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JOYCE GREEN, DARTFORD, KENT

AN ARCHAEOLOGICAL EVALUATION

Authors: Julie Walker	
NGR: 553925 1759340	Report No: 5308
District: Dartford	Site Code: AS1867
Approved: Claire Halpin	Project No: 6835
	Date: 20 February 2017

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ARCHAEOLOGICAL SOLUTIONS LTD

**Unit 6, Brunel Business Court, Eastern Way,
Bury St Edmunds IP32 7AJ
Tel 01284 765210**

**P I House, Rear of 23 Clifton Road, Shefford,
Bedfordshire, SG17 5AF
Tel: 01462 850483**

**e-mail: info@ascontracts.co.uk
www.archaeologicalsolutions.co.uk**



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OASIS SUMMARY SHEET

Project details			
Project name	<i>Joyce Green, Dartford, Kent</i>		
<p><i>In February 2017 Archaeological Solutions (AS) carried out an archaeological evaluation of land at Joyce Green, Dartford, Kent (NGR 553925 1759340. The evaluation was commissioned by Ingrebourne Valley Ltd. It was undertaken in compliance with a planning condition requiring a programme of archaeological work (DA/10/TEMP/0034; KCC/SCO/DA/ 0171/2016); based on the advice of the Kent County Council Archaeology Officer, Heritage Conservation (KCC).</i></p> <p><i>The trial trench evaluation revealed modern rubble and a modern feature. No evidence of the possible medieval origins of Joyce Farm was revealed.</i></p>			
Project dates (fieldwork)	<i>February 2017</i>		
Previous work (Y/N/?)	<i>Y</i>	Future work (Y/N/?)	<i>Y</i>
P. number	<i>6835</i>	Site code	<i>AS 1867</i>
Type of project	<i>An Archaeological Evaluation</i>		
Site status			
Current land use	<i>Agricultural</i>		
Planned development	<i>Extraction</i>		
Main features (+dates)	<i>Modern rubble and modern feature</i>		
Significant finds (+dates)	<i>None</i>		
Project location			
County/ District/ Parish	<i>Kent</i>	<i>Dartford</i>	<i>Dartford</i>
HER/ SMR for area	<i>Kent HER</i>		
Post code (if known)	<i>-</i>		
Area of site	<i>c. ha</i>		
NGR	<i>NGR 553925 1759340</i>		
Height AOD (min/max)	<i>c.1.40m AOD</i>		
Project creators			
Brief issued by	<i>KCC</i>		
Project supervisor/s (PO)	<i>Julie Walker</i>		
Funded by	<i>Ingrebourne Valley Ltd</i>		
Full title	<i>Joyce Green, Dartford, Kent. Archaeological Evaluation</i>		
Authors	<i>Julie Walker</i>		
Report no.	<i>5308</i>		
Date (of report)	<i>February 2017</i>		

JOYCE GREEN, DARTFORD, KENT

AN ARCHAEOLOGICAL EVALUATION

SUMMARY

In February 2017 Archaeological Solutions (AS) carried out an archaeological evaluation of land at Joyce Green, Dartford, Kent (NGR 553925 1759340). The evaluation was commissioned by Ingrebourne Valley Ltd. It was undertaken in compliance with a planning condition requiring a programme of archaeological work (DA/10/TEMP/0034; KCC/SCO/DA/0171/2016); based on the advice of the Kent County Council Archaeology Officer, Heritage Conservation (KCC).

Modern (19th – 20th century) rubble (L1002) and a modern (19th – 20th century) feature (F1004) were recorded in Trenches 2 and 4 respectively.

The trenches were stripped to the level of an alluvial clay deposit, L1001; this was also the height of the water table. A peat deposit, L1006, was identified within the alluvial clay. The borehole data demonstrates that these deposits extend for c.4m below this level.

No evidence of the possible medieval origins of Joyce Farm was revealed.

1 INTRODUCTION

1.1 In February 2017 Archaeological Solutions (AS) carried out an archaeological evaluation of land at Joyce Green, Dartford, Kent (NGR 553925 1759340; Figs. 1 - 2). The evaluation was commissioned by Ingrebourne Valley Ltd. It was undertaken in compliance with a planning condition requiring a programme of archaeological work (DA/10/TEMP/0034; KCC/SCO/DA/0171/2016); based on the advice of the Kent County Council Archaeology Officer, Heritage Conservation (KCC).

1.2 The investigation of the site was required by KCC to provide for the archaeological mitigation for the site. It followed a previous WSI prepared by Andrew Joseph Associates (2013), and previous desk-based assessments and geoarchaeological assessments, summarised by Andrew Joseph Associates in an updated document (2012).

1.3 The evaluation was undertaken in accordance with requirements of the Kent County Council Principal Archaeology Officer, Heritage Conservation (KCC) and a written scheme of investigation (specification) prepared by AS (dated 20/09/2016) and approved by KCC. The project conformed to the Chartered Institute for Archaeologists (CIfA) *Code of Conduct* and *Standard and Guidance for Archaeological Field Evaluation* (2014).

Project Objectives

1.4 The requirements of the project are namely:

Stage 1 Geoarchaeological investigation (3d deposit modelling, borehole investigation, sampling and updated deposit modelling)

Stage 2 archaeological evaluation of the area surrounding Joyce Green Farm, mitigation by archaeological monitoring and 'strip, map and sample' investigation, as required

- The analysis, conservation and long-term storage of any artefactual/ecofactual material recovered from the site in appropriate conditions
- The provision of an adequately detailed project report that will place the findings of the monitoring and recording of the development programme in their local and regional context, having made reference to the relevant regional research agendas and through cartographic, documentary and other research.
- The full analysis and interpretation of the site archive in order to promote local and regional research, and the appropriate dissemination and publication of the project results.

Nature of the Development and Archaeological Requirements

1.5 It is proposed to extract gravel from the site at Joyce Green. The site is presently characterised by a large lake, raised levee footpaths, a motocross track in its northern part and rough grassland, bounded by wet ditches. The buildings of Joyce Green Farm bound the site to the east, the A206 University Way to the south and the river Darent and flood plain to the west. The site is known to have a very high water table from previous surveys.

1.6 The project aims to determine the location, extent, date, character, condition, significance and quality of any surviving archaeological remains liable to be threatened by the proposed development, and to preserve any such remains by record.

Planning policy context

1.7 The National Planning Policy Framework (NPPF 2012) states that those parts of the historic environment that have significance because of their historic, archaeological, architectural or artistic interest are heritage assets. The NPPF aims to deliver sustainable development by ensuring that policies and decisions that concern the historic environment recognise that heritage assets are a non-renewable resource, take account of the wider social, cultural, economic and environmental benefits of heritage conservation, and recognise that intelligently managed change may sometimes be necessary if heritage assets are to be maintained for the long term. The NPPF requires applications to describe the significance of any heritage

asset, including its setting that may be affected in proportion to the asset's importance and the potential impact of the proposal.

1.8 The NPPF aims to conserve England's heritage assets in a manner appropriate to their significance, with substantial harm to designated heritage assets (i.e. listed buildings, scheduled monuments) only permitted in exceptional circumstances when the public benefit of a proposal outweighs the conservation of the asset. The effect of proposals on non-designated heritage assets must be balanced against the scale of loss and significance of the asset, but non-designated heritage assets of demonstrably equivalent significance may be considered subject to the same policies as those that are designated. The NPPF states that opportunities to capture evidence from the historic environment, to record and advance the understanding of heritage assets and to make this publicly available is a requirement of development management. This opportunity should be taken in a manner proportionate to the significance of a heritage asset and to impact of the proposal, particularly where a heritage asset is to be lost.

4 RESEARCH DESIGN

4.1 The archaeological background to the site is summarised in detail by Andrew Josephs Associates (2012). In summary:

The site is sealed by a deep alluvial cover above gravels. The site has the potential to further research relating to the periods covered by MIS 6 to MIS 4, during which a hiatus in the human occupation of the British Isles is hypothesised. Palaeolithic gravels in the region have the potential to contain artefactual and faunal remains (e.g. papers in Bridgland et al. 2014).

In addition, there is the potential to investigate deposits which span the Pleistocene - Holocene transition, as well as more recent archaeological remains, including the proximity to a known Roman cremation cemetery to the east and possible medieval origins of Joyce Farm.

No prehistoric remains are known within the proposed extraction area, but remains are known nearby with a prehistoric pit found at Joyce Green Hospital and Bronze Age ditches to the south of the hospital. Aerial photographs have also revealed cropmarks of ring ditches, linear ditches and pits to the south of the hospital.

Similarly, the site has a potential for Roman activity, though no remains are known within the site. Roman coins have been found at Temple Hill, and a number of Romano-British cemetery sites are known from the area, including a cremation cemetery some 800m to the south west of Joyce Green Farm and a further one 200m east of Joyce Green Lane. Small-scale Roman finds have been made at the adjacent hospital site.

No Saxon remains are known from the site, but the river wall and a levee at Littlebrook are believed to be of Saxon date and AS excavated a significant early Saxon cemetery on high ground on the Temple Hill estate in the early 2000s. By the medieval period, Joyce's Farm is first mentioned in 1254, further mentioned as a

manorial site in 1334, and the site has a potential for remains associated with the medieval farm. The site has been farmland since the 13th century or earlier, in both the salt and fresh marshes. A small settlement at Marsh Street to the north east of the farm is recorded in 1471.

The 1769 map of Dartford & Wilmington shows Joyce Green Farm in detail with a number of buildings on either side of a road running north into the marshes. Later maps also show Temple Farm to the south. The early 20th century was dominated by the building of the hospital sites at Joyce Green, the establishment of the Joyce Green Aerodrome by Vickers prior to WWI and the development of an explosive factory, later a Naval ordnance factory in WWII and later a fireworks factory until the late 1980s, north of the site.

5 METHODOLOGY

5.1 The area adjacent to Joyce Green Farm where the new quarry and facilities are proposed was subject to a programme of trial trenching, in order to identify any remains associated with the medieval Joyce Green Farm. Five trenches each 40m x 1.8m were excavated using a mechanical 360° tracked excavator fitted with a toothless ditching bucket, and the trench locations were approved by KCC (Fig.3).

5.2 Topsoil and undifferentiated overburden were mechanically excavated under close archaeological supervision. Exposed surfaces were cleaned by hand and examined for archaeological features. Deposits were recorded using *pro forma* recording sheets, drawn to scale, and photographed as appropriate. Excavated spoil was searched for finds and the trenches were scanned by a metal detector.

6 DESCRIPTION OF RESULTS

Trench 1 (Fig. 3)

<i>Sample section 1A: north end, west facing</i> 0.00 = 1.47m AOD		
0.00 – 0.31m	L1000	Topsoil. Dark brownish grey, firm, sandy silt with occasional small, sub-angular and sub-rounded stones
0.31m +	L1001	Alluvial Clay. Mid blue yellow, firm silt clay with red and orange mottling and occasional small stones.

<i>Sample section 1B: south end, east facing</i> 0.00 = 1.52m AOD		
0.00 – 0.40m	L1000	Topsoil. As above.
0.40m +	L1001	Alluvial Clay. As above.

Description: No archaeological features or finds were present.

Trench 2 (Figs. 3 - 4)

<i>Sample section 2A: east end, north facing</i> <i>0.00 = 1.46m AOD</i>		
0.00 – 0.27m	L1000	Topsoil. As above, Trench 1.
0.27m +	L1001	Alluvial Clay. As above, Trench 1.

<i>Sample section 2B: west end, south facing</i> <i>0.00 = 1.47m AOD</i>		
0.00 – 0.43m	L1000	Topsoil. As above, Trench 1.
0.43m +	L1001	Alluvial Clay. As above, Trench 1.

Description: Modern Rubble L1002 and Peat Deposit L1006 were present.

Modern (19th – 20th century) Rubble L1002 comprised red and yellow brick fragments and topsoil, and it was located at the western end of trench above alluvial clay, L1001.

Deposit L1006 was irregular in plan (c 4.00m x 2.00m+), and it was a dark brown peat with flints. A test pit (0.50m x 0.50m) indicated that the 'feature' was a peat deposit within the alluvial clay.

Trench 3 (Fig. 3)

<i>Sample section 3A: north end, west facing</i> <i>0.00 = 1.51m AOD</i>		
0.00 – 0.30m	L1000	Topsoil. As above, Trench 1.
0.30m +	L1001	Alluvial Clay. As above, Trench 1.

<i>Sample section 3B: south end, east facing</i> <i>0.00 = 1.60m AOD</i>		
0.00 – 0.32m	L1000	Topsoil. As above, Trench 1.
0.32m +	L1001	Alluvial Clay. As above, Trench 1.

Description: No archaeological features or finds were present. A modern ceramic pipe traversed the trench.

Trench 4 (Figs. 3 - 4)

<i>Sample section 4A: east end, north facing</i> <i>0.00 = 1.44m AOD</i>		
0.00 – 0.35m	L1000	Topsoil. As above, Trench 1.
0.35m +	L1001	Alluvial Clay. As above, Trench 1.

<i>Sample section 4B: west end, south facing</i> <i>0.00 = 1.58m AOD</i>		
0.00 – 0.32m	L1000	Topsoil. As above, Trench 1.
0.32m +	L1001	Alluvial Clay. As above, Trench 1.

Description: Modern feature, F1004, was present.

F1004 was elongated in plan (2.00m+ x 2.80m). A test pit (1.30m x 1m) was excavated. Its fill, L1005, was a firm dark grey brown sandy silt with occasional stones and CBM flecking. It contained modern (19th – 20th century) CBM (2239g)

Trench 5 (Fig. 3)

<i>Sample section 5A: north end, west facing</i> <i>0.00 = 1.63m AOD</i>		
0.00 – 0.30m	L1000	Topsoil. As above, Trench 1.
0.30m +	L1001	Alluvial Clay. As above, Trench 1.

<i>Sample section 5B: south end, east facing</i> <i>0.00 = 1.57m AOD</i>		
0.00 – 0.30m	L1000	Topsoil. As above, Trench 1.
0.30m +	L1001	Alluvial Clay. As above, Trench 1.

Description: No archaeological features or finds were present. A modern service traversed the trench.

7 CONFIDENCE RATING

7.1 Though the site has a high water table, it is not felt that any factors inhibited the recognition of archaeological features or finds.

8 DEPOSIT MODEL

8.1 The site was commonly overlain by Topsoil L1000, a dark grey brown, firm, sandy silt (0.27 – 0.43m thick). It overlay the alluvial clay, L1001, a mid blue yellow, firm, silt clay with red and orange mottling and occasional small stones. Peat Deposit L1006 was present in Trench 2.

9 DISCUSSION

9.1 The recorded features are tabulated:

Trench	Context	Description	Date
2	L1002	Modern Rubble	-
	L1006	Peat Deposit	-
4	F1004	Modern Feature	-

9.2 Modern (19th – 20th century) rubble (L1002) and a modern (19th – 20th century) feature (F1004) were recorded in Trenches 2 and 4 respectively.

9.3 The trenches were stripped to the level of an alluvial clay deposit, L1001; this was also the height of the water table. A peat deposit, L1006, was identified within the alluvial clay. The borehole data demonstrates that these deposits extend for c.4m below this level.

9.4 No evidence of the possible medieval origins of Joyce Farm was revealed.

10 DEPOSITION OF THE ARCHIVE

10.1 Archive records, with an inventory, will be deposited with any donated finds from the site at the appropriate local museum depository, once such a facility is available in Kent. The archive will be quantified, ordered, indexed, cross-referenced and checked for internal consistency.

ACKNOWLEDGEMENTS

Archaeological Solutions would like to thank Ingrebourne Valley Ltd for funding the evaluation, and Mr Steve Stocks for his assistance.

AS would also like to acknowledge the input and advice of Ms Wendy Rogers, Kent County Council Principal Archaeology Officer, Heritage Conservation.

BIBLIOGRAPHY

Andrew Josephs Associates, 2012, *Joyce Green Quarry. Application for Tim e Extension. Cultural Heritage Assessment*, Andrew Josephs Associates (unpublished report), Thirsk

Bridgland, D.R., Allen, P. and White, T.S. (eds), 2014, *The Quaternary of the Lower Thames and Eastern Essex*, Quaternary Research Association, London

Chartered Institute for Archaeologists (CIfA), 2014, *Standard and Guidance for Archaeological Field Evaluation*. IfA, Reading

Concordance of Finds

AS1867 - P6835, Joyce Green, Dartford.

Feature	Context	Segment	Trench	Description	Spot Date	Pot Qty	Pottery (g)	CBM (g)	A. Bone (g)	Other Material	Other Qty	Other (g)
	1001		5	Aluvial Clay	19-20thC			84				
	1002		2	Modern Rubble Deposit	19-20thC			2790				
1004	1005		4	Fill of 1004	19-20thC			2239				

APPENDIX 2 SPECIALIST REPORT

The Ceramic Building Materials

Andrew Peachey MCIfA

The evaluation recovered four fragments (5113g) of 19th to 20th century CBM. Rubble Deposit L1002 and Feature F1004 produced near complete examples of Fletton 'Phorpres' bricks stamped by the London Brick Company, produced in vast quantities from the 1920s-1960s. Feature F1004 and Alluvial Clay L1001 also contained small fragments of salt-glazed white earthen ware tubular pipe, probably part of a water or sewer pipes installed in the Victorian period to mid 20th century.

PHOTOGRAPHIC INDEX



1
View of Trench 2 looking west



2
Sample Section 2A in Trench 2 looking south



3
Sample Section 2B in Trench 2 looking north



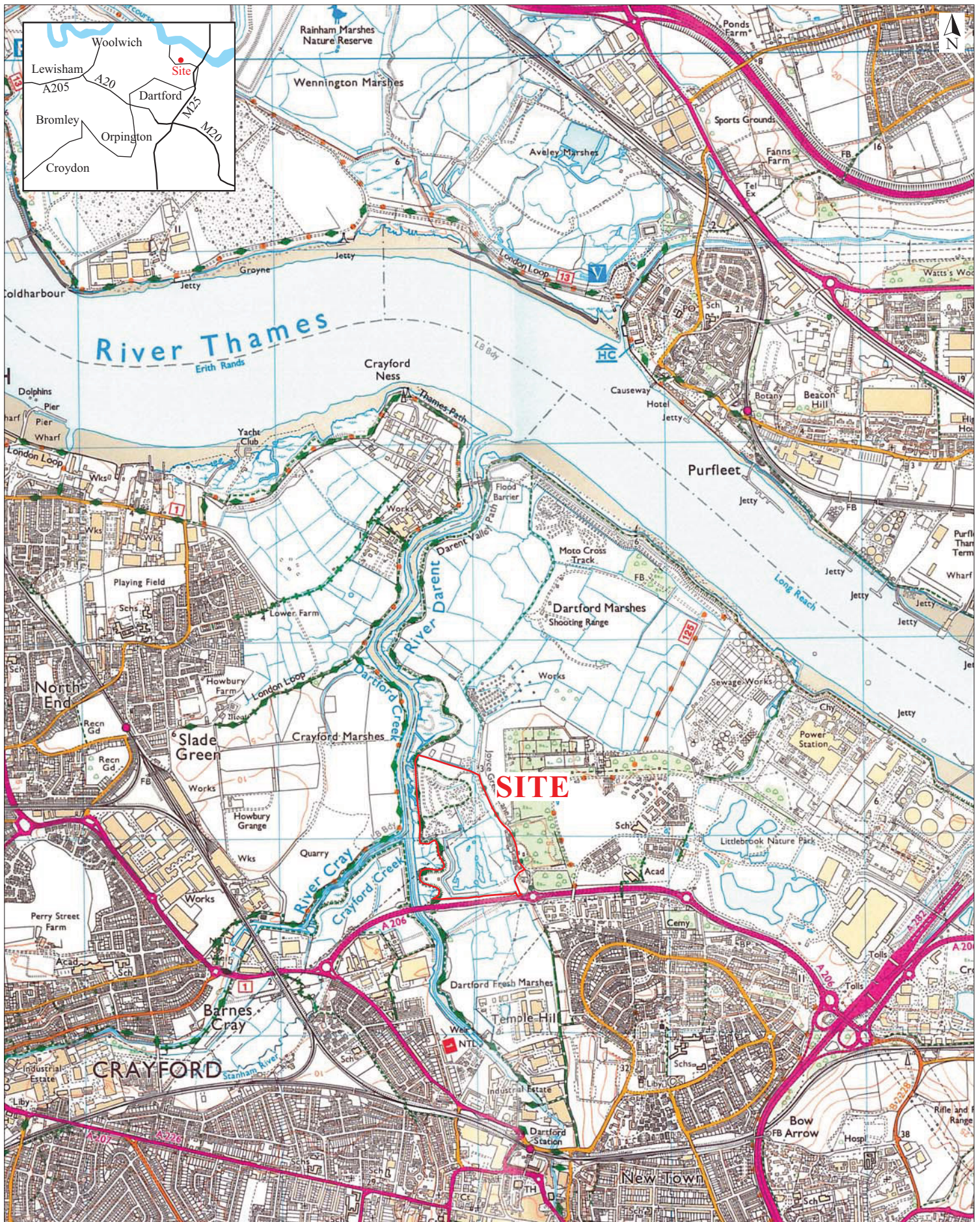
4
View of Trench 4 looking west



5
Sample Section 4A in Trench 4 looking south

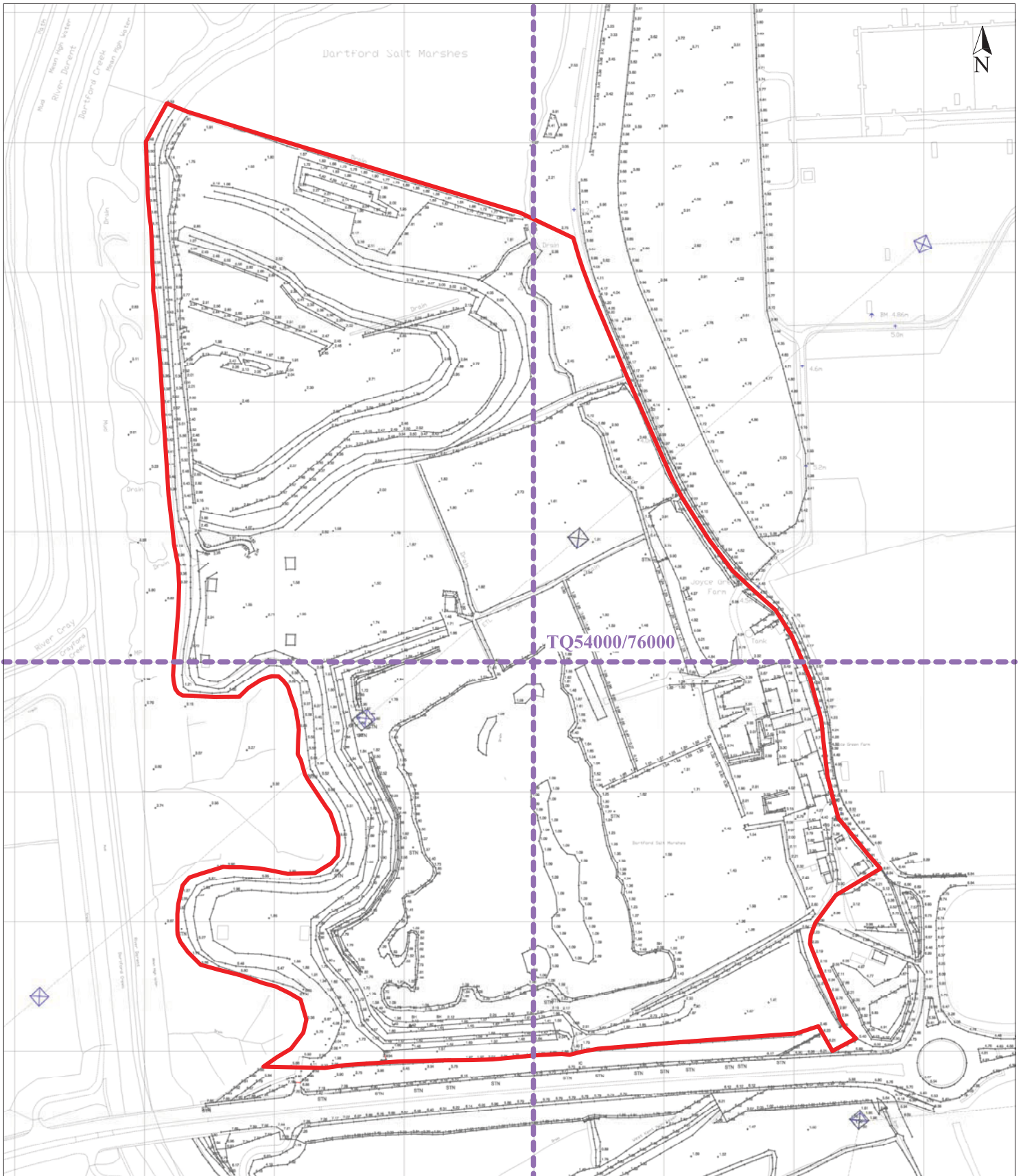


6
Sample Section 4B in Trench 4 looking north



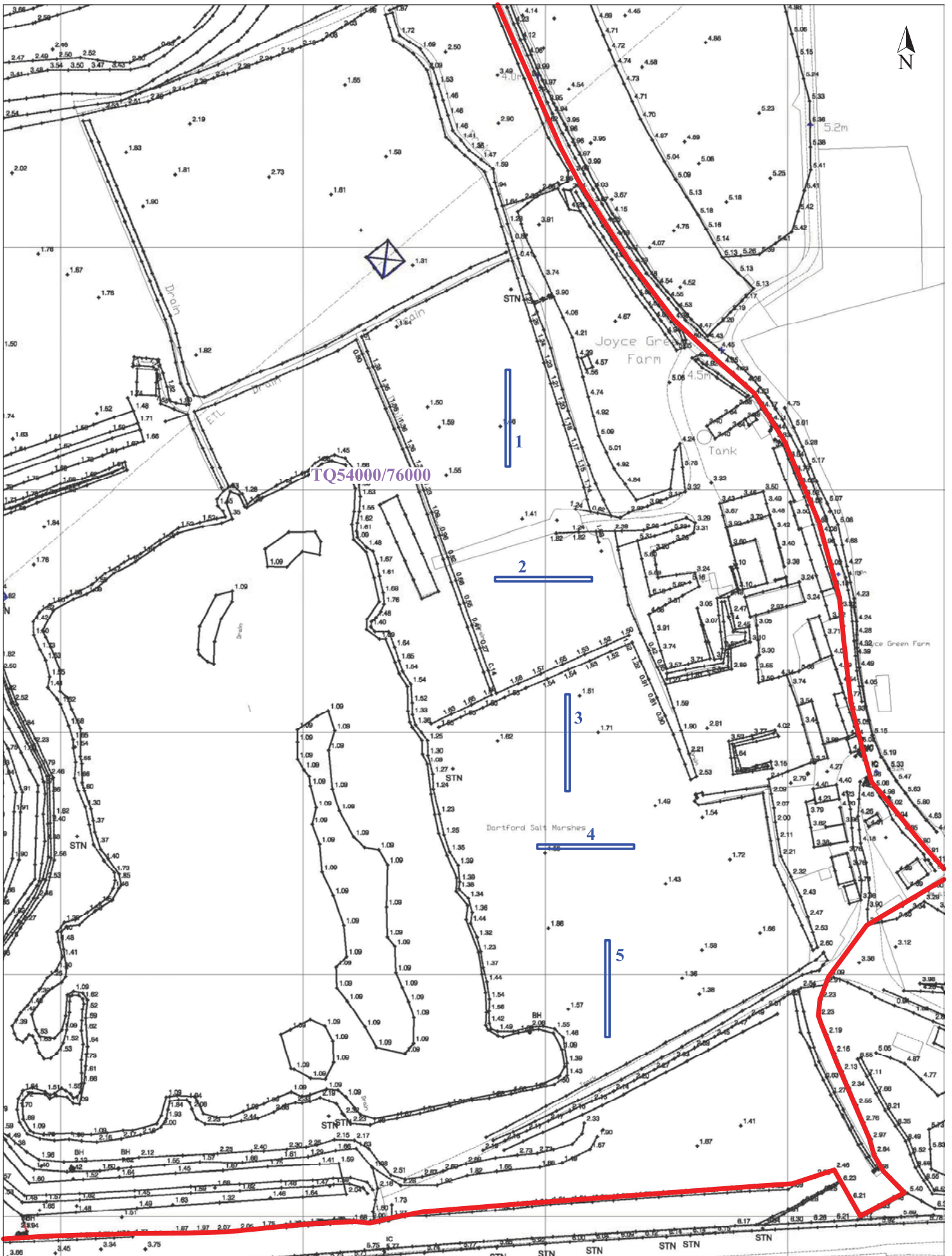
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Fig. 1 Site location plan
 Scale 1:25,000 at A4
 Joyce Green, Dartford, Kent (P6835)



0 250m

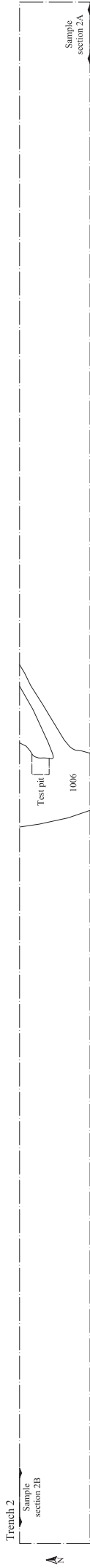
<i>Archaeological Solutions Ltd</i>
Fig. 2 Detailed site location plan
Scale 1:4000 at A3
Joyce Green, Dartford, Kent (P6835)



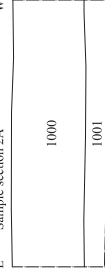
Archaeological Solutions Ltd

Fig. 3 Trench location plan
 Scale 1:2000 at A4
 Joyce Green, Dartford, Kent (P6835)

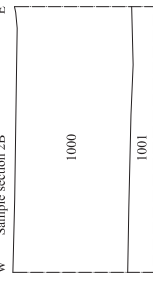
0 5m
Plan only



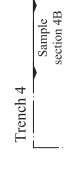
E 1.46m



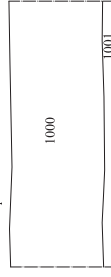
W 1.47m



0 1m
Sections only



E 1.44m



W 1.58m

