

border archaeology

archaeology & built heritage



Archaeological Field Evaluation

On behalf of

DB Planners Ltd

Concerning

No. 26 (Links Cottage)

Galsworthy Road

Kingston-upon-Thames

London

KT2 7BS

June 2019



borderarchaeology.com

ISO 9001 | ISO 14001 | OHSAS 18001

REPORT SPECIFICATION

Compilation:

Joe France BSc ACIfA

Report Ref:

BA1914GRK/REP

Artwork:

Stewart Hawthorn BA (Hons.)

Grid Reference:

NGR: TQ 1973 6986

Editing:

George Children MA MCI fA

OS Licence No:

100055758

Final Edit & Approval:

George Children MA MCI fA

Date:

June 2019

Cover: View southwest showing work in progress

GENERAL ENQUIRIES

e: info@borderarchaeology.com

t: 01568 610101

Administration

The Plaza, Owen Way, Leominster Enterprise Park, Leominster, HR6 0LA

Post-Ex Facility – Leominster

Telephone 01568 610101

Email postex@borderarchaeology.com

Post-Ex Facility – Milton Keynes

Telephone 01908 533233

Email postexmk@borderarchaeology.com

REGIONAL OFFICES

Milton Keynes

Common Farm
Calverton Lane
Milton Keynes, MK19 6EU
t: 01908 533233

Leeds

No1 Leeds
26 Whitehall Road
Leeds, LS12 1BE
t: 0113 8187959

Shoreditch

The Old Fire Station,
140 Tabernacle Street,
London, EC2A 4SD
t: 02033 015670

Newport

Merlin House
No1 Langstone Business Park
Newport, NP18 2HJ
t: 01633 415339

Bristol

First Floor,
Citibase Bristol Aztec West,
Aztec Centre, Aztec West
Almondsbury,
Bristol, BS32 4TD
t: 0117 9110767

Winchester

Basepoint Business Centre,
Winnal Valley Road,
Winchester, SO23 0LD
t: 01962 832777



Contents:

1	Executive Summary	1
2	Introduction	2
3	Site Description.....	2
	3.1 Location	2
	3.2 Geology.....	5
4	Aims and Objectives	5
5	Historical and Archaeological Background	5
6	Methodology	5
7	Results	6
	7.1 Trench 001	6
	7.2 Trench 002	7
8	Conclusion	8
9	Copyright	9
10	Bibliography.....	9
11	Appendix 1: Context Tabulation	10
	11.1 Trench 001	10
	11.2 Trench 002	11
12	Appendix 2: Glass & CBM Assessment	12
	12.1 Glass.....	12
	12.1.1 (002003).....	12
	12.2 CBM	12
	12.2.1 (002003).....	12

1 Executive Summary

Border Archaeology (BA) was instructed by Rajan Patel Esq on behalf of DB Planners Ltd to carry out a programme of Archaeological Field Evaluation at No. 26 (Links Cottage) Galsworthy Road Kingston-upon-Thames London KT2 7BS in connection with the demolition of an existing two-storey detached dwelling and site levelling followed by construction of two three-storey properties with full basements.

The aim was principally to determine the presence and condition of a 16th Century conduit consisting of a section of lead piping forming part of the original Hampton Court Palace Water Works, which was thought to cross the southeast portion of the site. It has been established that survival of the Tudor pipework is variable, with centuries of repair and replacement creating a 'patchwork of many different periods' (Lindus Forge 1959, 3-14).

Of the two trenches opened, Trench 001 was aligned north-northwest-south-southeast and measured 5.70m × 2.80m to a maximum depth of 2.15m at the base of a sondage. No features or deposits of archaeological interest were revealed.

Trench 002 ran east-west and measured 6.10m × 1.55m × c.0.90m and contained a ditch aligned on the projected course of the 16th Century water pipe. The ditch contained a section of ceramic field drain in the backfill but no evidence for the conduit, suggesting that while the ditch itself may well represent the original pipe trench, this had subsequently been reopened and the lead piping removed, to be replaced by the later ceramic drain.

2 Introduction

Border Archaeology Ltd (BA) was instructed by Rajan Patel Esq on behalf of DB Planners Ltd to carry out a programme of Archaeological Field Evaluation (AFE) at No. 26 (Links Cottage) Galsworthy Road Kingston-upon-Thames London KT2 7BS in connection with the demolition of an existing dwelling and site levelling followed by construction of two three-storey dwelling with full basements. A new access road and landscaping is also proposed (NGR TQ 1973 6986) (Planning Ref. 18/14913/FUL).

Although no evidence survives above ground, the projected alignment of a 16th Century lead conduit forming part of the Hampton Court Palace Water Works runs through the SE portion of the site. The conduit is known to have been repaired and altered over the centuries leading to the loss of much original pipework.

Two trenches were opened equating to c.5% of the development area, with investigation carried out between 22nd and 23rd May 2019 (*fig. 1*). No direct evidence of the conduit was encountered, although a section of apparently reused trenching was revealed closely approximating to the presumed alignment of the original pipe.

This Report is for submission to Louise Davies MSc MCI(A) Historic England Assistant Archaeology Advisor (South London) London and South East Region.

3 Site Description

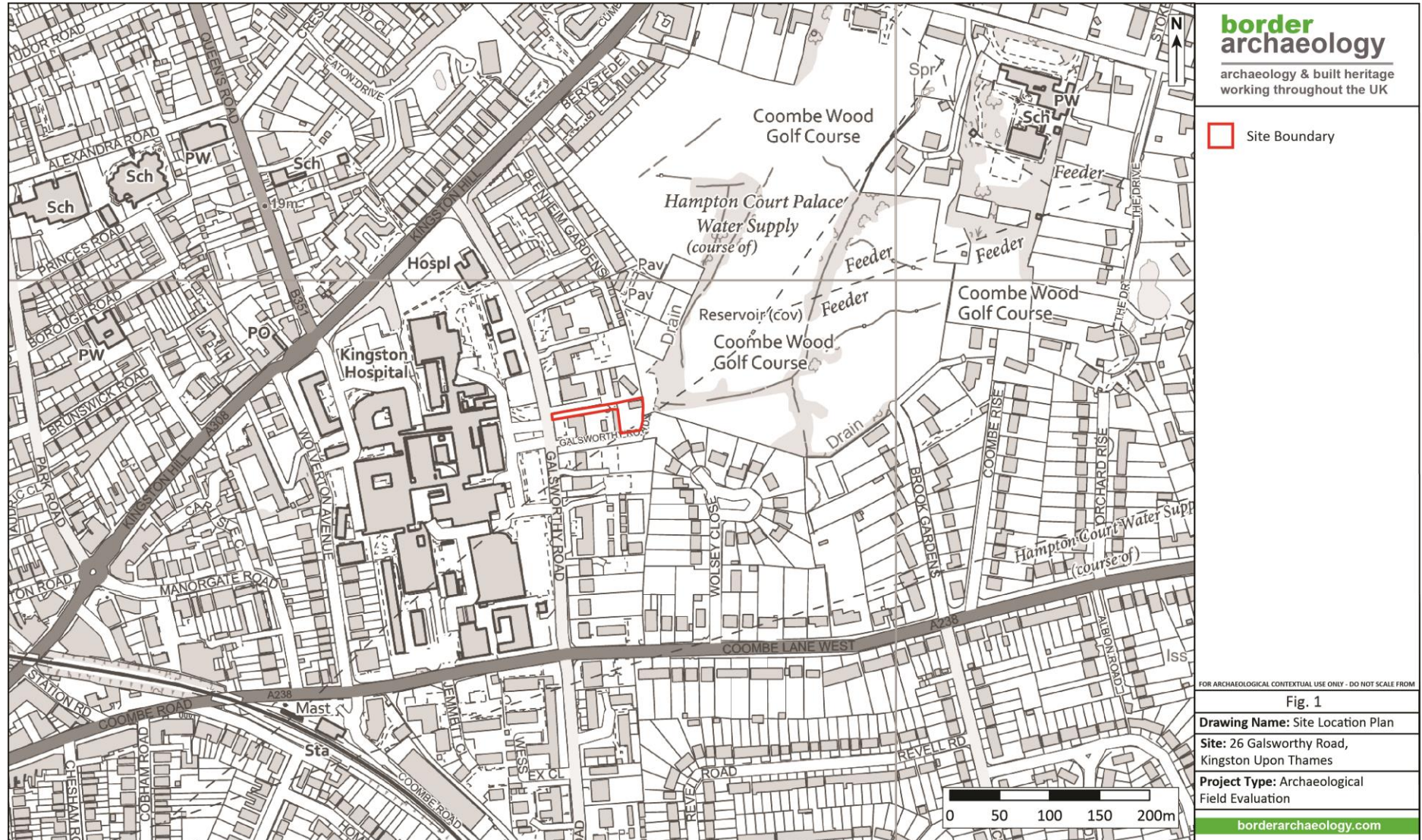
3.1 Location

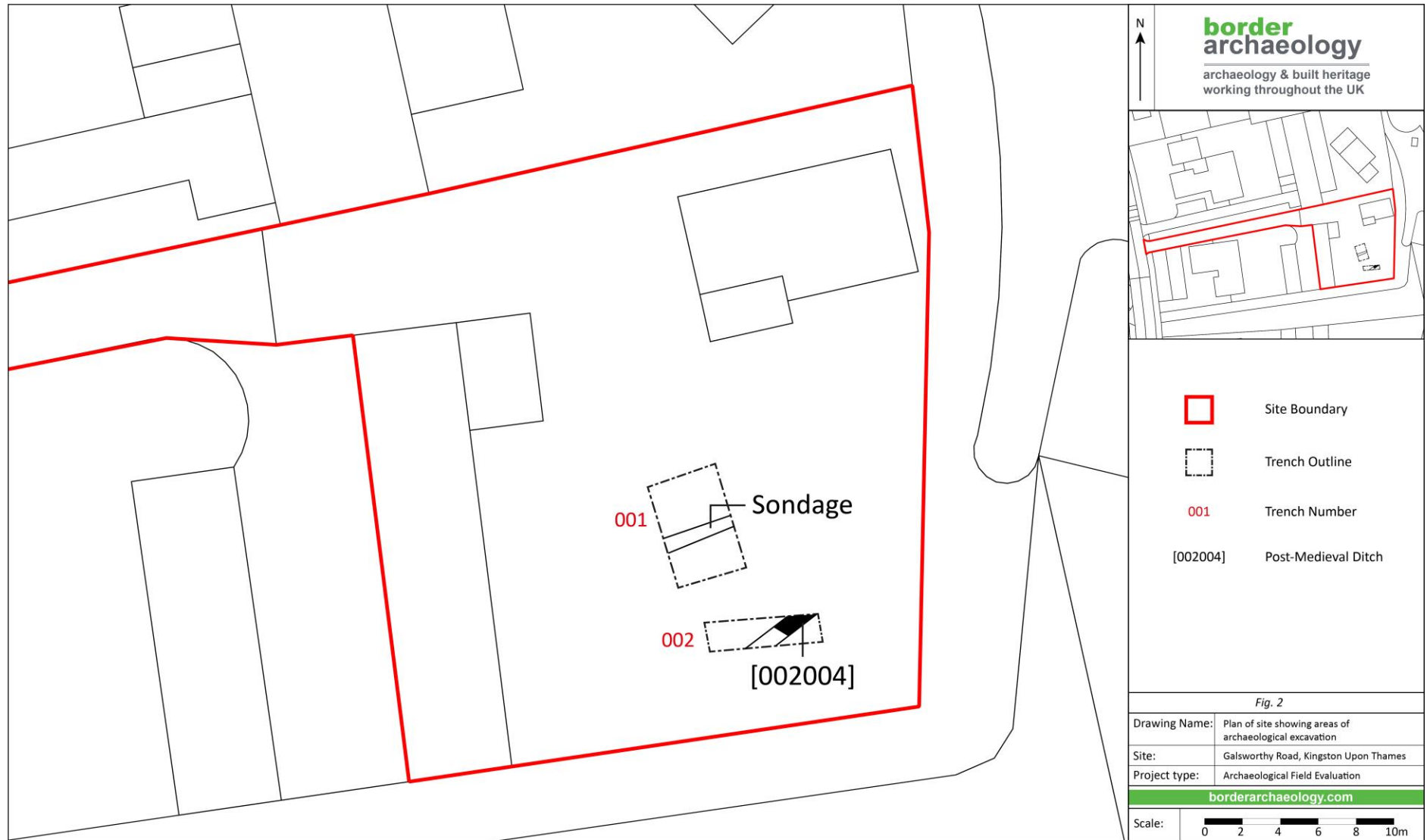
Prior to demolition, the site was occupied by a two-storey detached dwelling and garden with private access off Galsworthy Road. Located at c.28.9m AOD in an area of mixed residential development on the E side of Galsworthy Road, the site covered an area of c.1,135 sq. m (c.753 sq. m excluding the access road).

Kingston Hospital is situated to the W of the site with the Thames c.1.95km beyond. Access to Coombe Wood Lawn Tennis Club adjoins the site to the E, beyond which is Coombe Wood Golf Club, which is designated as Metropolitan Open Land and a Site of Importance for Nature Conservation.

Located in the historic parish of Norbiton and formerly within the county of Surrey, the site is now under the administration of the Royal Borough of Kingston-upon-Thames.

The Kingston Hill APA immediately to the E includes three Conduit Houses and a conduit representing part of the Hampton Court Palace Water Works. A small section of this conduit is projected to pass through the SE corner of the site.





3.2 Geology

The British Geological Survey (BGS) records the underlying bedrock as London Clay. No superficial deposits are currently recorded on the BGS for the location of the site. The evaluation trenching revealed firm light grey-orange clayey sand with very occasional small subangular stones.

4 Aims and Objectives

The overall aim of the AFE was to characterise, as fully as possible within the parameters of the project, the extant archaeological resource, specifically a section of 16th Century lead conduit forming part of the Hampton Court Palace Water Works, as identified within the *Written Scheme of Investigation* (WSI) (BA 2019) in order to inform any potential mitigation.

5 Historical and Archaeological Background

The archaeology of this area is relatively well understood and is discussed in some detail in the Desk-Based Assessment (BA 2019a) previously submitted in connection with the development proposals.

Of key importance is the site's association with the 16th Century Hampton Court Palace Water Works, which piped water underground through lead conduits to the palace from springs on Kingston Hill and Coombe Hill, 4.8km to the NE, with brick feeders concentrated in three Conduit Houses.

No trace of the water course was visible on the ground and much of it is known to have been repaired and altered over the centuries, with sections of lead piping removed and replaced (Lindus Forge 1959). However, its projected NE-SW alignment runs through the SE portion of the site and it was thus anticipated that intact remains might be encountered in the evaluation trenching.

6 Methodology

The archaeological programme of work was carried out in accordance with the *Standard and guidance for archaeological field evaluation* (ClfA 2014b), *Standard and guidance for the collection, documentation, conservation and research of archaeological materials* (ClfA, 2014c) and *Guidelines for Archaeological Projects in Greater London* (GLAAS April 2015). BA is cognisant of the ClfA *Code of Conduct* (2014a) and adheres to project management advice set out in *Management of Research Projects in the Historic Environment: The MoRPHE Project Managers' Guide* (Lee 2015).

Two trenches were opened equating to a roughly 5% sample of the site area (excluding the access road), these being so placed as to achieve best archaeological investigative coverage.

Trench 1 (NGR TQ 19734.88 69855.07 - NNW; TQ 19740.89 69855.56 - SSE) was located over the footprint of the two new dwellings and basement area. Trench depth was dictated by depth to the base of archaeological deposits, or in this case, the depth of a *sondage* as no archaeology was present. The final trench measured 5.70m × 2.80m and reached a maximum depth of 2.15m at the base of the *sondage*.

Trench 2 (NGR TQ 19734.88 69855.07-W; TQ 19740.89 69855.56 - E) was located across the projected line of the early 16th Century conduit measured 6.10m × 1.55m × c.0.90m.

Trenching was opened using a tracked mechanical excavator and, wherever possible, a toothless ditching bucket capable of producing a clean and level surface. Following site clearance, made-ground of recent origin was removed in spits no greater than 0.20m in thickness under archaeological supervision. Care was thus taken not to machine away seemingly homogenous layers that may include the upper parts of archaeological features. The designated engineering depth for the new build was determined in advance and excavation did not exceed this foundation depth.

Once the first significant archaeological horizon was attained, surfaces were cleaned and a pre-excavation plan produced using Survey Grade Global Positioning System (GPS). Survey data was made available in AutoCAD or PDF format and printed at a suitable scale for on-site use. Where necessary, features were planned by hand at a scale of 1:20 from the grid and then digitised to be included on the overall plan as necessary.

Excavation proceeded by hand with the partial excavation or half-sectioning of features and deposits. Artefacts were bagged and labelled before being removed off-site: none required conservation work. No deposits discovered necessitated palaeoenvironmental/palaeoeconomic sampling.

7 Results

Of the two trenches opened, only Trench 002 contained significant archaeology.

7.1 Trench 001

Trench 001 orientated NNW-SSE over the proposed basement area contained no features or deposits of archaeological significance.

Trenching revealed topsoil (001001) overlying subsoil (001002) at a depth of 0.52m. Natural substrata (001003) were encountered at a depth of c.0.90m (*Plate 1*).



Plate 1: WSW-facing section of Trench 001 showing sondage

7.2 Trench 002

Trench 002 orientated E-W across the presumed alignment of the Tudor conduit contained linear ditch [002004] aligned NE-SW (*Plate 2*), which cut subsoil (002002) and was sealed by topsoil (002001).

Ditch [002004] measured $>2.20\text{m} \times \text{c}.0.85\text{m} \times \text{c}.0.85\text{m}$ and revealed an irregular concave profile. The single fill (002003) consisted of loose dark grey-brown silty sand with light yellow-grey sandy clay lenses observed throughout from which a portion of a handmade brick of 17th-18th Century date was recovered (Faine 2019; *Appendix 2*). A ceramic field drain observed within the fill suggested partial infilling of the trench before this was laid.

Subsoil (002002) contained a 'Bordeaux'-style green glass wine bottle of 19th Century date or later (Faine 2019; *Appendix 2*), suggesting a similar date for the ditch.

Whilst ditch [002004] had a secure early modern date, it ran on the projected alignment of the 16th Century lead conduit, which is known to have been subject to repair and alteration over the centuries, with sections of original piping removed and replaced.

It is therefore possible that the section of Tudor conduit in this area has since been 'salvaged', with the ceramic field drain laid within the backfill of the re-excavated pipe trench.



Plate 2: NE-facing section of ditch [002004] showing section of 19th Century or later field drain inserted in backfill

8 Conclusion

No direct evidence for any original lead pipework was encountered in the trenching and the projected alignment of the 16th Century conduit cannot therefore be confirmed as accurate.

However, ditch [002004] within Trench 002 shared a very similar alignment and it is possible that the original pipe trench in this area had been reopened in the 19th Century or later, a section of the 16th Century conduit removed and a ceramic field drain inserted in the backfill.

Trench 001 overlying the proposed basement area was excavated to natural at a depth of c.0.90m but revealed no features or deposits of archaeological significance.

Artefactual recovery was limited to several post-medieval/modern finds from Trench 002, including a complete green-glass 'Bordeaux'-style wine bottle dated 19th Century or later and a piece of 17th-18th Century handmade sandy brick.

9 Copyright

Border Archaeology Ltd shall retain full copyright of any commissioned reports, tender documents or other project documents, under the Copyright, Designs and Patents Act 1988, with all rights reserved, excepting that it hereby provides a licence to the Client and the Council for the use of the report by the Client and the Council in all matters directly relating to the project as described in the Project Specification to use the documentation for their statutory functions and to provide copies of it to third parties as an incidental to such functions.

10 Bibliography

Border Archaeology, 2017, *Archaeological Field Recording Manual*.

Border Archaeology, 2019a, *Archaeological Desk-Based Assessment on behalf of DB Planners Ltd concerning 26 Galsworthy Road Kingston Upon Thames KT2 7BS*, Report Ref. BA1914GRK/ADBA.

Border Archaeology, 2019b, *Written Scheme of Investigation for Archaeological Field Evaluation on behalf of DB Planners Ltd concerning No. 26 Galsworthy Road Kingston London KT2 7BS*, Ref. BA1914GRK/WSI.

CIfA, 2014a, *Code of Conduct*.

CIfA, 2014b, *Standard and guidance for archaeological field evaluation*.

CIfA, 2014c, *Standard and guidance for the collection, documentation, conservation and research of archaeological materials*.

Greater London Archaeological Advisory Service, 2015, *Guidelines for Archaeological Projects in Greater London*, GLAAS Guidance Paper.

Lee, E., 2015, *Management of Research Projects in the Historic Environment: The MoRPHE Project Managers' Guide*, Historic England.

Lindus Forge, J., 1959, 'Coombe Hill Conduit Houses and the Water Supply System of Hampton Court Palace', *Surrey Archaeological Collections*, Vol 56, 3-14.

11 Appendix 1: Context Tabulation

11.1 Trench 001

Context	Type	Filled by	Fill of	Description	Interpretation	Finds	Samples	Provisional date
(001001)	Deposit	-	-	Loose very dark grey brown sandy silt; very occasional stones, very occasional modern refuse (CBM, glass, pottery, metal); 0.52m (depth). Overlying (001002).	Topsoil	-	-	Modern
(001002)	Deposit	-	-	Moderately compacted mid-grey-brown clayey sandy silt; very occasional stones, very occasional glass, very occasional CBM; 0.41m (depth). Underlying (001001). Overlying (001003).	Subsoil	-	-	Modern
(001003)	Deposit	-	-	Firm light grey-orange clayey sand; very occasional small sub angular stones. Underlying (001002).	Geological deposit	-	-	-

11.2 Trench 002

Context	Type	Filled by	Fill of	Description	Interpretation	Finds	Samples	Provisional date
(002001)	Deposit	-	-	Loose very dark grey-brown sandy silt; very occasional stones & modern refuse (CBM, glass, pottery, metal); 0.56m (depth). Overlying (002002).	Topsoil	-	-	Modern
(002002)	Deposit	-	-	Moderately compacted mid-grey-brown clayey sandy silt; very occasional stones, glass & CBM; 0.54m (depth). Overlying (002005). Underlying (002001).	Subsoil	Glass, CBM (not retained)	-	C19+
(002003)	Fill	-	[002004]	Loose dark grey-brown silty sand with light yellow-grey sandy clay lenses; very occasional small rounded stones; >2.20m × c.0.80m × c.0.37m. Overlying [002004]. Underlying (002001).	Singular fill of linear ditch [002004]	CBM	-	C19+
[002004]	Cut	(002003)	-	Linear in plan; NE-SW orientation; irregular concave profile; >2.20m × c.0.80m × c. 0.37m. Underlying (002003). Overlying (002002).	Cut of linear ditch	-	-	C19+
(002005)	Deposit	-	-	Firm light grey-orange clayey sand; very occasional small sub angular stones. Underlying (002002).	Natural substrata	-	-	-

12 Appendix 2: Glass & CBM Assessment

*Chris Faine MSc ACIfA
Border Archaeology*

12.1 Glass

12.1.1 (002002)

Complete 'Bordeaux'-style wine bottle

Green glass.

Height: 30cm.

Date: AD 1800 to Modern.

12.2 CBM

12.2.1 (002003).

Portion of sandy handmade brick.

Dark purple sandy fabric with infrequent shell inclusions.

Weight: 510g.

Date: 17th -18th Century AD.

Document Title		Document Ref	
Archaeological Field Evaluation on behalf of of DB Planners Ltd at No. 26 (Links Cottage) Galsworthy Road Kingston-upon-Thames London KT2 7BS.		BA1914GRK/REP	
Compilation	Joe France BSc ACIfA		
Editing	George Children MA MCIfA		
Artwork	Stewart Hawthorn BA (Hons.)		
Artwork approved	Holly Litherland BA (Hons.)		
Issue No.	Status	Date	Approved for issue
1	Final	June 2019	George Children MA MCIfA