



TRIAL TRENCH
EVALUATION REPORT

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WHITEFIELDS FARM, RICHMOND,
NORTH YORKSHIRE

prepared for

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on behalf of

Campion Bare Trust

Project No.: 1112

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NAA 13/100
September 2013

NAA Document Authorisation

Project name		Whitefields Farm, Richmond		Project number	
Report title		Trial Trench Evaluation Report		1112	
Report No.		13/100			
Revision	Date	Filename	NAA_1112_Rpt_13-100_Eval.pdf		
v.1	03.09.13	Description	Archaeological Trial Trench Evaluation Report		
			Prepared by	Edited by	Approved by
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This document has been approved for release by: *TIS*

WHITEFIELDS FARM, RICHMOND

TRIAL TRENCH EVALUATION REPORT

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WHITEFIELDS FARM, RICHMOND

TRIAL TRENCH EVALUATION REPORT

Summary

This document presents the results of an archaeological trial trench evaluation undertaken partially upon the course, and within a field to the west of The Scots Dike (Scheduled Monument No. 26957) at the eastern edge of Richmond, North Yorkshire (NZ 1849 0122; Fig. 1).

The evaluation accorded to a detailed Written Scheme of Investigation (Sherlock 2013) and was undertaken in support of a planning application and Scheduled Monument consent. It was completed by Northern Archaeological Associates Ltd (NAA) for Carter Jonas on behalf of Campion Bare Trust during April and May 2013.

The evaluation was informed by a geophysical survey, which recorded a series of slight anomalies, and comprised the excavation of four trial trenches. During investigations an undated ditch, and a re-cut posthole and buried soil horizon were investigated that were sealed by the remains of the Scots Dike embankment. Handmade pottery dating from the later prehistoric (700 BC) to the Roman period was recovered from the fill of the posthole and the soil horizon, as was charred plant material that has been submitted to the SUERC Radiocarbon Laboratory for dating. Other features identified included an undated cobble spread and agricultural remains of the 16th to 18th centuries including ridge and furrow cultivation, field boundary ditches and a possible fence line.

No further work is recommended on the artefactual or palaeobotanical assemblages. The late prehistoric/Roman pottery assemblage should be retained with the site archive and deposited at the appropriate museum. The remaining finds and the palaeobotanical remains may be discarded.

It is recommended that archaeological monitoring (strip, map and record) be undertaken during removal of the topsoil and subsoil prior to any development of the area. The extent of further archaeological investigations should be provided in a detailed project design and should be agreed with the local planning authority in consultation with the North Yorkshire County Council Archaeology Team.

1.0 INTRODUCTION

- 1.1 This document presents the results of an archaeological trial trench evaluation undertaken partially upon the course, and within a field to the west of the Scots Dike (Scheduled Monument No. 26957) at the eastern edge of Richmond, North Yorkshire (NZ 1849 0122; Figs. 1 and 2).
- 1.2 The evaluation accorded to a detailed Written Scheme of Investigation (Sherlock 2013) prepared in support of a planning application and Scheduled Monument consent. It comprised the excavation of four trenches sited to assess both the monument, its relationship to the surrounding landscape, and the archaeological potential of the adjacent field. Trenches 1 and 2 were located at the eastern edge of the proposed development area and overlay the foot of the embankment (Fig. 2), whereas Trenches 3 and 4 were sited further to the west to allow the investigation of slight anomalies previously recorded by a geophysical survey (Fig. 3).
- 1.3 The evaluation was undertaken by Northern Archaeological Associates Ltd (NAA) for Carter Jonas on behalf of Campion Bare Trust during April and May 2013.

2.0 LOCATION, TOPOGRAPHY AND GEOLOGY

- 2.1 Whitefields Farm is located at the eastern edge of Richmond at a distance of 1.4km from its historic core (Fig. 1), and is 750m to the north-east of the River Swale. The proposed development is flanked to the north and west by a modern housing development, and to the south-west by the Scots Dike. It comprises slightly undulating pasture land at approximately 132m AOD that is used extensively by the local community for dog walking.
- 2.2 The solid geology of the area comprises Namurian limestone, sandstone and mudstone (the 'Millstone Grit Series') of the Yoredale Group from the Carboniferous (Institute of Geological Sciences 1978) overlain by boulder clay (Institute of Geological Sciences 1977). The soils comprise deep well drained sandy and coarse loamy soils of the Newport 1 association (Soil Survey of England and Wales 1983 and Jarvis *et al.* 1984).

3.0 HISTORICAL AND ARCHAEOLOGICAL BACKGROUND

- 3.1 The Scots Dike is a linear monument that survives in places as an earthwork along its length, commencing near the River Tees and extending for 14km south to a point near the River Swale. The monument was first recorded in 1849 by Maclauchlan (1849, 221–3). It has been the subject of consideration by various histories (Page 1912, 55), and its extents, function and origin have been widely debated. The monument has been subject to five excavations

between 1964 (Best) and 2008 (NAA) and the questions relating to its function and date are still disputed.

- 3.2 It is clear that the character of the monument changes over its length, varying from a hollow way at its southern end near the Swale; a substantial bank and ditch earthwork at Whitefields Farm, to an area near Stanwick where the monument has been reduced by ploughing but a double dyke has been seen as a cropmark (Sherlock 2012). This variation in the character of the monument has led to different interpretations about its date. Whilst Maclauchlan suggested it may be contemporary with Stanwick, and therefore Iron Age in date (1849, 221–3), other writers have suggested it may be later, possibly Anglo-Saxon (Wheeler 1954, 6; Faull 1981; Fleming 1994). Two problems with the latter interpretation are the lack of finds to support this date and the limited evidence for the Anglo-Saxon society in the area to build such a monument (Loveluck 2003, 151). Lastly, whilst there have been no artefacts to date the site, radiocarbon dating from some of the most recent work adjacent to the monument near the A66 suggest the it may originate in the Iron Age (Zant *et al.* forthcoming).
- 3.3 There have not been any previous archaeological interventions at Whitefields Farm, although excavations were undertaken to the north of the site in 2004. However, this work did not provide any answers to the date or character of the monument (Turnbull 2004). In order to assess the archaeological potential of the site a Project Design for the Archaeological Investigations was prepared in 2012 (Sherlock 2012). This document provided a framework for archaeological work within the field and the Scheduled Monument. It was proposed that some of the western part of the field could be made available for development, but an holistic approach was adopted in order to examine the entire field and the Scots Dike in order to further consider the Scheduled Monument and other, potentially associated, earthworks within the field, and to identify and examine any other features previously overlooked.
- 3.4 A programme of geophysical survey was commissioned from Phase Investigations in November 2012 following the granting of a Section 42 licence from English Heritage. A magnetic survey using a Bartington Grad 601-02 instrument highlighted a series of anomalies (Fig. 2). Some of these anomalies are considered to be modern, possibly associated with building works, while others are responses possibly associated with geology, cables or other services. Archaeological features were recorded that can be associated with the ridge and furrow field system and two further anomalies were investigated in evaluation Trenches 3 and 4.
- 3.5 Following the geophysical survey an analytical earthwork survey was commissioned from Northern Archaeological Associates. This survey was undertaken between December 2012 and January 2013 when the vegetation was at its lowest. The survey showed there to be two apparent phases of ridge and furrow earthworks with a possible boundary between these two different alignments. It was noted that the northernmost furrows appeared to terminate

at the foot of the Scots Dike and this relationship was examined further during the course of the evaluation.

4.0 AIMS AND OBJECTIVES

4.1 The main aim of the evaluation was to determine the presence or absence of archaeological remains with the proposed development area. The trial trenching also aimed to confirm the location, extent, nature, preservation and significance of any such remains so that an informed assessment of the impact of the development could be undertaken and a suitable mitigation strategy agreed.

4.2 The objectives of the evaluation were to:

- establish the extent to which the Scots Dike embankment survived within the boundary of the proposed development;
- investigate any remains of the monument and its relationship with the earthwork ridge and furrow;
- identify and examine any soil horizons or features sealed by the embankment;
- assess the archaeological potential of the wider area of the development by examining the anomalies recorded by geophysical survey;
- provide a detailed record of any archaeological remains;
- recover and assess any associated artefactual and environmental evidence; and
- prepare an illustrated report on the results of the evaluation to be deposited with the North Yorkshire County Historic Environment Record (HER) and National Monuments Record (NMR).

5.0 METHODOLOGY

5.1 The archaeological evaluation comprised the excavation of four trial trenches (Figs. 2 and 3). Trenches 1 and 2 were sited at the eastern edge of the proposed development area and were 10m by 2m in size. Trenches 3 and 4 were located centrally within the field and measured 10m by 10m and 12m by 2m respectively. A 3.5m by 1.7m extension was excavated from the south-west corner of Trench 3 in order to investigate an earthwork field boundary ditch.

5.2 Each trench was set out by hand and subsequently located by GPS. All survey information was transferred to AutoCAD software and reproduced for incorporation within this report. All levels were tied in to Ordnance Datum.

5.3 Mechanical excavation was undertaken using a JCB type excavator fitted with a toothless bucket which operated under direct archaeological supervision at all times. The excavator removed modern overburden down to a level at which potential archaeological deposits were identified or down to natural subsoil deposits, whichever was encountered first. Modern overburden was removed to the edge of each trench and was stored at a safe distance. The trenches were backfilled upon conclusion of the work.

Hand excavation

5.4 Machined surfaces were cleaned by hand in an attempt to identify all archaeological features exposed within the stripped areas. Hand excavation was then undertaken to the exposed soil filled features and layers of archaeological interest in order to characterise the archaeological remains and recover any artefactual and environmental evidence to enable dating and an assessment of the archaeology to be achieved.

5.5 The excavation strategy adopted comprised:

- at least a 50% sample of each individual domestic or settlement-related feature or deposit;
- at least a sample of 20% of the overall length of linear features within sections no less than 1m in length; and
- the investigation of relationships between features and deposits, to help determine phasing of the site.

Recording

5.6 The NAA project number is 1112. The NAA site code is WFR13.

5.7 A drawn record of all archaeological features was made at an appropriate scale. Sections and profiles were drawn at a scale of 1:10 and their location was accurately identified on the appropriate trench plan. Plans were drawn at a scale of 1:20. A representative drawn section of all trenches was recorded, even if negative. All drawings include appropriate data on levels relative to Ordnance Datum.

5.8 Written descriptions of archaeological features/deposits were recorded on NAA *pro forma* context sheets, which employ standard archaeological recording conventions.

5.9 A photographic record of the site was taken using colour digital photography and monochrome prints at a format of 35mm.

Finds recording

- 5.10 All finds processing, conservation work and storage was carried out in compliance with guidelines issued by the Institute for Archaeologists (IfA 2008). Pottery and animal bone were collected as bulk samples. Finds were appropriately recorded and processed using the NAA system and submitted for preliminary post-excavation assessment.
- 5.11 All finds recovered were packaged and stored under optimum conditions. Finds recovery and storage strategies are in accordance with published guidelines (English Heritage 1995; Watkinson and Neal 1998).

Environmental sampling

- 5.12 Bulk palaeoenvironmental samples were taken from appropriate deposits and submitted to the relevant specialist for assessment of the environmental potential. This included the recovery and assessment of any charcoal, small bones, cereal grains, pollen, molluscs and macro-environmental material. Recovery and sampling of environmental remains was in accordance with published guidelines (English Heritage 2002, 2003). The results are included here as Appendix C.
- 5.13 Where suitable charred plant material has been identified within bulk samples of secure deposits, that material has been submitted to the SUERC Radiocarbon Laboratory for dating.

6.0 EXCAVATION RESULTS

Trench 1 (Fig. 4)

- 6.1 Trench 1 was aligned north-west to south-east and was located at the foot of the Scots Dike embankment (Plate 1). It was sited to investigate the relationship between the monument and ridge and furrow earthworks visible within the area whilst also attempting to identify and investigate any buried soil horizons which pre-dated the embankment.
- 6.2 Machine clearance, followed by hand excavation, exposed sand and gravel natural (31 and 45) at a depth of 0.5m below ground level. The natural subsoil was cut by a ditch (44), and was overlain by a buried soil horizon (42) and the base of the embankment (46). The cut of a plough furrow (33) was also identified at the north-western end of the trench.
- 6.3 Ditch 44 was exposed for a distance of 2.1m and was orientated slightly at odds to the adjacent monument on a west-south-west to east-north-east alignment. The ditch was 3.78m wide with a 'U'-shaped profile to a depth of 0.75m and was filled by mid-brown grey silty sand (43) that comprised large quantities of sub-angular to sub-rounded cobbles up to 0.2m in size with occasional larger boulders up to 0.45m in size. The fill (43), although

extensively sampled, proved to be sterile of palaeoenvironmental or artefactual material. Ditch 44 was sealed by a buried soil horizon (42).

- 6.4 Soil horizon 42 comprised a 0.1m thick deposit of compacted mid-brown sandy silt that was exposed within the south-eastern end of the trench for a distance of 3.65m. It appeared to represent a former ground surface that had accumulated over the in-filled ditch, but contained no artefactual or palaeoenvironmental remains. The horizon was sealed by the very edge of the Scots Dike embankment (46).
- 6.5 The embankment remains (46) comprised a 0.2m thick deposit of compacted rounded pebbles, individually up to 50mm in size, with occasional larger cobbles that were set within a mid-brown grey silty sand matrix. This material was identified for a distance of 1.4m within the south-eastern end of the trench and contained no finds.
- 6.6 The remains of the embankment were sealed by 0.2m of mid-brown silty sand subsoil (30) that was cut by plough furrow 33 at the north-eastern end of the trench. The furrow was only partially exposed for a distance of 0.78m and appeared to correspond with the north-west to south-east alignment of the adjacent earthworks. It was 0.45m wide with a concave profile to a depth of 0.15m and was filled by mid-brown silty sand (32) that contained two sherds of pottery dating from the 16th to 18th centuries (Appendix B). The furrow appeared to represent the end of the feature or its turn at the plough headland.

Trench 2 (Fig. 5)

- 6.7 This trench was aligned north-west to south-east and was sited to identify and examine any remains of the Scots Dike embankment, which had been completely removed as an earthwork in this area (Plate 2), whilst investigating any relationship between the monument and the ridge and furrow earthworks.
- 6.8 Excavation of the trench exposed mid-yellow and orange sand and gravel natural (3) at a depth of 0.75m below ground level. The natural subsoil had been cut by intercutting postholes 6 and 4 which were overlain by a buried soil horizon (8) and the remains of the Scots Dike embankment (26). Three later features were investigated within the trench comprising a field boundary ditch (9) and two plough furrows (11 and 27).
- 6.9 The earlier of the postholes (6) was sub-circular with a diameter of 1.5m and a 'V'-shaped profile to a depth of 0.42m. It contained a post-setting within the base that could have supported a timber upright with a diameter of 0.2m and was filled by mid-brown silty sand (7) that contained quantities of rounded cobbles that served as packing material for the post. The fill also contained a sherd of pottery that dated from the later prehistoric (700 BC) to the Roman period (Appendix B), and a charred cereal grain and charcoal derived from heather and hazel (Appendix C).

- 6.10 The later posthole (4) was cut slightly further to the south-east but appeared to function as a replacement to the former. It was oval in plan and was 0.8m by 0.6m in size with a 'U'-shaped profile to a depth of 0.22m. The posthole was filled by dark brown sandy silt (5) which again included packing stones and quantities of charred material including buds and a hazel nut shell (which has been submitted for AMS radiocarbon dating) along with charcoal derived from heather and hazel (Appendix C). The posthole was sealed by a buried soil horizon (8).
- 6.11 The buried soil horizon (8) was identified within the south-eastern half of the trench and was recorded for a distance of 3.8m from the south-eastern trench edge. It had a maximum thickness of 0.4m and comprised slightly compacted mid-brown sandy silt that contained a heavily abraded sherd of pottery which could also dated from the later prehistoric to the Roman period (Appendix B). Assessment of the palaeoenvironmental remains identified charred buds (which have also been submitted for AMS radiocarbon dating) and charcoal derived from hazel, heather and oak (Appendix C). The soil horizon was sealed by the remains of the Scots Dike embankment.
- 6.12 The embankment (26) was exposed for a distance of 2.4m from the south-eastern trench edge and comprised a 0.41m thick deposit of sub-angular to sub-rounded cobbles that were individually up to 0.3m in size. The cobble make up was set within a loose mid-brown sandy silt matrix which had been disturbed by later ploughing and contained no artefactual material. It was cut to the south-east by ditch 9 and was truncated at its north-western edge by ploughing (resulting in buried plough soil 2, discussed below).
- 6.13 Ditch 9 crossed the trench on an alignment that was consistent with the current field layout, from the south-west to north-east, and was over 1.2m wide (as it continued beyond the edge of the excavated area) with a flat-based 'V'-shaped profile to a depth of 0.49m. The ditch was filled primarily by light brown silty sand (10) that yielded two sherds of 16th to 18th century pottery (Appendix B) suggesting it represented a field boundary associated with the surrounding ridge and furrow earthworks. The ditch also contained dark brown sandy silt upper fill 25 that may have represented a later ditch re-cut. The ditch was sealed by topsoil (1).
- 6.14 Buried plough soil 2 was located towards the north-western end of the trench and beyond the remains of the embankment. It was exposed for a distance of 3.8m from the north-western trench edge and comprised 0.4m of mid-brown sandy silt which included another sherd of 16th to 18th century pottery (Appendix B). This deposit was cut to the south-east by plough furrow 11 and at the north-western end of the trench by plough furrow 27. Both the furrows were aligned consistently with those visible as earthworks to the north-west and were generally 1.2m wide with a rounded 'V'-shaped profile to a depth of 0.22m. They were filled by dark brown sandy silt (12 and 28) which represented a continuation of the modern topsoil (1). The fill (12) of furrow 11 and topsoil 1 contained sherds of pottery which dated from the 16th to 18th centuries.

Trench 3 (Fig. 6)

- 6.15 Trench 3 was square with a north-north-east to south-south-west alignment and included a 3.5m by 1.7m trench extension from the south-west corner. It was sited to investigate an irregular geophysical anomaly (Fig. 3).
- 6.16 Machine excavation of the trench exposed light yellow and orange sand and gravel natural (18) at a maximum depth of 1m below ground level. The natural was overlain a cobble spread (15), which appeared to represent the anomaly recorded by geophysical survey (Plate 3), a buried plough soil (14), two plough furrows (21 and 23; not illustrated) and a field boundary ditch (19; not illustrated). No artefactual material was recovered from any of the features or deposits within this trench.
- 6.17 The cobbled layer covered an area 8.5m x 7.2m within the trench and continued to both the south and west. It was formed by rounded cobbles, up to 0.15m in size, set within a mid-red brown sandy silt matrix that contained no artefactual material. Assessment of a series of soil samples identified comminuted charcoal, some of which could be identified as heather, and possibly beech (Appendix C) suggesting the cobble spread represented an archaeological deposit rather than a natural feature as had been first considered. The cobble layer was overlain by buried plough soil 14.
- 6.18 The buried plough soil (14) was identified for the full extent of the trench to a depth of 0.55m. It comprised mid-brown sandy silt which was cut by the remains of two plough furrows (21 and 23). The plough furrows crossed the trench on a north-west to south-east alignment and were spaced c.2.5m apart. They were c.1.5m wide with concave profiles to a depth of 0.15m and were filled by dark brown sandy silt (22 and 24) that was equivalent to the overlying topsoil (13).
- 6.19 The latest feature identified within the trench was field boundary ditch 19. The ditch was identified at the southern end of the trench extension on an alignment consistent with the ridge and furrow remains. It was cut through the existing topsoil and survived as a slight earthwork at the field surface. The ditch was 2.05m wide by 0.43m deep with a rounded 'V'-shaped profile and was filled by dark brown sandy silt (20).

Trench 4 (Fig. 6)

- 6.20 Trench 4 was aligned south-west to north-east and was located upon a slight south-facing slope. It was sited to investigate a possible curving geophysical anomaly (Fig. 3).
- 6.21 Removal of topsoil and subsoil exposed mid-yellow and orange sand and gravel natural (36) at a depth of 0.6m below ground level at the north-eastern end of the trench and 0.9m to the south-west (Plate 4). The natural was cut by two postholes (38 and 40) towards the south-western end of the trench. No archaeological evidence for the origin of the curving geophysical anomaly was

identified and it seemed probable that the anomaly resulted from variation within the natural subsoil. None of the features or deposits within this trench contained artefactual material.

- 6.22 The postholes (38 and 40) were circular in plan with diameters of 0.38m and 'U'-shaped profiles to a depth of 0.24m. They were spaced 0.4m apart and were aligned north-west to south-east, possibly forming part of a fence line associated with the post-medieval field layout. The postholes were filled by mid-brown sandy silt (39 and 41) which contained occasional fragments of charcoal (from fill 39) derived from hazel (Appendix C). Both postholes were sealed by a deposit of hill wash (37; not illustrated).
- 6.23 The hill wash 37 comprised up to 0.8m of mid-brown silty sand that was overlain by 0.05m of stoney mid-brown silty sand subsoil (35). The sequence was sealed by modern dark brown sandy silt topsoil (34).

7.0 DISCUSSION

- 7.1 The excavation of four trial trenches upon land at Whitefields Farm, Richmond exposed a number of archaeological features and deposits that can be grouped into two broad phases of activity. The earlier phase has the potential to date from the late prehistoric (700 BC) to the Roman period based on pottery evidence, although this range may be refined following a programme of AMS radiocarbon dating of two samples (from contexts 5 and 8) which is currently underway. The later phase comprised agricultural remains of the 16th to 18th centuries or later.
- 7.2 The earlier features comprised a re-cut posthole (6) within Trench 2 and a ditch (44) within Trench 1. Both were sealed by the remains of the Scots Dike embankment, which may also have been constructed at this time. The identification of a posthole indicated a timber structure once existed on the site, although as only a single posthole was exposed its form remained unclear. No other features or deposits were identified to suggest domestic occupation, or any other function, therefore it is postulated that the feature may have formed part of a fenceline forming a boundary that could later have been formalised by the Scots Dike. The earliest fill of the posthole contained a sherd of handmade pottery which dated from the late prehistoric to the Roman period and re-cutting of the feature indicated it had been maintained for a time.
- 7.3 The ditch (44) investigated within Trench 1 was located c.160m to the north-west of posthole 6, and although undated, appeared to occupy the same stratigraphic position. It may have represented a field boundary and was aligned west-south-west to east-north-east, slightly at odds to the later embankment. The ditch appeared to have been intentionally backfilled, possibly in advance of the construction of the Scots Dike embankment, with quantities of cobbles and boulders (Plate 1) set within a sandy matrix that was sterile of both artefactual and palaeoenvironmental material. However,

following infilling of the ditch, and the latest phase of posthole 6, a thin soil horizon (8 and 42) accumulated prior to construction of the embankment.

- 7.4 The remains of the Scots Dike embankment proved to be either truncated (Trench 2), or only slightly represented within the excavated area (Trench 1), however, enough of the monument was exposed to gain an understanding of its relationship to the other features and deposits located within its immediate vicinity. The embankment was found to be constructed from rounded river cobbles, which were presumably imported specifically for its creation, although little other evidence was available regarding its construction. No direct dating evidence was recovered although it must have been constructed after 700 BC based on pottery recovered from the underlying soil horizon (8), which, as has been stated, may be further refined by AMS radiocarbon dating. A date during the late prehistoric period adds support to an Iron Age date for the construction of the monument, and is broadly consistent with the results of investigations of the monument to the north during widening of the A66 (Zant *et al.* forthcoming) where an early to middle Iron Age date was achieved via radiocarbon dating of material from the associated ditch.
- 7.5 This earlier phase of activity may also include a cobble spread identified to the west of the embankment within Trench 3. This deposit, although predominantly left undisturbed, appeared to have an irregular shape in plan and be sterile of artefactual material. However, assessment of soil samples recovered from the deposit suggest it has the potential to be of archaeological significance and, as it was sealed below a buried plough soil, may be associated with the features recorded within Trenches 1 and 2.
- 7.6 The later phase of activity comprised features and deposits associated with agricultural use of the field during the 16th to 18th centuries or later. They comprised plough furrows and associated field boundaries including ditches, and a possible fence line, which were all located and aligned consistently with the results of the geophysical and earthwork surveys.

8.0 RECOMMENDATIONS

- 8.1 No further work is recommended on the artefactual or palaeobotanical assemblages. The late prehistoric/Roman pottery should be retained with the site archive and deposited at the appropriate museum. The remaining finds and the palaeobotanical remains may be discarded.
- 8.2 It is recommended that archaeological monitoring (strip, map and record) be undertaken during removal of the topsoil and subsoil prior to any development of the area. The extent of further archaeological investigations should be provided in a detailed project design and should be agreed with the local planning authority in consultation with the North Yorkshire County Council Archaeology Team.

- 8.3 The results of the current phase of works should be incorporated into a final report on the archaeological investigations undertaken for the development and published in an appropriate journal.

**APPENDIX A:
CONTEXT CATALOGUE**

Context	Same as	Interpretative description	Relationships	Trench
1	12, 28	Topsoil		2
2		Subsoil		2
3		Natural subsoil		2
4		Cut of posthole	Above 6; below 8	2
5		Fill of posthole 4		2
6		Cut of posthole	Above 3; below 4	2
7		Fill of posthole 6		2
8		Buried soil horizon	Above 4; below 26	2
9		Cut of ditch	Above 26	2
10		Primary fill of ditch 9		2
11		Cut of plough furrow	Above 2	2
12	1, 28	Fill of plough furrow 11		2
13	22, 24	Topsoil		3
14		Subsoil		3
15	16, 17	Layer of cobbles	Above 18	3
16	15, 17	Layer, second subsoil		3
17	15, 16	Smaller layer of cobbles		3
18		Natural		3
19		Cut of ditch	Above 13	3
20		Fill of ditch 19		3
21		Cut of plough furrow	Above 14	3
22	13, 24	Fill of plough furrow 21		3
23		Cut of plough furrow	Above 14	3
24	13, 22	Fill of plough furrow 23		3
25		Secondary fill of ditch 9		2
26		Embankment remains	Above 8; below 2, 9	2
27		Cut of plough furrow	Above 2	2
28	1, 12	Fill of plough furrow 27		2
29		Topsoil		1
30		Subsoil		1
31		Natural		1
32		Fill of plough furrow 33		1
33		Cut of plough furrow	Above 30	1
34		Topsoil		4
35		Subsoil		4
36		Natural		4
37		Layer of hillwash		4
38		Cut of posthole	Above 36; below 37	4
39		Fill of posthole 38		4
40		Cut of posthole	Above 36; below 37	4
41		Fill of posthole 40		4
42		Buried soil horizon	Above 44; below 46	1
43		Fill of ditch 44		1
44		Cut of ditch	Above 45; below 42	1
45		Natural		1
46		Embankment material	Above 42; below 30	1

APPENDIX B:

POTTERY

C.G. Cumberpatch BA PhD

INTRODUCTION

The pottery assemblage from Whitefields Farm, Richmond, North Yorkshire was examined by the author on 7th July 2013. It consisted of ten sherds of pottery weighing 49 grams and represented a maximum of ten vessels. The data are summarised in Table 1 below. Two small flakes of flint from context 7 were included with the pottery and details have been appended to Table 1.

DISCUSSION

The earliest sherds identified in the assemblage were two small, heavily abraded fragments of hand-made pottery in fabrics which were of later prehistoric (700 BC or later) or Roman period type from contexts 7 and 8. Neither could be dated closely as rock and quartz tempered fabrics of these types have a very long lifespan in north and East Yorkshire and continued to be used for vessels in the native style throughout the Roman period.

The remainder of the pottery consisted of abraded and flaked fragments of oxidised fabrics tempered with fine quartz sand and, while difficult to date with any accuracy, seem to be of later post-medieval or early 18th century type although a late medieval to early post-medieval date (15th to 16th century) is not out of the question. The only sherd identifiable to a recognised (if generic) type was a small glazed fragment from context 1 which was of Brown Glazed Fineware type and this belongs to the 17th or 18th centuries.

CONCLUSION

The pottery assemblage suggests activity in and around the area of excavation in the later prehistoric and/or Roman period and in the late medieval to post-medieval and early modern periods. Few detailed conclusions can be drawn from the data but they do seem to indicate two discrete periods of activity. The nature of this activity remains unknown.

Table 1

Context	Type	No	Wt	ENV	Part	Form	Decoration	Date Range	Notes
1	Brown Glazed Fineware	1	3	1	BS	Hollow ware	Brown glaze ext	C17th-C18th	Heavily abraded
1	Oxidised Sandy ware	1	3	1	BS	Hollow ware	U/Dec	C16th-17th?	Heavily abraded soft orange fragment with abundant, well-sorted angular quartz grit up to 1mm, mainly finer
2	Oxidised Sandy ware	1	2	1	BS	Hollow ware	U/Dec	C16th-C18th?	Orange sandy fabric with abundant sub-angular quartz up to 0.5mm, rare angular grains up to 1mm
7	H2 Quartz	1	4	1	Base	Jar	U/Dec	PRIA-Roman	Soft brown to dark grey fabric with angular quartz grit up to 1mm
8	H2 Rock	1	2	1	BS	Hollow ware	U/Dec	PRIA-Roman	Heavily abraded fragment with sub-angular rock frags; surface crazing
10	Oxidised Sandy ware	1	2	1	BS	Hollow ware	U/Dec	C16th-C18th?	Oxidised sandy fabric with abundant, well-sorted sub-angular quartz grit up to 1mm
10	Oxidised Sandy ware	1	2	1	BS	Hollow ware	U/Dec	C16th-C18th?	Hard orange sandy fabric with grey ext margin; moderate to abundant sub-rounded quartz up to 0.5mm
12	Oxidised Sandy ware	1	17	1	Base	Hollow ware	Smoothed ext	C16th-C18th?	Orange sandy fabric with abundant fine quartz & black grit up to 0.5mm
32	Oxidised Sandy ware	1	12	1	BS	Hollow ware	U/Dec	C16th-C18th	Orange sandy fabric with abundant angular quartz grains up to 0.5mm, mainly finer
32	Oxidised Sandy ware	1	2	1	BS	Hollow ware	U/Dec	C16th- 18th	Orange sandy fabric with abundant angular quartz grains up to 0.5mm, mainly finer
	Total	10	49	10					

APPENDIX C:
PALAEOENVIRONMENTAL ASSESSMENT

Lynne Lowrie

INTRODUCTION

Eight bulk environmental samples were taken during the course of an archaeological evaluation at Whitefields Farm, Richmond, North Yorkshire.

The preliminary results of the evaluation are presented above. This report presents the results of the assessment of the palaeobotanical and charcoal remains in accordance with Campbell *et al.* (2011) and English Heritage (1991).

METHODOLOGY

The eight bulk environmental samples were processed at NAA. The colour, lithology, weight and volume of each sample was recorded using standard NAA *pro forma* recording sheets. *cf.* Table 2. The samples were processed with 500 micron retention and flotation meshes using the Siraf method of flotation (Williams 1973). Once dried, the residues from the retention mesh were sieved to 4mm and the artefacts and ecofacts removed from the larger fraction and forwarded to the relevant specialists. After a rapid assessment of the flots the smaller fraction was refloated to establish if the charred plant material and charcoal yield could be increased, providing a greater selection for radiocarbon AMS dating.

The flot, plant macrofossils and charcoal were retained and scanned using a stereo microscope (up to x50 magnification). Any non-palaeobotanical finds were noted on the *pro forma* recording sheets.

The plant remains and charcoal were identified to species as far as possible, using Cappers *et al.* (2006), Cappers and Neef (2012), Hather (2000), Jacomet (2006) and Schoch *et al.* (2004). Nomenclature for plant taxa followed Stace (2010). *cf.* Table 3.

RESULTS

Trench 1

42 AA (Buried soil horizon), 43 AA (Fill of ditch 44), 45 AA (Natural)

These samples yielded no charred plant remains or charcoal.

Trench 2

5 AA (Fill of posthole 4)

The charred plant remains were in very poor condition and one seed was identified to the grass family. One small fragment of hazelnut shell was observed along with thirteen charred buds. The charcoal large enough to be identified was heather and hazel.

7 AA (Fill of posthole 6)

A charred grass seed and a very poorly preserved charred cereal grain were present, along with heather and hazel charcoal.

8 AA (Buried soil horizon)

This flot yielded some more charred buds. The charcoal was hazel and heather with one tiny fragment of oak.

Trench 3

15 AA (Layer of cobbles)

A small part of the flot was comminuted charcoal, most of this was too small for identification purposes although four fragments were identified as heather and one had morphological traits of beech.

Trench 4

39 AA (Fill of posthole 38)

No charred plant remains were visible from this sample. Six small fragments of charcoal were examined, four were hazel and two had diagnostic characteristics of beech.

Shell

Shell was present in very small quantities from the samples taken from Trenches 1 and 2. Two different species were observed and both were ground-burrowing species, thus intrusive.

DISCUSSION

Trench 1 yielded no charred plant remains or charcoal. The quality of charcoal from throughout this site was very poor and as such no relevance can be placed on the assemblages from Trenches 3 or 4.

Trench 2 had two samples which contained charred buds, which, at the very most, indicated that the wood was collected in the spring-time.

Due to the very small, poorly preserved charred plant remains and charcoal assemblage there is not enough to be able to comment on past agricultural practices.

STATEMENT OF POTENTIAL AND RECOMMENDATIONS

The remaining charred plant material, charcoal and flots contain no potential for further analysis and may be discarded.

Table 2: Sample processing data

C	SC	Trench	TQ	CP	TP	MP	PW	PV	CS	Components (sorting)	SW	SV	>SW	>SV
42	AA	1	6	Yellowish brown	Friable	Silty sand	65	52	Pale yellowish grey	Stone>1cm 40%: stone<1cm 40%: sand 20%	22716	14300	15368	9600
43	AA	1	5	Greyish brown	Friable	Clayey silt	59	48	Pale yellowish grey	Stone>1cm 40%: stone<1cm 30%: sand 30%	33286	20400	22459	13100
45	AA	1	2	Pale yellowish brown	Friable	Sand	24	19	Grey	Stone>1cm 5%: stone<1cm 10%: sand 85%	1603	1000	267	200
5	AA	2	4	Darkish reddish brownish yellow	Friable	Silty sand	37	32	Brown	Stone>1cm 30%: stone<1cm 30%: sand 40%	7155	5100	3399	2500
7	AA	2	2	Reddish yellowish brown	Friable	Silty sand	22	18	Yellowish brown	Stone>1cm 20%: stone<1cm 30%: sand 50%	5421	3900	2081	1800
8	AA	2	8	Dark reddish brown	Friable	Sandy silt	85	68	Yellowish brown	Stone>1cm 40%: stone<1cm 30%: sand 30%	29879	20500	23547	16000
15	AA	3	2	Dark reddish brown	Friable	Silty sand	20	18	Dark yellowish brown	Stone>1cm 30%: stone<1cm 40%: sand 30%	7361	4200	5418	2900
39	AA	4	1	Yellowish brown	Friable	Sandy silt	6	4	Pale greyish brown	Stone>1cm 40%: stone<1cm 30%: sand 30%	2993	2200	2393	1700

Key: C=context, SC= sample code< TQ=number of tubs in sample, CP= colour of pre-processed sediment, MP= matrix of pre-processed sediment, PW= weight (kg) of pre-processed sediment, PV= volume (l) of pre-processed sediment, CS= colour of residues for sorting, SW= weight(g) of residues, SV= volume (ml) of residues, >SW= weight (g) of >4mm dried residues, >SV= volume (ml) of >4mm dried residues

Table 3: Palaeobotanical and charcoal data

C	SC	Trench	R?	WF	W2F	CPR	AMS?	Charcoal id	Components	EWC	BC	Shell
42	AA	1	yes	12.7	4.2	-	-	-	Very fine rootlets 90%: sand 8%: comminuted charcoal 2%	3	1	yes
43	AA	1	yes	5.2	0.3	-	-	-	Rootlets 50%: sand 50%	1	-	yes
45	AA	1	yes	0.8	<0.1	-	-	-	Very fine rootlets 50%: rhizomes 30%: sand 10%: coal chips 10%	-	-	-
5	AA	2	yes	5	23	cf. Poaceae seed (1), hazelnut shell frag (1) buds (13)	yes	<i>Calluna vulgaris</i> 10), <i>Corylus</i> <i>avellena</i> (3), indet. (5)	Rhizomes and fine rootlets 50%: comminuted charcoal 50%	3	-	-
7	AA	2	yes	10.4	3.8	indet. Cerealia (1), cf. Poaceae grain (1)	-	<i>Calluna vulgaris</i> (2), <i>Corylus avellena</i> (1)	Very fine rootlets 50%: sand 45%: comminuted charcoal 5%	7	-	yes
8	AA	2	yes	39.5	7.8	Buds (6)	-	<i>Corylus avellena</i> (3), <i>Calluna vulgaris</i> (2), <i>Quercus</i> sp. (1)	Rootlets 70%: comminuted charcoal 10%: sand 20%	3	-	yes
15	AA	3	yes	12.1	9.7	-	-	<i>Calluna vulgaris</i> (4). cf. <i>Fagus sylvatica</i> (1)	Fine rootlets 90%: comminuted charcoal 10%	2	-	-
39	AA	4	yes	0.4	7.8	-	-	<i>Corylus avellena</i> (4), cf. <i>Fagus</i> <i>sylvatica</i> (2)	Sand 50%: fine rootlets 50%	-	-	-

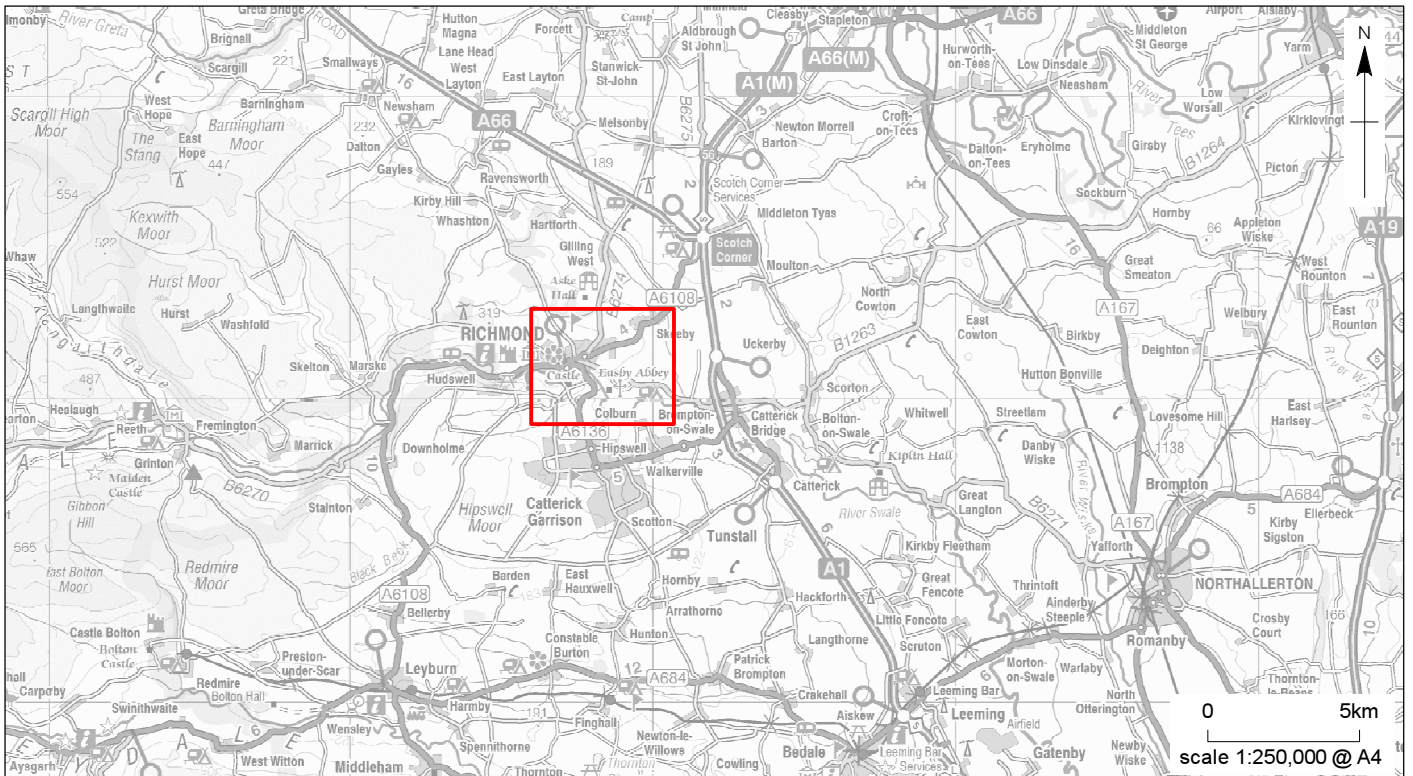
Key: c= context, SC= sample code, R?= any fine-fraction residues remaining?, WF= weight of flot (g), W2F=weight of second flot (g), CPR=charred plant remains, EWC= earthworm capsule, BC= beetle components

Poaceae (Grass family), *Calluna vulgaris* (heather), *Corylus avellena* (hazel), *Fagus sylvatica* (beech), *Quercus* (oak)

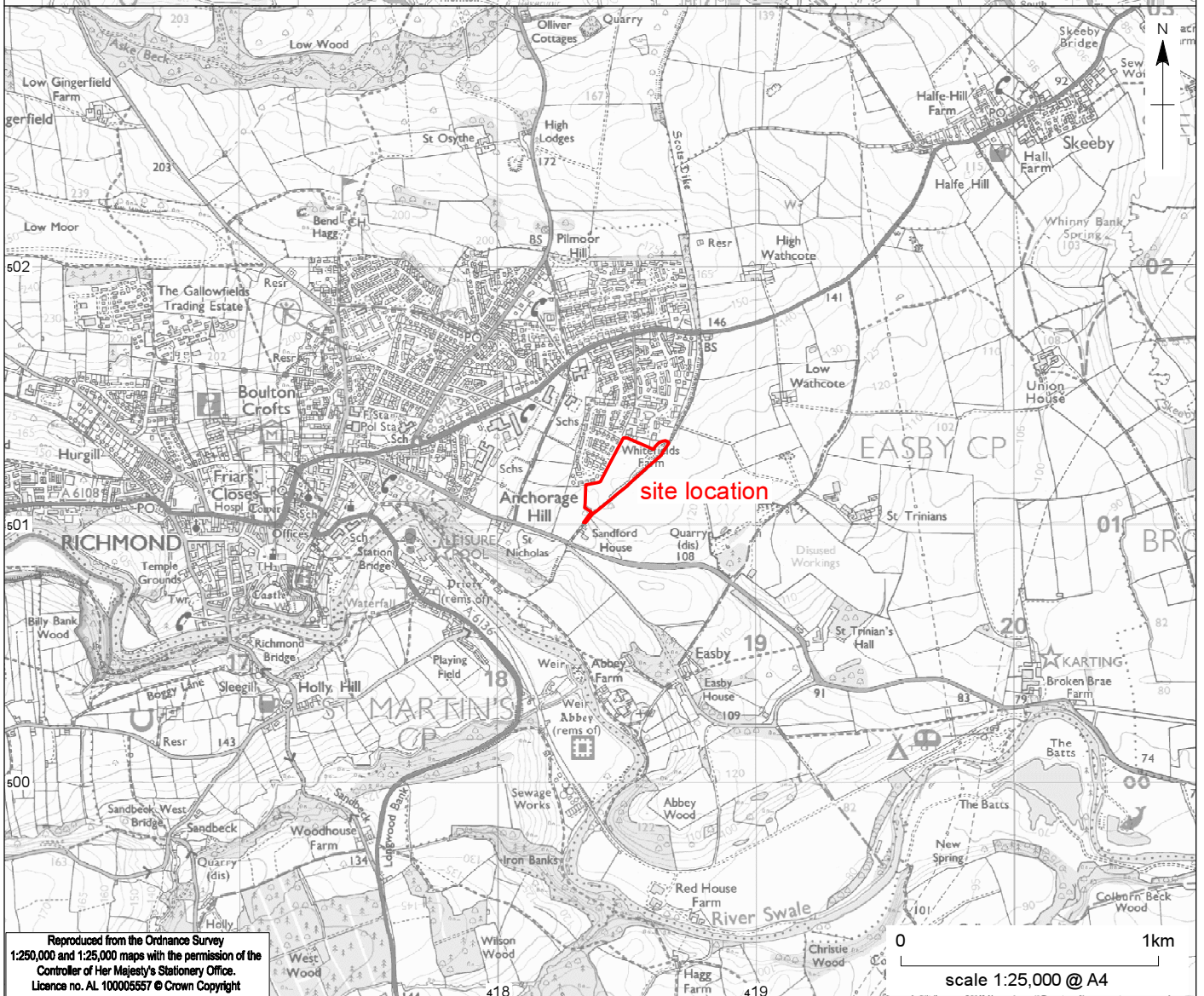
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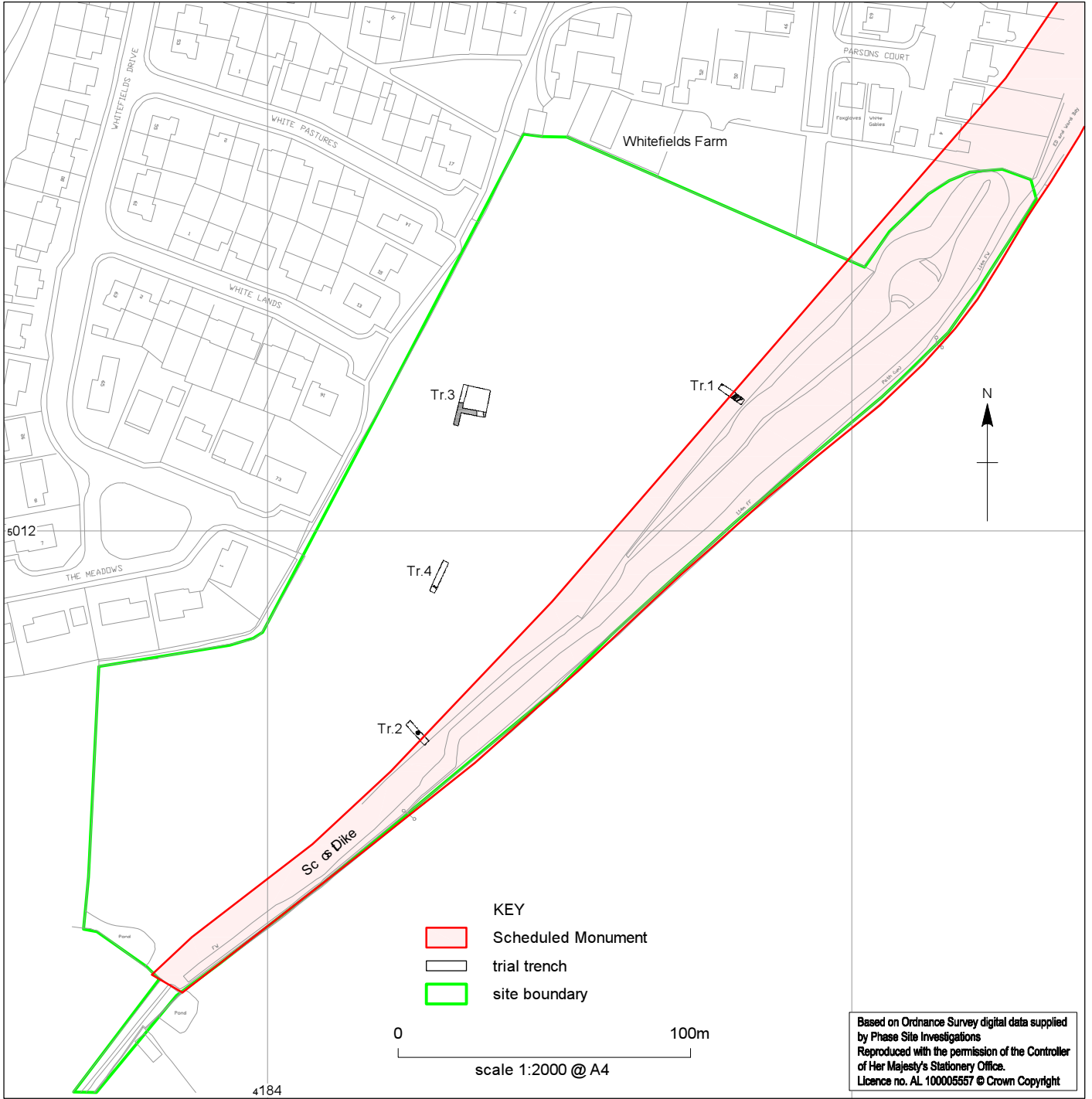


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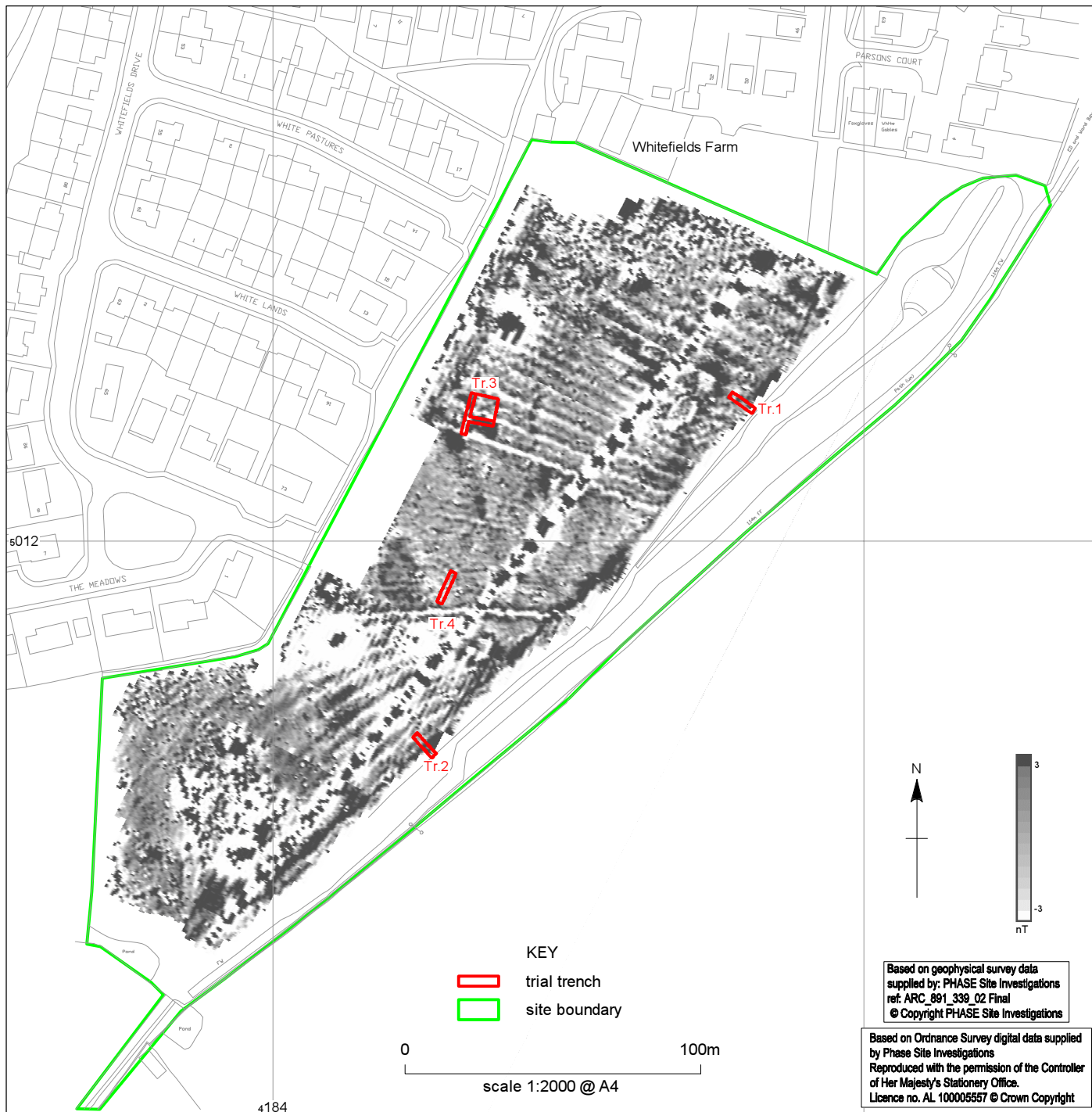
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Whitefields Farm, Richmond: trench locations

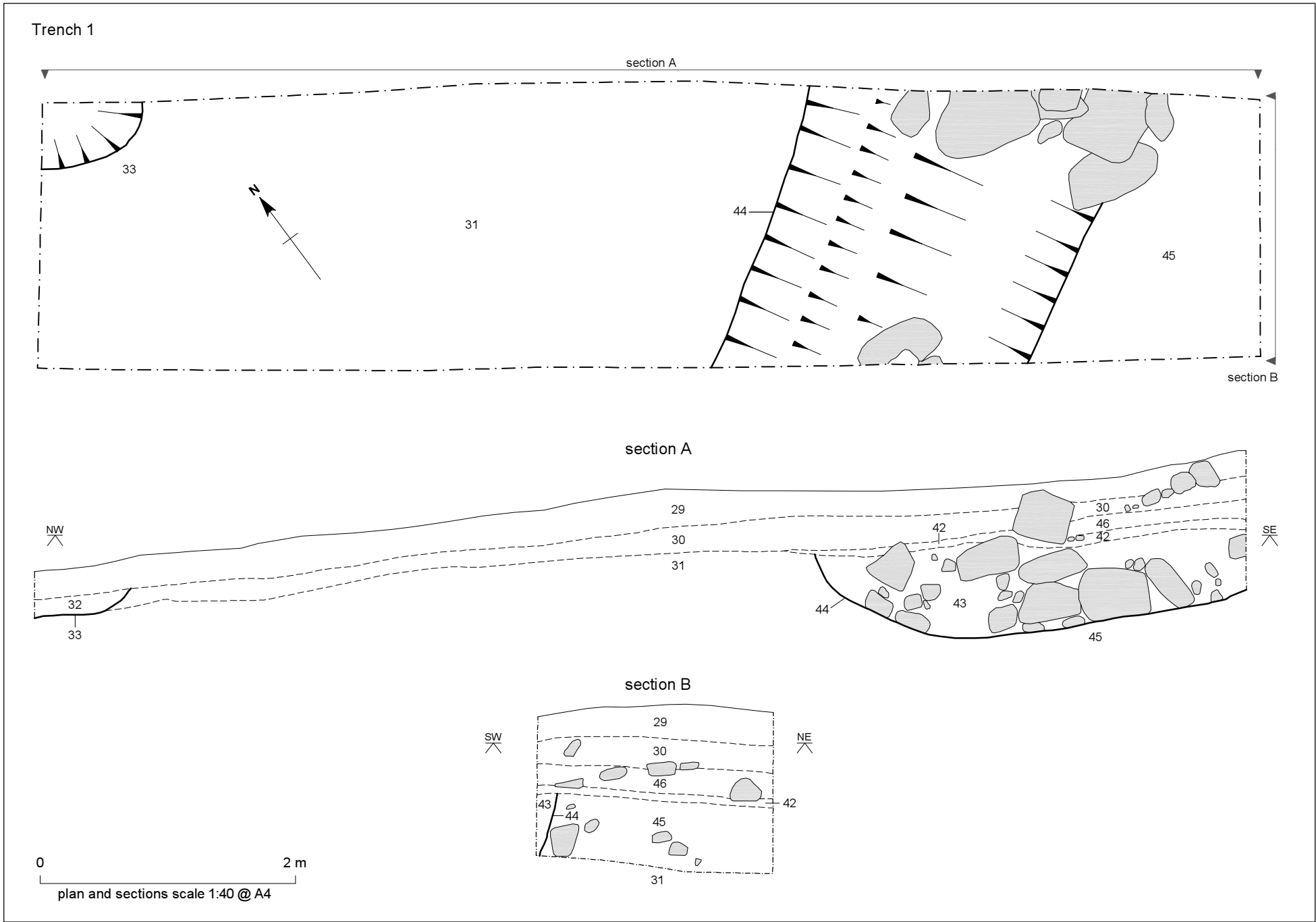
Figure 2



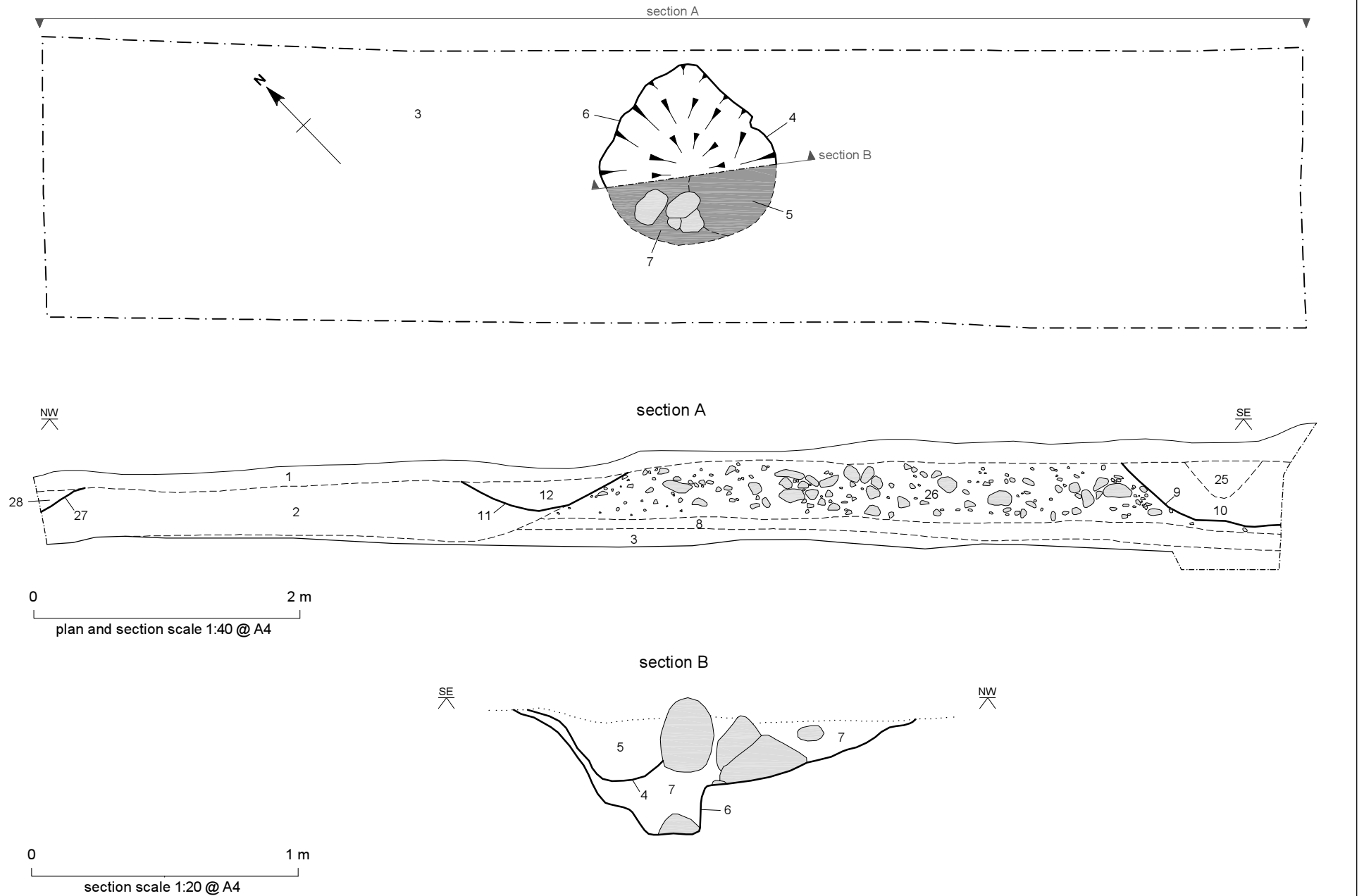
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Whitefields Farm, Richmond: trench locations overlain on geophysics greyscale

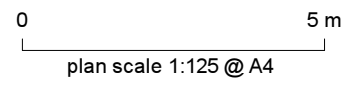
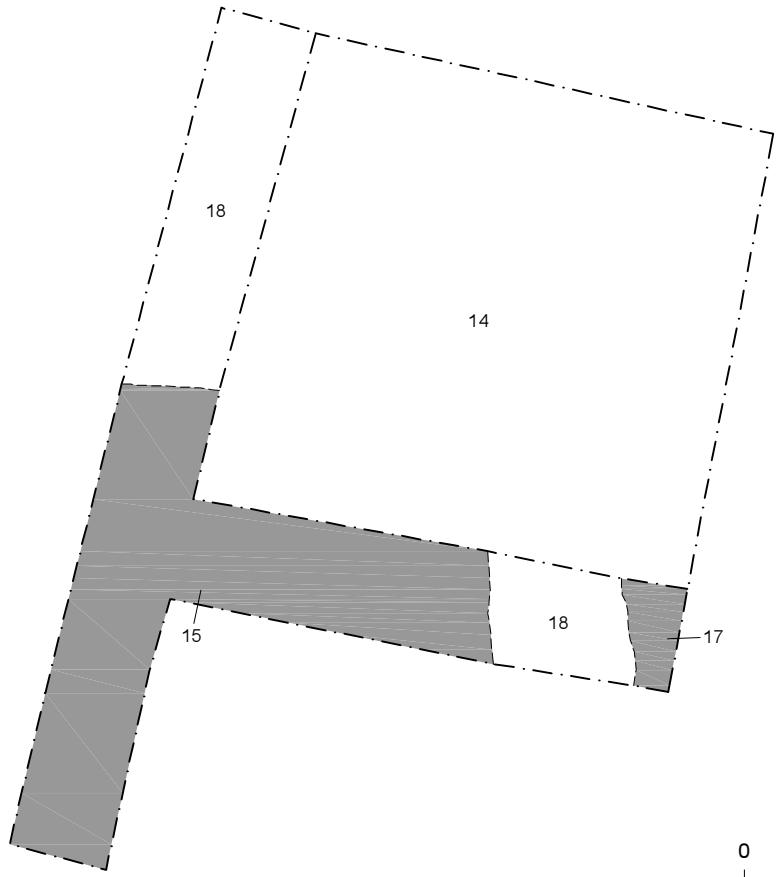
Figure 3



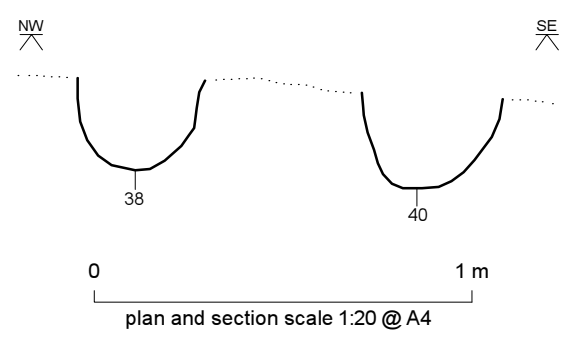
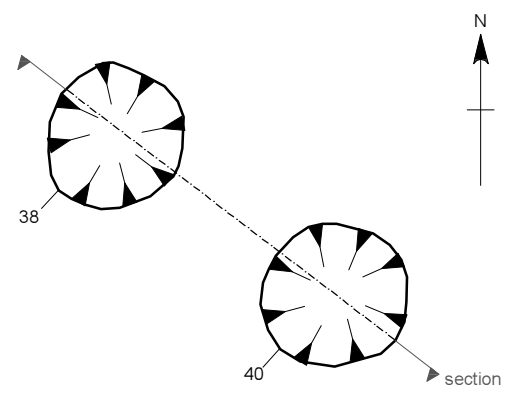
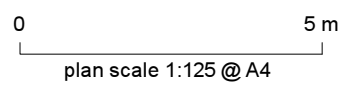
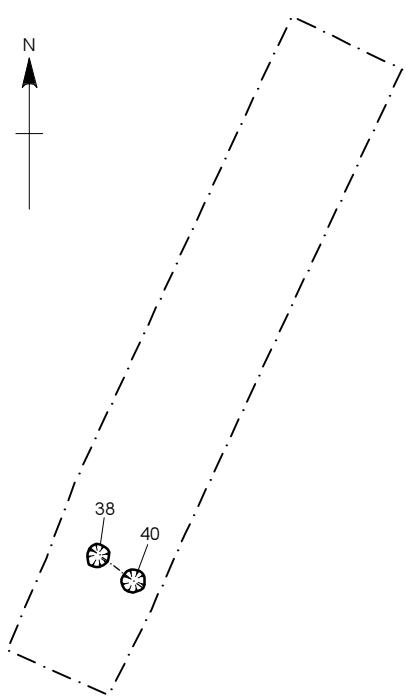
Trench 2



Trench 3



Trench 4





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Whitefields Farm, Richmond: Trench 1 under excavation with the Scots Dike embankment to rear Plate 1



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Whitefields Farm, Richmond: Trench 2, facing east Plate 2



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Whitefields Farm, Richmond: Trench 3 showing cobble spread 15 under investigation with the Scots Dike embankment to rear Plate 3



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Whitefields Farm, Richmond: Trench 4 showing post-holes 38 and 40

Plate 4