 1635 (Fig 3) shows the site in a field to the west of the Duke of Northumberland’s River. The field is marked as being arable and it is bounded to the north by a stream running north-east–south-west, which will then not be shown on later maps. The Duke of Northumberland’s River was constructed in the 16th century to provide mills with water (VCH *Middlesex* iii, 1962).
- 4.2.18 The first large house on the site was built by Edmund Cooke between 1635 and 1646. In 1664 it was assessed for 20 fireplaces for the Hearth Tax of 1664, making it the fourth largest house in Twickenham. The house had a series of owners in the second half of the 17th century including Charles Pitcairne, Sir Thomas Mackworth and Henry Kempe Esq (Harris 2019; The Twickenham Museum, 2022). The house was bought by Sir Godfrey Kneller in 1709 who demolished the old house and built his own, which became known as Whitton Hall. When Sir Godfrey Kneller built his residence on the site, Whitton was very much a rural settlement on the outskirts of London.
- 4.2.19 A print of the house drawn by Kip in 1716 (Fig 4; Richmond Local Studies Library, Accession No. LCF 15560) shows an elegant house in the Queen Anne style, with the original grounds landscaped reflecting the fashion of the day. Kneller spent the summer months at Whitton, visited and courted by many people of distinction and honour including members of the Royal Family. After Sir Godfrey’s death in 1729, the estate passed to his widow Lady Susanna Kneller for her lifetime. On her death in 1729 the estate was inherited by Kneller’s grandson, Godfrey Kneller Huckle, the product of a pre-marriage liaison with a Mrs Voss. Their daughter Agnes married a Mr. Huckle. Godfrey Kneller Huckle married the heiress to an estate in Wiltshire and never lived at Whitton (Harris 2019; The Twickenham Museum, 2022).
- 4.2.20 Rocque’s map of 1746 (Fig 5) shows in plan Kneller Hall and its landscaped grounds as depicted in 1716 by Kip (Fig 4). The eastern half of the site is open, being divided into four open fields. Kneller Hall along with a number of ancillary buildings, are shown in the western half of the site. The ancillary buildings probably represent structures such as stable and worker’s cottages, gardens and orchards.
- 4.2.21 Kneller Hall was leased out until 1757 when it was sold to Sir Samuel Prime, a prominent London lawyer. Sir Samuel and his son, also called Samuel, extended the hall greatly; Samuel junior having a large family. The wall facing the house was pulled down and several houses opposite demolished to take in the view of an extended pleasure ground reflected in today’s

Kneller Gardens as far as the present A316 Chertsey Road (The Twickenham Museum, 2022).

- 4.2.22 The grounds were also 'improved' under the Primes, employing the talents of Humphry Repton, successor to Capability Brown as the last of the great English landscape gardeners. The lake behind the house fed by the ancient brook that gave rise to Whitton formed the main inspiration for Repton's landscape laid out in his Red Book for Whitton Hall (Baxter 2020).
- 4.2.23 In his Red Book for the estate, Repton noted the non-conformity of the existing landscape to the emerging picturesque style. Repton's improvements to the estate's grounds were centred around the lake. Repton criticised the lack of uniformity between the two 'canals' of the lake which ran parallel to the island. He admonished their distraction from views looking north from the house. Repton proposed to widen the river and divide the existing long island into two. He proposed infilling the north 'canal' only so much as to create a ha-ha and proposed two different bridges on either side of the largest new island. A new bridge was to be constructed over the lake's source at the west boundary to the Site. A boat house was also to be built underneath this bridge and was covered in climbing plants with a thatched roof so as to be less conspicuous. Finally, a new pavilion building was proposed to be constructed in the north-east corner of the site to provide a convenient place of shelter and setting for appreciative views of the house and island. Evidence for Repton's proposed landscape designs having been implemented is limited to cartographic record. Historic maps suggest that Repton's proposed changes to the lake, the introduction of lake bridges, the construction of a boat house were carried out. His proposal to construct a pavilion is not believed to have been executed. No above-ground evidence for any of the constructed elements inspired by Repton survive to the present-day (Fig 6; Icení 2022, 12–13).
- 4.2.24 A description of the house as it was in the time of Sir Samuel Prime's son gives the most extensive written account of the estate and supports details seen in Kip's earlier drawing:
- "It is a large well-built brick house, with a handsome front and two wings. The inside is finished with elegance. The staircase, which is large was painted by La Guerre. One of the wings is a dining parlour, the other a library. The out offices are extensive and convenient. Mr Prime, since the death of his father, Sir Samuel Prime, has made very considerable alterations, particularly in the gardens and grounds, and enlarged them by additional purchases. The house, which was before hid by high walls and trees, is now very conspicuous, the walls removed, and the whole thrown quite open. On the opposite side of the road he has taken down some old houses, and has opened a prospect into Surrey and the adjacent country, and into his own grounds and extensive plantations on that site. There is a handsome lawn to the road, with a coach way around it to the house, and guarded by a half-circular range of ironwork, at each end of which are two gates with dwarf stone piers, with antique vases in the top." (Ironsíde 1797).
- 4.2.25 Ironside gives also a brief description of the gardens and provides the first mention of the water feature in Kneller Hall's grounds. His description of 'running water' is suggestive of the local water source (the Whitton Brook which it is understood still exists in a culverted form) which appears to have been diverted at some point in the early-19th century to form a considerable lake (Baxter 2020):
- "In the gardens to the back front is a very fine piece of running water, of considerable extent, over which is thrown a neat wooden bridge. The plantations in all the grounds are considerable and extensive; and there is a gravel walk quite round them, agreeably shaded from the sun in the summer." (Ironsíde 1797).
- 4.2.26 Samuel Prime junior died in 1813 and the estate was sold to Charles Calvert, who was from a wealthy brewing family and Whig member of Parliament for Southwark from 1812–1832. He expanded the house under the supervision of Philip Hardwick by adding a spacious drawing room at the east end and a large drawing room at the west end. Charles Calvert died of cholera in 1832, his widow living on in the house until her death around 1845. The hall was then acquired by the Government as a training college for teachers of pauper and criminal children (The Twickenham Museum, 2022).
- 4.2.27 The Enclosure Map of Twickenham of 1819 (Fig 7) shows the site area divided into fields with the numbers referring to the owners and the land use. The western part of site was owned by William Rummel (field 94), the eastern part of site by John Tapps (field 96), the small area to the north was owned by Samuel Davies (field 93) and a small area to the south by Elisabeth Older and David Thomas (field 97): all these fields are referred to "Little Common" and "waste land" on the register accompanying the map.
- 4.2.28 The present appearance of the house dates from the rebuilding which took place between

1847 and 1850. The walls and timbers of Kneller Hall were found to be dilapidated and this part taken down. The sections added by Charles Calvert formed the wings of the new house though refaced, and raised to carry two dormitories, with a new central block. This, replacing the part built by Kneller, was designed by George Mair, based on Wollaton Hall in Nottingham. The servant's quarters added by the Primes on the north-west wing of the house were extended at the same time. The house is of red brick, faced with Bath stone with a plinth around the base of Portland stone (The Twickenham Museum, 2022). A drawing from the architect George Mair, dated 1844–1848, shows Kneller Hall basements (Fig 8), which would have covered the whole footprint of the building.

- 4.2.29 The Training School was opened in 1850 with Dr Frederick Temple as Principal and Francis Palgrave as his deputy, with room for about 100 pupils. The training school was not a success, attracting huge controversy over its use in the educational field, resulting in its closure in 1856. This did no harm to the careers of the two principals: Dr Temple was to become Archbishop of Canterbury; and Francis Palgrave was later to edit that Victorian favourite the *Golden Treasury* (The Twickenham Museum, 2022).
- 4.2.30 The Hall was then acquired by the War Department as a school for army bandsmen. This was just at the end of the Crimean War when it became all-too apparent that the British Army lacked the same musical ability of its European counterparts. Under the auspices of the Duke of Cambridge, Commander in Chief of the Army, the Military School of Music school was opened on 3rd March 1857, the prefix Royal, being added later in 1887 (The Twickenham Museum, 2022).
- 4.2.31 The Ordnance Survey 1st edition 25":mile map of 1865 (Fig 9) shows that the eastern part of the site is still in open fields, however it is now one large field rather the four smaller ones as shown on Rocque's map. The only field boundary surviving is the westernmost one dividing the field from the house and garden plots. The buildings in the western part are better defined and shows the sections added by Calvert in the 1850s. The small park is crossed by several paths, but the well-defined north-south tree-lined one has been removed. To the north, the 1797 Humphry Repton's oval pond is visible. To the south-east of Kneller Hall, some other paths are visible, and they lead to a small building labelled 'lodge', which is located right by the intersection of the path with the main road.
- 4.2.32 The Ordnance Survey 3rd edition 25":mile map of 1915 (Fig 10) shows that the eastern half of the site hasn't changed apart from the addition of a rectangular platform labelled 'Band Stand' in the central northern half of the site. Two footbridges (noted as 'F.B.' on the map) are visible on the southern and northern edges of the pond attaching to small 'islands'. Kneller Hall is now labelled 'Royal Military School of Music'. The main building which occupies the eastern half has not changed but some of the smaller buildings have been demolished. To the north of the main building, there is a fountain (noted as 'Fn'). Three boundary stones (noted as 'BS W^D') are marked within the site to the north-west, south-west and south-east.
- 4.2.33 The Ordnance Survey 25":mile map of 1934 (Fig 11) shows that a pavilion has been built on the south-east of the band stand. In the western half of the site, a small theatre has been built by the pond. A tennis court has been added to the north-east of the main house. The buildings to the north-west of Kneller Hall have changed shape and have been extended towards the north and west.
- 4.2.34 A drawing by Bertram Harmitage (likely from the beginning of the 20th century), shows Kneller Hall and its landscaped grounds (Fig 12).
- 4.2.35 An aerial photograph taken on 23rd of March 1946 (Fig 13) shows a series of buildings arranged in a semi-circle to the east of Kneller Hall. These are not shown on any Ordnance Survey maps and therefore it is assumed these relate to the military use of the site. Further to the south-east are allotment gardens.
- 4.2.36 The Ordnance Survey 1:2500 scale map of 1960–2 (Fig 14) shows that the pond to the north edge of the site has by this time been infilled and a new road with a roundabout (Duke of Cambridge Close) is now forming the eastern edge of the site. Five tanks and one new building have been built in what was once an open area, to the east of Kneller Hall, and four new ones to the north-west of it.
- 4.2.37 The Ordnance Survey 1:1250 scale map of 1972–3 (Fig 15) shows that three more small buildings have been added to the north and three by the western edge of the site, and also the current layout of the site. The area previously occupied by the tanks have been cleared out

and a new building has been built. The Lodge Gate is not shown on this map and was demolished in around the late-1960s, but the avenue of trees was retained.

- 4.2.38 The open land to the east of Kneller Hall is today designated as Metropolitan Open Land and is used as playing fields. The playing fields are occasionally used for temporary hospitality facilities during events at the nearby Twickenham Stadium, c 270m to the east of the site.

5 Statement of significance

5.1 Introduction

- 5.1.1 This section discusses historic impacts on the site which may have compromised archaeological survival from earlier periods, identified primarily from historic maps, and information on the likely depth of deposits.
- 5.1.2 This is followed by an assessment of the likely potential for archaeological remains to be present in the site (high, moderate, low, or no potential if it is clear that any archaeological remains will have already been removed by past ground disturbance); and – in accordance with the NPPF – a statement of the significance (high, medium, low, or negligible) of the known or likely remains in the site. This is based on current understanding of the baseline conditions, past impacts, and professional judgement.

5.2 Factors affecting archaeological survival

Levels of natural geology

- 5.2.1 A topographic survey undertaken within the site in 2021 (Warner Surveys 2021) recorded ground level at 12.5m OD in the north-west of the site, 13.0m OD in the south-west, 12.0m OD in the north-east and 10.0m OD in the south-east.
- 5.2.2 There have been no archaeological or recent geotechnical investigations undertaken within the site, therefore our understanding on the levels of natural geology within the site are based upon historic boreholes as held in the British Geological Service online database and archaeological investigations within the vicinity of the site.
- 5.2.3 An archaeological investigation carried out by the northern boundary of the site (**DBA 2**) recorded natural gravel and alluvium between 10.7m OD and 11.4m OD. The alluvium is likely to be related with the stream shown on Glover's map of 1635 (Fig 3), which was running by the north boundary of the site.
- 5.2.4 The BGS online borehole database shows that three boreholes (BH1–3) were drilled in 1980 in the central part of the site. BH1 (BGS ref. TQ17SW118) recorded a 0.5m thicker layer of turf and topsoil overlying untruncated Brickearth, the top of which was recorded at 0.5mbgl which in turn was overlying natural Taplow Gravel, the top of which was recorded at 3.5mbgl. BH2 (BGS ref. TQ17SW119) recorded a 0.6m thick layer of turf and topsoil overlying untruncated Brickearth, the top of which was recorded at 0.6mbgl which in turn was overlying natural Taplow gravel the top of which was recorded at 3.8mbgl. BH3 (BGS ref. TQ17SW220) recorded a 0.5m thick layer of turf and topsoil overlying untruncated Brickearth, the top of which was recorded at 0.5mbgl which in turn was overlying natural Taplow gravel the top of which was recorded at 3.3mbgl (table 1).

*Table 1: summary of geotechnical data (BGS 2022)
Levels are in metres below ground level (mbgl)*

BH/TP ref.	Ground level (m OD)	Top of natural Brickearth	Top of natural Gravel	Top of natural London clay
TQ17SW118	13.3	0.5	3.3	5.5
TQ17SW119	13.8	0.6	3.8	6.6
TQ17SW120	13.3	0.5	3.3	5.5

- 5.2.5 Based on this information, the top of untruncated Brickearth is predicted to be encountered at 0.5m–0.6mbgl, directly below any turf and topsoil, and be approximately 2.8m–3.2m thick.

Past impacts

- 5.2.6 The site remained open fields until the 17th century when Kneller Hall was built. The construction and remodelling of Kneller Hall and its ancillary buildings in the western half of the site over the next three centuries will have severely truncated or completely removed

archaeological remains within their footprints based on the shallow depth of the underlying archaeological deposits.

- 5.2.7 Kneller Hall has a basement which covers the entire footprint of the 19th century house. The depth of the basement is not known but its construction will have removed all remains within its footprint. It is not known if any other buildings within the site have basements, however their construction would also have removed all remains within its footprint.
- 5.2.8 The construction methodology of the lake is not known and thus its impact will depend on whether it slopes into the centre or it has steep edges. The impact of the former construction method would have increased towards the centre with truncation increasing, whereas the impact of the latter would have caused deeper truncation, potentially completely removing remains across the whole area. The soil removed by excavation may have been used for the landscaping that was undertaken across parts of the site.
- 5.2.9 The landscaping would also have had a varying impact. The planting of trees will have removed remains locally to shallow depths if saplings were planted with the degree of truncation increasing depending on the size of tree planted. The creation of mounds, viewing points and landscape features would have the effect of protecting remains, although may have caused some degree of compaction. The creation of garden beds etc. would have truncated remains within their footprints

Likely depth and thickness of archaeological remains

- 5.2.10 Based on the above geotechnical information, any archaeological remains would lie directly below the ground surface outside the footprints of the current buildings and any foundations and basements, cutting into the underlying natural to an unknown depth. Isolated scattered artifacts could be within the uppermost layers of the topsoil.

5.3 Archaeological potential, and significance of likely remains

- 5.3.1 The nature of possible archaeological survival in the area of the proposed development is summarised here, taking into account the levels of natural geology and the level and nature of later disturbance and truncation discussed above.

Statement of Significance

- 5.3.2 *The site has a low or moderate potential for prehistoric remains. Potential will be low for cut features but moderate for isolated scattered remains.* Although no prehistoric remains have been found in the study area, the site is c 520m to the south-west of the area of a middle Bronze Age field system. The localised and fragmentary survival of any truncated cut features, such as field boundary ditches, would be of **medium** significance as derived from their evidential value, as it would help to define the prehistoric development of the area. Isolated finds would be of **low** significance as derived from their evidential value.
- 5.3.3 *The site has a low potential to contain Roman remains.* The site lay 3.7km south-west of the Roman settlement at Brentford and 1.6km south of the Roman road that ran along Hounslow Road. Only residual Roman pottery has been found in the study area and it is likely that the site was in open fields or woodland.
- 5.3.4 *The site has a low potential for early-medieval remains.* The GLHER suggests the location of the 8th century settlement at Twickenham, 1.0km south-east of the site. No remains from the early medieval period have been recorded within the study area. The site was probably in open fields or woodland some distance from the known areas of settlement during the early medieval period.
- 5.3.5 *The site has a moderate potential for later-medieval remains.* By the 11th century Whitton (White Farm) was a small out-settlement of Twickenham parish, which by the 12th century consisted of cottages grouped around several lanes (**DBA 1d**). The GLHER reference appears to locate the settlement within the southern boundary of the site, however later historic mapping (Fig 3) indicates that the settlement would be c 50m to the south-west and outside the site boundary. A moated enclosure is recorded within the grounds of Kneller Hall (**DBA 1c**) and a medieval boundary was found during an evaluation to the north of the site (**DBA 5**). The localised and fragmentary survival of any truncated cut features, such as field boundary

ditches, would be of **medium** significance as derived from their evidential value as it would help to define the character of the Whitton Medieval Settlement APA and the moated enclosure.

- 5.3.6 *The site has a moderate potential for post-medieval remains.* The site was in open agricultural land; there could have been some activity associated with the earlier settlement of Whitton along the southern boundary. Kneller Hall, its grounds and ancillary buildings were constructed and developed over three centuries from 1635. Outside of the footprints of the current buildings remains of earlier phases of Kneller Hall, its landscaped grounds (including Repton's landscape and the foundations of the bridge and boathouse by the lake), ancillary buildings and remains associated with the allotments may survive. Such remains may comprise dumped and levelling and worked soil deposits, which would be of **low** significance as derived from their evidential and historical value, and masonry foundations and landscaped garden features pre-dating the existing buildings, which would be of **medium** significance as derived from their evidential and historical value as it would help to define the location of any earlier buildings and landscaped grounds.

6 Impact of proposals

6.1 Proposals

- 6.1.1 The scheme comprises the demolition of existing modern buildings on the site and the conversion of Kneller Hall and other ancillary buildings associated with the royal military music school to a day school (Use Class F1), together with the construction of associated new purpose-built buildings including teaching space, indoor sports facilities and sporting pavilion, and other ancillary works including landscaping, access and energy centre; the internal and external alterations to Kneller Hall and the curtilage listed buildings to facilitate the day school use, including demolition and rebuilding of single storey extension to the west wing of Kneller, extension to the Band Practice Hall and re-opening of Whitton Dene site entrance.
- 6.1.2 The new purpose-built buildings will have piled foundations, 450mm in diameter and 20m deep.

6.2 Implications

- 6.2.1 The identification of physical impacts on buried heritage assets within a site takes into account any activity which would entail ground disturbance, for example site set up works, remediation, landscaping and the construction of new basements and foundations. As it is assumed that the operational (completed development) phase would not entail any ground disturbance there would be no additional archaeological impact and this is not considered further.
- 6.2.2 It is outside the scope of this archaeological report to consider the impact of the proposed development on upstanding structures of historic interest, in the form of physical impacts which would remove, alter, or otherwise change the building fabric, or predicted changes to the historic character and setting of historic buildings and structures within the site or outside it.
- 6.2.3 The site has a low to moderate potential to contain prehistoric remains, low potential to contain Roman and early medieval remains, and moderate potential to contain later medieval and post-medieval remains.
- 6.2.4 Given the shallow depth of the archaeological deposits, any ground disturbance is likely to impact any remains.

Preliminary site works and breaking out of foundation slab

- 6.2.5 Works carried out as part of the initial site set up, including preliminary site stripping and demolition, the installation of site fencing and welfare facilities, is assumed for the purposes of this assessment to cause ground disturbance to a maximum depth of 0.5mbgl.
- 6.2.6 This would likely extend into the turf/topsoil only and would have no archaeological impact.
- 6.2.7 Breaking out of the existing foundation slab would potentially have an impact, truncating or removing entirely any archaeological remains e.g. post-medieval remains of earlier phases of Keller Hall, landscaping features, directly beneath the slab.

Piled foundations

- 6.2.8 Any archaeological remains within the footprint of each pile would be removed as the pile is driven downwards. The severity of the impact would therefore depend on the pile size, type and pile density. Where the piling layout is particularly dense, it is in effect likely to make any surviving archaeological remains, potentially preserved between each pile, inaccessible in terms of any archaeological investigation in the future.
- 6.2.9 Continuous flight auger (CFA) piles are proposed. For the new purpose-built buildings – sports centre with pool, swimming pool, teaching block – these will be 450mm in diameter and extend to a depth of 20m through any made ground, Brickearth into the underlying gravels and London Clay. For the refurbished buildings – band practice hall / sports hall, Kneller Hall main building, sports pavilion – these will be 300mm in diameter and extend through any made ground, Brickearth into the underlying natural gravels and London Clay, to an unknown depth. In both cases any archaeological remains e.g. post-medieval remains of earlier phases of

Keller Hall, landscaping features, field boundary ditches, would be entirely removed within its footprint as the pile is driven downwards.

- 6.2.10 The insertion of pile caps and connecting ground beams, along with the excavation of a pile guide trench, will extend to 1.6mbgl and would remove any archaeological remains within the footprint of these works to this depth. This might include post medieval remains of earlier phases associated with Kneller and landscaping features.

Spread foundations

- 6.2.11 Traditional spread foundations are proposed in the Band Practice Hall /School Hall which will require a minimum foundation, extending to a depth of 2.3–2.6mbgl. This will remove any archaeological remains within the brickearth, e.g. post-medieval remains of earlier phases associated with Kneller and landscaping features.

Hard and soft landscaping

- 6.2.12 Hard landscaping is assumed for the purposes of this assessment to cause ground disturbance to a maximum depth of 0.5mbgl and deeper where there is levelling. This would cut through any turf/topsoil and into the underlying Brickearth, truncating or remove completely and post-medieval archaeological remains associated with the earlier phases of Kneller Hall and landscaping features. The bases of deeply cut features e.g. field boundary ditches would survive although their context would be lost.
- 6.2.13 Ground intrusion from the proposed tree planting and subsequent root action is assumed for the purposes of this assessment to reach a depth of c 1.0–1.5mbgl. This would entirely remove or severely disturb any archaeological remains at the tree location. This might include post-medieval remains of earlier phases associated with Kneller and landscaping features.

Ground source heat pump

- 6.2.14 Pipework associated with the ground source heat pump will be installed in trenches extending to a maximum depth of 1.2mbgl in the grassed playing fields to the east of Kneller Heller. This would entirely remove or severely disturb any archaeological remains at the tree location. This might include post-medieval landscaping features, field boundary ditches and worked soil associated with the allotments.

7 Conclusion and recommendations

- 7.1.1 Kneller Hall, together with its boundary walls and gate piers are Grade II listed. The site is within the Tier 2 archaeological priority area (APA) of Kneller Hall and Whitton.
- 7.1.2 Archaeological survival potential is likely to be mixed reflecting the presence of Kneller Hall and ancillary buildings. Outside of the footprints of the current buildings archaeological survival potential is likely to be high for post-medieval remains of the earlier phases of Kneller Hall; moderate for the remains of Whitton and the moated enclosure; and moderate for isolated Prehistoric. Within the footprints of the current buildings archaeological survival potential is likely to be low.
- 7.1.3 The scheme comprises the demolition of existing modern buildings on the site and the conversion of Kneller Hall and other ancillary buildings associated with the royal military music school to a day school, together with the construction of associated new purpose-built buildings, and other ancillary works including landscaping.
- 7.1.4 Given the shallow depth of the archaeological deposits, any ground disturbance is likely to impact any archaeological remains. The breaking out of foundation slabs, piled foundations, spread foundations, and the planting of new trees will remove any archaeological remains within their footprint.
- 7.1.5 Table 2 summarises the known or likely buried assets within the site, their significance, and the impact of the proposed scheme on asset significance.

Table 2: Impact upon heritage assets (prior to mitigation)

Asset	Asset Significance	Impact of proposed scheme
Evidence for post-medieval remains of earlier phases of Kneller Hall, its landscaped grounds, ancillary buildings and remains associated with the allotments outside the footprint of the current buildings (high potential)	Medium for masonry and landscape garden features; low for dumped, levelling and worked soil deposits	Breaking out of foundation slab, piled foundations, spread foundations, soft landscaping and hard landscaping Significance of asset reduced to negligible
Evidence for later-medieval remains of the settlement of Whitton and the moated enclosure (moderate potential)	Medium	Piled foundations, spread foundations, soft landscaping Significance of asset reduced to negligible
Evidence for Prehistoric scattered remains (moderate potential)	Low	Piled foundations, spread foundations, soft landscaping Significance of asset reduced to negligible

- 7.1.6 Given the potential for earlier phases of Kneller Hall, that it is Grade II listed and lies within the Tier 2 archaeological priority area (APA) of Kneller Hall and Whitton and the GLHER notes the location of a moated enclosure within the grounds to the hall it is likely that the LPA will request further information to clarify archaeological potential and the likely impacts of the development. This could comprise of two stages: an initial geophysical survey to identify buried anomalies across the site to determine the nature and extent of any remains of the hall, landscaped garden features associated with Humphry Repton and the moated enclosure; and then depending on the results, targeted evaluation trenches to determine the significance of any remains.
- 7.1.7 The results of the evaluation would enable an informed decision in respect of an appropriate mitigation strategy for any significant archaeological remains, this might comprise targeted archaeological excavation in advance of construction and/or a watching brief during ground works for remains of lesser significance or no further work may be necessary.
- 7.1.8 In addition, a public engagement strategy may be required, in order to offset the adverse impacts on archaeology. This could comprise: presenting the history of the site and area, as

well as the results of the archaeological investigation on the enabling and construction hoarding and/or on a permanent public display board possibly combined with the use of social media during investigations (which could involve local volunteers) to share information about the archaeological story unfolding from the site.

- 7.1.9 Historic building recording of Kneller Hall to understand the archaeology of the building and its significance could also be a requirement of any further work.
- 7.1.10 All archaeological work would be undertaken under the terms of a standard archaeological planning condition in consultation with Richmond's archaeological advisor, in accordance with an approved archaeological Written Scheme of Investigation (WSI).

8 Gazetteer of known historic environment assets

- 8.1.1 The gazetteer lists known historic environment sites and finds within the 500m-radius study area around the centre-point of the site. The gazetteer should be read in conjunction with Fig 2.
- 8.1.2 The GLHER data contained within this gazetteer was obtained on 31/02/2022 and is the copyright of Historic England 2022.
- 8.1.3 Ordnance Survey data © Crown copyright and database right 2022. Historic England statutory designations data © Historic England 2022. The Historic England GIS Designations Data contained in this material was obtained in January 2022. The most up to date publicly available Historic England GIS Data can be obtained from <http://www.historicengland.org.uk>.

Abbreviations

ELO – GLHER unique event identifier

GLHER – Greater London Historic Environment Record

MLO – GLHER unique monument identifier

NHL – National Heritage List for England (Historic England)

PRN – Primary Reference Number (as assigned by GLHER)

TVAS – Thames Valley Archaeological Society

DBA No.	Description	Site code/PRN HER/NHL No.
1a	<p>Kneller Hall and Boundary Walls Royal Military School of Music, Kneller Road</p> <p><i>Grade II Listed Building</i></p> <p>Originally built 1709-11 for Sir Godfrey Kneller, much altered and extended to its present elaborate neo-Jacobean form by George Mair, 1848. A particularly fine symmetrical main elevation (east front): Brick and stone, 3 storeys, 'E' plan form, the projecting centre containing the entrance, having a large square, 3-storey bay window, mullioned and transomed, crowned by an elaborate parapet with a coat of arms. The bay window projects beyond flanking square towers with flush bonded quoin stones, stone storey bands and slit windows, each tower crowned by a cornice and leaded ogee cupola. On either side, 3-bay recessed wings link the centre composition with 3-bay projecting wings, all with rusticated quoins, mullioned and transomed windows with architrave surrounds and pierced parapets, the centre bays of each wing front being enriched with superimposed orders of coupled pilasters and crowned by an elaborate open strapwork gable, crowned by a little pediment. The projecting wings are linked to form an entrance court behind an open arcaded stone screen with a Doric order with mannered details. Balustraded guard each arched opening with the exception of the centre bay which is treated as a projecting pediment entrance containing steps up toward the door in the centre of the darn range. Later additions to limited interest. Interior not seen, but stained glass in windows of central bay.</p>	<p>1065380 101767 MLO91006 129017 MLO19779</p>
1b	<p>Gatepiers to Royal Military School of Music, Kneller Road</p> <p><i>Grade II Listed Building</i></p> <p>Probably early 19th century. Four gatepiers, stucco, corniced with swags and urns on fluted pedestals. Probably 18th century at main entrance and at other end of railed part of boundary wall.</p>	<p>1065381 95198 MLO91007</p>
1c	<p>Grounds of Kneller House</p> <p><i>Enclosure (Unknown date)</i></p> <p>Moated enclosure. Grounds of Kneller House, now built over. Only north and west arms remain.</p>	<p>99598 MLO25002</p>

DBA No.	Description	Site code/PRN HER/NHL No.
1d	<p>Whitton <i>Settlement (Medieval - 1066 AD to 1539 AD)</i></p> <p>By the 11th century Whitton (White Farm) was a small out settlement of Twickenham parish. This may have been a settlement by 704AD, but by the 12th century this consisted of cottages grouped around several lanes.</p>	<p>149892 MLO73132 DLO33470</p>
2	<p>Kneller Gardens [Land to the rear of] Whitton Hounslow <i>TVAS 1995. Archaeological Intervention / Excavation / Trial Trench</i></p> <p>Two trial trenches were excavated by machine. Two cut features of possible significance were recorded: a postmedieval linear feature (possibly a bedding trench) and a possible Medieval boundary or drainage feature, the lower levels of which contained preserved organic material. No other archaeological deposits were observed. Natural gravel and alluvium were recorded at between 10.73m OD and 11.35m OD.</p>	<p>KLR95 148319 ELO3800 99429 MLO64015 125295 MLO64016 147766 MLO64017 107165 MLO64018</p>
3	<p>Whitton Brook, London, TW1 <i>Borough of Twickenham Local History Society 2009. Survey</i></p> <p>The brook was used as a Parish boundary marker and the boundary between the boroughs of Richmond and Hounslow roughly follows the route of the brook in this area. Water from the brook has in the past been used to power water mills in Isleworth and to fill a moat and water features in Whitton Park. Documentary research and a photographic survey was carried out along the route of the Whitton Brook.</p> <p>Formerly known as Birket's Brook.</p>	<p>168160 ELO10979</p> <p>140799 MLO101207</p>
4	<p>Colonial Avenue/Kneller Road/Whitton Dene [Murray Park], Whitton, Richmond <i>County Estate; Public Park (Post Medieval to Modern)</i></p> <p>Murray Park is a remnant open space from the former Whitton Park Estate. It is on the site of the lost gardens of Whitton Dene as shown on Rocque's 1741 map, and became public park in 1914.</p>	<p>111360 MLO102915</p>
5	<p>Whitton <i>Moated Site (Medieval – 1066 AD to 1539 AD)</i></p> <p>Moated site mentioned by Copley (1958).</p>	<p>110511 MLO19033</p>

9 Planning framework

9.1 Statutory protection

Listed Buildings and Conservation Areas

- 9.1.1 The *Planning (Listed Buildings and Conservation Areas) Act 1990* 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.

9.2 National Planning Policy Framework

- 9.2.1 The revised National Planning Policy Framework (NPPF) was published on 20th July 2021 and sets out the government's planning policies for England and how these are expected to be applied. This revised Framework replaces the previous NPPF which was published in March 2012 with revisions in 2018 and 2019.

Conserving and enhancing the historic environment

- 9.2.2 The NPPF section 16, "Conserving and enhancing the historic environment" is reproduced in full below:

Para 189. Heritage assets range from sites and buildings of local historic value to those of the highest significance, such as World Heritage Sites which are internationally recognised to be of Outstanding Universal Value. These assets are an irreplaceable resource and should be conserved in a manner appropriate to their significance, so that they can be enjoyed for their contribution to the quality of life of existing and future generations.

Para 190. Plans should set out a positive strategy for the conservation and enjoyment of the historic environment, including heritage assets most at risk through neglect, decay, or other threats. This strategy should take into account:

- a) the desirability of sustaining and enhancing the significance of heritage assets, and putting them to viable uses consistent with their conservation;
- b) the wider social, cultural, economic and environmental benefits that conservation of the historic environment can bring;
- c) the desirability of new development making a positive contribution to local character and distinctiveness; and
- d) opportunities to draw on the contribution made by the historic environment to the character of a place.

Para 191. 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 192. Local planning authorities should maintain or have access to a historic environment record. This should contain up-to-date evidence about the historic environment in their area and be used to:

- a) assess the significance of heritage assets and the contribution they make to their environment; and
- b) predict the likelihood that currently unidentified heritage assets, particularly sites of historic and archaeological interest, will be discovered in the future.

Para 193. Local planning authorities should make information about the historic environment, gathered as part of policymaking or development management, publicly accessible.

Proposals affecting heritage assets

Para 194. 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 195. 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 into account when considering the impact of a proposal on a heritage asset, to avoid or minimise any conflict between the heritage asset's conservation and any aspect of the proposal.

Para 196. 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 197. In determining applications, local planning authorities should take account of:

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

Para 198. In considering any applications to remove or alter a historic statue, plaque, memorial or monument (whether listed or not), local planning authorities should have regard to the importance of their retention in situ and, where appropriate, of explaining their historic and social context rather than removal.

Considering potential impacts

Para 199. 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 (and the more important the asset, the greater the weight should be). This is irrespective of whether any potential harm amounts to substantial harm, total loss or less than substantial harm to its significance.

Para 200. Any harm to, or loss of, the significance of a designated heritage asset (from its alteration or destruction, or from development within its setting), should require clear and convincing justification. Substantial harm to or loss of:

- a) grade II listed buildings, or grade II registered parks or gardens, should be exceptional;
- b) assets of the highest significance, notably scheduled monuments, protected wreck sites, registered battlefields, grade I and II* listed buildings, grade I and II* registered parks and gardens, and World Heritage Sites, should be wholly exceptional.

Para 201. 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 total loss is necessary to achieve substantial public benefits that outweigh that harm or loss, or all of the following apply:

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

Para 202. 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, where appropriate, securing its optimum viable use.

Para 203. 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 directly or indirectly affect 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 204. Local planning authorities should not permit the 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 205. Local planning authorities should 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.

Para 206. 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 the asset (or which better reveal its significance) should be treated favourably.

Para 207. Not all elements of a Conservation Area or World Heritage Site 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 200 or less than substantial harm under paragraph 201, 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 208. 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.

9.3 Greater London regional policy

The London Plan

9.3.1 The overarching strategies and policies for the whole of the Greater London area are contained within *The London Plan: The Spatial Development Strategy for Greater London* (GLA 2021), adopted in March 2021.

9.3.2 Policy HC1 “Heritage conservation and growth” of the *Publication London Plan* relates to London’s historic environment.

A Boroughs should, in consultation with Historic England, local communities and other statutory and relevant organisations, develop evidence that demonstrates a clear understanding of London’s historic environment. This evidence should be used for identifying, understanding, conserving, and enhancing the historic environment and heritage assets, and improving access to, and interpretation of, the heritage assets, landscapes and archaeology within their area.

B Development Plans and strategies should demonstrate a clear understanding of the historic environment and the heritage values of sites or areas and their relationship with their surroundings. This knowledge should be used to inform the effective integration of London’s heritage in regenerative change by:

- 1) setting out a clear vision that recognises and embeds the role of heritage in place-making
- 2) utilising the heritage significance of a site or area in the planning and design process
- 3) integrating the conservation and enhancement of heritage assets and their settings with innovative and creative contextual architectural responses that contribute to their significance and sense of place
- 4) delivering positive benefits that conserve and enhance the historic environment, as well as contributing to the economic viability, accessibility and environmental quality of a place, and to social wellbeing.

C Development proposals affecting heritage assets, and their settings, should conserve their significance, by being sympathetic to the assets’ significance and appreciation within their surroundings. The cumulative impacts of incremental change from development on heritage assets and their settings, should also be actively managed. Development proposals should avoid harm and identify enhancement opportunities by integrating heritage considerations early on in the design process.

D Development proposals should identify assets of archaeological significance and use this information to avoid harm or minimise it through design and appropriate mitigation. Where applicable, development should make provision for the protection of significant archaeological assets and landscapes. The protection of undesignated heritage assets of archaeological interest equivalent to a scheduled monument should be given equivalent weight to designated heritage assets.

E Where heritage assets have been identified as being At Risk, boroughs should identify specific opportunities for them to contribute to regeneration and place-making, and they should set out strategies for their repair and re-use.

9.3.3 Para. 7.1.8 adds 'Where there is evidence of **deliberate neglect** of and/or damage to a heritage asset to help justify a development proposal, the deteriorated state of that asset should not be taken into account when making a decision on a development proposal'.

9.3.1 Para 7.1.11 adds 'Developments will be expected to avoid or minimise harm to significant archaeological assets. In some cases, remains can be incorporated into and/or interpreted in new development. The physical assets should, where possible, be made available to the public on-site and opportunities taken to actively present the site's archaeology. Where the archaeological asset cannot be preserved or managed on-site, appropriate provision must be made for the investigation, understanding, recording, dissemination and archiving of that asset, and must be undertaken by suitably-qualified individuals or organisations.

9.4 Local planning policy

9.4.1 The London Borough of Richmond adopted their Local Plan in July 2018. It sets out policies and guidance for the development of the borough until July 2033 or until it is superseded. Policy LP3 applies to the borough's heritage assets and states:

Policy LP3 Designated Heritage Assets

A. The Council will require development to conserve and, where possible, take opportunities to make a positive contribution to, the historic environment of the borough. Development proposals likely to adversely affect the significance of heritage assets will be assessed against the requirement to seek to avoid harm and the justification for the proposal. The significance (including the settings) of the borough's designated heritage assets, encompassing Conservation Areas, listed buildings, Scheduled Monuments as well as the Registered Historic Parks and Gardens, will be conserved and enhanced by the following means:

1. Give great weight to the conservation of the heritage asset when considering the impact of a proposed development on the significance of the asset.
2. Resist the demolition in whole, or in part, of listed building. Consent for demolition of Grade II listed buildings will only be granted in exceptional circumstances and for Grade II* and Grade I listed buildings in wholly exceptional circumstances following a thorough assessment of the justification for the proposal and the significance of the asset.
3. Resist the change of use of listed buildings where their significance would be harmed, particularly where the current use contributes to the character of the surrounding area and to its sense of place.
4. Require the retention and preservation of the original structure, layout, architectural features, materials as well as later features of interest within listed buildings, and resist the removal or modification of features that are both internally and externally of architectural importance or that contribute to the significance of the asset.
5. Demolitions (in whole or in part), alterations, extensions and any other modifications to listed buildings should be based on an accurate understanding of the significance of the heritage asset.
6. Require, where appropriate, the reinstatement of internal and external features of special architectural or historic significance within listed buildings, and the removal of internal and external features that harm the significance of the asset, commensurate with the extent of proposed development.
7. Require the use of appropriate materials and techniques and strongly encourage any works or repairs to a designated heritage asset to be carried out in a correct, scholarly manner by appropriate specialists.
8. Protect and enhance the borough's registered Historic Parks and Gardens by ensuring that proposals do not have an adverse effect on their significance, including their setting and/or views to and from the registered landscape.
9. Protect Scheduled Monuments by ensuring proposals do not have an adverse impact on their significance.

B. Resist substantial demolition in Conservation Areas and any changes that could harm heritage assets, unless it can be demonstrated that:

1. in the case of substantial harm or loss to the significance of the heritage asset, it is necessary to achieve substantial public benefits that outweigh that harm or loss;
2. in the case of less than substantial harm to the significance of the heritage asset, that the public benefits, including securing the optimum viable use, outweigh that harm; or
3. the building or part of the building or structure makes no positive contribution to the character or distinctiveness of the area.

C. All proposals in Conservation Areas are required to preserve and, where possible, enhance the character or the appearance of the Conservation Area.

D. Where there is evidence of intentional damage or deliberate neglect to a designated heritage asset, its current condition will not be taken into account in the decision-making process.

E. Outline planning applications will not be accepted in Conservation Areas. The Council's Conservation Area Statements, and where available Conservation Area Studies, and/or Management Plans, will be used as a basis for assessing development proposals within, or where it would affect the setting of, Conservation Areas, together with other policy guidance, such as Village Planning Guidance SPDs.

9.4.2 Policy LP7 applies to archaeology and it states:

LP7 Archaeology

The Council will seek to protect, enhance and promote its archaeological heritage (both above and below ground), and will encourage its interpretation and presentation to the public. It will take the necessary measures required to safeguard the archaeological remains found, and refuse planning permission where proposals would adversely affect archaeological remains or their setting. Desk based assessments and, where necessary, archaeological field evaluation will be required before development proposals are determined, where development is proposed on sites of archaeological significance or potential significance.

9.4.3 Two legal challenges were made regarding the adoption of the Local Plan. On 3rd March 2020, the Council adopted the two matters related to the legal challenges within the Local Plan,

9.4.4 Richmond are now preparing a new Local Plan which will replace the current Local Plan. Policy 33 applies to Archaeology and it states:

A. The Council will seek to protect, enhance and promote its archaeological heritage (both above and below ground), and will encourage its interpretation and presentation to the public. It will take the necessary measures required to safeguard the archaeological remains found, and refuse planning permission where proposals would adversely affect archaeological remains or their setting. This is in accordance with London Plan Policy HC1 Heritage conservation and growth.

B. Desk based assessments and, where necessary, archaeological field evaluation will be required before development proposals are determined, where development is proposed on sites of archaeological significance or potential significance

10 Determining significance

10.1.1 '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.

10.1.2 Consultation on draft revisions to the original *Conservation Principles* document which set out the four values was open from November 2017 until February 2018. The revisions aim to make them more closely aligned with the terms used in the NPPF (which are also used in designation and planning legislation): i.e. as archaeological, architectural, artistic and historic interest. This is in the interests of consistency, and to support the use of the Conservation Principles in more technical decision-making (HE 2017).

10.1.3 Table 3 gives examples of the significance of designated and non-designated heritage assets.

Table 3: Significance of heritage assets

Heritage asset description	Significance
World heritage sites Scheduled monuments Grade I and II* listed buildings Historic England Grade I and II* registered parks and gardens Protected Wrecks Heritage assets of national importance	Very high (International/ national)
Historic England 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 (i.e. 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

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

11 Non-archaeological constraints

- 11.1.1 It is anticipated that live services will be present on the site, the locations of which have not been identified by this archaeological report. Other than this, no other non-archaeological constraints to any archaeological fieldwork have been identified within the site.
- 11.1.2 Note: the purpose of this section is to highlight to decision makers any relevant non-archaeological constraints identified during the study, that might affect future archaeological field investigation on the site (should this be recommended). The information has been assembled using only those sources as identified in section 2 and section 13.4, in order to assist forward planning for the project designs, working schemes of investigation and risk assessments that would be needed prior to any such field work. MOLA has used its best endeavours to ensure that the sources used are appropriate for this task but has not independently verified any details. Under the Health & Safety at Work Act 1974 and subsequent regulations, all organisations are required to protect their employees as far as is reasonably practicable by addressing health and safety risks. The contents of this section are intended only to support organisations operating on this site in fulfilling this obligation and do not comprise a comprehensive risk assessment.

12 Glossary

<i>Alluvium</i>	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 (e.g. peat).
<i>Archaeological Priority Area/Zone</i>	Areas of archaeological priority, significance, potential or other title, often designated by the local authority.
<i>Brickearth</i>	A fine-grained silt believed to have accumulated by a mixture of processes (e.g. wind, slope and freeze-thaw) mostly since the Last Glacial Maximum around 17,000BP.
<i>B.P.</i>	Before Present, conventionally taken to be 1950
<i>Bronze Age</i>	2,000–600 BC
<i>Building recording</i>	Recording of historic buildings (by a competent archaeological organisation) is undertaken <i>'to document buildings, or parts of buildings, which may be lost as a result of demolition, alteration or neglect'</i> , amongst other reasons. Four levels of recording are defined by Royal Commission on the Historical Monuments of England (RCHME) and Historic England. Level 1 (basic visual record); Level 2 (descriptive record), Level 3 (analytical record), and Level 4 (comprehensive analytical record)
<i>Built heritage</i>	Upstanding structure of historic interest.
<i>Colluvium</i>	A natural deposit accumulated through the action of rainwash or gravity at the base of a slope.
<i>Conservation area</i>	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.
<i>Cropmarks</i>	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).
<i>Cut-and-cover [trench]</i>	Method of construction in which a trench is excavated down from existing ground level and which is subsequently covered over and/or backfilled.
<i>Cut feature</i>	Archaeological feature such as a pit, ditch or well, which has been cut into the then-existing ground surface.
<i>Desk-based assessment</i>	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.
<i>Devensian</i>	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.
<i>Early medieval</i>	AD 410–1066. Also referred to as the Saxon period.
<i>Evaluation (archaeological)</i>	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.
<i>Excavation (archaeological)</i>	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.
<i>Findspot</i>	Chance find/antiquarian discovery of artefact. The artefact has no known context, is either residual or indicates an area of archaeological activity.
<i>Geotechnical</i>	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.
<i>Head</i>	Weathered/soliflucted periglacial deposit (i.e. moved downslope through natural processes).
<i>Heritage asset</i>	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).
<i>Historic Environment Record (HER)</i>	Archaeological and built heritage database held and maintained by the County authority. Previously known as the Sites and Monuments Record
<i>Holocene</i>	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'.
<i>Iron Age</i>	600 BC–AD 43
<i>Later medieval</i>	AD 1066 – 1500

<i>Last Glacial Maximum</i>	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.
<i>Locally listed building</i>	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
<i>Listed building</i>	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).
<i>Made Ground</i>	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.
<i>Mesolithic</i>	12,000 – 4,000 BC
<i>National Record for the Historic Environment (NRHE)</i>	National database of archaeological sites, finds and events as maintained by Historic England in Swindon. Generally not as comprehensive as the county HER.
<i>Neolithic</i>	4,000 – 2,000 BC
<i>Ordnance Datum (OD)</i>	A vertical datum used by Ordnance Survey as the basis for deriving altitudes on maps.
<i>Palaeo-environmental</i>	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.
<i>Palaeolithic</i>	700,000–12,000 BC
<i>Palaeochannel</i>	A former/ancient watercourse
<i>Peat</i>	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.
<i>Pleistocene</i>	Geological period pre-dating the Holocene.
<i>Post-medieval</i>	AD 1500–present
<i>Preservation by record</i>	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.
<i>Preservation in situ</i>	Archaeological mitigation strategy where nationally important (whether Scheduled or not) archaeological remains are preserved <i>in situ</i> for future generations, typically through modifications to design proposals to avoid damage or destruction of such remains.
<i>Registered Historic Parks and Gardens</i>	A site may lie within or contain a registered historic park or garden. The register of these in England is compiled and maintained by Historic England.
<i>Residual</i>	When used to describe archaeological artefacts, this means not <i>in situ</i> , i.e. Found outside the context in which it was originally deposited.
<i>Roman</i>	AD 43–410
<i>Scheduled Monument</i>	An ancient monument or archaeological deposits designated by the Secretary of State as a 'Scheduled Ancient Monument' and protected under the Ancient Monuments Act.
<i>Site</i>	The area of proposed development
<i>Site codes</i>	Unique identifying codes allocated to archaeological fieldwork sites, e.g. evaluation, excavation, or watching brief sites.
<i>Study area</i>	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.
<i>Solifluction, Soliflucted</i>	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.
<i>Stratigraphy</i>	A term used to define a sequence of visually distinct horizontal layers (strata), one above another, which form the material remains of past cultures.
<i>Truncate</i>	Partially or wholly remove. In archaeological terms remains may have been truncated by previous construction activity.
<i>Watching brief (archaeological)</i>	A formal programme of observation and investigation conducted during any operation carried out for non-archaeological reasons.

13 Bibliography

13.1 Published and documentary sources

- Baxter A, 2020 *Kneller Hall Heritage Assets Assessment, Prepared for London Borough of Richmond upon Thames*
- ClfA [Chartered Institute for Archaeologists] 2020a, *Standards and guidance for commissioning work or providing consultancy advice on archaeology and the historic environment*, Published December 2014, updated October 2020, Reading
- ClfA [Chartered Institute for Archaeologists] 2020b, *Standards and guidance for historic environment desk-based assessment*, Published December 2014, updated January 2017 and October 2020, Reading
- Cowie, R, and Blackmore, L. 2008. *Early and Middle Saxon rural settlement in the London region*. MoLAS monograph 41. London: Museum of London Archaeology Service
- DCLG [Department of Communities and Local Government], March 2012 *National Planning Policy Framework*
- DCLG [Department of Communities and Local Government], March 2014 *Conserving and Enhancing the Historic Environment: Planning Practice Guide*
- Domesday Book, A Complete Translation*, eds Williams, A. and Martin, G.H. 1992, 2002. London: Penguin Books
- EH [English Heritage], 2008 *Conservation principles, policies and guidance*. Swindon
- Gelling, M, 1979 *The early charters of the Thames valley*, Leicester
- GLA [Greater London Authority], 2021 *The London Plan: The Spatial Development Strategy for Greater London* formally published 2nd March 2021
- GLAAS, 2015 *Guidelines for Archaeological Projects in Greater London*. Greater London Archaeological Advisory Service; Historic England, April 2015
- Harris E, 2019. *Kneller Hall Looking Backward Looking Forward*, Borough of Twickenham Local History Society.
- HE [Historic England] 2017 *Conservation Principles for the Sustainable Management of the Historic Environment*, Consultation Draft, 10th November 2017
<https://content.historicengland.org.uk/content/docs/guidance/conservation-principles-consultation-draft.pdf>
- HE [Historic England] 2019 *Piling and Archaeology: Guidance and Good Practice*. Historic England. Swindon: Historic England
- Iceni Projects, 2022 *Kneller Hall, 65 Knell Road, Trickenham Heritage Statement*, London, unpub.
- Ironside, E, 1797 *The history and antiquities of Twickenham*, London
- Jomas Associates Ltd, 2022 *Kneller Hall, Kneller Road, Richmond Geo-environmental Desk Study*, unpublished client document
- Margary, I D, 1967 *Roman Roads in Britain*. London: Baker
- MHCLG [Ministry of Housing, Communities and Local Government], 2021 *National Planning Policy Framework*
- MoLAS, 1992a *South Middlesex Hospital, London borough of Hounslow: An Archaeological Evaluation*, London, unpub.
- MoLAS, 1992b *Watching brief at South Middlesex Hospital. Twickenham, Middlesex*, London, unpub.
- MoLAS [Museum of London Archaeology Service], 2000 *The archaeology of Greater London: an assessment of archaeological evidence for human presence in the area covered by modern Greater London*. London
- Museum of London, 2003 *A research framework for London archaeology 2002*, London
- Repton, H 1796 *Red Book: Whitton, seat of Samuel Prime Esqr.*
- Sawyer, P H, 1968 *Anglo-Saxon Charters - an annotated list and bibliography*
- Thompson A, Westman A, and Dyson T (eds), 1998 *Archaeology in Greater London 1965–90: a guide to records of excavations by the Museum of London*, MoL Archaeological Gazetteer Series 2, London
- VCH [Victoria County History], 1962 *A History of the County of Middlesex: Volume 3*
- Weinreb B Hibbert C, Keay J, Keay J (eds), 2008 *The London Encyclopaedia*. London: Macmillan
- Wood Ltd, 2020 *Kneller Hall. Phase 1 Land Quality Assessment*

13.2 Other Sources

British Geological Survey online historic geology borehole data and digital drift and solid geology data
Greater London Historic Environment Record
Historic England designation data
Internet – web-published sources:
Greater London Authority
https://www.london.gov.uk/sites/default/files/intend_to_publish
London Borough of Richmond
https://www.richmond.gov.uk/services/planning/planning_policy/local_plan/draft_local_plan
The Twickenham Museum, 2022
<https://www.twickenham-museum.org.uk/>
Groundsure historic Ordnance Survey mapping
Richmond Local Studies Library

13.3 Cartographic sources

Aerial photograph of the east half of the site taken on 23rd March 2022 (RAF/106G/UK/1271)
Enclosure map of Twickenham of 1819 (Richmond Local Studies Library, ref: TW/117)
Glover's map of the Isleworth Hundred of 1635 (Richmond Local Studies Library, ref: TW/199)
Rocque, 1766 'Exact Survey of the City of London Westminster and Southwark and the Country 10 Miles Round', reproduced in Margary, H, 1971 'Exact Survey of the City of London Westminster and Southwark and the Country 10 Miles Round' by John Rocque, 1766, Margary in assoc Guildhall Library, Kent

Ordnance Survey maps

Ordnance Survey 1st edition 25" map (1865)
Ordnance Survey 2nd edition 25" map (1896)
Ordnance Survey 3rd edition 25" map (1915)
Ordnance Survey 1:2500 scale maps (1934, 1960–2)
Ordnance Survey 1:1250 scale map (1972–73)

Engineering/Architects drawings

ADP, job no. 001506, Masterplan – Existing Site Survey Plan 1 of 2, dwg no. ADP-00-00-DR-A-0910, rev S2 P2, 1:500@A1, date 21/09/2022
ADP, job no. 001506 Masterplan – Existing Site Survey Plan 2 of 2, dwg no. ADP-00-00-DR-A-0911, rev S2 P2, 1:500@A1, date 21/09/2022
ADP, job no. 001506, Proposed Masterplan, dwg no. ADP-00-00-DR-A-1000, rev S2 P7, 1:1000@A1, date 21/09/2022
ADP, job no. 001506, Masterplan with Demo, dwg no. ADP-00-00-DR-A-1005, rev S2 P2, 1:1000@A1, date 21/09/2022
ADP, job no. 001506, Masterplan – Proposed Site Survey Plan 1 of 2, drg no. ADP-00-00-DR-A-1010, rev S2 P2, 1:500@A1, date 21/09/2022
ADP, job no. 001506, Masterplan – Proposed Site Survey Plan 2 of 2, drg no. ADP-00-00-DR-A-1011, rev S2 P2, 1:500@A1, date 21/09/2022
AKS Ward, project no L221004, Foundation Strategy, dwg no. L221004-AKS-ZZ-XX-DR-S-00010, rev P01, 1:500@A1, date 05-09-2022
Warner Surveys, job no. LT/220/0504, Topographical Survey dwg. nos. LT/220/0504/P/0001a-1f, rev 0, 1:200@A0, date 22/01/2021

13.4 Available site survey information checklist

Information from client	Available	Format	Obtained
Plan of existing site services (overhead/buried)	Y	pdf	Y
Levelled site survey as existing (ground and buildings)	Y	pdf/CAD	Y

Contamination survey data ground and buildings (inc. asbestos)	Y	pdf	Y
Geotechnical report	Y	pdf	Y
Envirocheck report	Y	pdf	Y
Information obtained from non-client source	Carried out	Internal inspection of buildings	
Site inspection	Y	N	

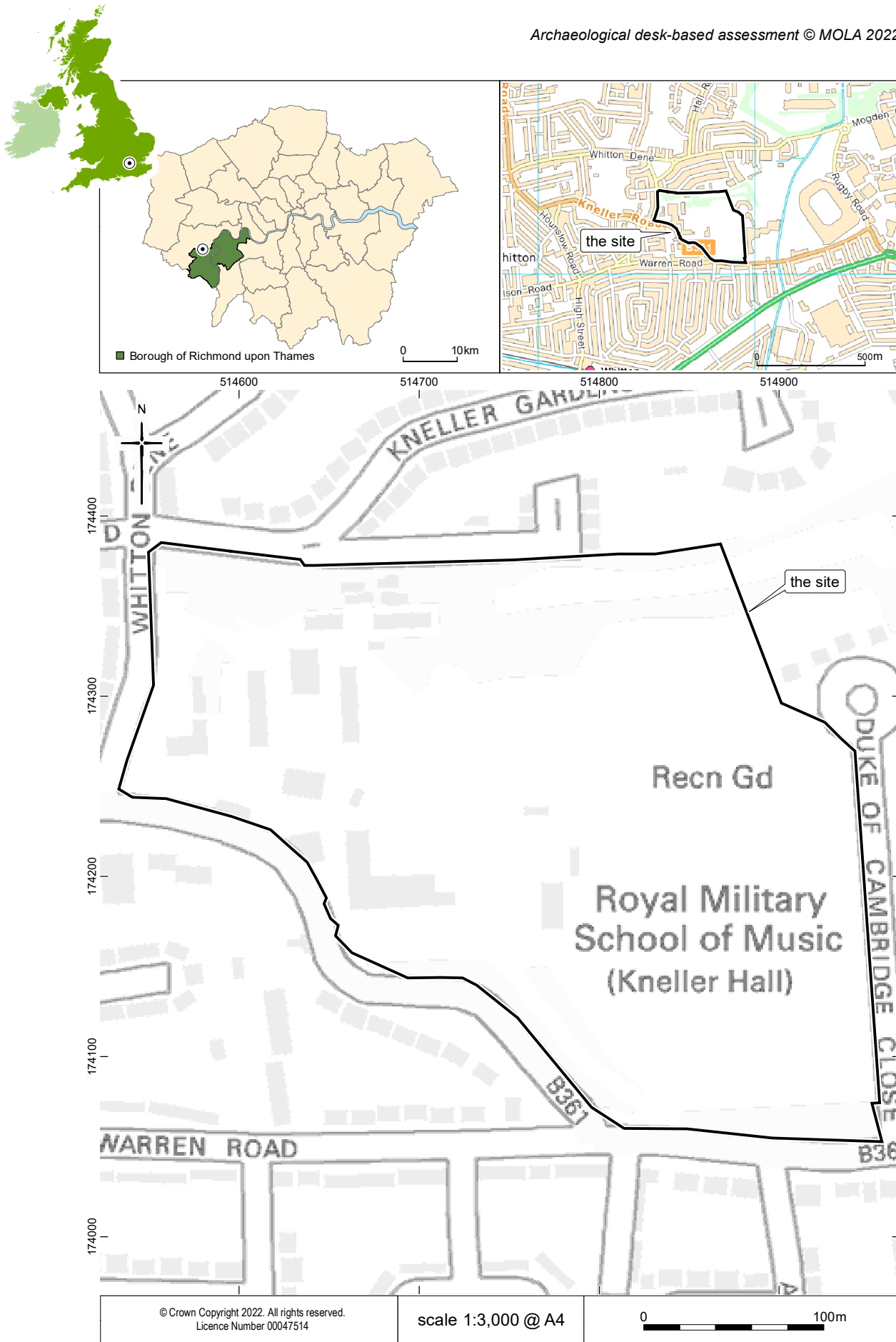


Fig 1 Site location



Fig 2 Historic environment features map



Fig 3 Glover's map of the Isleworth Hundred of 1635 (Richmond Local Studies Library)

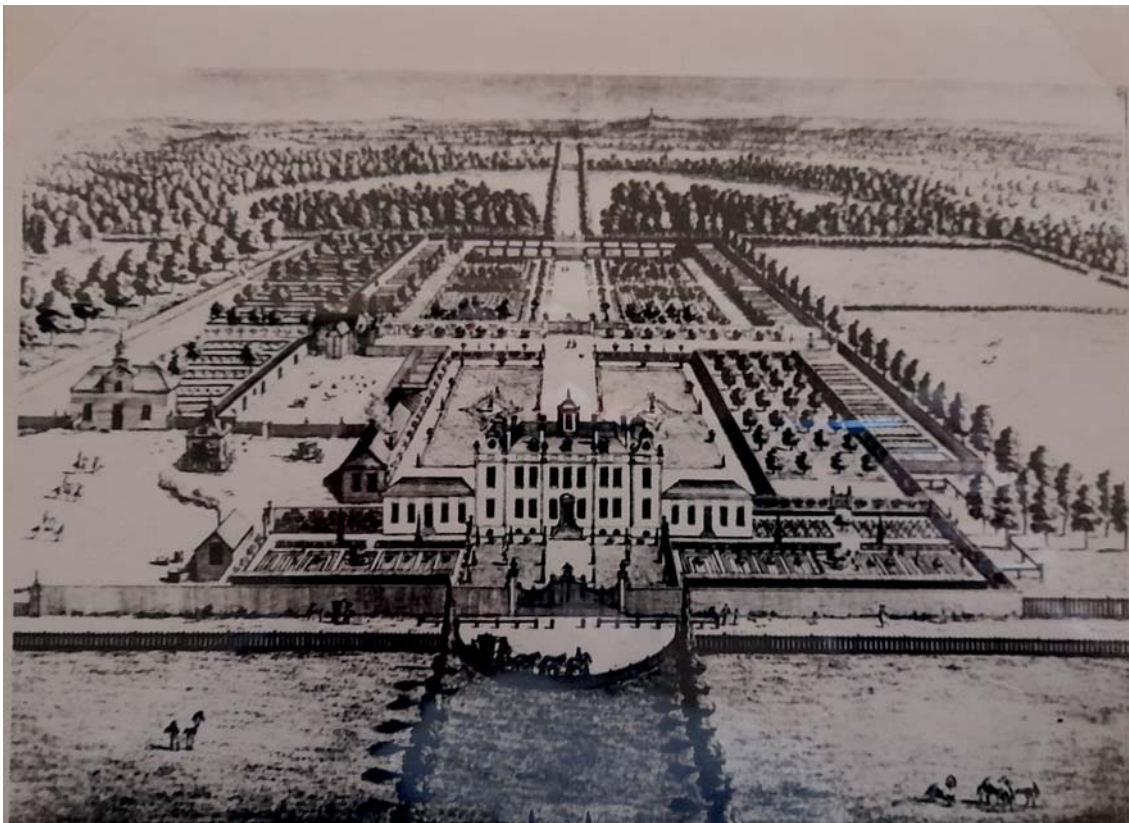


Fig 4 Kneller Hall, c 1715 (Richmond Local Studies Library, Accession no. LCF 15560)

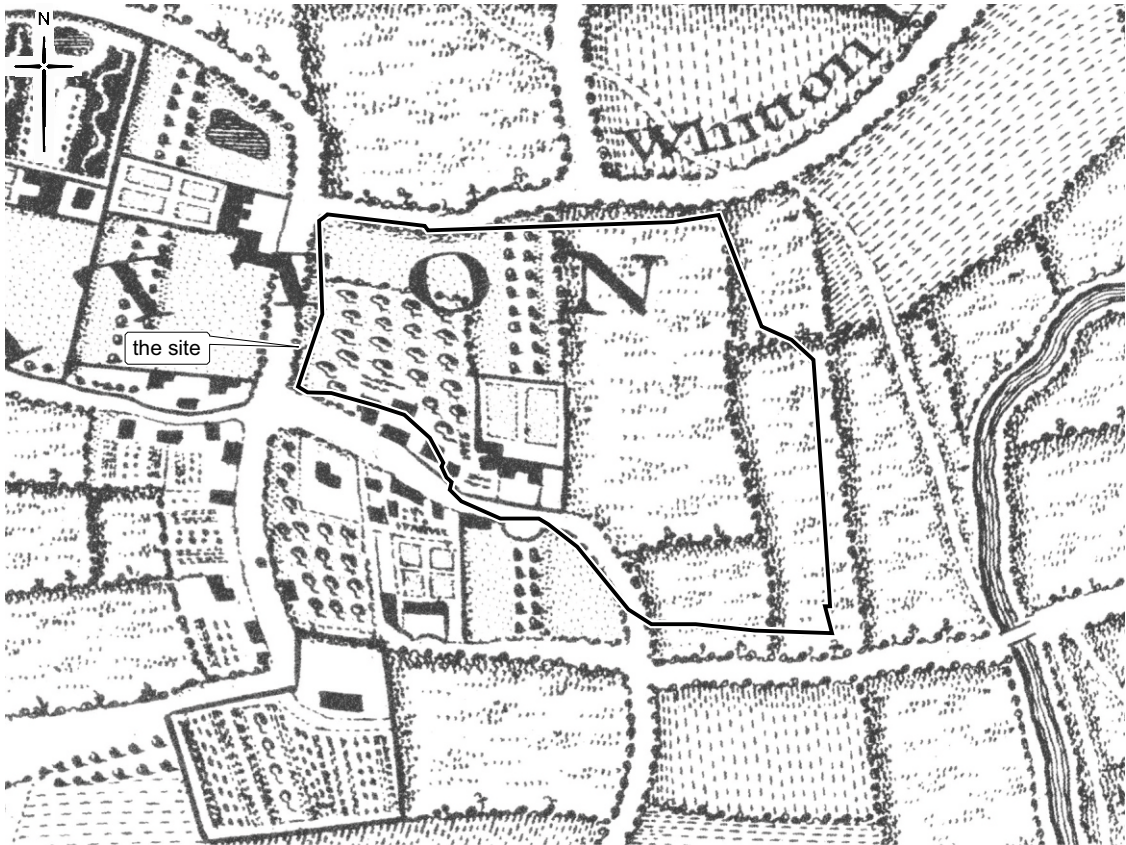


Fig 5 Rocque's map of 1746

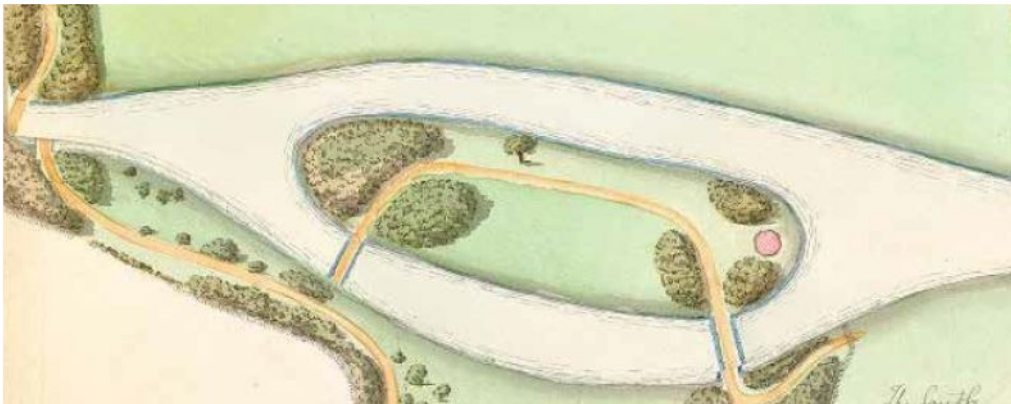


Fig 6 Existing and proposed lake configuration, Whitton, 1796 (Humphry Repton Red Book Seat of Samuel Prime Esqr, 1796)

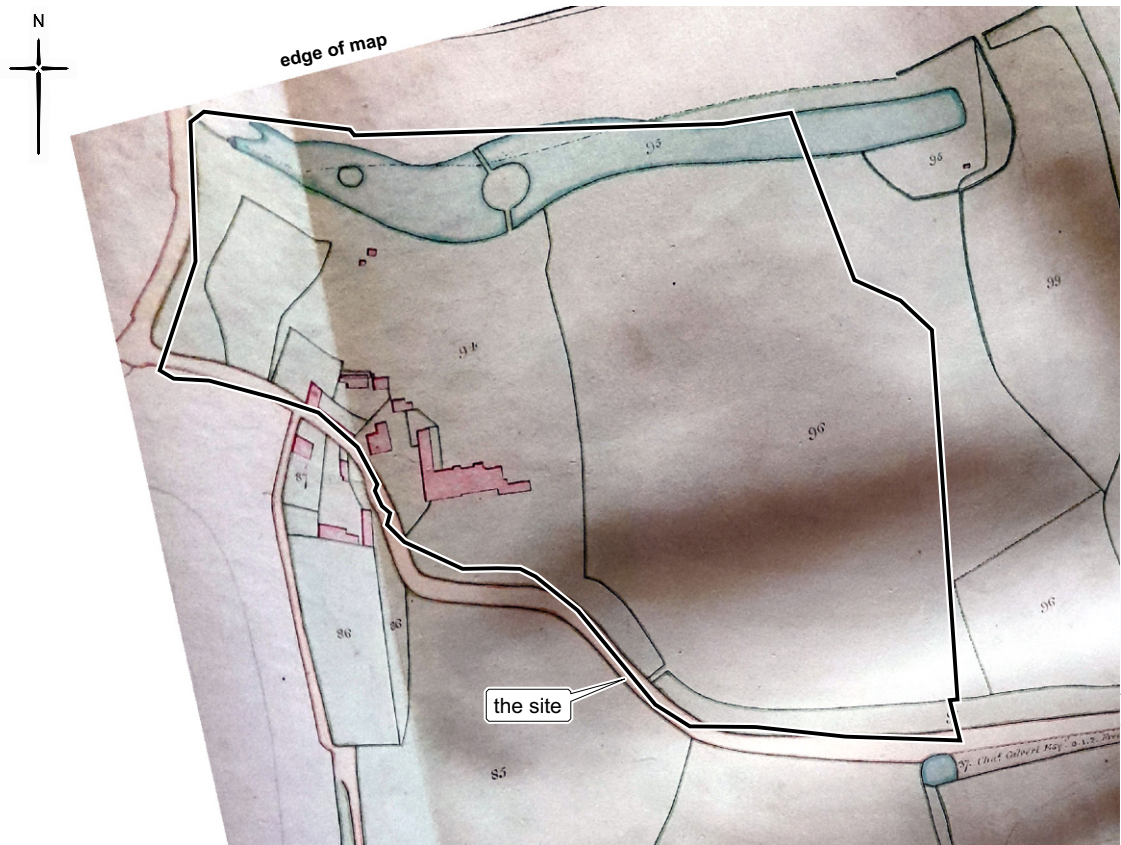


Fig 7 Enclosure map of Twickenham of 1819 (Richmond Local Studies Library)

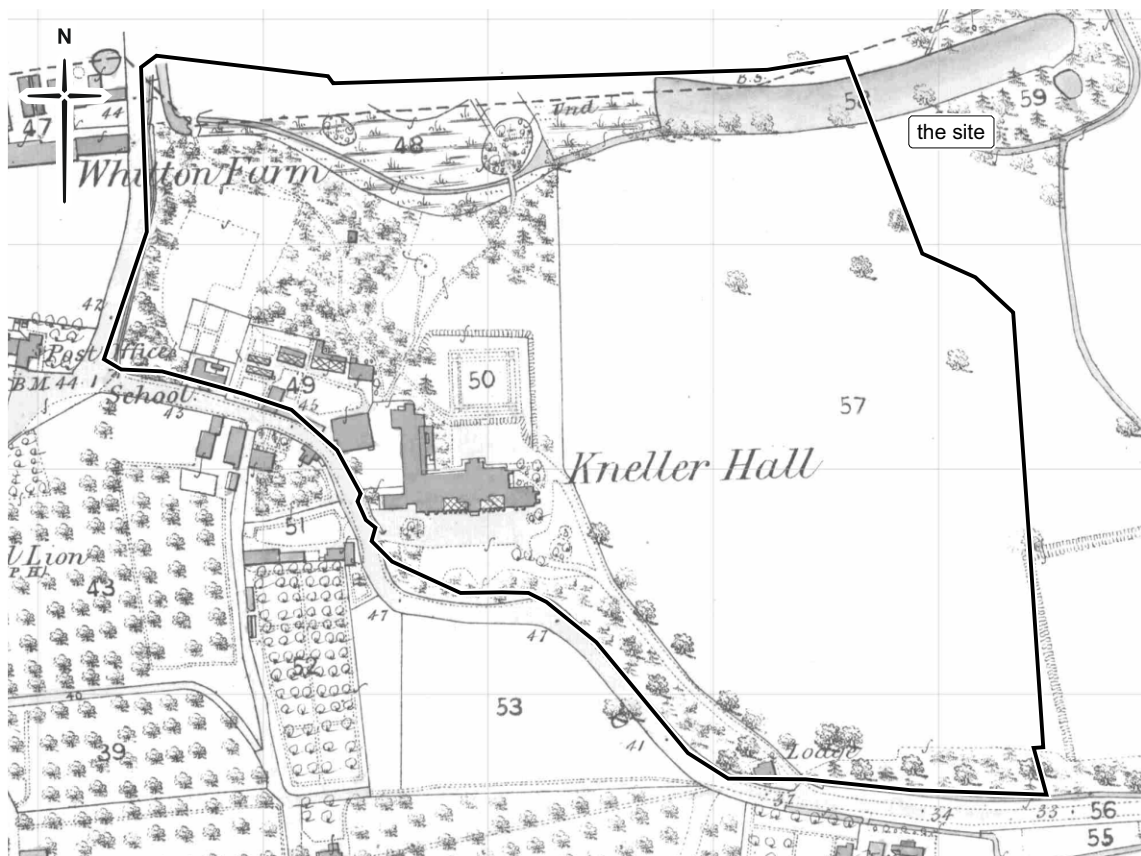


Fig 8 Ordnance Survey 1st edition 25":mile map of 1865 (not to scale)

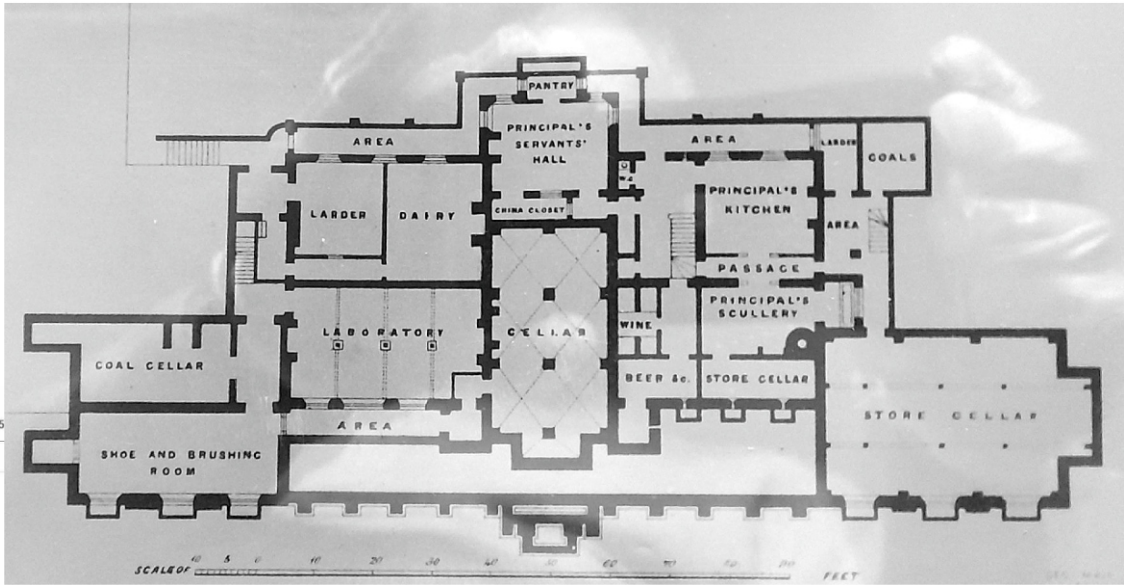


Fig 9 Drawing of Kneller Hall basement by George Mair, 1844-1848 (Richmond Local Studies Library, Accession no. L18134)

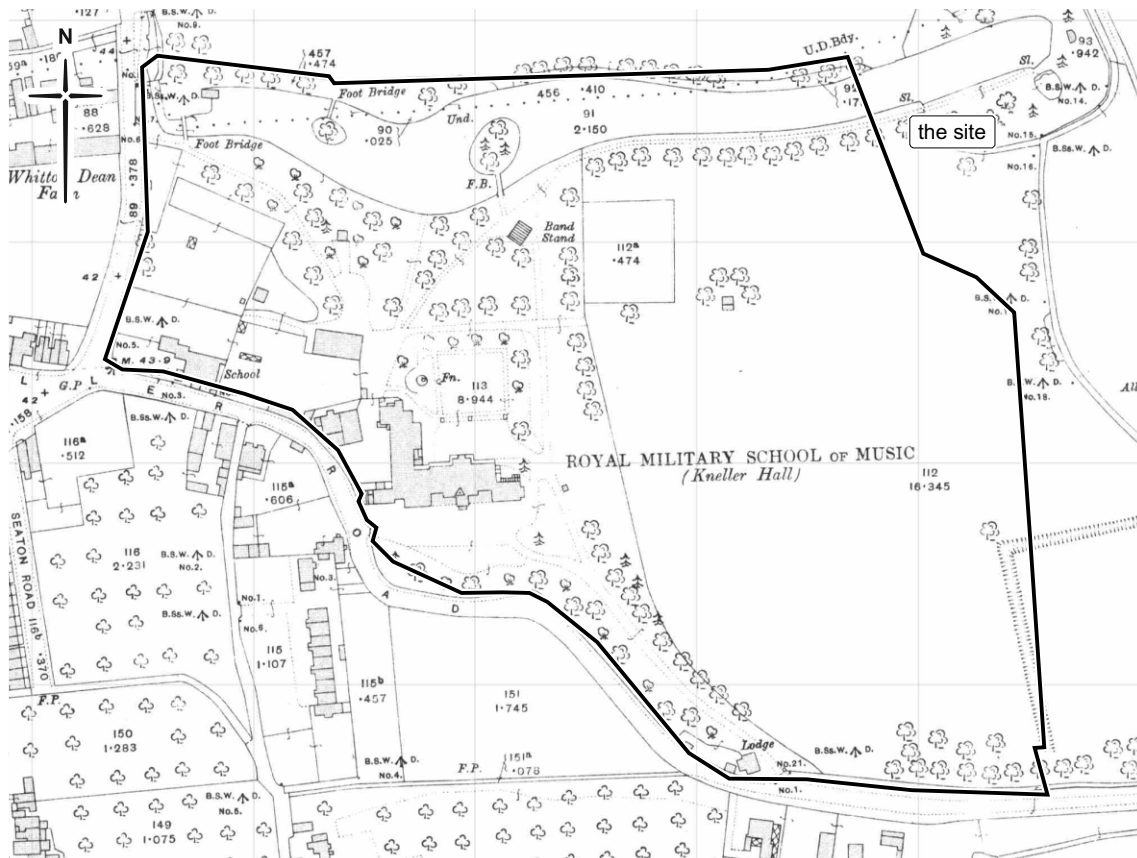


Fig 10 Ordnance Survey 3rd edition 25":mile map of 1915 (not to scale)