M25 Junction 10/A3, Wisley Interchange Improvements, Surrey

Archaeological Watching Brief Report

January 2020

Client: Socotec

Issue No: 1
OA Reference No: COBM25WB
NGR: 509000 160200

oxfordarchaeology

Client Name:	Socotec
Document Title:	M25 Junction 10/A3, Wisley Interchange Improvements, Surrey
Document Type:	Watching Brief Report
Report No.:	1
Grid Reference:	509000 160200
Planning Reference:	COM/3214445
Site Code:	COBM2519
Invoice Code:	COBM25WB
Receiving Body:	Elmbridge Museum
Accession No.:	6.2020
OA Document File Location:	\\10.0.10.86\Projects\m\M25_Junction_10\WBRep
OA Graphics File Location:	\\10.0.10.86\Projects\m\M25_Junction_10
Issue No:	1
Date:	January 2020
Prepared by:	Paul Murray (Project Officer)
Checked by:	John Boothroyd (Senior Project Manager)
Edited by:	Leo Webley (Head of Post-Excavation)
Approved for Issue by:	David Score (Head of Fieldwork)
Signature:	DavidScore

.....

OA South
Janus House
Osney Mead
Oxford
OX2 0ES

t. +44 (0)1865 263 800

OA East
15 Trafalgar Way
Bar Hill
Cambridge
CB23 8SQ

t. +44 (0)1223 850 500

OA North
Mill 3
Moor Lane Mills
Moor Lane
Lancaster
LA1 1QD
t. +44 (0)1524 880 250

e. info@oxfordarch.co.uk
w. oxfordarchaeology.com
Oxford Archaeology is a registered Charity: No. 285627

Director and Chief Executive
Gill Hey, BA PhD FSA MCIfA
Private Limited Company, No: 1618597
Registered Charity, No: 285627
Registered Office: Oxford Archaeology Ltd
Janus House, Osney Mead, Oxford OX2 0ES

M25 Junction 10/A3, Wisley Interchange Improvements, Surrey

Archaeological Watching Brief Report

Written by Paul Murray

With contributions from Alex Davies, Michael Donnelly and Ian Scott and illustrations by Matt Bradley

Contents

Summary vii

Acknowledgements viii

1 INTRODUCTION 1

1.1 Scope of work 1

1.2 Location, topography and geology 1

1.3 Archaeological and historical background 1

2 WATCHING BRIEF AIMS AND METHODOLOGY 3

2.1 Aims 3

2.2 Methodology 3

3 RESULTS 4

3.1 Introduction and presentation of results 4

3.2 General soils and ground conditions 4

3.3 General distribution of archaeological deposits 4

3.4 Finds summary 4

4 DISCUSSION 5

4.1 Reliability of field investigation 5

4.2 Watching brief objectives and results 5

4.3 Significance 5

APPENDIX A DESCRIPTIONS AND CONTEXT INVENTORY 6

APPENDIX B FINDS REPORTS 9

B.1 Pottery 9

B.2 Flint 9

B.3 Metals 9

APPENDIX C BOREHOLE LOGS 11

APPENDIX D BIBLIOGRAPHY 12

APPENDIX E SITE SUMMARY DETAILS 13

List of Figures

Fig. 1 Site location
Fig. 2 Area of works
Fig. 3 Borehole and test pit locations

List of Plates

Plate 1 BH1-363
Plate 2 BH1-367
Plate 3 BB1-395
Plate 4 BH1-398
Plate 5 BH1-414
Plate 6 TP1-402

Summary

Oxford Archaeology were commissioned by Socotec to conduct a watching brief during the excavation of five boreholes and a test pit alongside the A3, as part of the M25 Junction 10/A3 Wisley Interchange Improvements (NGR 509000 160200). The fieldwork was carried out between August and September 2019. The watching brief recovered a flint flake and a sherd of pottery of prehistoric date from a subsoil deposit and identified landscaping deposits, up to 5m thick, formed from material excavated during cleaning of a lake in Painshill Park in the 1930s.

Acknowledgements

Oxford Archaeology would like to thank Socotec for commissioning this project. Thanks are also extended to Nick Truckle the Archaeological Advisor to Guildford Borough Council who monitored the work.

The project was managed for Oxford Archaeology by John Boothroyd. The fieldwork was directed by Innes Matos Glover. Thanks are also extended to the teams of OA staff that cleaned and packaged the finds under the management of Leigh Allen and prepared the archive under the management of Nicola Scott.

1 INTRODUCTION

1.1 Scope of work

1.1.1 Oxford Archaeology (OA) was commissioned by Socotec to undertake an archaeological watching brief on geotechnical investigations being undertaken in advance of improvements works to Junction 10 of the M25.

1.1.2 The work was undertaken as a condition of Planning Permission (planning ref. COM/3214445). A specification was set by the Archaeological Advisor to Guildford Borough Council and a written scheme of investigation was produced by Museum of London Archaeology (MOLA 2019) detailing the Local Authority's requirements for work necessary to discharge the planning condition. This document outlines how OA implemented the specified requirements.

1.2 Location, topography and geology

1.2.1 The M25 J10/A3 Wisley Interchange is located in the south-west section of the M25 London Orbital Motorway. The development site lies *c* 2.8km south-west of Cobham and *c* 2.5km south-east of Byfleet, Surrey (Fig. 1). This phase of work was conducted within the grounds of Painshill Park, south of the A3/A245 interchange (NGR 509000 160200; Fig. 2).

1.2.2 The topography of the site is generally between 25m above Ordnance Datum (aOD) and 55m aOD. Higher ground is located to the south of J10 at Oakham Common and to the north at Foxwarren Park, and lower lying land to the east and west of Junction 10, at Painshill Park and Wisley Common respectively.

1.2.3 The geology of the area is mapped as Bagshot formation, a sedimentary bedrock composed of sands formed approximately 48 to 56 million years ago.

1.3 Archaeological and historical background

1.3.1 The archaeological background for the whole scheme is provided in a desk-based assessment (AOC 2017) and is not reproduced here. However, a summary is provided of the data relevant to the area of these works.

1.3.2 The sites lies within the Grade 1 Listed Painshill Park, a registered park and garden laid out by the Hon Charles Hamilton between 1738 and 1773. No designated heritage assets are located within the area of works, although seven Grade II listed buildings are recorded within park. They include a mausoleum dating to the 18th century, a 19th century gothic tower and Painshill House. A further five Grade II listed buildings are recorded in the vicinity but to the north of the A3.

1.3.3 Two scheduled monuments are recorded in the vicinity, the Roman bath-house at Chatley Wood and a hengi-form monument at Red Hill, located 800m and 700m to the south-west respectively. Two Bronze Age barrows at Cockcrow Hill are also scheduled but lie some 1.5km to the east of the site.

1.3.4 There is limited evidence for non-designated heritage assists in the vicinity of the site. In addition to the bath-house, the projected route of the London to Winchester Roman

road passes approximately 200m to the north of the site. Two undated earthworks are recorded to the south-west of site and may be of Roman date.

2 WATCHING BRIEF AIMS AND METHODOLOGY

2.1 Aims

2.1.1 The project aims and objectives were as follows:

i. To determine the presence or absence and the general nature of any remains present.
ii. To determine or confirm the approximate date or date range of any remains, by means of artefactual or other evidence.
iii. To ensure the groundworks do not have a destructive impact on archaeological deposits of national interest.
iv. To determine the nature and level of natural topography.
v. What are the earliest deposits identified?
vi. What are the latest deposits identified?
vii. To determine the extent of any modern disturbance.
viii. Is there evidence for further prehistoric activity to supplement that identified in the Atkins and AOC reports?
ix. Is there evidence for Iron Age or Romano-British occupation?
x. Is there evidence for the known Roman road?
xi. Is there any activity associated with the Roman bath-house partly excavated at Chatley Wood?
xii. Is the evidence for medieval activity in the vicinity?
xiii. Is there evidence for the development and use of the post-medieval parks and gardens that still occupy much of the site?

2.2 Methodology

2.2.1 An archaeological presence was maintained during the initial hand excavation (1.2m depth) of five borehole locations and the machine excavation of a test pit (Fig. 3).

2.2.2 All excavations were subject to continuous archaeological monitoring and all upcast material was inspected for archaeological artefacts. The works were undertaken in accordance with the scope of work and methodology as defined in the written scheme of investigation (MOLA 2019).

2.2.3 Access pits for the boreholes were excavated by hand to a depth of approximately 1.2m below ground level but only measured *c* 0.3m in diameter, offering limited visibility. Deposit sequences were recorded based on visible sections and the spoil variation.

2.2.4 A single test-pit was excavated using a machine fitted with a toothless bucket. Excavation was undertaken in spits, with sections clearly visible, aiding in the identification and recording of the deposit sequence.

2.2.5 All drawings were produced by hand at a scale of 1:10 or 1:20 as appropriate. Digital photographs were taken of the deposit sequences and the work in general. Each deposit identified was assigned a unique context number and all context descriptions were recorded on OA proforma sheets.

3 RESULTS

3.1 Introduction and presentation of results

3.1.1 The results of the watching brief are presented below. The full details of all trenches with dimensions, descriptions and depths of all deposits can be found in Appendix A, and finds data and spot dates in Appendix B.

3.1.2 The borehole logs for BH1-363A, BH1-367, BH1-398 and BH1-414 are presented in Appendix C.

3.2 General soils and ground conditions

3.2.1 The soil sequence was generally fairly uniform. The natural geology of sand and clayey sand was overlain by a subsoil, which in turn was overlain by topsoil (Plates 1, 3 and 6).

3.2.2 Redeposited geology, modern made ground and landscaping deposits, apparently derived from cleaning out of the nearby lake (see below), were recorded in BH1-367 to a depth of 5.2m (Plate 2).

3.2.3 A tarmac surface overlying made ground to a depth of 0.82m which in turn overlaid a buried topsoil was recorded in BH1-398A (Plate 4).

3.2.4 Modern made ground overlain by redeposited geology was recorded in BH1-414 to a depth of 1.2m (Plate 5).

3.2.5 Ground conditions throughout the watching brief were generally good, and the site remained dry throughout. However, identification of archaeological features was constrained due to the limited size of the excavation areas.

3.3 General distribution of archaeological deposits

3.3.1 No archaeological features or significant deposits were recorded during the course of the watching brief.

3.4 Finds summary

3.4.1 A small abraded sherd of pottery weighing 3g was recovered from a subsoil deposit in BH 1-363 (context 36301). This was reasonably densely tempered with calcined flint. It could not be closely dated, although is probably later Bronze Age or early Iron Age.

3.4.2 A small preparation flint flake, also recovered from context 36301, was undiagnostic and can only be assigned to the prehistoric period.

3.4.3 A piece of iron wire and a small irregular small iron plate fragment were recovered from contexts 36701 (BH1-367) and 41402 (BH 1-414) respectively. Both objects were undiagnostic and could not be closely dated, although context 36701 overlies a deposit (36703) dated to the 20th century. Context 41402 also produced ceramic building material which has been dated to the 19th–20th centuries.

4 DISCUSSION

4.1 Reliability of field investigation

4.1.1 The borehole locations were excavated by hand to a depth of 1.2m but only measured 0.3m in diameter providing limited visibility for the identification of archaeological deposits. The test pit (TP1-402) was excavated by machine in spits and therefore provided good visibility.

4.2 Watching brief objectives and results

4.2.1 The watching brief successfully established the nature and level of the topography. Landscaping deposits were recorded in BH1-367, BH1-398 and BH1-414, apparently derived from cleaning out of the lake some 30 years ago (Painshill Estate Manager pers. comm.).

4.2.2 The undiagnostic flint flake and the small abraded pottery sherd, both recovered from the subsoil in BH1-363, provide limited evidence for prehistoric activity within the vicinity. Given the limited visibility offered by the borehole access pits, It is possible that deposit 36301 from which the prehistoric finds were recovered is an archaeological deposits, however, given the abraded nature of the finds and the sterile nature of the deposit it is more likely the finds are residual within a naturally accumulated deposit.

4.3 Significance

4.3.1 Two prehistoric finds were recovered from the subsoil in BH1 363. Given the limited size of the excavation (0.3m diameter) and thickness of the deposit (0.1m) they may represent evidence for a finds scatter or activity in the wider vicinity.

APPENDIX A DESCRIPTIONS AND CONTEXT INVENTORY

BH1-363						
General description					**Ground level aOD**	33.21m
Test pit hand excavated in advance of rotary coring. No archaeological features recorded. Consists of topsoil and subsoil overlying geology of sand and sandy clay.					**Diameter (m)**	0.3
					Avg. depth (m)	1.2
Context No.	**Type**	**Width (m)**	**Depth (m)**	**Description**	**Finds**	**Date**
36300	Layer	-	0.32	Topsoil	-	-
36301	Layer	-	0.1	Subsoil. Soft, mid/light yellow grey silty sand.	Pottery. Flint flake.	-
36302	Layer	-	-	Geology. Sandy clay	-	-

BH1-367						
General description					**Ground level aOD**	30.71m
Test pit hand excavated in advance of rotary coring. No archaeological features recorded. Consists of topsoil and subsoil overlying landscaping deposits which overlay a geology of clayey sand.					**Length (m)**	0.5
					Width (m)	0.3
					Avg. depth (m)	1.2
Context No.	**Type**	**Width (m)**	**Depth (m)**	**Description**	**Finds**	**Date**
36700	Layer	-	0.25	Topsoil	-	-
36701	Layer	-	0.21	Subsoil. Soft, mid/light yellow orange clayey sand.	Metal	Undiagnostic
36702	Layer	-	0.54	Redeposited geology. Loose, mid/light greenish brown clayey sand.	-	-
36703	Layer	-	0.2	Made ground. Loose/soft, mid/light greenish brown clayey sand.	Modern finds noted.	20th century
36704	Layer	c 70m	0.3	Landscaping deposit. Soft, mid greenish grey sandy clay.	-	-
36705	Layer	c 70m	-	Landscaping deposit. Soft, mid reddish brown clayey sand.	-	-
36706	Layer	c 70m	-	Buried topsoil? Soft, mid greyish green sandy clay.	-	-
36707	Layer	-	-	Geology. Clayey sand.	-	-

BH1-395						
General description					**Ground level aOD**	44.18m
Test pit hand excavated in advance of rotary coring. No archaeological features recorded. Consists of topsoil and subsoil overlying geology of sand and clayey sand.					**Diameter (m)**	0.3
					Avg. depth (m)	0.30
Context No.	**Type**	**Width (m)**	**Depth (m)**	**Description**	**Finds**	**Date**
39500	Layer	-	0.15	Topsoil	-	-
39501	Layer	-	0.45	Subsoil. Soft, mid/light yellow brown silty sand.	-	-
39502	Layer	-	-	Geology.	-	-

BH1-398						
General description					**Ground level aOD**	42.66m
Test pit hand excavated in advance of rotary coring. No archaeological features recorded. Consists of tarmac and makeup layers overlying two deposits forming earlier trackway/s which overlay a buried topsoil which in turn overlaid a geology of clayey sand.					**Diameter (m)**	0.3
					Avg. depth (m)	1.2
Context No.	**Type**	**Width (m)**	**Depth (m)**	**Description**	**Finds**	**Date**
39800	Layer	-	0.15	Tarmac surface.	-	-
39801	Layer	-	0.25	Make up for tarmac surface. Compacted sand.	-	-
39802	Layer	-	0.3	Deposit forming possible trackway. Mod compact, brownish grey sand.	-	-
39803	Layer	-	0.2	Deposit forming possibly trackway. Friable, mid/light orange yellow clayey sand.	-	-
39804	Layer	-	0.2	Buried topsoil. Mod compact, mixed yellow brown/greyish yellow clayey sand.	-	-
39805	Layer	-	-	Geology. Clayey sand.	-	-
39806	Layer	-	-	Same as 39803.	-	-
39807	Layer	-	-	Same as 39804.	-	-

BH1-402						
General description					**Ground level aOD**	42.73m
Machine excavated trench. No archaeological features recorded. Consists of topsoil overlying a subsoil which overlaid geology of sand and clayey sand.					**Length(m)**	**2.5**
					Width(m)	**0.5**
					Avg. depth (m)	**0.80**
Context No.	**Type**	**Width (m)**	**Depth (m)**	**Description**	**Finds**	**Date**
41400	Layer	-	0.4	Topsoil	-	-
41401	Layer	-	0.4	Redeposited geology. Capping layer. Mod	-	-

				compact, mid yellow grey clayey sand.		
41402	Layer	-	-	Made ground. Same as 36703	Modern finds noted	20th century
41403	Layer	-	-	Geology. Clayey sand.	-	-

BH1-414						
General description					**Height aOD**	30.6m
Test pit hand excavated in advance of rotary coring. No archaeological features recorded. Consists of topsoil overlying a capping layer of redeposited geology overlying a modern make up layer which overlaid geology of sand and clayey sand.					**Diameter (m)**	0.3
					Avg. depth (m)	0.30
Context No.	**Type**	**Width (m)**	**Depth (m)**	**Description**	**Finds**	**Date**
41400	Layer	-	0.4	Topsoil	-	-
41401	Layer	-	0.4	Redeposited geology. Capping layer. Mod compact, mid yellowish grey clayey sand.	-	-
41402	Layer	-	-	Made ground. Same as 36703. Loose, mid brownish orange clayey sand.	CBM, metal	19th-20th century
41403	Layer	-	-	Geology. Clayey sand	-	-

APPENDIX B FINDS REPORTS

B.1 Pottery

By Alex Davies

Introduction

B.1.1 The only prehistoric pottery recovered was a single sherd weighing 3g from context 36301. This was reasonably densely tempered with calcined flint. It cannot be closely dated, although is probably later Bronze Age or early Iron Age. The sherd is small and heavily abraded and cannot be used on its own to date the deposit with any confidence.

B.2 Flint

By Michael Donnelly

Introduction

B.2.1 A single flint flake was recovered from this excavation. This piece is undiagnostic and indicates very limited flint-related activity here, most probably during prehistory.

Methodology

B.2.2 The artefacts were catalogued according to OA South's standard system of broad artefact/debitage type (Anderson-Whymark 2013; Bradley 1999), general condition noted and dating was attempted where possible. The assemblage was catalogued directly onto an Open Office spreadsheet. During the assessment additional information on condition (rolled, abraded, fresh and degree of cortication), and state of the artefact (burnt, broken, or visibly utilised) was also recorded. Retouched pieces were classified according to standard morphological descriptions (e.g. Bamford 1985, 72-77; Healy 1988, 48-9; Bradley 1999). Technological attribute analysis was initially undertaken and included the recording of butt and termination type (Inizan *et al*. 1999), flake type (Harding 1990), hammer mode (Onhuma and Bergman 1982), and the presence of platform edge abrasion.

Context	Type	Sub-type	Notes	Date
36301	Flake	Preparation	Hard-hammer struck from rolled cobble	-

B.3 Metals

By Ian R Scott

B.3.1 There are just three metal finds, two lengths iron wire (context 36701) and an undiagnostic fragment of iron (context 41402)

B.3.2 Both lengths of iron wire (context 41402) tapered to sharp points. Not closely datable.

B.3.3 The iron fragment (context 41402) is small flat but irregular in shape and broken at the edges.

Context 36701	(1)	Wire. Two lengths both tapering to sharp points and broken at the opposite end and bent. Fe. (1) L: 91mm; D: 4mm. (2) L: 130mm; D: 4mm.
Context 41402	(2)	Fragment, irregular. Possible small plate fragment. Undiagnostic. Fe. 16mm x 12mm x 4mm

APPENDIX C BOREHOLE LOGS

APPENDIX D BIBLIOGRAPHY

AOC, 2017 Proposed M25 Junction 10 to A3 Wisley Interchange Upgrade, Surrey: Archaeological Desk-Based Assessment.

MOLA, 2019 M25 Junction 10/A3, Wisley Interchange Improvements, Surrey. Written scheme of Investigation for an Archaeological Watching Brief.

APPENDIX E SITE SUMMARY DETAILS

Site name:	M25 Junction 10 / A3 Wisley Interchange Improvements, Surrey.
Site code:	COBM2519
Grid Reference	509000 160200
Type:	Watching brief
Date and duration:	23/8/19 – 18/9/19
Location of archive:	The archive is currently held at OA, Janus House Osney Mead, Oxford OX2 0ES , and will be deposited with Elmbridge Museum in due course, under the following accession number: 6.2020.
Summary of Results:	Archaeological monitoring was undertaken during the excavation of five boreholes and a test pit at Painshill Park, Surrey. No archaeological features or deposits were recorded. Two prehistoric artefacts were recovered from subsoil deposits, a flint flake and a heavily abraded pottery sherd.

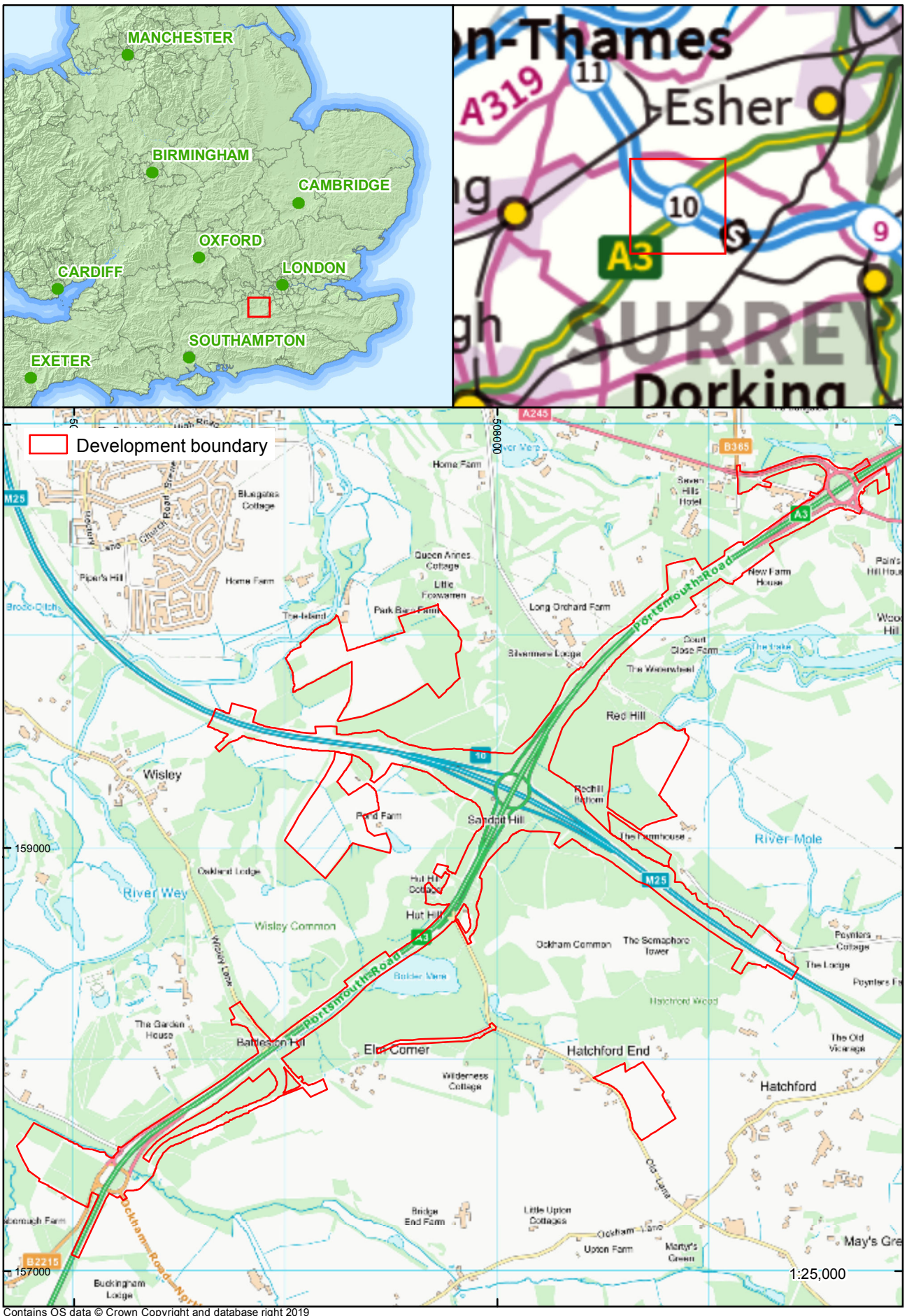

Figure 1: Site location

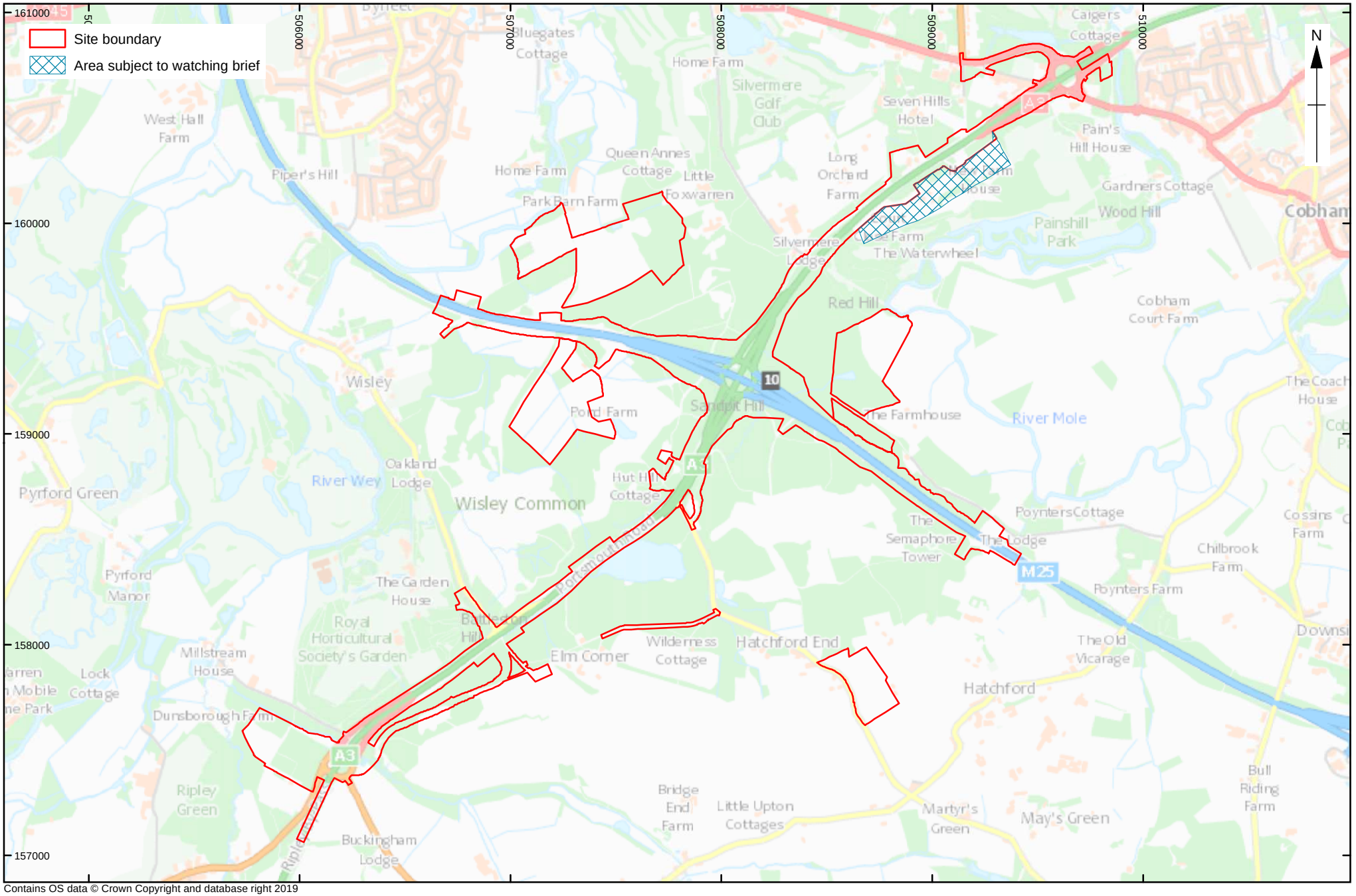

Figure 2: Area of works

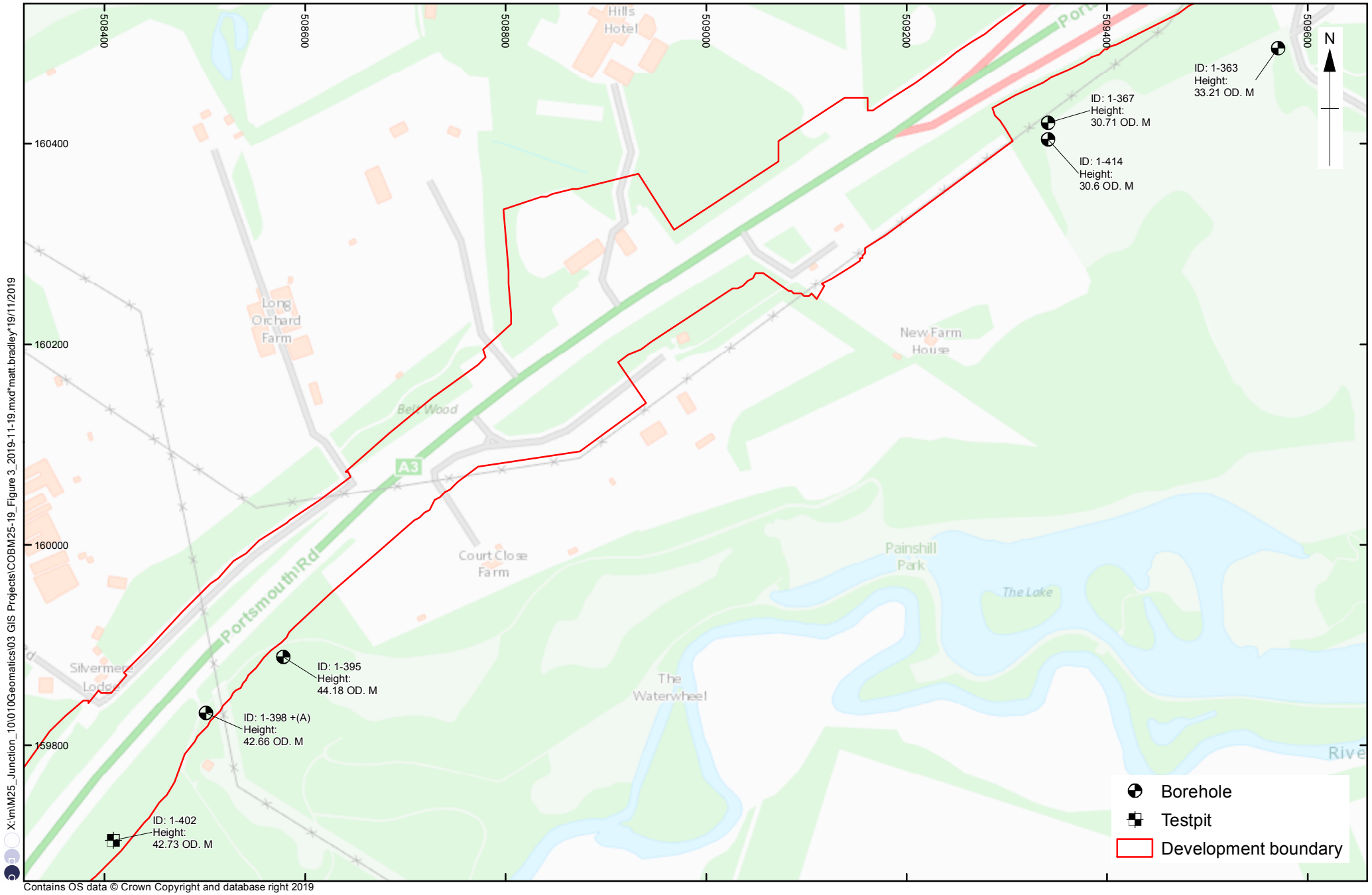

Figure 3: Borehole and Testpit locations

Plate 1: BH1-363. Scale 0.3m

Plate 2: BH1-367. Scale 0.3m

Plate 3: BH1-395. Scale 0.5m

Plate 4: BH1-398. Scale 0.5m

Plate 5: BH1-414. Scale 0.3m

Plate 6: TP1-402

oxfordarchaeology

Head Office/Registered Office/ OA South

Janus House
Osney Mead
Oxford OX2 0ES

t: +44 (0) 1865 263 800
f: +44 (0) 1865 793 496
e: info@oxfordarchaeology.com
w: http://oxfordarchaeology.com

OA North

Mill 3
Moor Lane
Lancaster LA1 1QD

t: +44 (0) 1524 541 000
f: +44 (0) 1524 848 606
e: oanorth@oxfordarchaeology.com
w: http://oxfordarchaeology.com

OA East

15 Trafalgar Way
Bar Hill
Cambridgeshire
CB23 8SQ

t: +44 (0) 1223 850500
e: oaeast@oxfordarchaeology.com
w: http://oxfordarchaeology.com