RAF WYTON, CAMBRIDGESHIRE

An Archaeological Evaluation Report

Planning Application Number: Pre-Planning

National Grid Reference Number: TL 2839 7410

AOC Project no: 7969

Date: October 2008

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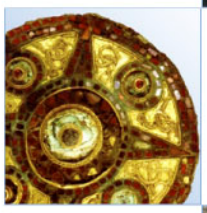

AOC Archaeology Group

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RAF WYTON

CAMBRIDGESHIRE

An Archaeological Evaluation Report

On Behalf of:	**Entec UK Limited** 17 Angel Gate City Road London EC1V 2SH
National Grid Reference (NGR):	**TL 2839 7410**
AOC Project No:	**7969**
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Date of Report:	**October 2008**

This document has been prepared in accordance with AOC standard operating procedures.

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Non-Technical Summary

AOC Archaeology conducted an archaeological evaluation at the site of RAF Wyton in Cambridgeshire between July and October 2008, on behalf of Entec UK Limited, who act for the Ministry of Defence, the landowners and developers. The evaluation comprised 44 trenches, mostly 20m to 50m long.

The results show that the site evaluated can be divided into two areas. The smaller of these, along the southwest edge of the site and currently used as a golfing driving range, has not been significantly affected by modern truncation. The larger, currently occupied by buildings, has been severely affected by horizontal truncation caused by the construction and demolition of several generations of buildings on the site since its first use by the RAF in the 1920s.

Archaeological activity appears to have been distributed over the whole site, although there is evidence for a focus in the west corner. Truncation by the RAF base has had a marked affect on the survival of archaeological remains in the area currently used for buildings.

Dating evidence is not currently available, but the archaeological remains are reminicent of prehistoric settlement with an associated field system. Most of the features appear to be field boundaries, but a possible roundhouse entrance was recorded near the west corner.

The need for any further work will depend on the development proposals, which are currently not known.

1. Introduction

1.1.1 This document presents the results of an Archaeological Evaluation undertaken by AOC Archaeology at RAF Wyton, Cambridgeshire between July and Octobler 2008. The archaeological sequence is described, and the requirements for further work indicated, dependent on development proposals.

1.1.2 The development is being undertaken by the Ministry of Defence, the landowners. Entec UK Limited act as archaeological consultants for the Ministry of Defence, and commissioned AOC Archaeology.

1.2 Site Location

1.2.1 The site is centred on National Grid Reference (NGR) TL 2839 7410 (Figure 1). The site measures approximately 20 hectares and is located c. 750m north of the adjacent villages of Wyton and Houghton, just over 2km to the west of the current extent of Huntingdon. It is bound to the southwest by the B1090 and to the northwest by the A141, with open farm land on the other sides. The site is currently used as an RAF airfield, under the ownership of the Defence Estates.

1.3 Development Proposal

1.3.1 At the time of writing, the detailed development plans at RAF Wyton are not known.

1.4 Planning Background

1.4.1 Archaeological advice to the Local Planning Authority, Huntingdonshire District Council, is provided by Kasia Gdaniec, Senior Archaeologist at the Cambridgeshire Archaeology Planning and Countryside Advice office (CAPCA) of Cambridgeshire County Council.

1.4.2 The planning application number is H/07/00763/OUT. Condition 6 relates to archaeological matters, and states:

"No development shall take place until the applicant has secured the implementation of a programme of archaeological work in accordance with a written scheme of investigation which has been submitted to and approved in writing by the Local Planning Authority."

1.4.3 The scope of archaeological works expected at the site has been outlined in a brief provided by the archaeological advisor for Cambridgeshire County Council (CAPCA 2007). Subsequent to this advisory brief, a review of the archaeological potential has been carried out in the form of a desk-based assessment (Entec 2008a) and archaeological geophysical survey (Stratascan 2008).

1.4.4 Based on the results of the desk- based assessment and the geophysical survey, evaluation trenching of the archaeological potential of the area was required to inform the council about an appropriate mitigation strategy.

1.4.5 A Written Scheme of Investigation for evaluation (WSI) (Entec 2008b) was prepared and submitted to Cambridgeshire County Council and the Defence Estates for approval prior to work on site.

2 Archaeological and Historical Background

The following information is drawn from the desk-based assessment (Entec 2008a).

2.1 Geology and Topography

2.1.1 RAF Wyton lies on Bolder Clay glacial deposits located at between 35m and 40mOD, overlying Jurassic Oxford Clay (Entec 2008a).

2.2 Archaeological Evidence

2.2.1 There are no scheduled monuments on the site. The nearest SAMs are over 3km from areas under consideration, which are scheduled monument 20432 'The Moat': a motte and bailey castle 700m west of Mayfield Heath Farm, to the west of the site, and scheduled monument 29754 The Manor of Hemingford Grey: a medieval moated site, to the south of the site on the north edge of Hemingford Grey. There are no listed buildings within RAF Wyton, and it is not within a conservation area. The nearest listed buildings outside the site are on the northern fringe of the village of Houghton, over 1km from the area of the site under consideration.

2.2.2 The County Archaeologist at Cambridgeshire County Council advised Defence Estates that RAF Wyton is considered to be archaeologically sensitive. This is because the airfield is surrounded by prehistoric flint scatters and implements, as well as Roman pottery scatters. These remains indicate that the area has been used for settlement since prehistory. There are no records of finds from the airfield itself but this is to be expected, as although archaeological investigations were undertaken within Cambridgeshire during or before the first half of the 20th century, the major growth of archaeological study in the fenland and its environs only came in the years following World War II, by which time the airfield was in place.

2.2.3 RAF Wyton itself is recorded on the HER (CB15158) as a WWI and WWII airfield. Otherwise, the only recorded entry within the site refers to a stone called the Abbot's Chair (01573), said to have been the hundred stone, which is probably the base of a medieval cross. The stone was removed in about 1960 during the extension to the runway of Wyton airfield and is now in the garden of the Norris Museum in St Ives (information from the HER record). The HER search undertaken identified a further 134 records outside RAF Wyton, a full list of which is provided in the desk-based study (Entec 2008a). The majority of records refer to artefact findspots, including a large number of worked flints ranging from Palaeolithic through to Neolithic and Bronze Age dates and finds of Roman, Saxon, Medieval and later dates. Given the distribution and nature of these archaeological finds, it could be anticipated that similar remains may be encountered within the investigation area.

2.3 Previous Work

2.3.1 Previous archaeological work undertaken at the site was in the form of a geophysical survey (Appendix B), a study of aerial photographs and a Desk Based Assessment (Entec 2008a) (in which the results of the two previous studies were summarised). The below information summarises the results of these phases of work:

2.3.2 A range of aerial photographs held at the National Monuments Record, Swindon were viewed as part of a desk-based study for the site prior to the Evaluation (Entec, 2008a). These comprised 191 vertical, 1 oblique and 14 military oblique photographs covering the period 1942-1995. A search was also undertaken, and copies obtained, of photographs held at the Unit for Landscape Modelling at Cambridge University. No cropmarks or other additional features of potential cultural heritage interest were noted within the identified development area, on the photographs available. Cropmarks relating to former agricultural regimes, including ridge and furrow, related headlands and droveways were noted as existing beyond the development area within recent aerial photographs of the airfield, illustrating the site's position within an agriculatural setting from at least the medieval period onwards (18, Entec, 2008a / 2008b).

2.3.3 Stratascan conducted a geophysical survey of RAF Wyton, covering 10.3 hectares in May 2008 (Stratascan, 2008). The gradiometer data collected during the survey was dominated by the presence of magnetic disturbance from metallic fences, pipes, cables and ground disturbance. These types of response were particularly prevalent in the north and the east of the site (Areas 2-6), where the majority of the base's structures and roads are located. Area 1 to the south of the investigation area and Area 7, within the south and west of the investigation area were located on sports fields and although still affected by magnetic disturbance, were the areas where more subtle anomalies could be identified.

2.3.4 Positive linear anomalies were evident to the south of the site (Area 1), interpreted as being of agricultural origin either from cultivation or possibly land drainage such as subsoiling. The two orientations of these anomalies may indicate two phases of activity. Discrete positive anomalies were also evident across Area 1. These anomalies may represent pits of possible archaeological origin.

2.3.5 A large positive linear anomaly, representative of a cut feature such as a ditch was evident within the south east of the investigation area (Area 7). The ditch feature seemed to have an associated negative response, which may indicate the presence of a former bank. Other positive anomalies were noted to the north. Positive linear anomalies of an agricultural origin were also noted across the southwest of the investigation site (Area 7). Discrete positive anomalies also indicated the presence of pits of possible archaeological origin within this area.

2.3.6 Two rectilinear areas of disturbance were noted both to the south of the site (Area 1) and within the south and west of the investigation area (Area 7). From studying aerial photographs of the areas using Flash Earth, parch marks were found suggesting the presence of former structural remains, such as building platforms.

2.3.7 Of the two Areas that produced positive results only Area 7 was within the development area, suggesting that any archaeological remains will be focused within the west of the site. Area 1, a sports field, will be retained by the proposed redevelopment.

3 Aims and Objectives

3.1 The aims of the archaeological evaluation as defined in the WSI (Entec 2008b) were to ascertain:

- whether archaeological remains extend across the developable area;
- the character date and quality of archaeological remains and deposits;
- how they might be affected by the development of the site;
- what options should be considered for mitigation.

4 Methodology

4.1 The evaluation comprised the excavation of 44 trenches (Figure 2). These were numbered TR1 to TR53, with nine trenches (TR 16, 17, 24, 33, 42, 43, 46, 47, and 50) not excavated due to practical constraints. The trenches varied in length, mostly ranging from 20m to 50m, but with some shorter ones fitted into restricted areas. The trenches were between 2.0m and 1.6m wide at the base. Whilst several trenches were specifically located to target the results of the geophysical survey, the majority were randomly placed. The positioning of trenches within the area of the standing buildings was highly constricted by the buildings and services, as well as other features. A detailed methodology can be found in the WSI (Entec 2008b).

4.2 The site code for the project, **ECB3012,** was obtained from Cambridge Historic Environment, and has been used for all fieldwork.

4.3 The entire site was visually inspected before the commencement of any machine excavation. This included the examination of any available exposures (e.g. recently cut ditches and geotechnical test pits). The area was subsequently CAT scanned prior to excavation and service plans consulted. Due to the number of services on the site, the machine excavations were CAT scanned every 0.1m in depth.

4.4 All overburden was removed down to the top of the first recognisable archaeological horizon or the uppermost natural deposit in the event that no archaeological horizons were present, using a mechanical excavator fitted with a toothless ditching bucket. All machining was carried out under direct control of an experienced archaeologist.

4.5 On completion of machine excavation, all faces of trenches that required examination or recording were cleaned using appropriate hand tools and the full stratigraphic sequence was recorded. Any archaeological remains revealed were excavated by hand with a view to avoiding damage to any archaeological features or deposits which appeared to be demonstrably worthy of preservation *in situ*.

4.6 All recording was undertaken in accordance with the standards and requirements of the Archaeological Field Manual (Museum of London Archaeology Service, 1994) and the Written Scheme of Investigation (Entec 2008b) produced for the investigation in response to a brief issued by CAPCA (CAPCA, 2007).

4.7 All trenches were accurately located to the National Grid. A temporary benchmark was established on site, transferred from the nearest Ordnance Survey bench mark (OSBM).

4.8 The evaluation work was completed over 7 weeks (30th July to 12th September 2008) by Chris Clarke, James O'Brien, Ian Hogg, Matt Ratcliffe, Project Supervisors, under the overall project management of Andy Leonard, Fieldwork Manager.

5 Results

5.1 Overall Sequence

5.1.1 The deposits encountered on the site are summarised below. Where the deposits are not described in detail trench by trench, they can be regarded as matching the typical descriptions below.

5.1.2 Topsoil

5.1.3 The topsoil typically consisted of mid to dark brown sandy silt, with turf and root inclusions.

5.1.4 Subsoil

5.1.5 The subsoil typically consisted of mid grey brown clay, with occasional flint and chalk inclusions.

5.1.6 Made Ground

5.1.7 The made ground typically consisted of 20th century rubble, within a matrix of mid grey silty sand, and with inclusions of other 20th century materials such as metal, ceramics, and plastic.

5.1.8 Between the made ground and the natural deposit below there was normally a layer of disturbed natural ground. Inclusions from the made ground were present in this layer, and graded in frequency from being abundant at the top of the layer, to undetectable at the bottom. This layer originated at the time of the construction or demolition of the various 20th century buildings on the site. Disturbance will have been caused by a number of factors, including the activities of machinery and people on site during the construction or demolition, which will have mixed the material in the made ground into the surface that was exposed at that time. The ground was recorded as being 'natural' below the level at which no cultural inclusions were detected, and 'disturbed natural' above that level.

5.1.9 The Natural Deposit

5.1.10 The natural deposit typically consisted of light to mid yellow grey clay, with frequent flint and chalk inclusions.

5.2 Trench 1 (Figure 3)

5.2.1 Trench 1 measured 50m x 2m and was located in the west part of the site.

Level (OD) (upper surface)	Depth (BGL)	Context Number	Description
39.26m	0.0-0.3m	(1001)	Topsoil
38.96m	0.3-0.6m	(1002)	Subsoil
38.66m	0.6m+	(1013)	Natural
No further excavation			

5.2.2 Five linear cuts were cut into the natural in Trench 1:

Cut	Size	Description	Fill(s)	Description
(1004)	l: 4.3m w: 0.50m d: 0.20m	**Curved linear with terminus** Rounded profile, rounded end	(1003)	Firm dark brown grey clay, with occasional flint pebbles. **No finds**.
(1006)	l: 1.65m w: 0.60m d: 0.33m	**Curved linear with terminus** Rounded profile with steep sides, rounded end	(1005)	Firm dark brown grey clay, with occasional flint pebbles. **No finds**.
(1008)	w: 0.5m d: 0.08m	**Linear** Rounded profile	(1007)	Firm dark brown grey clay, with occasional flint and chalk pebbles. **No finds**.
(1010)	w: 0.6m d: 0.15m	**Linear** Rounded profile	(1009)	Firm mid brown clay, with occasional flint and chalk pebbles. **No finds**.
(1012)	w: 0.25m d: 0.15m	**Linear** Rounded profile	(1011)	Firm dark brown grey clay, with occasional flint and chalk pebbles. **No finds**.

5.2.3 Ditches (1008), (1010), and (1012) were straight and crossed the trench on an east-west orientation. If archaeological, they are likely to be agricultural boundaries. Without further evidence any date is possible, but their size, form and relationship to other similar ditches in nearby trenches is indicative of prehistoric field systems (see section 5.55 below).

5.2.4 Curved ditches (1004) and (1006) have no proven date, but together have the appearance of the entrance to a prehistoric roundhouse (see section 5.55 below). The entrance would be on the east side, which is consistent with the most common orientation of roundhouse directions, between east and south.

5.2.5 The stratigraphic relationship of (1006) and (1008) was investigated, but the relative date could not be determined within the confines of the trench, as the intersection was very close to the baulk. Nevertheless the intersection shows that there are two phases of activity at least. One phase seems to have resulted in the straight linear features, (1008), (1010), and (1012), and the other phase resulted in the curved ones, (1004) and (1006). If these features are interpreted as a roundhouse and field boundary they are likely to be associated, so the chronological separation between these two phases would be narrow.

5.2.6 Trench 1 contained the features that are likely, with the currently available information, to be the most archaeologically significant on the site.

5.3 Trench 2 (Figure 4)

5.3.1 Trench 2 measured 50m x 2m and was located in the west part of the site.

Level (OD) (upper surface)	Depth (BGL)	Context Number	Description
37.43m	0.0-0.21m	(2001)	Topsoil
37.22	0.21-0.53m	(2002)	Subsoil
36.90	0.53m+	(2009)	Natural
No further excavation			

5.3.2 Three features were cut into the natural deposit in Trench 2.

Cut	Size	Description	Fill(s)	Description
(2004)	w: 0.7m d: 0.1m	**Linear**	(2003)	Mid orange brown clayey silt, with occasional pebbles. **No finds**.
(2006)	w: 0.55m d: 0.14m	**Pit** Circular, rounded profile, gradual to steep sides	(2005)	Firm mid to dark orange brown clay, with occasional pebbles. **No finds**.
(2008)	l: 1.75m w: 0.85m d: 0.33m	**Curved linear with terminus** Rounded profile, rounded end	(2007)	Firm orange greyish brown clay, with occasional pebbles. **No finds**.

5.3.3 The date of these features is uncertain, but they are likely to represent archaeological activity. They appear to be similar in nature to the features in nearby trenches, and are likely to be associated with them.

5.4 Trench 3 (Figure 5)

5.4.1 Trench 3 measured 50m x 2m and was located in the west part of the site.

Level (OD) (upper surface)	Depth (BGL)	Context Number	Description
38.91m	0.0-0.20m	(3001)	Topsoil
38.71m	0.2-0.50m	(3002)	Subsoil
38.41m	0.5m+	(3015)	Natural
No further excavation			

5.4.2 Six features were cut into the natural deposit in Trench 3.

Cut	Size	Description	Fill(s)	Description
(3004)	w: 0.65m d: 0.1m	**Linear** Rounded profile	(3003)	Firm light to mid orange brown sandy clay, with occasional pebbles. **No finds**.
(3006)	w: 0.5m d: 0.18m	**Linear** Rounded profile	(3005)	Firm light to mid orange brown sandy clay, with occasional pebbles. **No finds**.
(3008)	w: 0.35m d: 0.07m	**Linear** Rounded profile	(3007)	Firm dark brownish grey clay, with occasional pebbles. **No finds**.
(3010)	l: 1.0m	**Pit or ?linear**	(3009)	Soft black sandy clay, with occasional

	w: 0.35m d: 0.13m	Rounded profile		pebbles. **No finds**.
(3012)	w: 0.5m d: 0.25m	**Linear** Rounded profile	(3011)	Soft mid brown grey sandy clay, with occasional pebbles. A small fragment of **daub or CBM** (ceramic building material) is possibly contamination.
(3014)	w: 0.4m d: 0.1m	**Linear** Rounded profile	(3013)	Firm light to mid brown clay, with occasional pebbles. **No finds**.

5.4.3 Most of these features appear to be similar in nature to those in nearby trenches, and are likely to be associated with them. They are likely to represent archaeological activity, of uncertain date.

5.4.4 The black fill of pit or ditch (3010) suggests that it may not be associated with the surrounding features. The daub or CBM in feature (3012) together with the soft compaction of its fill also suggests it is different in origin.

5.5 Trench 4 (Figure 6)

5.5.1 Trench 4 measured 50m x 2m and was located in the west part of the site.

Level (OD) (upper surface)	Depth (BGL)	Context Number	Description
38.85m	0.00-0.20m	(4001)	Topsoil
38.65m	0.20-0.40m	(4002)	Subsoil
38.45m	0.40m+	(4007)	Natural
No further excavation			

5.5.2 Two features were cut into the natural deposit in Trench 4.

Cut	Size	Description	Fill(s)	Description
(4004)	w: 0.6m d: 0.12m	**Linear** Rounded profile	(4003)	Firm mid brown silty clay, with occasional pebbles. **No finds**.
(4006)	w: 0.4m d: 0.06m	**Linear** Rounded profile	(4005)	Firm mid brown silty clay, with occasional pebbles. **No finds**.

5.5.3 These features appear to be similar in nature to those in nearby trenches, and are likely to be associated with them. They are likely to represent archaeological activity, of uncertain date.

5.6 Trench 5 (Figure 7)

5.6.1 Trench 5 measured 50m x 2m and was located in the west part of the site.

Level (OD) (upper surface)	Depth (BGL)	Context Number	Description
38.30m	0.00-0.20m	(5001)	Topsoil
38.10m	0.20-0.38m	(5002)	Subsoil
37.92m	0.38m+	(5003)	Natural

No further excavation			

5.6.2 Five features were cut into the natural deposit in Trench 5.

Cut	Size	Description	Fill(s)	Description
(5005)	l: 1.3m w: 0.6m d: 0.4m	**Pit** Amorphous shape, rounded profile	(5004)	Firm mid grey clay, with occasional pebbles. **No finds**.
(5007)	w: 0.4m d: 0.1m	**Linear** Rounded profile	(5006)	Firm mid orange brown clay, with occasional pebbles. **No finds**.
(5009)	w: m d: m	**Linear** Rounded profile	(5008)	Firm mid greyish brown silty clay, with occasional pebbles. **No finds**.
(5011)	w: m d: m	**Linear** Rounded profile	(5010)	Firm mid orange brown silty clay, with occasional pebbles. **No finds**.
(5013)	w: m d: m	**Pit** Amorphous shape, rounded profile	(5012)	Firm light grey clay, with occasional pebbles. **No finds**.

5.6.3 These features appear to be similar in nature to those in nearby trenches, and are likely to be associated with them. They are likely to represent archaeological activity, of uncertain date.

5.7 Trench 6 (Figure 8)

5.7.1 Trench 6 measured 50m x 2m and was located in the west part of the site.

Level (OD) (upper surface)	Depth (BGL)	Context Number	Description
38.34m	0.0-0.20m	(6001)	Topsoil
38.14m	0.2-0.50m	(6002)	Subsoil
37.84m	0.50m+	(6007)	Natural
No further excavation			

5.7.2 Two features were cut into the natural deposit in Trench 6.

Cut	Size	Description	Fill(s)	Description
(6004)	w: 0.70m d: 0.09m	**Linear** Rounded profile	(6003)	Mid orange brown clay, with frequent chalk and flint pebbles. **No finds**.
(6006)	w: 0.65m d: 0.1m	**Linear** Rounded profile	(6005)	Mid orange brown clay, with frequent chalk and flint pebbles. **No finds**.

5.7.3 These features appear to be similar in nature to those in nearby trenches, and are likely to be associated with them. They are likely to represent archaeological activity, of uncertain date.

5.8 Trench 7 (Figure 9)

5.8.1 Trench 7 measured 50m x 2m and was located in the west part of the site.

Level (OD) (upper surface)	Depth (BGL)	Context Number	Description
38.35m	0.0-0.20m	(7001)	Topsoil
38.15m	0.2-0.40m	(7002)	Subsoil
37.95m	0.40m+	(7006)	Natural
No further excavation			

5.8.2 One pit was cut into the natural deposit in Trench 7.

Cut	Size	Description	Fill(s)	Description
(7005)	l: 1.1m w: 0.7m d: 0.16m	**Pit** Irregular / oval with irregular / rounded profile	(7003) (7004)	Upper fill, 0.05m thick. Firm mid grey clay, with frequent flint pebbles. **No finds**. Lower fill, 0.11m thick. Firm mid brown clay, with frequent flint pebbles. **No finds**.

5.8.3 The irregular shape and profile of pit (7005) suggests that it may be of natural origin, due to plant or animal action, rather than human. Alternatively it may be associated with the features in nearby trenches, and if so is likely to represent archaeological activity, of uncertain date.

5.9 Trench 8 (Figure 10)

5.9.1 Trench 8 measured 50m x 2m and was located in the southwest part of the site.

Level (OD) (upper surface)	Depth (BGL)	Context Number	Description
37.43m	0.0-0.18m	(8001)	Topsoil
37.25m	0.18-0.38m	(8002)	Subsoil
37.05m	0.38m+	(8003)	Natural
37.05m	0.38m+	(8004)	Natural. This extended over 12-13m of the length of the trench. It had a lighter colour than (8003) due to patches of frequent chalk inclusions.
No further excavation			

5.9.2 Two features were cut into the natural deposit in Trench 8.

Cut	Size	Description	Fill(s)	Description
(8006)	w: 0.7m d: 0.08m	**Linear** Rounded profile Cut into natural (8003)	(8005)	Firm mid brown clay, with occasional pebbles. **No finds**.
(8008)	w: 0.1m d: 0.2m	**Linear** Vertical sided Cut into natural (8003) and (8004)	(8007)	Firm mid greyish brown clay, with occasional pebbles and occasional **CBM** fragments.

5.9.3 Ditch (8006) appears to be similar in nature to those in nearby trenches, and is likely to be associated with them. It is likely to represent archaeological activity, of uncertain date.

5.9.4 Linear (8008) has a form that is very different from the other nearby features, which together with the CBM recovered from it indicates that it is probably not associated with them. It is interpreted as a plough scar.

5.10 Trench 9 (Figure 11)

5.10.1 Trench 9 measured 38m x 2m and was located in the southwest part of the site.

Level (OD) (upper surface)	Depth (BGL)	Context Number	Description
37.58m	0.0-0.15m	(9001)	Topsoil
37.43m	0.15-0.40m	(9002)	Subsoil
37.28m	0.40m+	(9003)	Natural
No further excavation			

5.10.2 Two features were cut into the natural deposit in Trench 9.

Cut	Size	Description	Fill(s)	Description
(9005)	w: 0.6m d: 0.11m	**Linear** Rounded profile	(9004)	Firm mid yellowish brown clay, with occasional pebbles. **No finds**.
(9007)	w: 0.5m d: 0.11m	**Linear** Rounded profile	(9006)	Firm mid yellowish brown clay, with occasional pebbles. **No finds**.

5.10.3 These features appear to be similar in nature to those in nearby trenches, and are likely to be associated with them. They are likely to represent archaeological activity, of uncertain date.

5.11 Trench 10 (Figure 12)

5.11.1 Trench 10 measured 49m x 2m and was located in the southwest part of the site.

Level (OD) (upper surface)	Depth (BGL)	Context Number	Description
37.06m	0.0-0.27m	(10001)	Topsoil
36.79m	0.27-0.46m	(10002)	Subsoil
36.60	0.46m+	(10003)	Natural
No further excavation			

5.11.2 Three features were cut into the natural deposit in Trench 10.

Cut	Size	Description	Fill(s)	Description
(10005)	w: 0.5m d: 0.2m	**Linear** Rounded profile	(10004)	Firm mid greyish brown clay, with occasional pebbles. **No finds**.
(10006)	l: 1.2m w: 1.2m d: 0.3m	**Pit** Rounded profile	(10007)	Firm dark bluish grey clay, with frequent charcoal flecks and occasional pebbles. **Animal bone** (including large ribs, small long bones).
(10008)	w: 0.8m d: 0.15m	**Linear** Rounded profile	(10009)	Firm mid brown clay, with occasional pebbles. **No finds**.

5.11.3 Pit (10006) is clearly archaeological but may well not belong to the same phase as the other features in nearby trenches.

5.11.4 Ditches (10005) and (10008) appear to be similar in nature to the features in nearby trenches, and are likely to be associated with them. They are likely to represent archaeological activity, of uncertain date.

5.12 Trench 11 (Figure 13)

5.12.1 Trench 11 measured 24m x 2m and was located in the southwest part of the site.

Level (OD) (upper surface)	Depth (BGL)	Context Number	Description
36.36m	0.0-0.15m	(11001)	Topsoil
36.21m	0.15-0.35m	(11003)	Subsoil
36.01m	0.35m+	(11002)	Natural
No further excavation			

5.12.2 A single ditch was cut into the natural deposit in Trench 11.

Cut	Size	Description	Fill(s)	Description
(11005)	w: 0.60m d: 0.05m	**Linear / Pit** Rounded profile	(11004)	Firm greyish brown sandy clay, with chalky flecks and occasional pebbles. **No finds**.

5.12.3 Ditch (11005) appears to be similar in nature to the features in nearby trenches, and is likely to be associated with them. It is likely to represent archaeological activity, of uncertain date.

5.13 Trench 12

5.13.1 Trench 12 was 24m x 2m and was located in the southwest part of the site.

Level (OD) (upper surface)	Depth (BGL)	Context Number	Description
36.98m	0.0-0.24m	(12001)	Topsoil
36.74m	0.24-0.30m	(12002)	Subsoil
36.68m	0.30m+	(12003)	Natural
No further excavation			

5.13.2 No archaeological features were revealed and no artefacts recovered from the excavation of Evaluation Trench 12.

5.14 Trench 13 (Figure 14)

5.14.1 Trench 13 measured 50m x 2m and was located in the south part of the site.

Level (OD) (upper surface)	Depth (BGL)	Context Number	Description

36.74m	0.0-0.25m	(13009)	Topsoil
36.49m	0.25-0.45m	(13010)	Subsoil
36.29m	0.45m+	(13011)	Natural
No further excavation			

5.14.2 Four features were cut into the natural deposit in Trench 13.

Cut	Size	Description	Fill(s)	Description
(13002)	w: 1.5m d: 0.4m	**Linear** Rounded profile	(13001)	Firm mid brown clay, with occasional pebbles and **CBM** fragments. **Ceramic ?land drain fragment**.
(13004)	w: 0.15m	**Linear** V-shaped profile	(13003)	Firm light brown clay, with occasional pebbles. **No finds**.
(13006)	w: 0.15m d: 0.1m	**Linear** V-shaped profile	(13005)	Firm light brown grey clay, with occasional pebbles. **No finds**.
(13008)	w: 0.7m d: 0.2m	**Linear** Rounded profile	(13007)	Firm mid orange brown clay, with occasional pebbles. **No finds**.

5.14.3 The presence of a probable fragment of a ceramic land drain, and other CBM fragments within ditch (13002) shows it is cultural in origin, but this, and its greater width, suggests it is not associated with the features in the trenches to the north-west, and is a different, late post-medieval, phase of activity.

5.14.4 Linear features (13004) and (13006) are interpreted as plough marks.

5.14.5 Ditch (13008) appears to be similar in nature to the features in trenches to the north-west, and is likely to be associated with them. It is likely to represent archaeological activity, of uncertain date.

5.15 Trench 14 (Figure 15)

5.15.1 Trench 14 measured 40m x 2m and was located in the south part of the site.

Level (OD) (upper surface)	Depth (BGL)	Context Number	Description
36.76m	0.0-0.28m	(14001)	Topsoil
36.48m	0.28-0.35m	(14002)	Subsoil
36.41m	0.35m+	(14003)	Natural
No further excavation			

5.15.2 Four features were cut into the natural deposit in Trench 14.

Cut	Size	Description	Fill(s)	Description
(14004)	l: 0.20m w: 0.20m d: 0.08m	**Posthole / Pit** Circular, asymmetrical profile, vertical to rounded.	(14005)	Firm light orange brown clay, with frequent small pebbles. **No finds**.
(14006)	w: 0.35m d: 0.13m	**Linear** Rounded profile	(14007)	Firm light yellowish brown clay, with occasional pebbles. **No finds**.
(14008)	l: 2.3m w: 0.5m	**Pit** Curved shape (banana),	(14009)	Firm mid yellow brown and mid dark grey clay, with occasional pebbles. **No finds**.

	d: 0.25m	V-shaped profile		
(14010)	w: 0.6m d: 0.1m	**Linear** Rounded profile	(14011)	Firm mid to dark yellowish brown silty clay, with occasional pebbles. **No finds**.

5.15.3 Pit (14008) is interpreted as a tree throw.

5.15.4 Possible posthole (14004), narrow ditch (14006), and ditch (14010) may be associated with the features in the trenches to the north-west. They are likely to represent archaeological activity, of uncertain date.

5.16 Trench 15

5.16.1 Trench 15 measured 24.5m x 2m and was located in the south part of the site.

Level (OD) (upper surface)	Depth (BGL)	Context Number	Description
36.77m	0.0-0.06m	(15001)	Topsoil
36.71m	0.06-0.38m	(15002)	Subsoil
36.39m	0.38m+	(15003)	Natural
No further excavation			

5.16.2 No archaeological features were revealed and no artefacts recovered from the excavation of Evaluation Trench 15.

5.17 Trench 16

5.17.1 Trench 16 was not excavated due to practical constraints at the proposed location of this trench.

5.18 Trench 17

5.18.1 Trench 17 was not excavated due to practical constraints at the proposed location of this trench.

5.19 Trench 18

5.19.1 Trench 18 measured 30m x 2m and was located in the central part of the site.

Level (OD) (upper surface)	Depth (BGL)	Context Number	Description
37.70m	0.0-0.20m	(18001)	Topsoil
37.50m	0.2-0.40m	(18002)	Subsoil
37.30m	0.40m+	(18003)	Natural
No further excavation			

5.19.2 No archaeological features were revealed and no artefacts recovered from the excavation of Evaluation Trench 18.

5.20 Trench 19

5.20.1 Trench 19 measured 9m x 1.6m and was located in the central part of the site.

Level (OD) (upper surface)	Depth (BGL)	Context Number	Description
38.11m	0.0-0.22m	(19001)	Topsoil
37.89m	0.22-0.36m	(19002)	Subsoil
37.75m	0.36-0.51m	(19003)	Made ground
37.60m	0.51m+	(19004)	Natural
No further excavation			

5.20.2 No archaeological features were revealed and no artefacts recovered from the excavation of Evaluation Trench 19.

5.21 Trench 20

5.21.1 Trench 20 measured 8.5m x 1.6m and was located in the central part of the site.

Level (OD) (upper surface)	Depth (BGL)	Context Number	Description
38.07m	0.0-0.20m	(20001)	Topsoil
37.87m	0.20-0.40m	(20002)	Subsoil
37.67m	0.40m	(20003)	Natural
No further excavation			

5.21.2 Made ground (20004) was present, above the natural deposit, for about 4m in length at the north-east end of the trench.

5.21.3 No archaeological features were revealed and no artefacts recovered from the excavation of Evaluation Trench 20.

5.22 Trench 21

5.22.1 Trench 21 measured 8.5m x 1.6m and was located in the north part of the site.

Level (OD) (upper surface)	Depth (BGL)	Context Number	Description
38.08m	0.0-0.30m	(21001)	Topsoil
37.78m	0.3-0.39m	(21002)	Made ground
37.69m	0.39-0.62m	(21003)	Disturbed natural, with inclusions of made ground
37.46m	0.62m+	(21004)	Natural
No further excavation			

5.22.2 No archaeological features were revealed and no artefacts recovered from the excavation of Evaluation Trench 21.

5.23 Trench 22 (Figure 16)

5.23.1 Trench 22 measured 10m x 1.6m and was located in the north part of the site.

Level (OD) (upper surface)	Depth (BGL)	Context Number	Description
38.04m	0.0-0.23m	(22001)	Topsoil
37.81m	0.23-0.33m	(22002)	Made ground
37.71m	0.33-0.73m	(22003)	Disturbed natural, with inclusions of made ground
37.31m	0.73m+	(22004)	Natural
No further excavation			

5.23.2 One ditch was cut into the natural deposit in Trench 22.

Cut	Size	Description	Fill(s)	Description
(22006)	w: 0.66m d: 0.16m	**Linear** Rounded profile	(22005)	Firm mid brownish orange sandy clay, with occasional pebbles. **No finds**.

5.23.3 Ditch (22006) appears to be similar in nature to the features in trenches to the south-west, and is likely to be associated with them. It is likely to represent archaeological activity, of uncertain date.

5.24 Trench 23

5.24.1 Trench 23 measured 7.5m x 1.6m and was located in the north part of the site.

Level (OD) (upper surface)	Depth (BGL)	Context Number	Description
38.18m	0.0-0.27m	(23001)	Topsoil
37.91m	0.27-0.45m	(23002)	Subsoil
37.73m	0.45m+	(23003)	Natural
No further excavation			

5.24.2 A lens of broken concrete (23004), 0.09m thick and 1.3m long was present above the natural deposit 3.3m from the south end of the trench.

5.24.3 No archaeological features were revealed and no artefacts recovered from the excavation of Evaluation Trench 23.

5.25 Trench 24

5.25.1 Trench 24 was not excavated due to practical constraints at the proposed location of this trench.

5.26 Trench 25

5.26.1 Trench 25 measured 40m x 1.6m and was located in the north part of the site.

Level (OD) (upper surface)	Depth (BGL)	Context Number	Description
37.90m	0.0-0.20m	(25001)	Topsoil
37.70m	0.20-0.60m	(25002)	Disturbed natural, with inclusions of made ground

37.30m	0.60m+	(25003)	Natural
No further excavation			

5.26.2 No archaeological features were revealed and no artefacts recovered from the excavation of Evaluation Trench 25.

5.27 Trench 26

5.27.1 Trench 26 measured 20m x 1.6m and was located in the north part of the site.

Level (OD) (upper surface)	Depth (BGL)	Context Number	Description
37.74m	0.0-0.10m	(26001)	Topsoil
37.64m	0.1-0.60m	(26002)	Made ground
37.54m	0.60-0.80m	(26003)	Disturbed natural, with inclusions of made ground
37.34m	0.80m+	(26004)	Natural
No further excavation			

5.27.2 No archaeological features were revealed and no artefacts recovered from the excavation of Evaluation Trench 26.

5.28 Trench 27

5.28.1 Trench 27 measured 20m x 1.6m and was located in the north part of the site.

Level (OD) (upper surface)	Depth (BGL)	Context Number	Description
37.60m	0.0-0.18m	(27001)	Topsoil
37.42m	0.18-1.20m	(27002)	Made ground
36.40m	1.20m+	(27003)	Natural
No further excavation			

5.28.2 No archaeological features were revealed and no artefacts recovered from the excavation of Evaluation Trench 27.

5.29 Trench 28

5.29.1 Trench 28 measured 18m x 1.6m and was located in the north part of the site.

Level (OD) (upper surface)	Depth (BGL)	Context Number	Description
37.15m	0.0-0.30m	(28001)	Topsoil
36.85m	0.3-0.50m	(28002)	Made ground
36.65m	0.50m+	(28003)	Natural
No further excavation			

5.29.2 No archaeological features were revealed and no artefacts recovered from the excavation of Evaluation Trench 28.

5.30 Trench 29

5.30.1 Trench 29 measured 11m x 1.6m and was located in the north part of the site.

Level (OD) (upper surface)	Depth (BGL)	Context Number	Description
36.78m	0.0-0.20m	(29001)	Topsoil
36.58m	0.20-0.45m	(29002)	Made ground
36.33m	0.45-0.65m	(29003)	Disturbed natural, with inclusions of made ground
36.13m	0.65m+	(29004)	Natural
No further excavation			

5.30.2 No archaeological features were revealed and no artefacts recovered from the excavation of Evaluation Trench 29.

5.31 Trench 30 (Figure 17)

5.31.1 Trench 30 measured 20m x 1.6m and was located in the north part of the site.

Level (OD) (upper surface)	Depth (BGL)	Context Number	Description
33.66m	0.0-0.15m	(30000)	Topsoil
33.51m	0.15-0.31m	(30001)	Made ground with high crushed sandstone content
33.35m	0.31-0.76m	(30002)	Made ground
32.90m	0.76-1.20m	(30003)	Disturbed natural, with inclusions of made ground
32.46m	1.2m+	(30006)	Natural
No further excavation			

5.31.2 One ditch was cut into the natural deposit in Trench 30.

Cut	Size	Description	Fill(s)	Description
(30004)	w: 0.38m d: 0.17m	**Linear** Rounded profile	(30005)	Firm dark grey brown silty clay, with occasional pebbles. **No finds**.

5.31.3 Ditch (30004) appears to be similar in nature to the features in trenches to the south-west, and is likely to be associated with them. It is likely to represent archaeological activity, of uncertain date.

5.32 Trench 31

5.32.1 Trench 31 measured 10m x 1.6m and was located in the central part of the site.

Level (OD) (upper surface)	Depth (BGL)	Context Number	Description
37.49m	0.0-0.10m	(31000)	Topsoil

37.39m	0.1-0.26m	(31001)	Made ground
37.12m	0.26-0.80m	(31002)	Disturbed natural, with inclusions of made ground
36.58m	0.80m+	(31003)	Natural
No further excavation			

5.32.2 No archaeological features were revealed and no artefacts recovered from the excavation of Evaluation Trench 31.

5.33 Trench 32

5.33.1 Trench 32 measured 40m x 1.6m and was located in the northern part of the site.

Level (OD) (upper surface)	Depth (BGL)	Context Number	Description
37.94m	0.0-0.18m	(32000)	Topsoil
37.76m	0.18-0.90m	(32001)	Made ground
37.04m	0.90m+	(32002)	Natural, mid grey blue clay with occasional pebbles
37.04m	0.90m+	(32003)	Natural, light yellow grey clay with occasional pebbles
No further excavation			

5.33.2 The natural deposit changes colour approximately mid trench.

5.33.3 No archaeological features were revealed and no artefacts recovered from the excavation of Evaluation Trench 32.

5.34 Trench 33

5.34.1 Trench 33 was not excavated due to practical constraints at the proposed location of this trench.

5.35 Trench 34

5.35.1 Trench 34 measured 20m x 1.6m and was located in the north part of the site.

Level (OD) (upper surface)	Depth (BGL)	Context Number	Description
37.80m	0.0-0.12m	(34000)	Topsoil
37.68m	0.12-0.45m	(34001)	Made ground
37.35m	0.45-0.9m	(34002)	Disturbed natural, with inclusions of made ground
36.90m	0.9m+	(34003)	Natural
No further excavation			

5.35.2 No archaeological features were revealed and no artefacts recovered from the excavation of Evaluation Trench 34.

5.36 Trench 35 (Figure 18)

5.36.1 Trench 35 measured 43m x 1.6m and was located in the north part of the site.

Level (OD) (upper surface)	Depth (BGL)	Context Number	Description
38.01m	0.0-0.08m	(35000)	Topsoil
37.03m	0.08-0.95m	(35001)	Made ground
36.16m	0.95-1.25m	(35002)	Disturbed natural, with inclusions of made ground
35.86m	1.25m+	(35003)	Natural
No further excavation			

5.36.2 One ditch was cut into the natural deposit in Trench 35.

Cut	Size	Description	Fill(s)	Description
(35005)	w: 0.75m d: 0.31m	**Linear** Rounded profile	(35004)	Firm mid orange brown sandy clay, with occasional pebbles. **No finds**.

5.36.3 Ditch (35005) appears to be similar in nature to the features in trenches to the south-west, and is likely to be associated with them. It is likely to represent archaeological activity, of uncertain date.

5.37 Trench 36 (Figure 19)

5.37.1 Trench 36 measured 14m x 1.6m and was located in the central part of the site.

Level (OD) (upper surface)	Depth (BGL)	Context Number	Description
37.74m	0.0-0.08m	(36000)	Topsoil
37.66m	0.08-0.49m	(36001)	Made ground
37.27m	0.49-0.75m	(36002)	Disturbed natural, with inclusions of made ground
37.01m	0.75m+	(36005)	Natural
No further excavation			

5.37.2 One ditch was cut into the natural deposit in Trench 36.

Cut	Size	Description	Fill(s)	Description
(36004)	w: 0.7m d: 0.14m	**Linear** Rounded profile	(36003)	Firm light to mid yellowish brown sandy clay, with occasional pebbles. **No finds**.

5.37.3 Ditch (36004) appears to be similar in nature to the features in trenches to the south-west, and is likely to be associated with them. It is likely to represent archaeological activity, of uncertain date.

5.38 Trench 37

5.38.1 Trench 37 was 20m x 1.6m and was located in the north part of the site.

Level (OD) (upper surface)	Depth (BGL)	Context Number	Description
37.75m	0.0-0.16m	(37000)	Topsoil
37.59m	0.16-0.55m	(37001)	Made ground
37.20m	0.55-1.05m	(37002)	Disturbed natural, with inclusions of made ground

36.70m	1.05m+	(37003)	Natural
No further excavation			

5.38.2 No archaeological features were revealed and no artefacts recovered from the excavation of Evaluation Trench 37.

5.39 Trench 38 (Figure 20)

5.39.1 Trench 38 measured 35m x 1.6m and was located towards the east part of the site.

Level (OD) (upper surface)	Depth (BGL)	Context Number	Description
36.02m	0.0-0.12m	(38000)	Topsoil
35.90m	0.12-0.47m	(38001)	Made ground
35.55m	0.47-0.60m	(38002)	Disturbed natural, with inclusions of made ground
35.42m	0.60m+	(38005)	Natural
No further excavation			

5.39.2 One ditch was cut into the natural deposit in Trench 38.

Cut	Size	Description	Fill(s)	Description
(38004)	w: 0.7m d: 0.17m	**Linear** Rounded profile	(38003)	Firm mid yellow brown clay, with occasional pebbles. **No finds**.

5.39.3 Ditch (38004) appears to be similar in nature to the features in trenches to the south-west, and is likely to be associated with them. It is likely to represent archaeological activity, of uncertain date.

5.40 Trench 39 (Figure 21)

5.40.1 Trench 39 measured 21.5m x 1.6m and was located in the central part of the site.

Level (OD) (upper surface)	Depth (BGL)	Context Number	Description
37.81m	0.0-0.06m	(39000)	Topsoil
37.75m	0.06-0.34m	(39001)	Made ground
37.47m	0.34-0.50m	(39002)	Disturbed natural, with inclusions of made ground
37.31m	0.5m+	(39009)	Natural
No further excavation			

5.40.2 Three ditches were cut into the natural deposit in Trench 39.

Cut	Size	Description	Fill(s)	Description
(39004)	w: 0.7m d: 0.13m	**Linear** Rounded profile	(39003)	Mid yellow brown silty clay, with occasional pebbles. **No finds**.
(39006)	w: 0.7m d: 0.16m	**Linear** Rounded profile	(39005)	Firm mid yellow grey brown clay, with occasional pebbles. **No finds**.
(39008)	w: 0.95m d: 0.15m	**Linear** Rounded profile	(39007)	Firm mid yellow brown clay, with occasional pebbles. **No finds**.

5.40.3 Ditches (39004), (39006) and (39008) appear to be similar in nature to the features in trenches to the south-west, and are likely to be associated with them. They are likely to represent archaeological activity, of uncertain date.

5.41 Trench 40

5.41.1 Trench 40 was 12m x 1.6m and was located in the central part of the site.

Level (OD) (upper surface)	Depth (BGL)	Context Number	Description
37.56m	0.0-0.09m	(40000)	Topsoil
	0.09-0.43m	(40001)	Made ground
	0.43-0.65m	(40002)	Disturbed natural, with inclusions of made ground
	0.65m+	(40003)	Natural
No further excavation			

5.41.2 No archaeological features were revealed and no artefacts recovered from the excavation of Evaluation Trench 40.

5.42 Trench 41 (Figure 22)

5.42.1 Trench 41 was 22m x 1.6m and was located in the central part of the site.

Level (OD) (upper surface)	Depth (BGL)	Context Number	Description
37.21m	0.0-0.16m	(41000)	Topsoil
	0.16-0.34m	(41001)	Made ground
	0.34-0.6m	(41002)	Disturbed natural, with inclusions of made ground
	0.6m+	(41005)	Natural
No further excavation			

5.42.2 Two ditches were cut into the natural deposit in Trench 41.

Cut	Size	Description	Fill(s)	Description
(41004)	w: 0.85m d: 0.27m	**Linear** Rounded profile	(41003)	Firm mid yellow brown clay, with occasional pebbles. **No finds**.
(41007)	w: 0.7m d: 0.21m	**Linear** Rounded profile	(41006)	Firm mid yellow brown clay, with occasional pebbles. **No finds**.

5.42.3 Ditches (41004) and (41007) appear to be similar in nature to the features in trenches to the south-west, and are likely to be associated with them. They are likely to represent archaeological activity, of uncertain date.

5.43 Trench 42

5.43.1 Trench 42 was not excavated due to practical constraints at the proposed location of this trench.

5.44 Trench 43

5.44.1 Trench 43 was not excavated due to practical constraints at the proposed location of this trench.

5.45 Trench 44

5.45.1 Trench 44 measured 21m x 1.6m and was located in the central part of the site.

Level (OD) (upper surface)	Depth (BGL)	Context Number	Description
36.54m	0.0-0.10m	(44000)	Topsoil
36.44m	0.1-0.48m	(44001)	Made ground
36.12m	0.48-0.80m	(44002)	Disturbed natural, with inclusions of made ground
35.80m	0.8m+	(44003)	Natural
No further excavation			

5.45.2 No archaeological features were revealed and no artefacts recovered from the excavation of Evaluation Trench 44.

5.46 Trench 45

5.46.1 Trench 45 was 11m x 1.6m and was located in the east of the site.

Level (OD) (upper surface)	Depth (BGL)	Context Number	Description
35.50m	0.0-0.17m	(45001)	Tarmac
35.33m	0.17-0.27m	(45002)	Reinforced concrete
35.23m	0.27-0.34m	(45003)	Made ground
35.16m	0.34-0.65m	(45004)	Disturbed natural
34.80m	0.65m+	(45005)	Natural
No further excavation			

5.46.2 No archaeological features were revealed and no artefacts recovered from the excavation of Evaluation Trench 45.

5.47 Trench 46

5.47.1 Trench 46 was not excavated due to practical constraints at the proposed location of this trench.

5.48 Trench 47

5.48.1 Trench 47 was not excavated due to practical constraints at the proposed location of this trench.

5.49 Trench 48

5.49.1 Trench 48 measured 20m x 1.6m and was located in the central part of the site.

Level (OD) (upper surface)	Depth (BGL)	Context Number	Description

36.44m	0.0-0.15m	(48001)	Tarmac
36.29m	0.15-0.25m	(48002)	Reinforced concrete
36.19m	0.25-0.4m	(48003)	Made ground
36.04m	0.4-0.8m	(48004)	Disturbed natural
35.64m	0.8m+	(48005)	Natural
No further excavation			

5.49.2 No archaeological features were revealed and no artefacts recovered from the excavation of Evaluation Trench 48.

5.50 Trench 49

5.50.1 Trench 49 measured 20m x 1.6m and was located in the east part of the site.

Level (OD) (upper surface)	Depth (BGL)	Context Number	Description
36.22m	0.0– 0.20m	(49000)	Topsoil
36.02m	0.20- 0.25m	(49001)	Subsoil
35.77m	0.08m+	(49002)	Natural
No further excavation			

5.50.2 No archaeological features were revealed and no artefacts recovered from the excavation of Evaluation Trench 49.

5.51 Trench 50

5.51.1 Trench 50 was not excavated due to practical constraints at the proposed location of this trench.

5.52 Trench 51 (Figure 23)

5.52.1 Trench 51 measured 20m x 1.6m and was located at the east part of the site.

Level (OD) (upper surface)	Depth (BGL)	Context Number	Description
35.74m	0.0-0.14m	(51000)	Topsoil
35.60m	0.14-0.38m	(51001)	Made ground
35.36m	0.38-0.60m	(51004)	Disturbed natural
35.14m	0.60m+	(51005)	Natural
No further excavation			

5.52.2 One ditch was cut into the natural in Trench 51.

Cut	Size	Description	Fill(s)	Description
(51003)	w: 0.5m d: 0.48m	**Linear / Pit** Rounded profile	(51002)	Firm mid to dark grey brown silty clay, with occasional pebbles. **No finds**.

5.52.3 Ditch (51003) appears to be similar in nature to the features in trenches to the south-west, and is likely to be associated with them. It is likely to represent archaeological activity, of uncertain date.

5.53 Trench 52

5.53.1 Trench 52 measured 17m x 1.6m and was located in the east part of the site.

Level (OD) (upper surface)	Depth (BGL)	Context Number	Description
34.93m	0.0-0.10m	(52000)	Topsoil
34.83m	0.1-0.22m	(52001)	Topsoil, with charcoal and brick fragments
34.71m	0.22-0.80m	(52002)	Subsoil
34.13.	0.8m+	(52003)	Natural
No further excavation			

5.53.2 No archaeological features were revealed and no artefacts recovered from the excavation of Evaluation Trench 52.

5.54 Trench 53

5.54.1 Trench 53 measured 20m x 1.6m and was located in the east part of the site.

Level (OD) (upper surface)	Depth (BGL)	Context Number	Description
34.66m	0.0-0.12m	(53000)	Topsoil
34.54m	0.12-0.25m	(53001)	Topsoil, with charcoal and brick fragments
34.41m	0.25-0.65m	(53002)	Subsoil
34.01m	0.65m+	(53003)	Natural
No further excavation			

5.54.2 No archaeological features were revealed and no artefacts recovered from the excavation of Evaluation Trench 53.

5.55 Summary of the Results

5.55.1 The site can be divided into two areas; one being the area currently occupied by buildings, and the other being the open area along the southwest edge of the site, currently used as a golfing driving range. The deposits in the area currently occupied by buildings have been severely affected by horizontal truncation resulting from the construction and demolition of several generations of buildings on the site since its first use by the RAF in the 1920s. Those in the open area along the southwest edge of the site have not been truncated significantly.

5.55.2 The depth of truncation in the area currently occupied by buildings cannot be determined with any certainty, but the identification of surviving archaeological features in some of the trenches in this area suggests that it is limited, at least locally. The thickness of the layer of made ground beneath the current ground surface is probably due to the importation of a considerable volume of material onto site during the period that it has been an RAF base.

5.55.3 The stratigraphic sequence in the area of the existing buildings comprises topsoil – made ground – disturbed natural – natural. The 'disturbed natural' deposit is the result of made ground material being pushed into the natural ground surface horizon during demolition/construction works. The made ground itself comprises

demolition material from previous buildings mixed into a homogenous layer of soils and sediments. It was laid to level the area in preparation for the existing structures

5.55.4 The archaeological features on the site divide into two types. The first type contain dating evidence, which is all late post-medieval. These features are of low archaeological significance, and probably originate in agricultural or construction during the 19th or 20th centuries. No dating evidence was recovered from the features of the second type, and any cultural material in them is clearly very sparse.

5.55.5 The features with no dating evidence are strongly reminiscent of a system of roundhouses within coaxial (rectangular) fields, defined by boundary ditches. Figures 3 to 23 suggest that the ditches are predominantly on a north-south or an east-west alignment, although the apparent alignments are not completely reliable due to the narrow exposure within the evaluation trenches. Such systems have been found in a number of locations in southern Britain, and they are the focus of recent research (eg Yates 2007). Both the earliest roundhouses and the earliest coaxial field systems are middle Bronze Age, and they are frequently found together, with individual roundhouses, or small groups of them, distributed within the field systems. Roundhouses continued in use into the Roman period, and field systems have never gone out of use, although their form changed in the Iron Age, and a number of times since.

5.55.6 The evidence from Trench 1 and the nearby trenches suggests that there is a particular focus of archaeological activity around the west corner of the site. The potential roundhouse in Trench 1 consists of features (1004) and (1006). Roundhouses were normally surrounded by a ring-shaped ditch, which was broken by a single entrance, and the ditch often survives even when there are no other remains of the roundhouse. The other undated features could be the remains of the field boundary ditches. In Trench 1 the positition of the potential roundhouse relative to the other ditches implies that there are at least two phases of activity. Nevertheless, if these features do represent a roundhouse and field system, it is likely that they are associated and the time gap between them is short, rather than being unrelated features with a wide chronological separation.

5.55.7 It seems likely that the archaeological features extended across a wide area before the air base, as features were found across the whole site where truncation had not been too severe.

5.56 Finds

5.56.1 Finds were very sparse on the site. They consist of animal bone from pit (10006) in Tr 10 and a fragment of a land drain in ditch (13002).

5.57 Environmental Samples

5.57.1 Bulk samples were taken from 4 contexts. These were from features in Trenches 1 and 3, in the centre of the possible archaeological activity. Three of the samples were from ditches that may mark agricultural or other boundaries, and one, sample <3> from context (3011), was from the possible ring ditch of a roundhouse. These samples have been processed by flotation, and the ‘flots’ and residues kept for further analysis.

6 Conclusions and Interpretation

6.1 Conclusions

6.1.1 The evaluation achieved its aims in establishing the presence/absence of archaeological remains on the site.

6.1.2 Archaeological activity appears to have been distributed over the whole site, although there is evidence for a focus in the west corner, as suggested by the previous geophysical survey of the site. However, truncation by the RAF base has had a marked affect on remains within the buildings' footprint, and survival of archaeological remains in this area is limited.

6.1.3 On the currently available evidence, the principal archaeological remains on the site are reminicent of prehistoric settlement with an associated field system. However, the current evidence is limited by the lack of adequate dating evidence from these features, and the constriants of evaluation trenching in terms of determining the form of the remains in plan. Therefore without either adequate dating from these features, or better information on the areas between the evaluation trenches, it is not possible to be confident about this interpretation.

6.2 Recommendations

6.2.1 If required, it may be possible to date the archaeological remains before further fieldwork is undertaken by radiocarbon dating some of the material retrieved from the bulk samples.

6.2.2 It is not recommended that the finds are analysed by specialists at this stage.

6.2.3 Currently the development proposals are unknown. However, should there be any development liable to impact on the archaeological remains in the southwest part of the site, it is recommended that a programme of archaeological excavation and recording is undertaken in advance of groundworks.

6.2.4 It is understood that Kasia Gdaniec, Senior Archaeologist for Cambridge County Council is satisfied that no further work will be required within the area currently occupied by buildings.

7 Bibliography

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Based on the Ordnance Survey's 1:50 000 Landranger map of 2002
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500m 0 2 km

1:50 000

Figure 1: Site Location

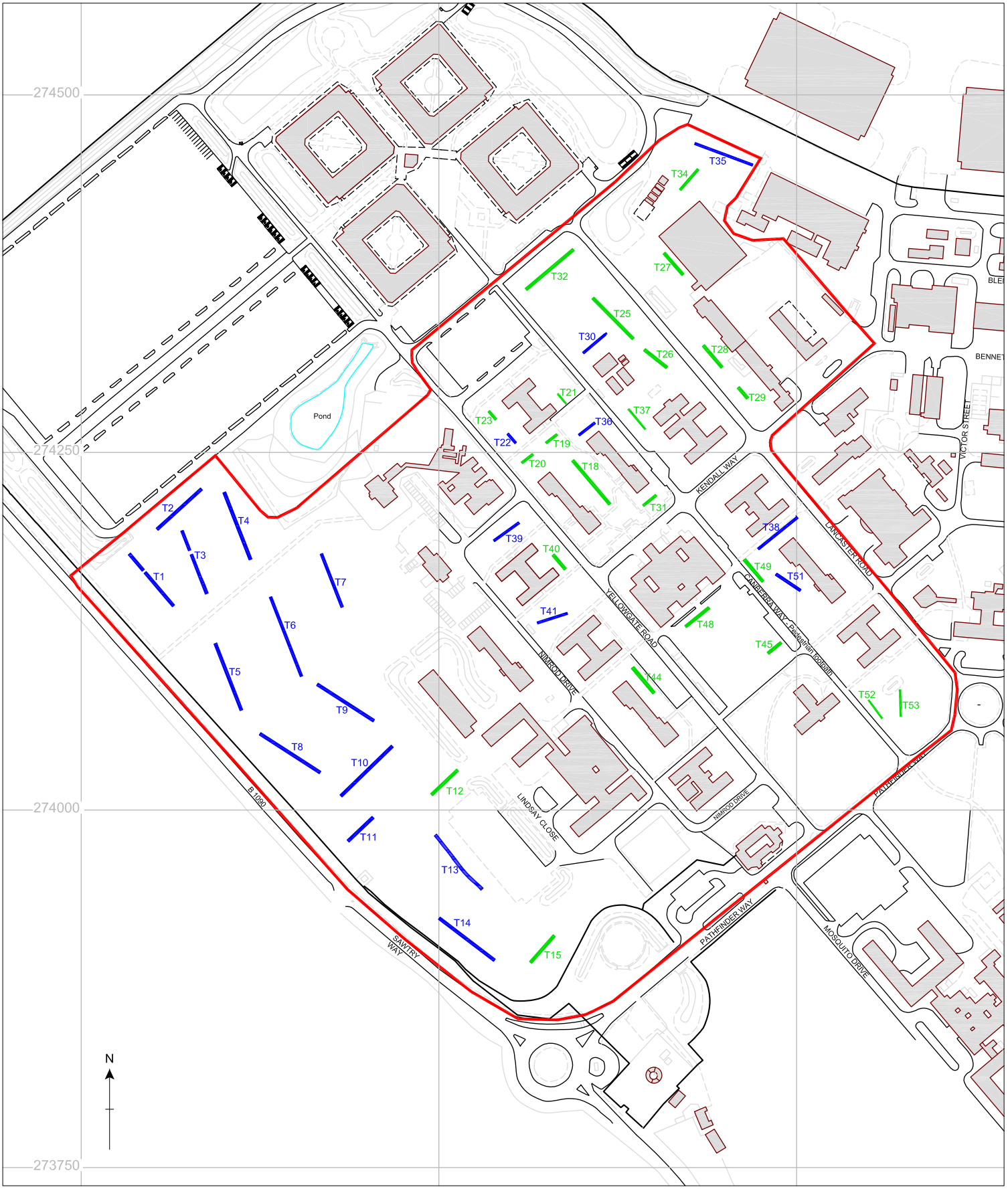

FIgure 2: Detailed Trench Location Plan

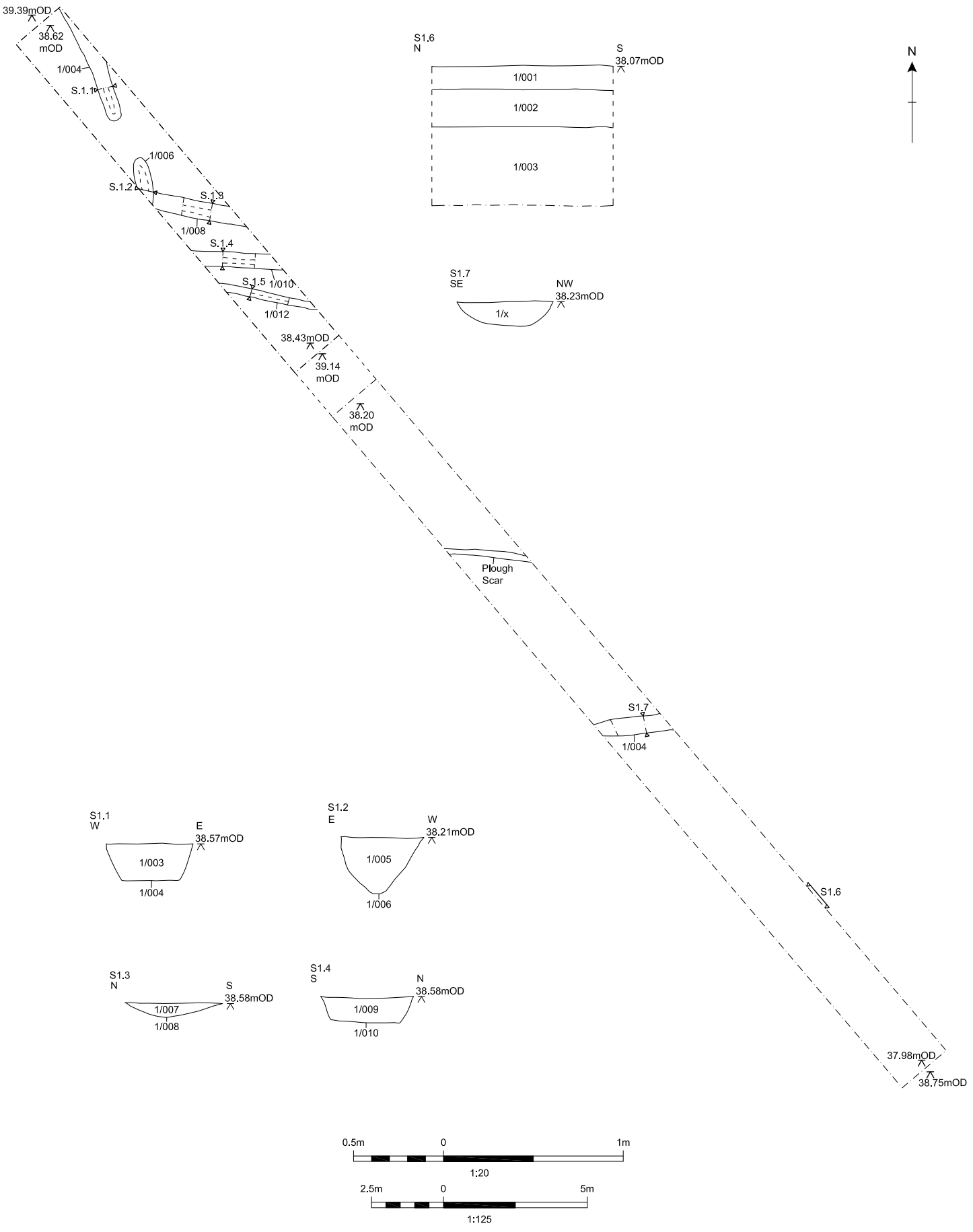

Figure 3: Trench 1: Plan (1:125) & Sections (1:20)

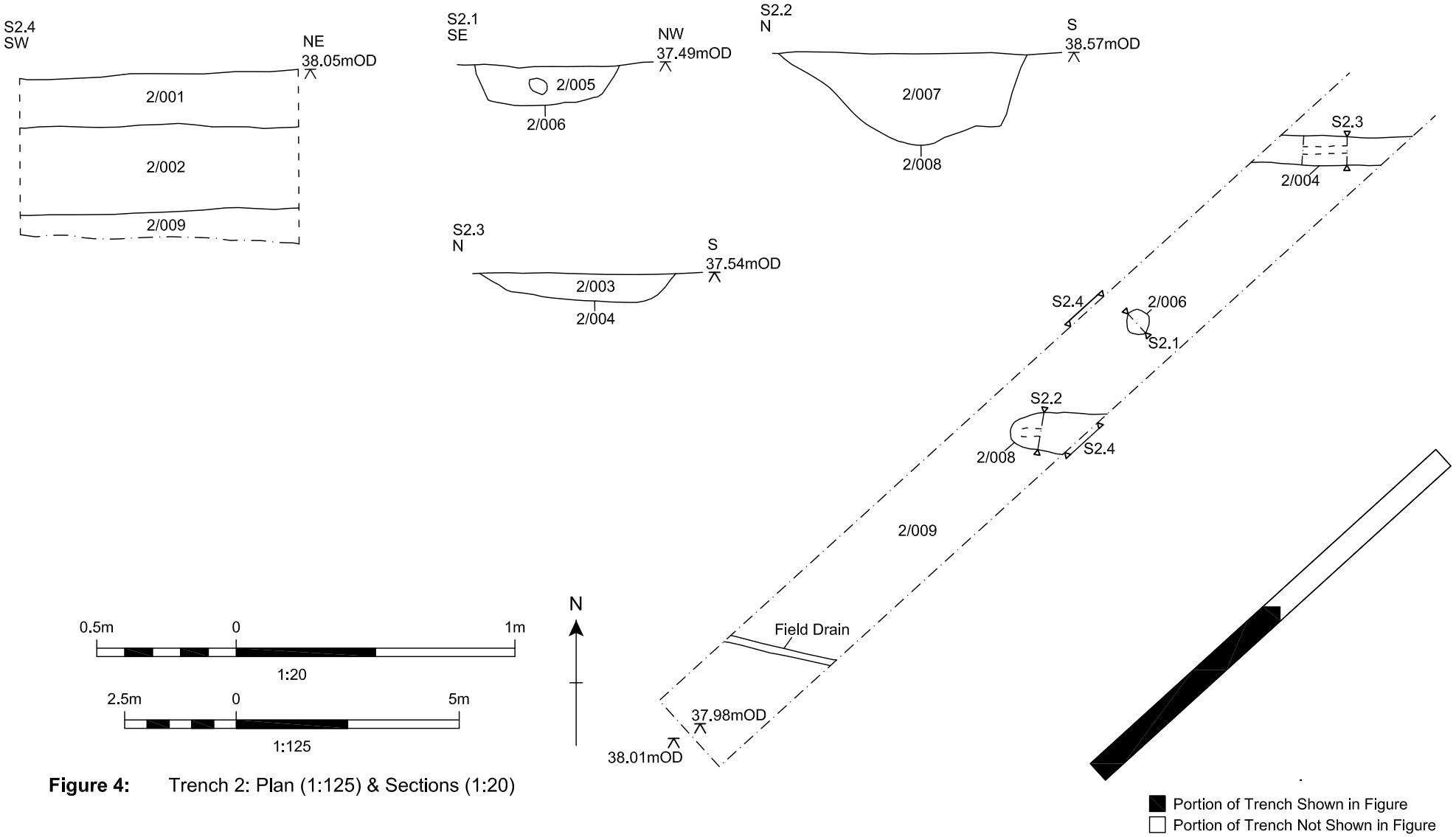

Figure 4: Trench 2: Plan (1:125) & Sections (1:20)

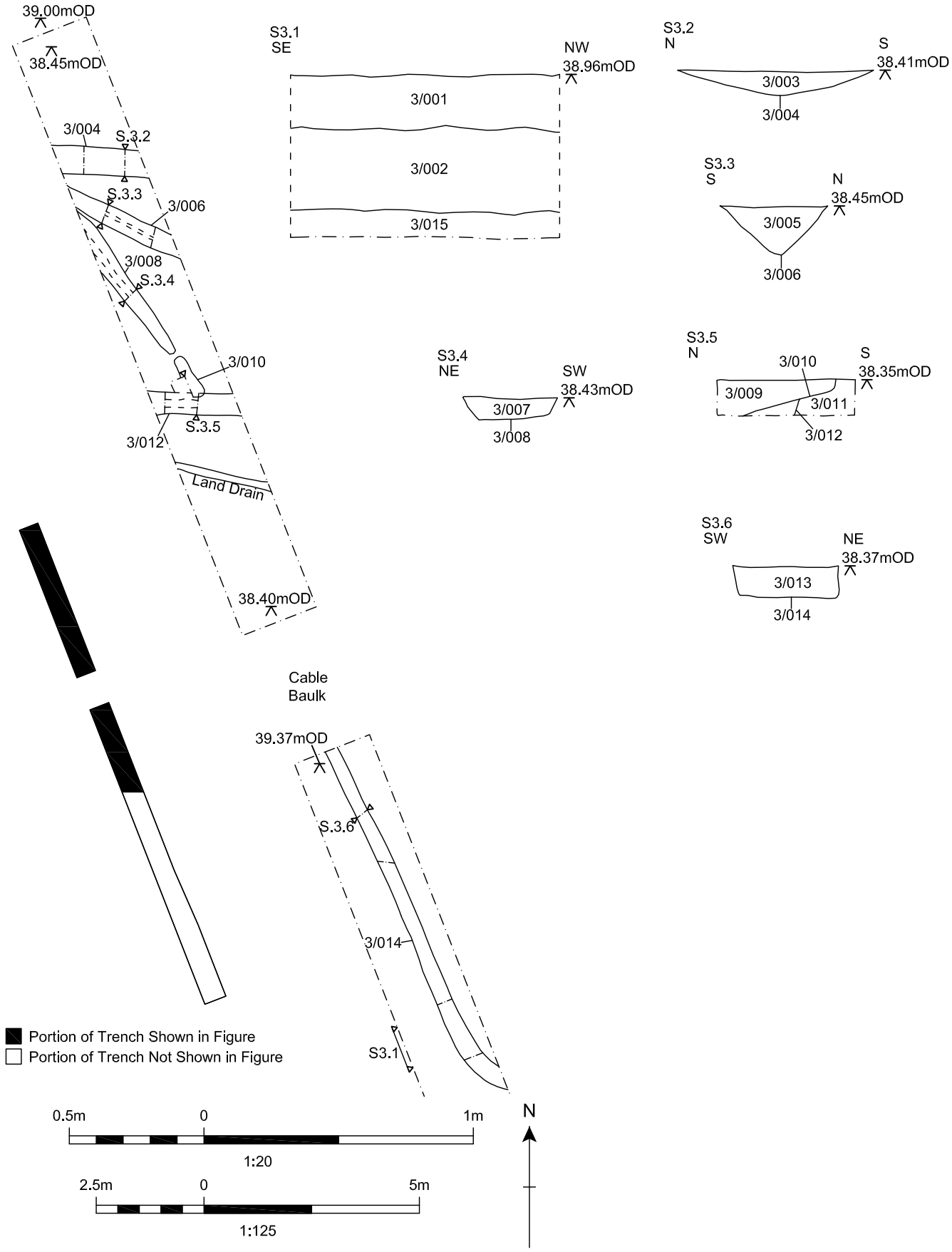

Figure 5: Trench 3: Plan (1:125) & Sections (1:20)

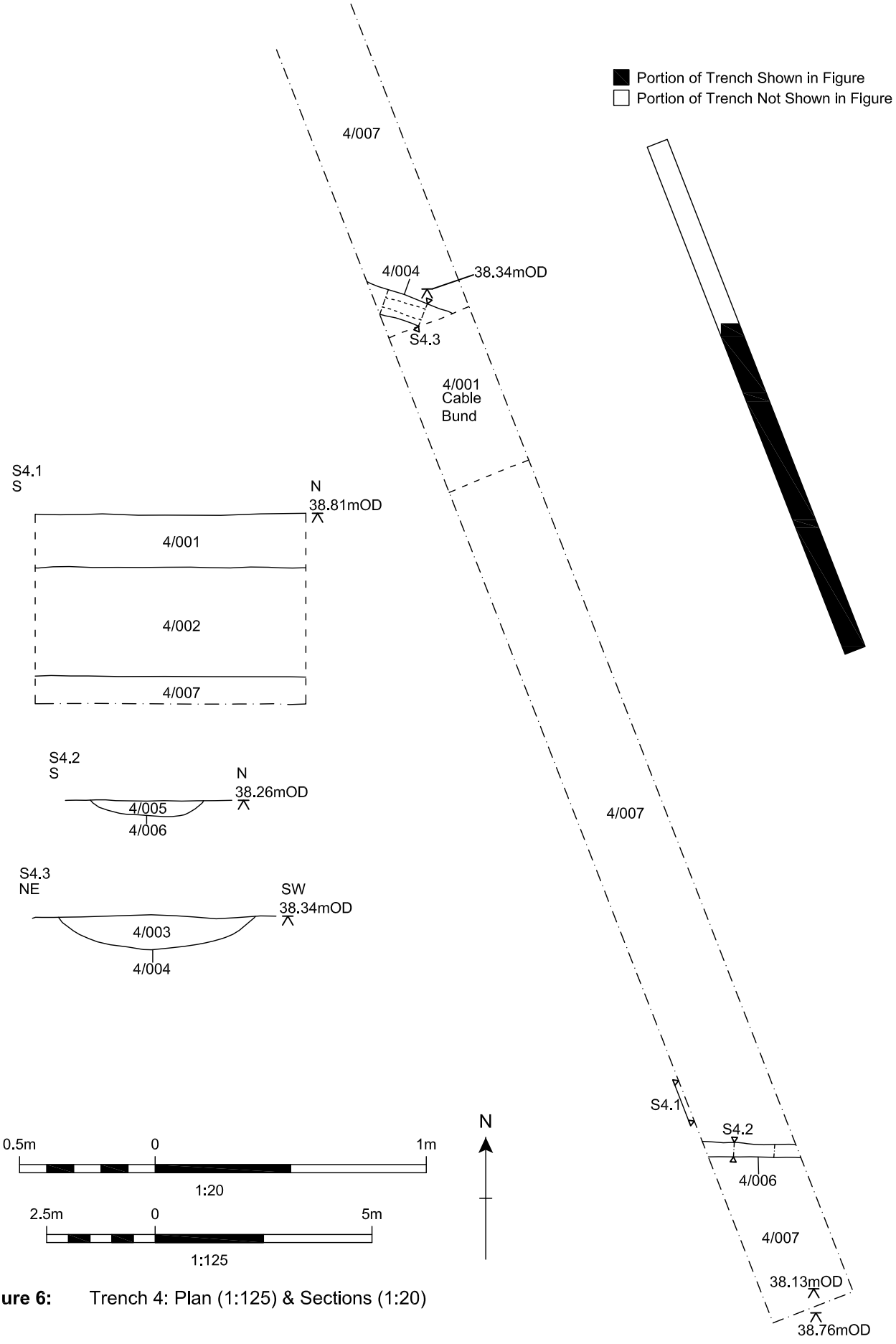

Figure 6: Trench 4: Plan (1:125) & Sections (1:20)

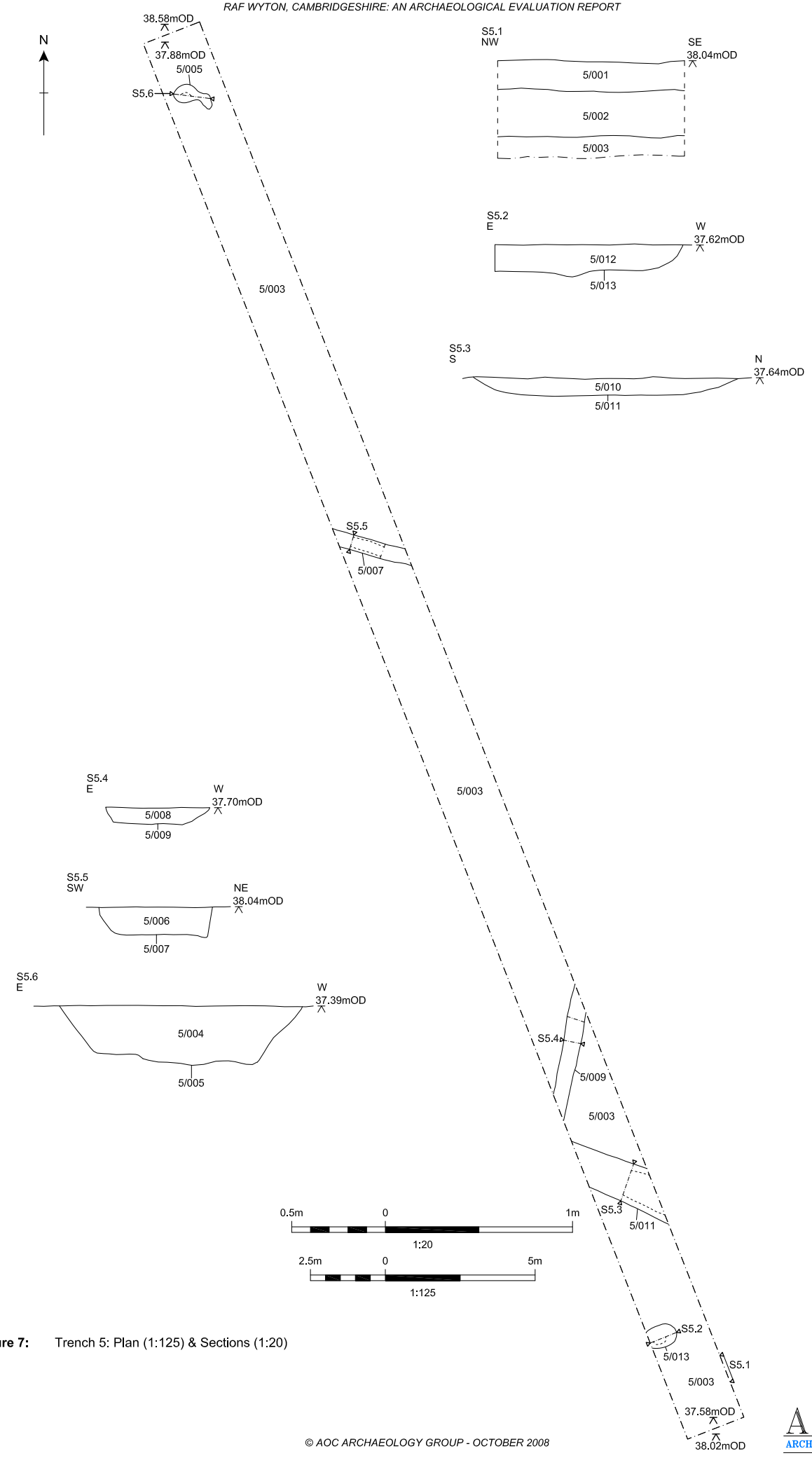

Figure 7: Trench 5: Plan (1:125) & Sections (1:20)

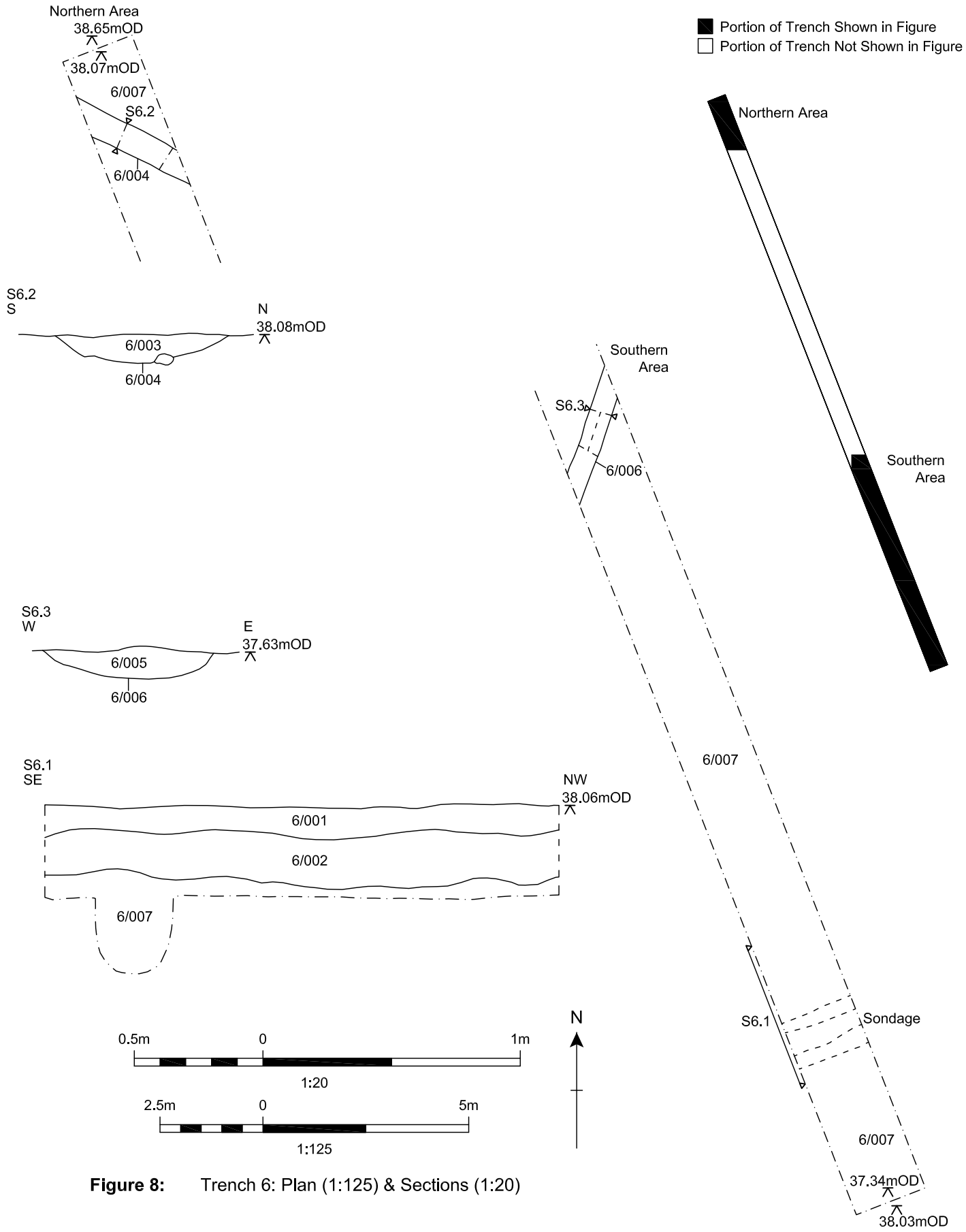

Figure 8: Trench 6: Plan (1:125) & Sections (1:20)

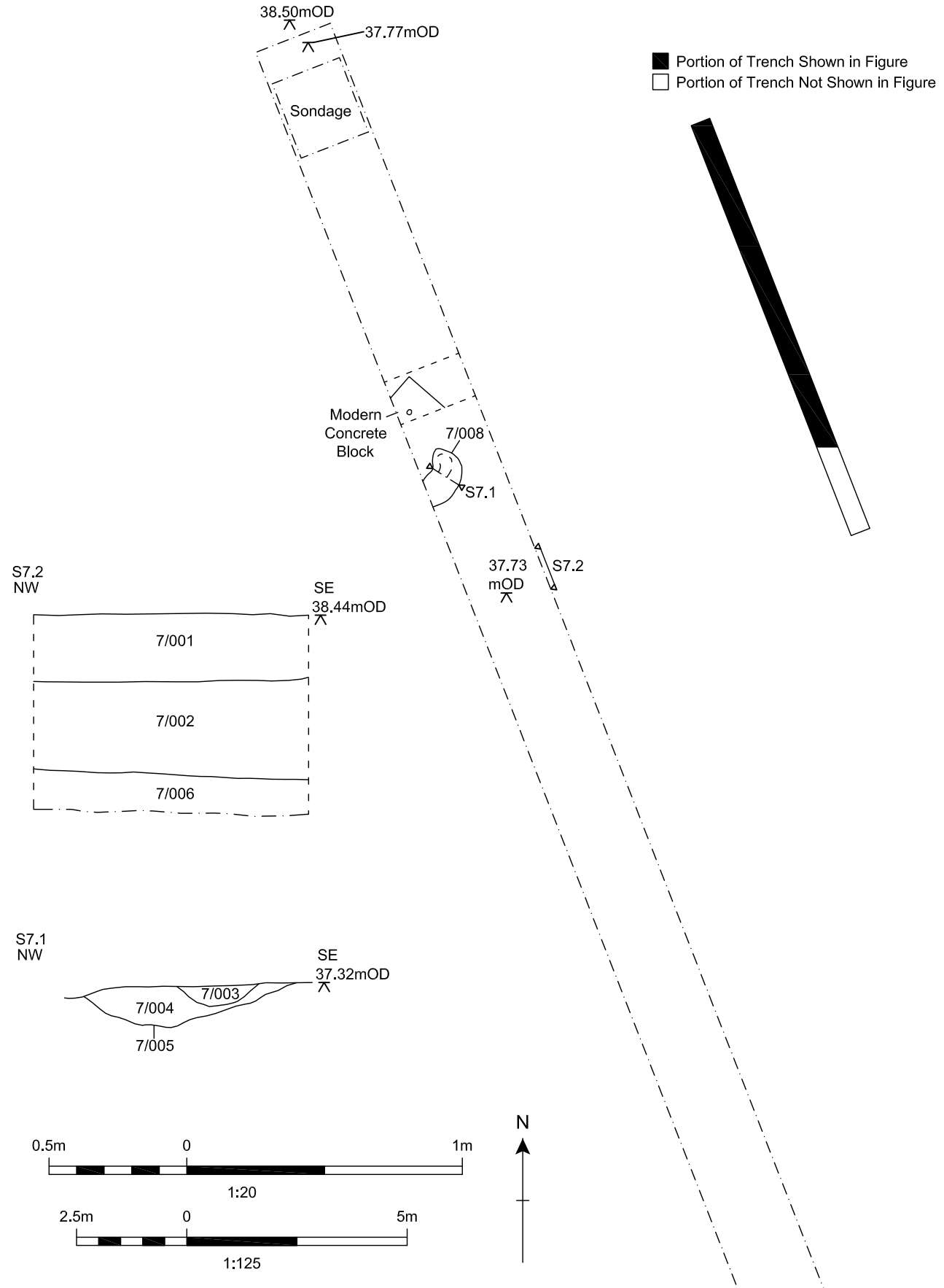

Figure 9: Trench 7: Plan (1:125) & Sections (1:20)

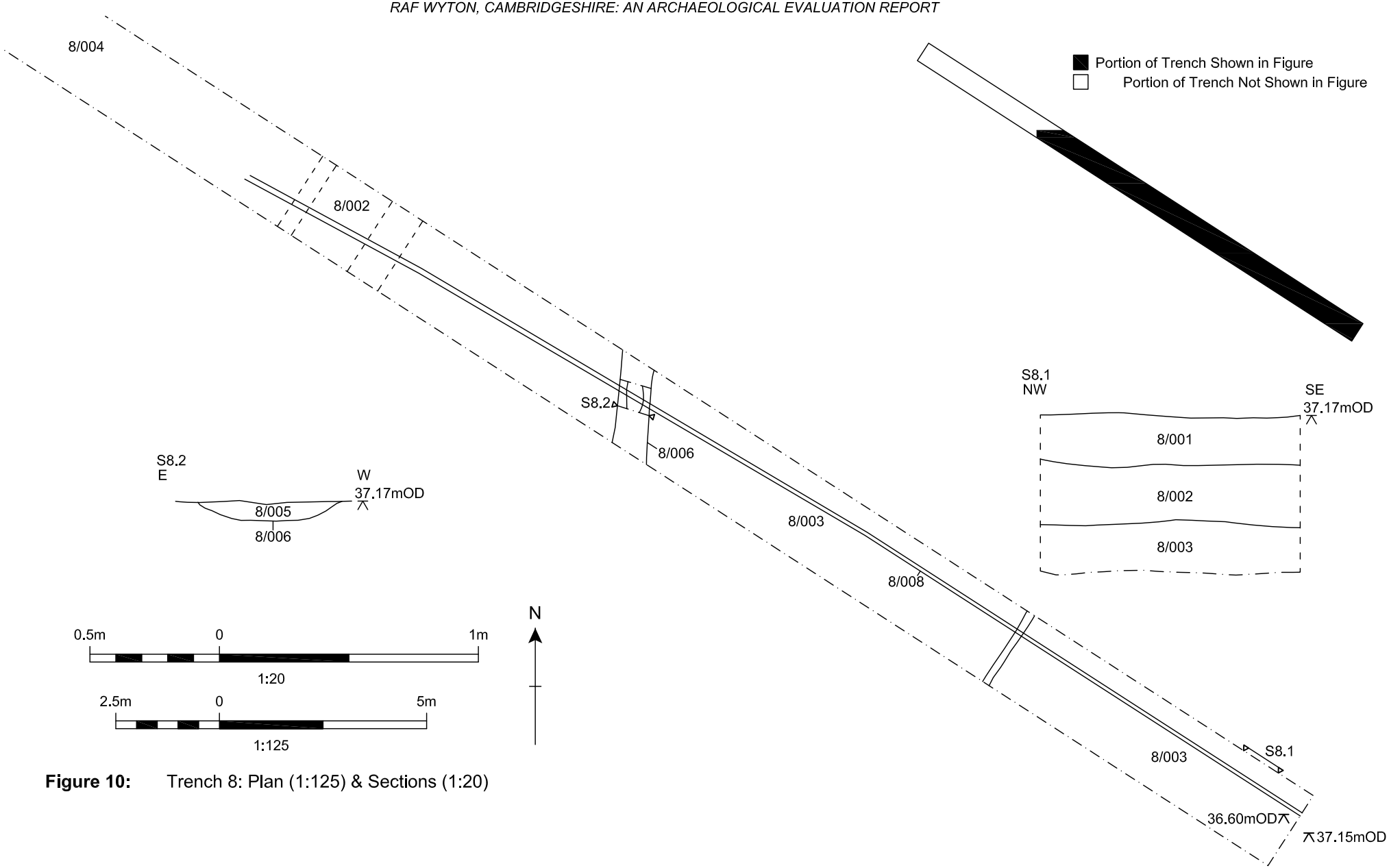

Figure 10: Trench 8: Plan (1:125) & Sections (1:20)

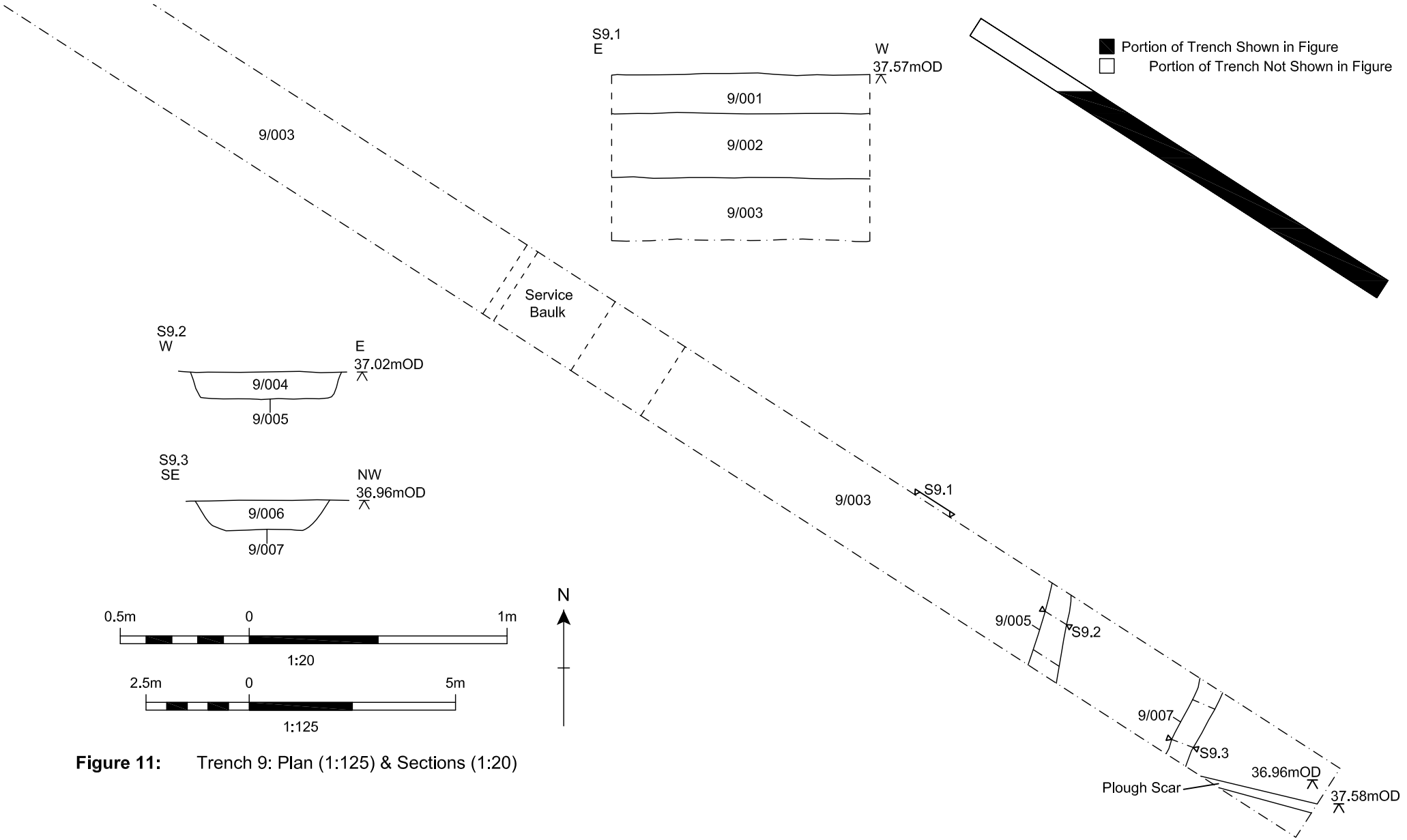

Figure 11: Trench 9: Plan (1:125) & Sections (1:20)

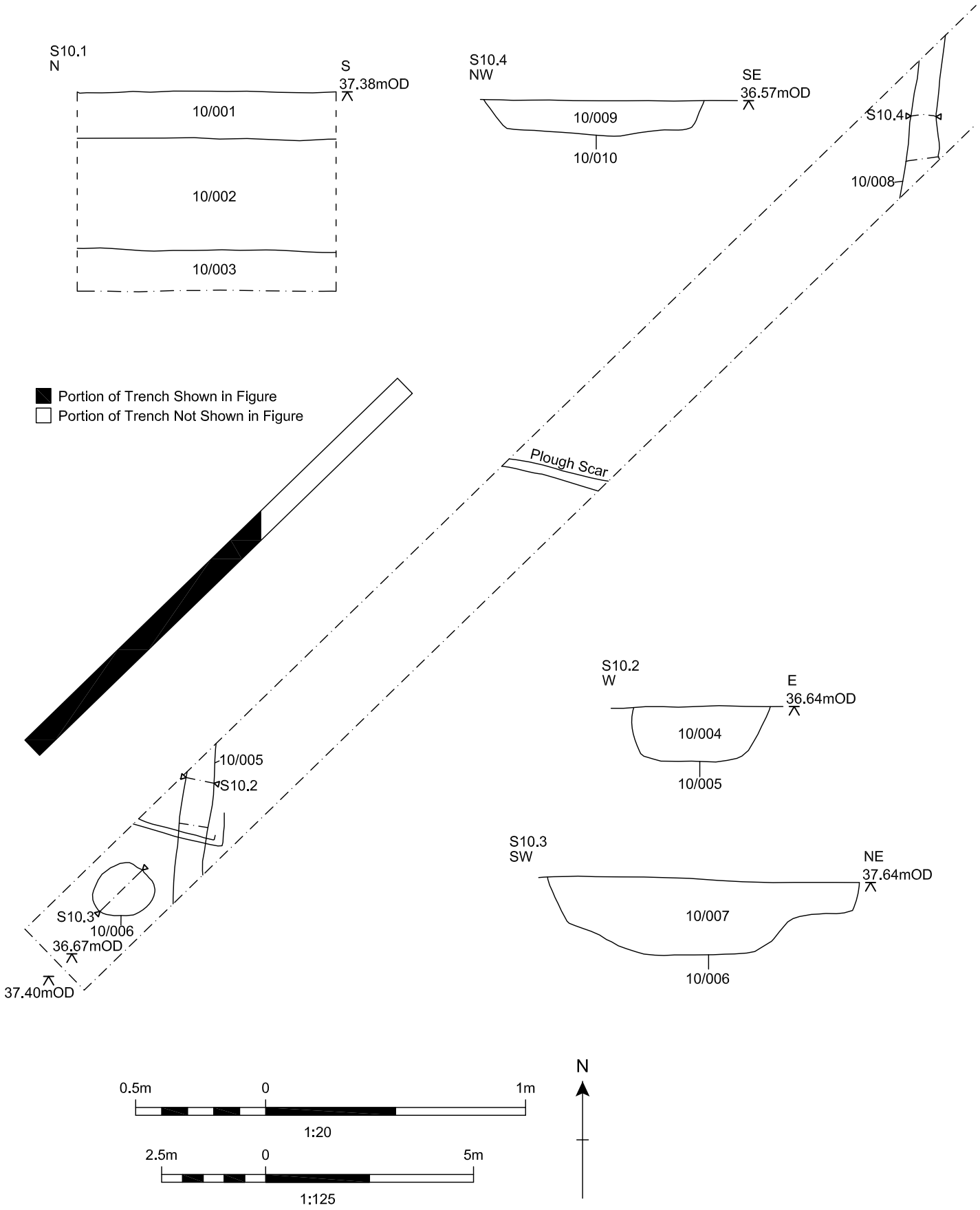

Figure 12: Trench 10: Plan (1:125) & Sections (1:20)

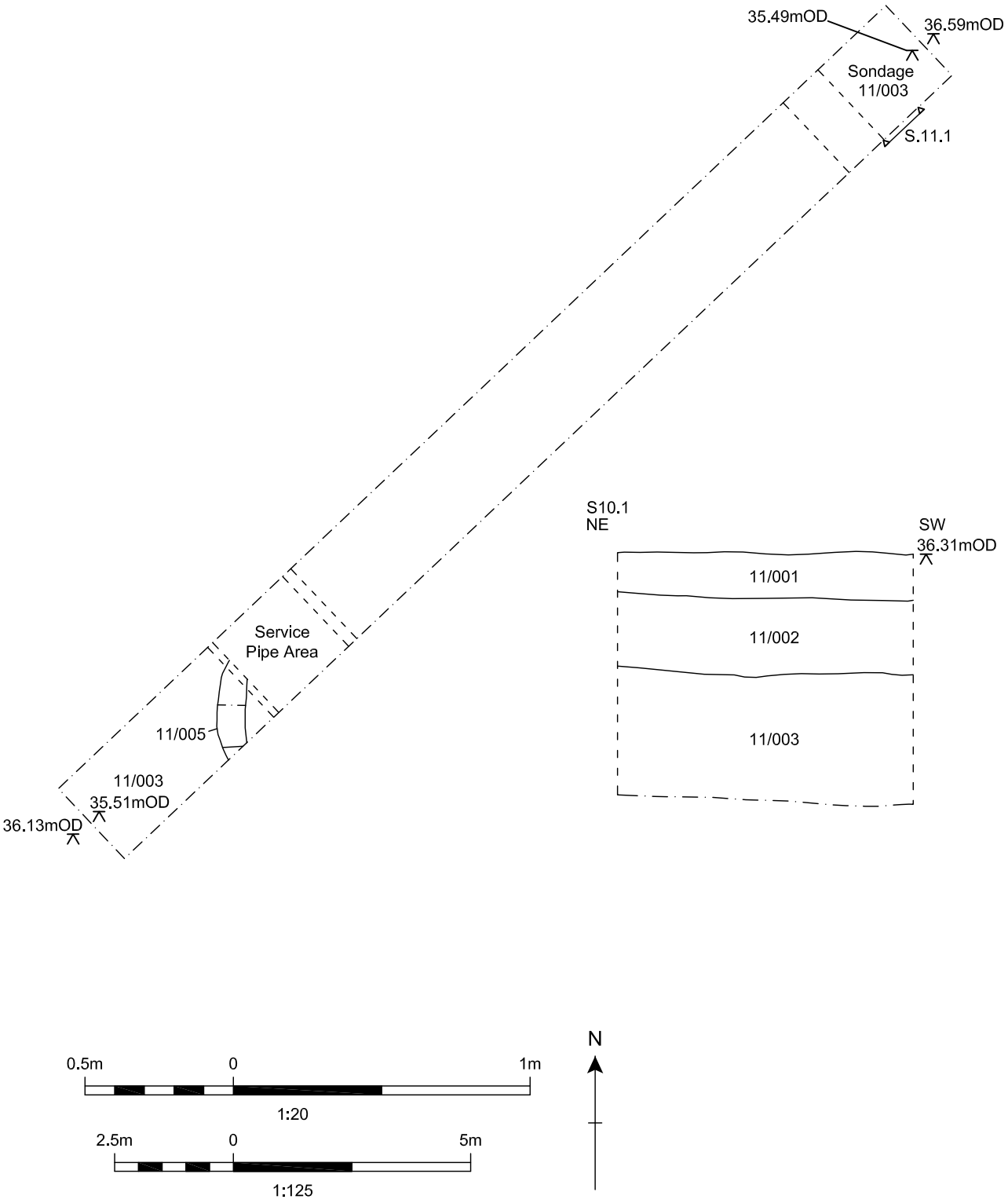

Figure 13: Trench 11: Plan (1:125) & Sections (1:20)

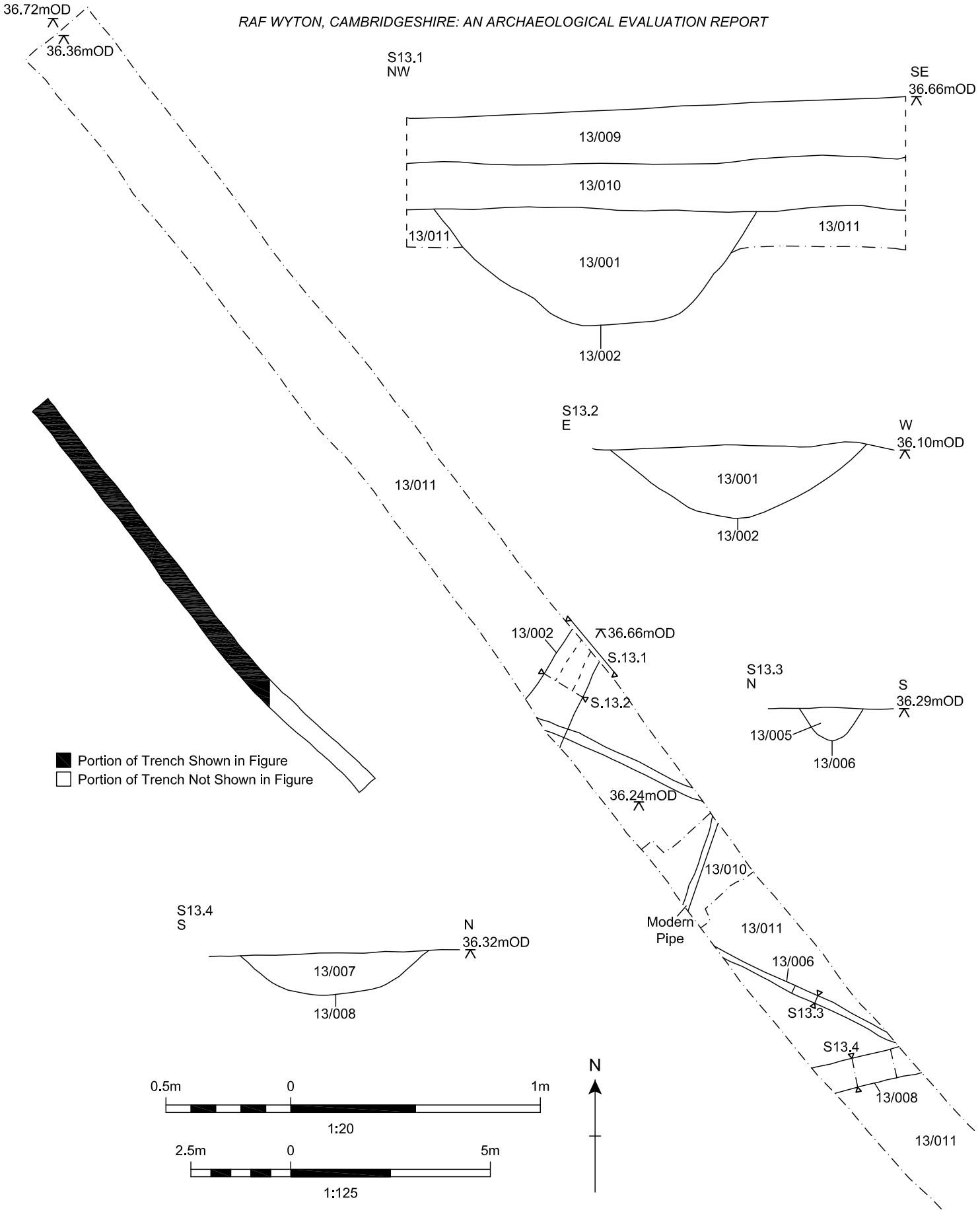

Figure 14: Trench 13: Plan (1:125) & Sections (1:20)

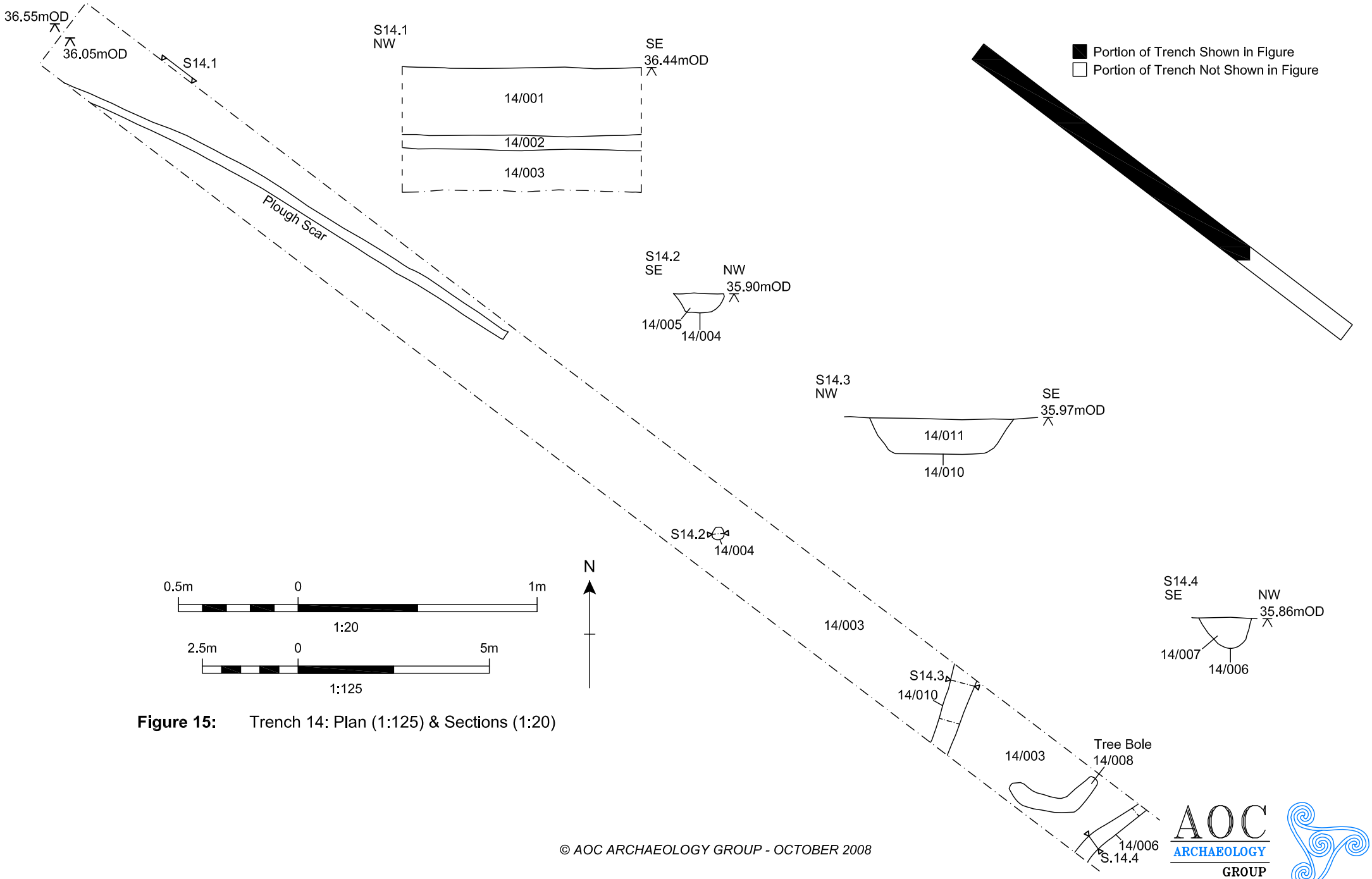

Figure 15: Trench 14: Plan (1:125) & Sections (1:20)

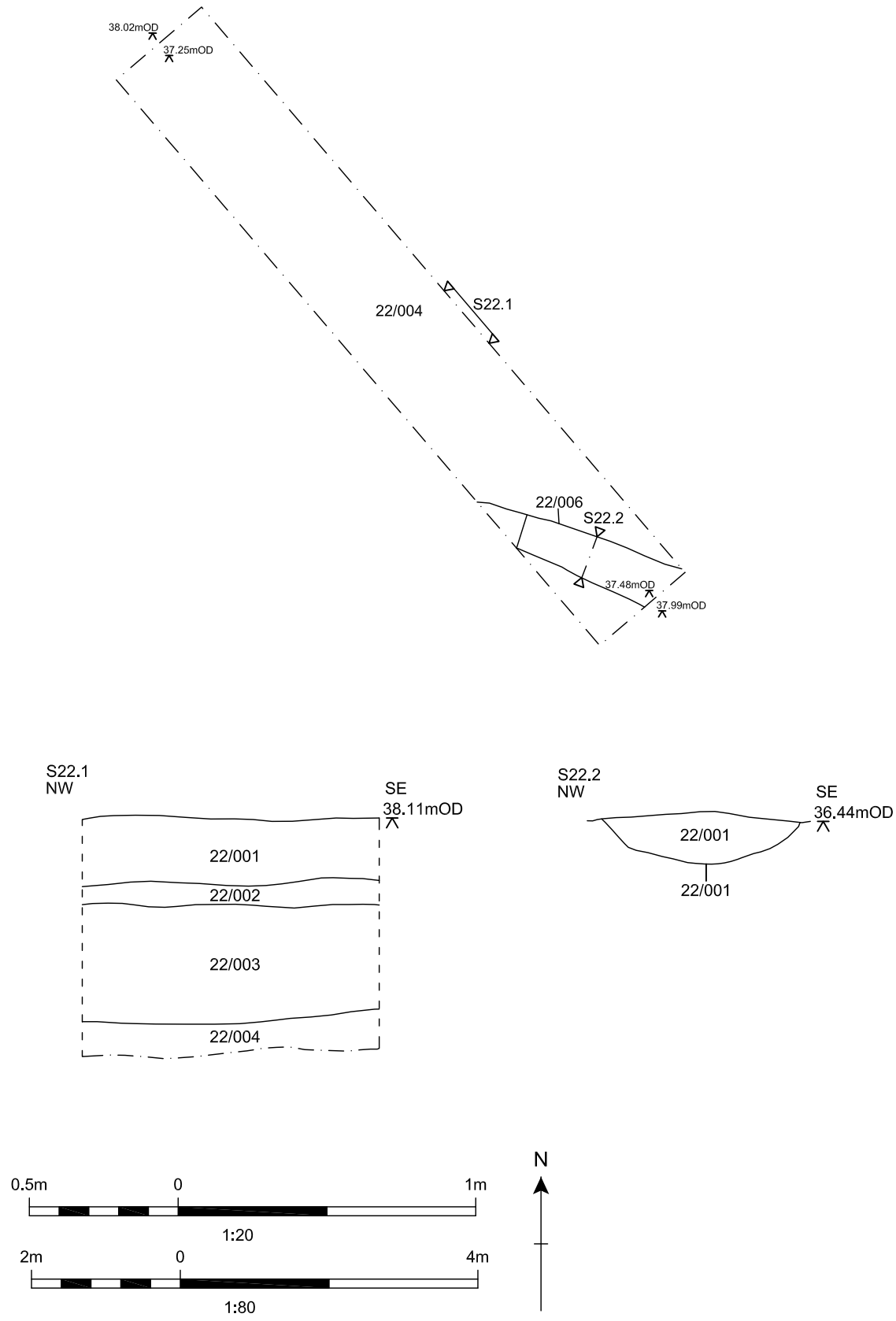

Figure 16: Trench 22: Plan (1:80) & Sections (1:20)

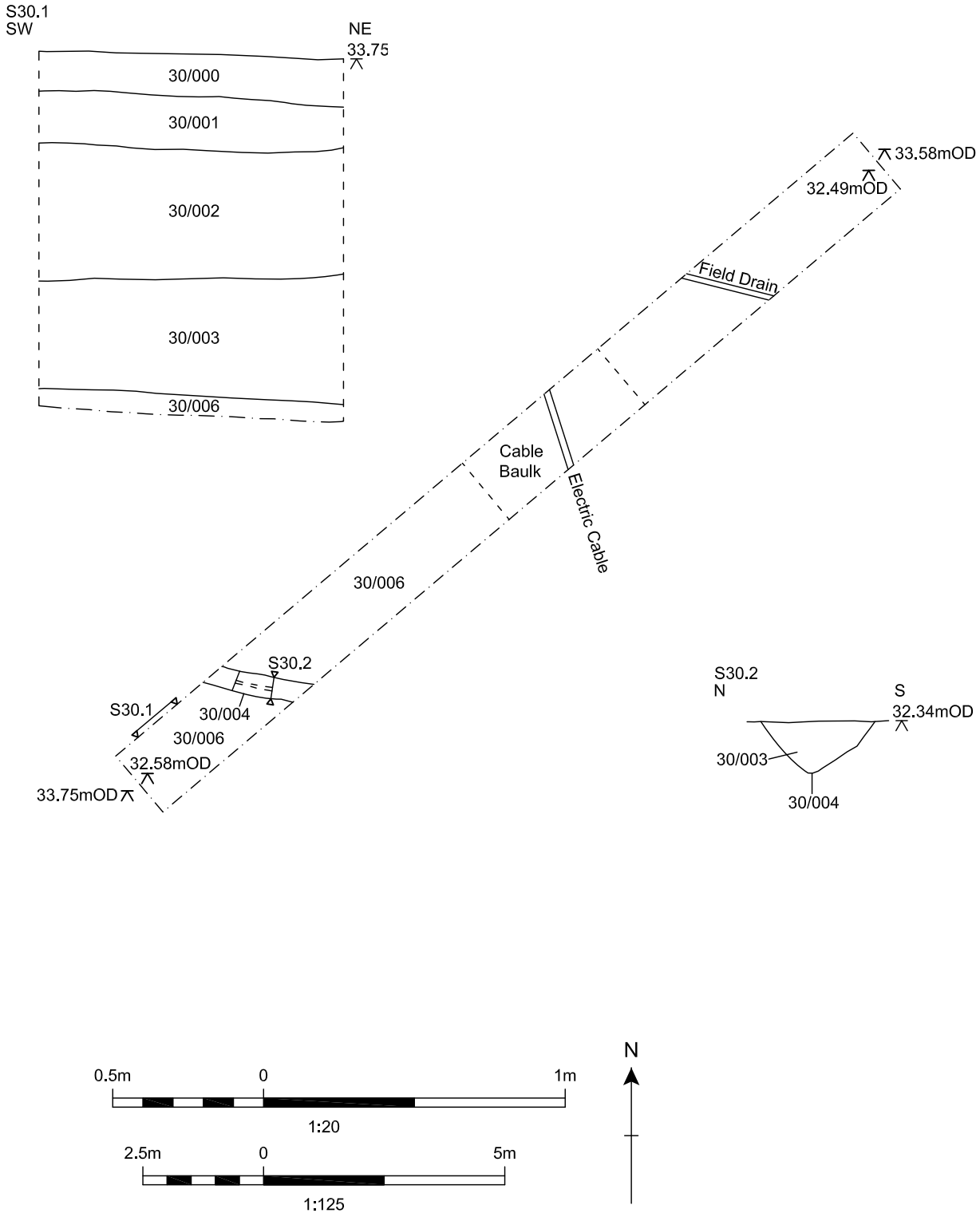

Figure 17: Trench 30: Plan (1:125) & Sections (1:20)

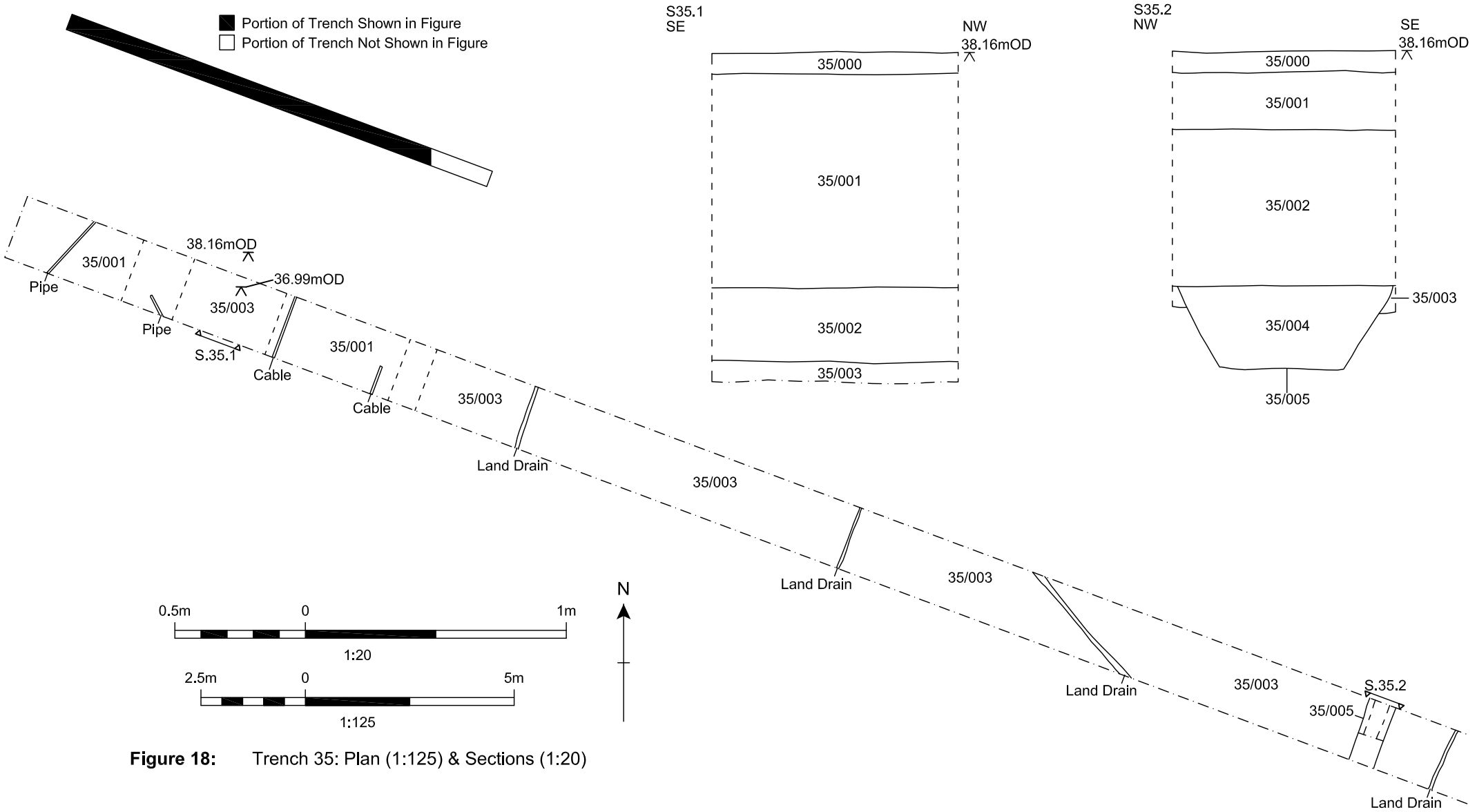

Figure 18: Trench 35: Plan (1:125) & Sections (1:20)

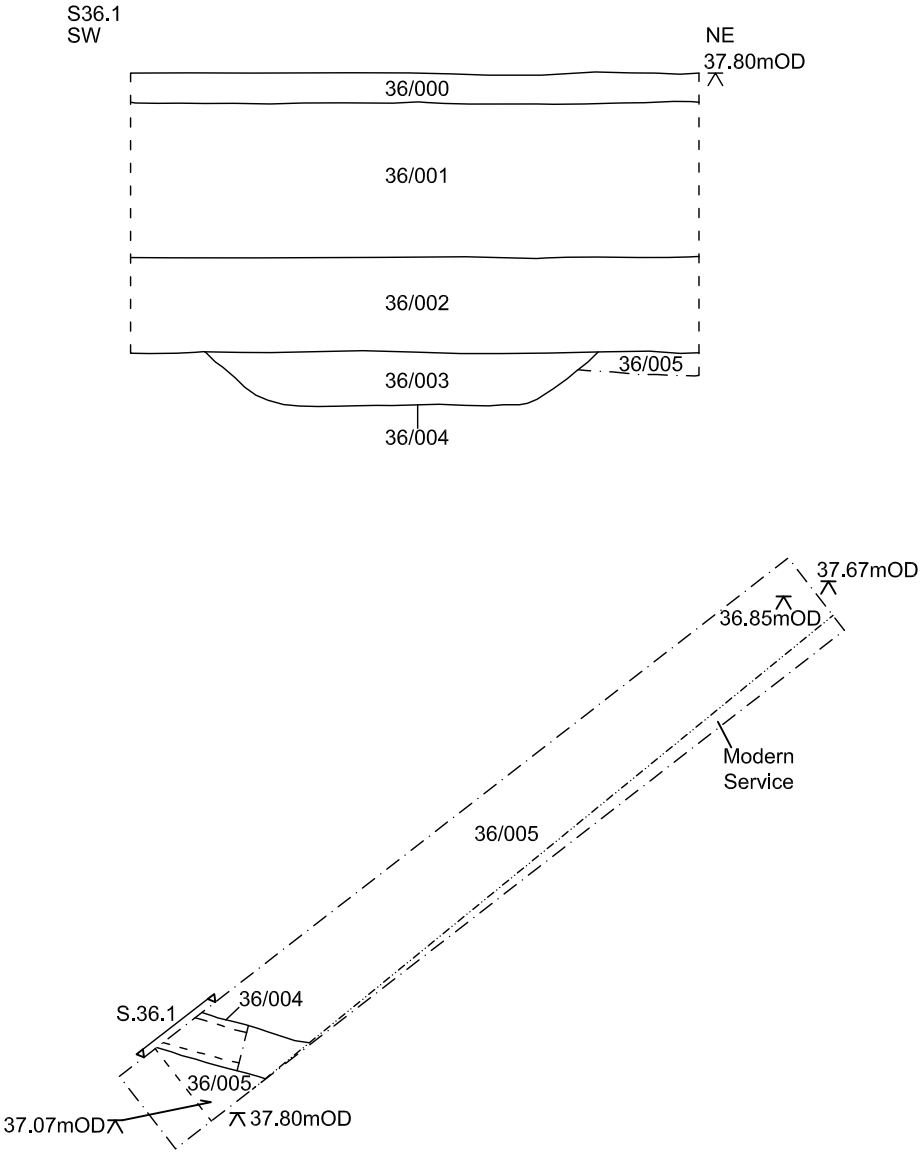

Figure 19: Trench 36: Plan (1:125) & Section (1:20)

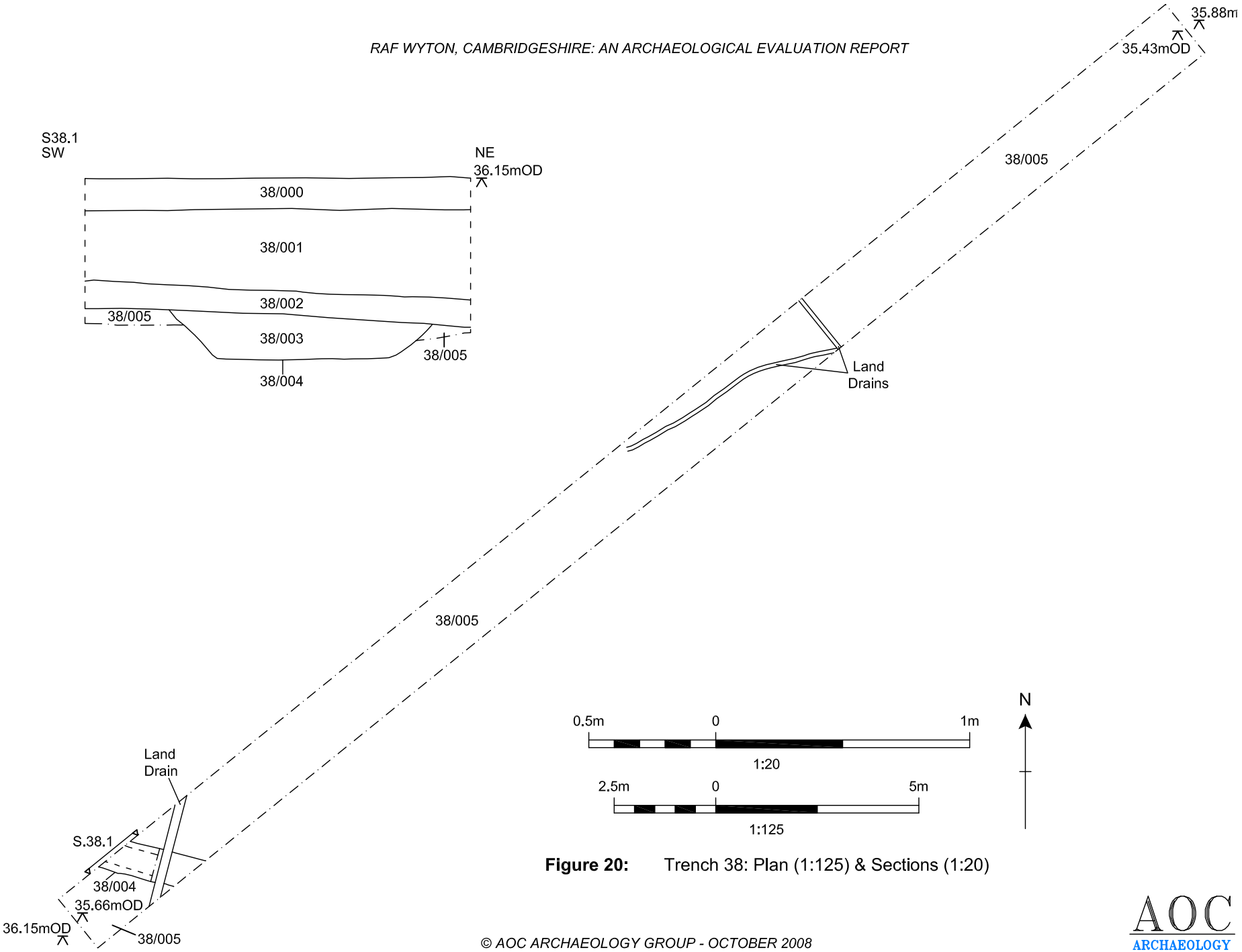

Figure 20: Trench 38: Plan (1:125) & Sections (1:20)

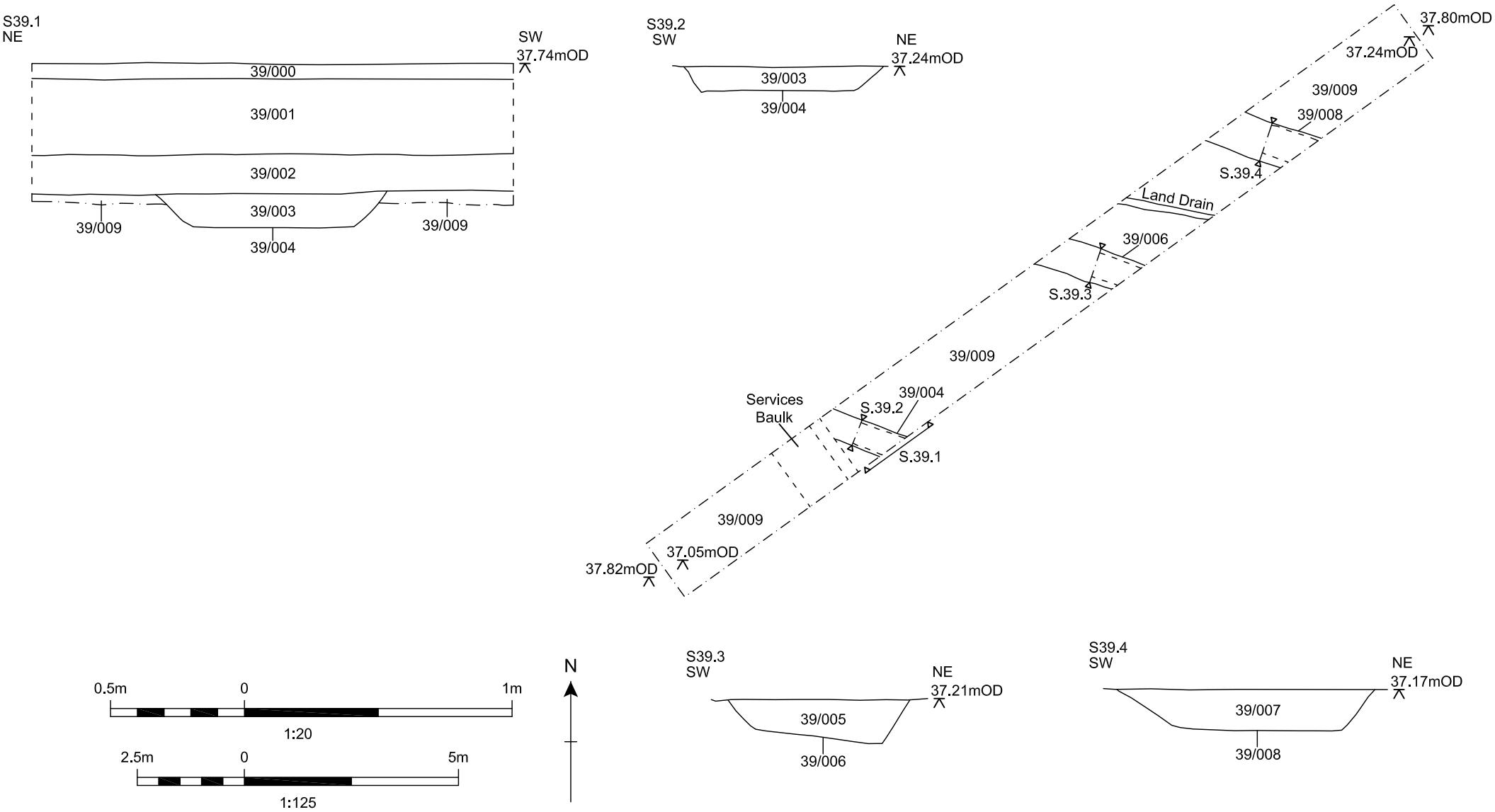

Figure 21: Trench 39: Plan (1:125) & Sections (1:20)

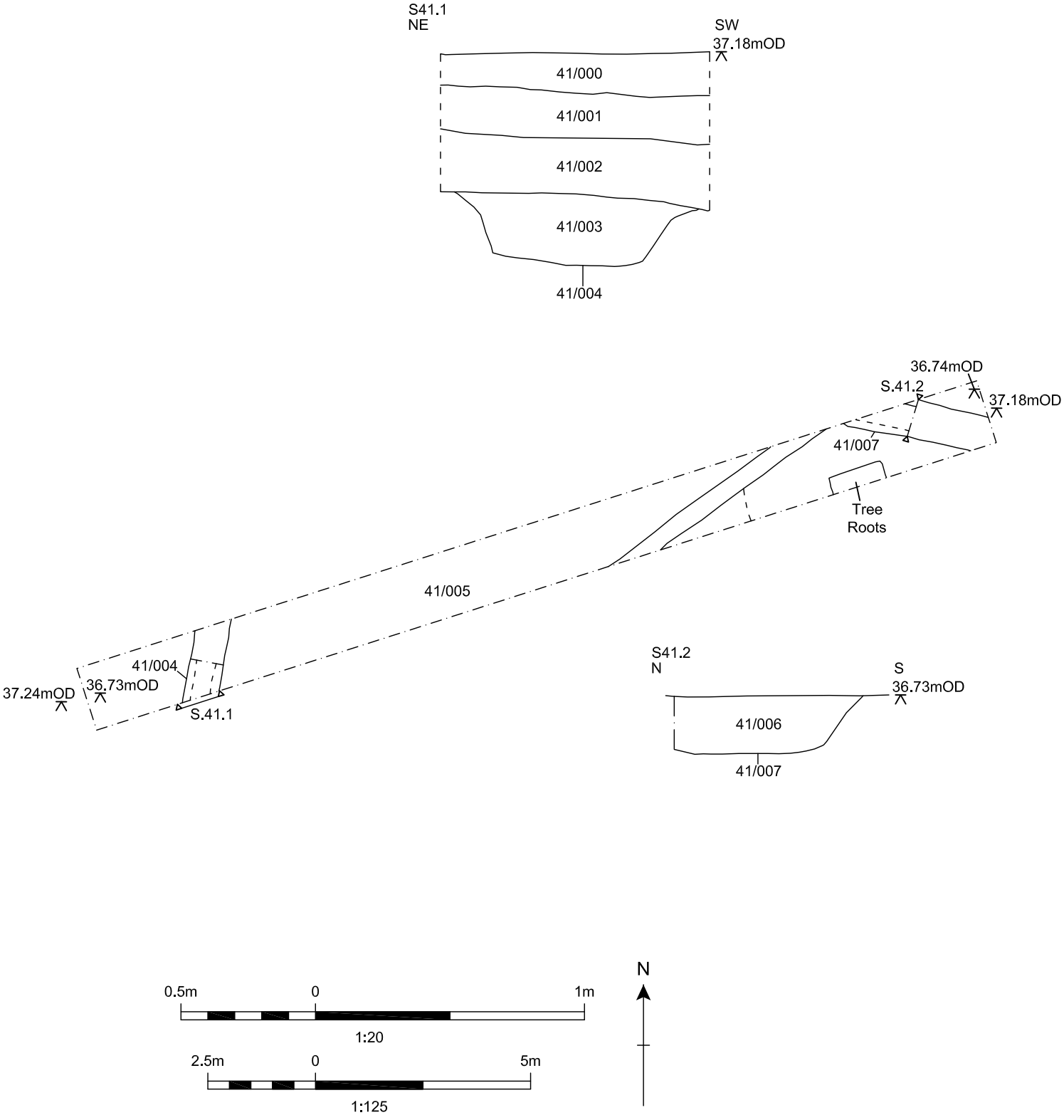

Figure 22: Trench 41: Plan (1:125) & Sections (1:20)

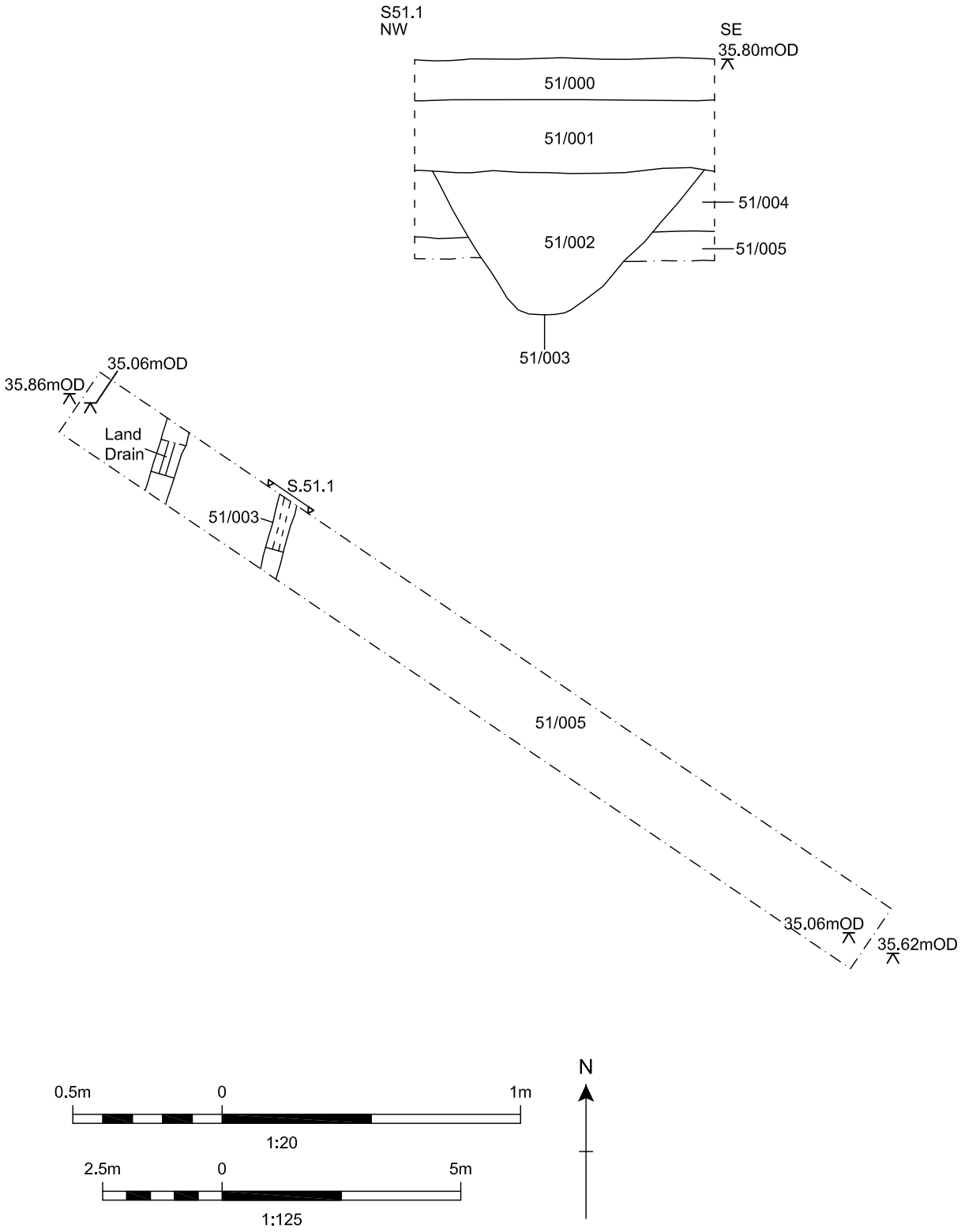

Figure 23: Trench 51: Plan (1:125) & Sections (1:20)

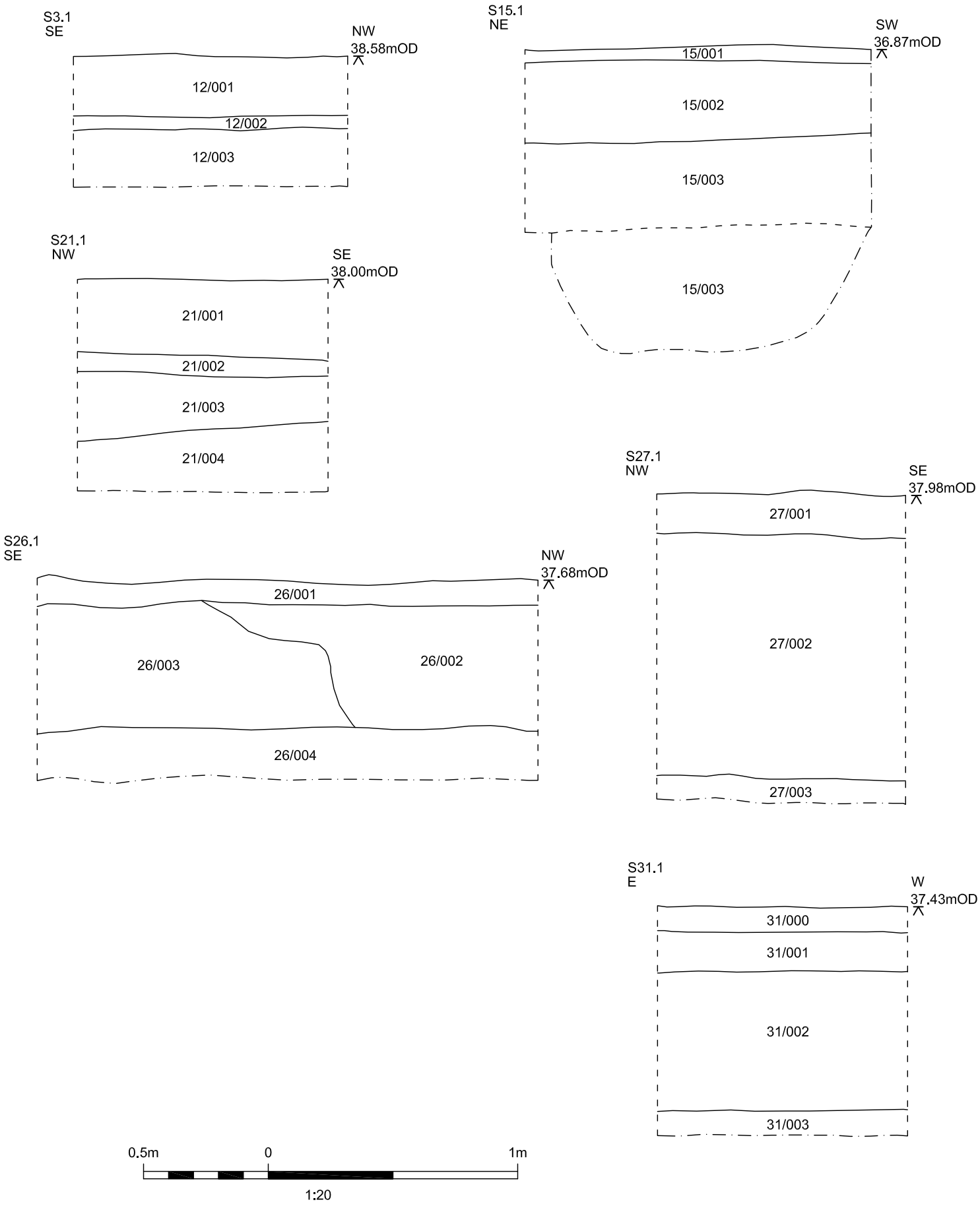

Figure 24: Sample Sections (1:20)

Appendices

Appendix A: Context Register

Context No.	Context Description	Length	Width	Depth	Plan No.	Section No.
1001	Topsoil	30m	1.80m	0.30m	1	11
1002	Subsoil	30m	1.80m	0.30m	1	11
1003	Fill of Ditch	4.30m	0.50m	0.20m	1	1.1
1004	Cut of Ditch	4.30m	0.50m	0.20m	1	1.1
1005	Fill of Ditch	1.65m	0.60m	0.33m	1	1.2
1006	Cut of Ditch	1.65m	0.60m	0.33m	1	1.2
1007	Fill of Ditch	3.20m	0.55m	0.08m	1	1.3
1008	Cut of Ditch	3.20m	0.55m	0.08m	1	1.3
1009	Fill of Ditch	2.70m	0.50m	0.15m	1	1.4
1010	Cut of Ditch	2.70m	0.50m	0.15m	1	1.4
1011	Fill of Ditch	3.20m	0.30m	0.10m	1	1.5
1012	Cut of Ditch	3.20m	0.30m	0.10m	1	1.5
1013	Natural	30m	1.80m		1	11
2001	Topsoil	50m	1.80m	0.21m	13	2.4
2002	Subsoil	50m	1.80m	0.32m	13	2.4
2003	Fill of Ditch	3.0m	0.70m	0.10m	13	2.3
2004	Cut of Ditch	3.0m	0.70m	0.10m	13	2.3
2005	Fill of Pit	0.50m	0.55m	0.14m	13	2.1
2006	Cut of Pit	0.50m	0.55m	0.14m	13	2.1
2007	Fill of Ditch Terminus	1.75m	0.85m	0.33m	13	2.2
2008	Cut of Ditch Terminus	1.75m	0.85m	0.33m	13	2.2
2009	Natural	50m	1.80m		13	2.4
3001	Topsoil	50m	1.80m	0.20m		3.1
3002	Subsoil	50m	1.80m	0.30m		3.1
3003	Fill of Ditch	2.0m	0.65m	0.09m		3.2
3004	Cut of Ditch	2.0m	0.65m	0.09m		3.2
3005	Fill of Ditch	2.60m	0.50m	0.18m		3.3
3006	Cut of Ditch	2.60m	0.50m	0.18m		3.3
3007	Fill of Ditch	1.25m	0.35m	0.07m		3.4
3008	Cut of Ditch	1.25m	0.35m	0.07m		3.4
3009	Fill of Ditch / Pit	1.0m	0.35m	0.13m		3.5
3010	Cut of Ditch / Pit	1.0m	0.35m	0.13m		3.5
3011	Fill of Ditch	2.0m	0.50m	0.25m		3.5
3012	Cut of Ditch	2.0m	0.50m	0.25m		3.5
3013	Fill of Ditch	9.50m	0.39m	0.11m		3.6
3014	Cut of Ditch	9.50m	0.39m	0.11m		3.6
3015	Natural	50m	1.80m			3.1
4001	Topsoil	50m	1.80m	0.20m	12	22
4002	Subsoil	50.m	1.80m	0.40m	12	22
4003	Fill of Ditch	1.30m	0.60m	0.12m	12	24
4004	Cut of Ditch	1.30m	0.60m	0.12m	12	24
4005	Fill of Ditch	2.50m	0.40m	0.06m	12	23
4006	Cut of Ditch	2.50m	0.40m	0.06m	12	23
4007	Natural	50m	1.80m		12	22

5001	Topsoil	50m	1.80m	0.20m	9	17
5002	Subsoil	50m	1.80m	0.18m	9	17
5003	Natural	50m	1.80m		9	17
5004	Fill of pit	1.30m	0.60m	0.40m	9	18
5005	Cut of Pit	1.30m	0.60m	0.40m	9	18
5006	Fill of Ditch	2.50m	0.40m	0.10m	9	19
5007	Cut of Ditch	2.50m	0.40m	0.10m	9	19
5008	Fill of Ditch	3.70m	0.60m	0.08m	9	26
5009	Cut of Ditch	3.70m	0.60m	0.08m	9	26
5010	Fill of Ditch	2.80m	1.30m	0.10m	9	27
5011	Cut of Ditch	2.80m	1.30m	0.10m	9	27
5012	Fill of pit	1.30m	0.80m	0.15m	9	25
5013	Cut of Pit	1.30m	0.80m	0.15m	9	25
6001	Topsoil	50m	1.80m	0.20m	7	13
6002	Subsoil	50m	1.80m	0.30m	7	13
6003	Fill of Ditch	1.80m	0.70m	0.09m	7	14
6004	Cut of Ditch	1.80m	0.70m	0.09m	7	14
6005	Fill of Ditch	1.80m	0.65m	0.10m	7	15
6006	Cut of Ditch	1.80m	0.65m	0.10m	7	15
6007	Natural	50m	1.80m		7	13
7001	Topsoil	50m	1.80m	0.20m		7.1
7002	Subsoil	50m	1.80m	0.40m		7.1
7003	Fill of Pit	1.10m	0.70m	0.05m		7.1
7004	Fill of Pit	1.10m	0.70m	0.11m		7.1
7005	Cut of Pit	1.10m	0.70m	0.16m		7.1
7006	Natural	50m	1.80m			7.1
8001	Topsoil	50m	1.80m	0.18m		2
8002	Subsoil	50m	1.80m	0.20m		2
8003	Natural	50m	1.80m			2
8004	Natural	50m	1.80m			2
8005	Fill of Ditch	1.80m	0.70m	0.08m		
8006	Cut of Ditch	1.80m	0.70m	0.08m		
8007	Fill of Plough Scar	1.80m	0.1m	0.20m		
8008	Cut of Plough Scar	1.80m	0.1m	0.20m		
9001	Topsoil	40m	1.80m	0.15m	10	20
9002	Subsoil	40m	1.80m	0.25m	10	20
9003	Natural	40m	1.80m		10	20
9004	Fill of Ditch	1.90m	0.58m	0.11m	10	20
9005	Cut of Ditch	1.90m	0.58m	0.11m	10	20
9006	Fill of Ditch	1.80m	0.52m	0.11m	10	20
9007	Cut of Ditch	1.80m	0.52m	0.11m	10	20
10001	Topsoil	50m	1.80m	0.27m	8	16
10002	Subsoil	50m	1.80m	0.19m	8	16
10003	Natural	50m	1.80m		8	16
10004	Fill of Ditch	3.0m	0.52m	0.21m	8	16

10005	Cut of Ditch	3.0m	0.52m	0.21m	8	16
10006	Cut of Pit	1.18m	1.19m	0.30m	8	16
10007	Fill of Pit	1.18m	1.19m	0.30m	8	16
10008	Cut of Ditch	3.0m	0.80m	0.15m	8	16
10009	Fill of Ditch	3.0m	0.80m	0.15m	8	16
11001	Topsoil	24m	1.80m	0.15m	3	3
11002	Natural	24m	1.80m		3	3
11003	Subsoil	24m	1.80m	0.20m	3	3
11004	Fill of Ditch	2.0.	0.60m	0.05m		
11005	Cut of Ditch	2.0m	0.60m	0.05m		
12001	Topsoil	24m	1.80m	0.24m	4	4
12002	Subsoil	24m	1.80m	0.06m	4	4
12003	Natural	24m	1.80m		4	4
13001	Fill of Ditch	1.80m	1.50m	0.40m	6	9+10
13002	Cut of ditch	1.80m	1.50m	0.40m	6	9+10
13003	Fill of Plough Scar	2.0m	0.15m		6	
13004	Cut of Plough Scar	2.0m	0.15m		6	
13005	Fill of Plough Scar	2.0m	0.15m	0.10m	6	11
13006	Cut of Plough Scar	2.0m	0.15m	0.10m	6	11
13007	Fill of Ditch	2.0m	0.70m	0.20m	6	12
13008	Cut of ditch	2.0m	0.70m	0.20m	6	12
13009	Topsoil	50m	1.80m	0.25m	6	9+10
13010	Subsoil	50m	1.80m	0.20m	6	9+10
13011	Natural	50m	1.80m		6	9+10
14001	Topsoil	40m	1.80m	0.28m	5	6
14002	Subsoil	40m	1.80m	0.06m	5	6
14003	Natural	40m	1.80m		5	6
14004	Cut of Posthole	0.20m	0.20m	0.08m	5	5
14005	Fill of Posthole	0.20m	0.20m	0.08m	5	5
14006	Cut of Gully	1.80m	0.34m	0.13m	5	7
14007	Fill of Gully	1.80m	0.34m	0.13m	5	7
14008	Cut of Tree Throw	2.30m	0.50m	0.25m	5	
14009	Fill of Tree Throw	2.30m	0.50m	0.25m	5	
14010	Cut of Ditch	1.80m	0.60m	0.10m	5	8
14011	Fill of Ditch	1.80m	0.60m	0.10m	5	8
15001	Topsoil	25m	1.80m	0.06m		1
15002	Subsoil	25m	1.80m	0.32m		1
15003	Natural	25m	1.80m			1
18001	Topsoil	30m	1.60m	0.20m		
18002	Subsoil	30m	1.60m	0.20m		
18003	Natural	30m	1.60m			
19001	Topsoil	9m	1.60m	0.22m		
19002	Subsoil	9m	1.60m	0.14m		
19003	Modern Demolition Layer	9m	1.60m	0.15m		

19004	Natural	9m	1.60m			
20001	Topsoil	8.50m	1.60m	0.20m		
20002	Subsoil	8.50m	1.60m	0.20m		
20003	Natural	8.50m	1.60m			
20004	Modern Demolition Layer	4.0m	1.60m	0.27m		
21001	Topsoil	8.5m	1.60m	0.30m		
21002	Made ground	8.5m	1.60m	0.09m		
21003	Mixed Layer	8.5m	1.60m	0.23m		
21004	Natural	8.5m	1.60m			
22001	Topsoil	10m	1.60m	0.23m		
22002	Made Ground	10m	1.60m	0.10m		
22003	Subsoil	10m	1.60m	0.40m		
22004	Natural	10m	1.60m			
22005	Fill of Ditch	6.0m	0.66m	0.16m		
22006	Cut of Ditch	6.0m	0.66m	0.16m		
23001	Topsoil	7.5m	1.60m	0.27m		
23002	Subsoil	7.5m	1.60m	0.18m		
23003	Natural	7.5m	1.60m			
23004	Concrete Layer	1.30m	1.60m	0.09m		
25001	Topsoil	40m	1.60m			
25002	Subsoil	40m	1.60m			
25003	Natural	40m	1.60m			
26001	Topsoil	20m	1.60m	0.10m		
26002	Demolition layer	20m	1.60m	0.50m		
26003	Subsoil	20m	1.60m	0.20m		
26004	Natural	20m	1.60m			
27001	Topsoil	20m	1.60m	0.18m		
27002	Subsoil	20m	1.60m	1.0m		
27003	Natural	20m	1.60m			
28001	Topsoil	18m	1.60m	0.30m		
28002	Made ground	18m	1.60m	0.20m		
28003	Natural	18m	1.60m			
29001	Topsoil	11m	1.60m	0.20m		
29002	Modern Demolition Layer	11m	1.60m	0.25m		
29003	Subsoil	11m	1.60m	0.20m		
29004	Natural	11m	1.60m			
30000	Turf + Topsoil	20m	1.60m	0.15m	30	
30001	Make Up Layer	20m	1.60m	0.16m	30	
30002	Modern Demolition Layer	20m	1.60m	0.45m	30	
30003	Demolition Levelling Deposit	20m	1.60m	0.44m	30	
30004	Cut of Ditch	1.85m	0.38m	0.17m	30	30

30005	Fill of Ditch	1.85m	0.38m	0.17m	30	30
30006	Natural	20m	1.60m		30	
31000	Topsoil	10m	1.60m	0.10m	31	31
31001	Made Ground	10m	1.60m	0.16m	31	31
31002	Disturbed natural	10m	1.60m	0.56m	31	31
31003	Natural	10m	1.60m		31	31
32000	Topsoil	40m	1.60m	0.18m	32	32
32001	Demolition Layer	40m	1.60m	0.74m	32	32
32002	Natural	40m	1.60m		32	32
32003	Natural	40m	1.60m		32	32
34000	Turf + Topsoil	20m	1.6m	0.12m	34	34
34001	Demolition Rubble	20m	1.6m	0.33m	34	34
34002	Disturbed natural	20m	1.6m	0.45m	34	34
34003	Natural	20m	1.6m		34	34
35000	Topsoil	40m	1.60m	0.08m	35	35
35001	Made Ground	40m	1.60m	0.88m	35	35
35002	Disturbed natural	40m	1.60m	0.28m	35	35
35003	Natural	40m	1.60m		35	35
35004	Fill of Ditch	1.50m	0.75m	0.31m	35	35
35005	Cut of Ditch	1.50m	0.75m	0.31m	35	35
36000	Topsoil	14m	1.60m	0.08m	36	36
36001	Made Ground	14m	1.60m	0.41m	36	36
36002	Disturbed natural	14m	1.60m	0.25m	36	36
36003	Fill of Ditch	1.80m	0.71m	0.14m	36	36
36004	Cut of Ditch	1.80m	0.71m	0.14m	36	36
36005	Natural	14m	1.60m		36	36
37000	Turf + Topsoil	20m	1.60m	0.16m		37
37001	Demolition Rubble	20m	1.60m	0.38m		37
37002	Subsoil	20m	1.60m	0.50m		37
37003	Natural	20m	1.60m			37
38000	Topsoil		1.60m	0.12m	38	38
38001	Made Ground		1.60m	0.35m	38	38
38002	Disturbed natural		1.60m	0.10m	38	38
38003	Fill of Ditch	1.95m	0.73m	0.17m	38	38
38004	Cut of Ditch	1.95m	0.73m	0.17m	38	38
38005	Natural		1.60m		38	38
39000	Topsoil	20m	1.60m	0.06m	39	39
39001	Made Ground	20m	1.60m	0.28m	39	39
39002	Disturbed natural	20m	1.60m	0.15m	39	39
39003	Fill of Ditch	1.80m	0.73m	0.13m	39	39
39004	Cut of Ditch	1.80m	0.73m	0.13m	39	39
39005	Fill of Ditch	1.80m	0.70m	0.16m	39	39
39006	Cut of Ditch	1.80m	0.70m	0.16m	39	39

39007	Fill of Ditch	1.80m	0.95m	0.15m	39	39
39008	Cut of Ditch	1.80m	0.95m	0.15m	39	39
39009	Natural	20m	1.60m		39	39
40000	Topsoil	12m	1.60m	0.09m	40	40
40001	Made Ground	12m	1.60m	0.34m	40	40
40002	Disturbed natural	12m	1.60m	0.20m	40	40
40003	Natural	12m	1.60m		40	40
41000	Topsoil	22m	1.60m	0.16m	41	41
41001	Made Ground	22m	1.60m	0.18m	41	41
41002	Disturbed natural	22m	1.60m	0.24m	41	41
41003	Fill of Ditch	1.70m	0.85m	0.27m	41	41
41004	Cut of Ditch	1.70m	0.85m	0.27m	41	41
41005	Natural	22m	1.60m		41	41
41006	Fill of Ditch	3.10m	0.70m	0.21m	41	41
41007	Cut of Ditch	3.10m	0.70m	0.21m	41	41
44000	Topsoil	20m	1.60m	0.10m	44	44
44001	Levelling Deposit	20m	1.60m	0.38m	44	44
44002	Disturbed natural	20m	1.60m	0.34m	44	44
44003	Natural	20m	1.60m		44	44
45001	Tarmac	11m	1.60m	0.17m	45	45
45002	Reinforced Concrete	11m	1.60m	0.10m	45	45
45003	Made Ground	11m	1.60m	0.07m	45	45
45004	Disturbed natural	11m	1.60m	0.30m	45	45
45005	Natural	11m	1.60m		45	45
48001	Tarmac	20m	1.60m	0.15m	48	48
48002	Reinforced Concrete	20m	1.60m	0.10m	48	48
48003	Made Ground	20m	1.60m	0.15m	48	48
48004	Disturbed natural	20m	1.60m	0.40m	48	48
48005	Natural	20m	1.60m		48	48
49000	Turf + Topsoil	20m	1.60m			49
49001	Subsoil	20m	1.60m			49
49002	Natural	20m	1.60m			49
51000	Topsoil	20m	1.60m	0.14m	51	51
51001	Made Ground	20m	1.60m	0.24m	51	51
51002	Fill of Ditch	1.55m	0.50m	0.48m	51	51
51003	Cut of Ditch	1.55m	0.50m	0.48m	51	51
51004	Disturbed natural	20m	1.60m	0.22m	51	51
51005	Natural	20m	1.60m		51	51
52000	Turf + Topsoil	17m	1.60m	0.10m	52	52
52001	Soil	17m	1.60m	0.12m	52	52
52002	Subsoil	17m	1.60m	0.58m	52	52
52003	Natural	17m	1.60m		52	52

53000	Turf + Topsoil	20m	1.60m	0.12m	53	53
53001	Levelling Deposit	20m	1.60m	0.13m	53	53
53002	Subsoil	20m	1.60m	0.40m	53	53
53003	Natural	20m	1.60m		53	53

Appendix B: Geophysical Survey Report

Geophysical Survey Report
RAF Wyton, Cambs

for
Entec UK Ltd
May 2008
Job Ref: J2472

Richard Smalley BA (Hons) AIFA
Document Title: Geophysical Survey Report
RAF Wyton, Cambs.
Client: Entec UK Ltd.
Stratascan Job No: J2472
Techniques: Detailed magnetic survey (gradiometry)
National Grid Ref: TL 284 742
Field Team: Alec Phillips and David Miller
Project Manager: Simon Stowe BSc. (Hons)
Report written by: Richard Smalley BA (Hons) AIFA
CAD illustration by: Richard Smalley BA (Hons) AIFA
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LIST OF FIGURES

Figure 23 1:2000 Processed data and interpretation of anomalies- Area 7

1 SUMMARY OF RESULTS

The results of the geophysical survey undertaken over 10.3 hectares of land at RAF Wyton has been greatly affected by magnetic disturbance. However, anomalies of a possible archaeological origin have been identified including a number of pits and a large ditch feature.

2 INTRODUCTION

2.1 Background synopsis
Stratascan were commissioned to undertake a geophysical survey of an area outlined for development. This survey forms part of an archaeological investigation being undertaken by Entec UK Ltd.

2.2 Site location
The site is located in RAF Wyton, Cambridgeshire at OS ref. TL 284 742.

2.3 Description of site
The survey area consists of approximately 10.3ha of land comprising sports fields and areas between buildings in the RAF base at Wyton.

2.4 Geology and soils
The underlying geology is Oxford Clay and Kellaway Beds (British Geological Survey South Sheet, Fourth Edition Solid, 2001).
The overlying soils are known as Hanslope which are typical calcareous pelosols. These consist of slowly permeable calcareous clayey soils (Soil Survey of England and Wales, Sheet 4 Eastern England).

2.5 Site history and archaeological potential
No specific details were available to Stratascan.

2.6 Survey objectives
The objective of the survey was to locate any features of possible archaeological significance in order that they may be assessed prior to development.

2.7 Survey methods
Detailed magnetic survey (gradiometry) was used as an efficient and effective method of locating archaeological anomalies. More information regarding this technique is included in the Methodology section below.

3 METHODOLOGY

3.1 Date of fieldwork
The fieldwork was carried out over seven days from 30th April 2008. Weather conditions during the survey were fine with occasional showers.

3.2 Grid locations
The location of the survey grids has been plotted in Figures 3, 6, 9, 12, 15, 18 and 21 together with the referencing information. Grids were set out using a Leica 705auto Total Station and referenced to suitable topographic features around the perimeter of the site.

3.3 Survey equipment

Although the changes in the magnetic field resulting from differing features in the soil are usually weak, changes as small as 0.2 nanoTesla (nT) in an overall field strength of 48,000nT, can be accurately detected using an appropriate instrument. The mapping of the anomaly in a systematic manner will allow an estimate of the type of material present beneath the surface. Strong magnetic anomalies will be generated by buried iron-based objects or by kilns or hearths. More subtle anomalies such as pits and ditches can be seen if they contain more humic material which is normally rich in magnetic iron oxides when compared with the subsoil.

To illustrate this point, the cutting and subsequent silting or backfilling of a ditch may result in a larger volume of weakly magnetic material being accumulated in the trench compared to the undisturbed subsoil. A weak magnetic anomaly should therefore appear in plan along the line of the ditch.

The magnetic survey was carried out using a dual sensor Grad601-2 Magnetic Gradiometer manufactured by Bartington Instruments Ltd. The instrument consists of two fluxgates very accurately aligned to nullify the effects of the Earth's magnetic field. Readings relate to the difference in localised magnetic anomalies compared with the general magnetic background. The Grad601-2 consists of two high stability fluxgate gradiometers suspended on a single frame. Each gradiometer has a 1m separation between the sensing elements so enhancing the response to weak anomalies.

3.4 Sampling interval, depth of scan, resolution and data capture

3.4.1 Sampling interval

Readings were taken at 0.25m centres along traverses 1m apart. This equates to 3600 sampling points in a full 30m x 30m grid.

3.4.2 Depth of scan and resolution

The Grad 601 has a typical depth of penetration of 0.5m to 1.0m. This would be increased if strongly magnetic objects have been buried in the site. The collection of data at 0.5m centres provides an optimum methodology for the task balancing cost and time with resolution.

3.4.3 Data capture

The readings are logged consecutively into the data logger which in turn is daily down-loaded into a portable computer whilst on site. At the end of each job, data is transferred to the office for processing and presentation.

3.5 Processing, presentation of results and interpretation

3.5.1 Processing

Processing is performed using specialist software known as *Geoplot 3.* This can emphasise various aspects contained within the data but which are often not easily seen in the raw data. Basic processing of the magnetic data involves 'flattening' the background levels with respect to adjacent traverses and adjacent grids. 'Despiking' is also performed to remove the anomalies resulting from small iron objects often found on agricultural land. Once the basic processing has flattened the background it is then possible to carry out further processing which may include low pass filtering to reduce 'noise' in the data and hence emphasise the archaeological or man-made anomalies.

The following schedule shows the basic processing carried out on all processed gradiometer data used in this report:

1. *Despike* (useful for display and allows further processing functions to be carried out more effectively by removing extreme data values)
Geoplot parameters:
X radius = 1, y radius = 1, threshold = 3 std. dev.
Spike replacement = mean
2. *Zero mean grid* (sets the background mean of each grid to zero and is useful for removing grid edge discontinuities)
Geoplot parameters:
Threshold = 0.25 std. dev.
3. *Zero mean traverse* (sets the background mean of each traverse within a grid to zero and is useful for removing striping effects)
Geoplot parameters:
Least mean square fit = off
3.5.2 Presentation of results and interpretation
The presentation of the data for each site involves a print-out of the raw data both as greyscale (Figures 3, 6, 9, 12, 15, 18 and 21) and trace plots (Figures 4, 7, 10, 13, 16, 19 and 22), together with a greyscale plot of the processed data (Figures 5, 8, 11, 14, 17, 20 and 23). Magnetic anomalies have been identified and plotted onto the 'Abstraction and Interpretation of Anomalies' drawing for the site (Figures 5, 8, 11, 14, 17, 20 and 23).

4 RESULTS

The gradiometer data collected at RAF Wyton is dominated by the presence of magnetic disturbance from metallic fences, pipes, cables and ground disturbance. These types of response are particularly prevalent in Areas 2-6. This is as a result of their location between structures and roads etc within an active air base.
Areas 1 and 7 are located on sports fields and although still affected by magnetic disturbance, there are areas in which other, more subtle anomalies can be identified. Positive linear anomalies are evident in Area 1. These anomalies have been interpreted as being of an agricultural origin either from cultivation or possibly land drainage such as subsoiling. The two orientations of these anomalies may indicate two phases of activity. Discrete positive anomalies are also evident across Area 1. These anomalies represent pits of a possible archaeological origin.

A large positive linear anomaly is evident in the south eastern region of Area 7. This anomaly represents a cut feature, such as a ditch, of a possible archaeological origin. This ditch feature seems to have an associated negative response which may indicate the presence of a former bank. Other positive area anomalies can be noted to the north of these features. Positive linear anomalies of an agricultural origin can also be noted spread across Area 7. Discrete positive anomalies indicate the presence of pits of a possible archaeological origin in this area.
Two rectilinear areas of disturbance can be noted in Areas 1 and 7. On first inspection it seemed that this disturbance was caused by an instrument malfunction due to its close correspondence with our survey grid. However, investigation of aerial photographs using *Flash Earth* has shown parch marks probably from former buildings in these particular areas. As a result these anomalies have been interpreted as being related to former building platforms and their close alignment to our survey grid put down to coincidence.
Parch mark evident in Area 1 Parch mark evident in Area 7

5 CONCLUSION

Magnetic disturbance is prevalent in all seven of the areas surveyed at RAF Wyton. This disturbance is caused by made ground, proximity to buildings and ferrous objects, footpaths and pipes or cables. This disturbance may mask any subtle features of an archaeological origin that may be present in these areas.

Despite the large coverage of magnetic disturbance a number of anomalies of a possible archaeological origin have been located in Areas 1 and 7. These anomalies mainly consist of pits; however a large bank and ditch feature is evident in the southern region of Area 7.

6 REFERENCES

British Geological Survey, 2001. *Geological Survey Ten Mile Map, South Sheet, Fourth Edition (Solid)*. British Geological Society.
Soil Survey of England and Wales, 1983. *Soils of England and Wales, Sheet 4 Easternt England*.

APPENDIX A – Basic principles of magnetic survey

Detailed magnetic survey can be used to effectively define areas of past human activity by mapping spatial variation and contrast in the magnetic properties of soil, subsoil and bedrock.
Weakly magnetic iron minerals are always present within the soil and areas of enhancement relate to increases in *magnetic susceptibility* and permanently magnetized *thermoremnant* material.
Magnetic susceptibility relates to the induced magnetism of a material when in the presence of a magnetic field. This magnetism can be considered as effectively permanent as it exists within the Earth's magnetic field. Magnetic susceptibility can become enhanced due to burning and complex biological or fermentation processes.
Thermoremnance is a permanent magnetism acquired by iron minerals that, after heating to a specific temperature known as the Curie Point, are effectively demagnetized followed by re-magnetisation by the Earth's magnetic field on cooling. Thermoremnant archaeological features can include hearths and kilns and material such as brick and tile may be magnetised through the same process.
Silting and deliberate infilling of ditches and pits with magnetically enhanced soil creates a relative contrast against the much lower levels of magnetism within the subsoil into which the feature is cut.
Systematic mapping of magnetic anomalies will produce linear and discrete areas of enhancement allowing assessment and characterisation of subsurface features. Material such as subsoil and non-magnetic bedrock used to create former earthworks and walls may be mapped as areas of lower enhancement compared to surrounding soils.
Magnetic survey is carried out using a fluxgate gradiometer which is a passive instrument consisting of two sensors mounted vertically either 0.5 or 1m apart. The instrument is carried about 30cm above the ground surface and the top sensor measures the Earth's magnetic field whilst the lower sensor measures the same field but is also more affected by any localised buried field. The difference between the two sensors will relate to the strength of a magnetic field created by a buried feature, if no field is present the difference will be close to zero as the magnetic field measured by both sensors will be the same.
Factors affecting the magnetic survey may include soil type, local geology, previous human activity, disturbance from modern services etc.

APPENDIX B – Glossary of magnetic anomalies

Bipolar

A bipolar anomaly is one that is composed of both a positive response and a negative response. It can be made up of any number of positive responses and negative responses. For example a pipeline consisting of alternating positive and negative anomalies is said to be bipolar. See also dipolar which has only one area of each polarity.
The interpretation of the anomaly will depend on the magnitude of the magnetic field strength. A weak response may be caused by a clay field drain while a strong response will probably be caused by a metallic service.

Dipolar
This consists of a single positive anomaly with an associated negative response. There should be no separation between the two polarities of response. These responses will be created by a single feature. The interpretation of the anomaly will depend on the magnitude of the magnetic measurements. A very strong anomaly is likely to be caused by a ferrous object.

Positive anomaly with associated negative response
See bipolar and dipolar.

Positive linear
A linear response which is entirely positive in polarity. These are usually related to infilled cut features where the fill material is magnetically enhanced compared to the surrounding matrix. They can be caused by ditches of an archaeological origin, but also former field boundaries, ploughing activity and some may even have a natural origin.

Positive linear anomaly with associated negative response
A positive linear anomaly which has a negative anomaly located adjacently. This will be caused by a single feature. In the example shown this is likely to be a single length of wire/cable probably relating to a modern service. Magnetically weaker responses may relate to earthwork style features and field boundaries.

Positive point/area
These are generally spatially small responses, perhaps covering just 3 or 4 reading nodes. They are entirely positive in polarity. Similar to positive linear anomalies they are generally caused by infilled cut features. These include pits of an archaeological origin, possible tree bowls or other naturally occurring depressions in the ground.

Magnetic debris
Magnetic debris consists of numerous dipolar responses spread over an area. If the amplitude of response is low (+/-3nT) then the origin is likely to represent general ground disturbance with no clear cause, it may be related to something as simple as an area of dug or mixed earth. A stronger anomaly (+/-250nT) is more indicative of a spread of ferrous debris. Moderately strong anomalies may be the result of a spread of thermoremnant material such as bricks or ash.

Magnetic disturbance
Magnetic disturbance is high amplitude and can be composed of either a bipolar anomaly, or a single polarity response. It is essentially associated with magnetic interference from modern ferrous structures such as fencing, vehicles or buildings, and as a result is commonly found around the perimeter of a site near to boundary fences.

Negative linear
A linear response which is entirely negative in polarity. These are generally caused by earthen banks where material with a lower magnetic magnitude relative the background top soil is built up. See also ploughing activity.

Negative point/area
Opposite to positive point anomalies these responses may be caused by raised areas or earthen banks. These could be of an archaeological origin or may have a natural origin.

Ploughing activity
Ploughing activity can often be visualised by a series of parallel linear anomalies. These can be of either positive polarity or negative polarity depending on site specifics. It can be difficult to distinguish between ancient ploughing and more modern ploughing, clues such as the separation of each linear, straightness, strength of response and cross cutting relationships can be used to aid this, although none of these can be guaranteed to differentiate between different phases of activity.

Polarity
Term used to describe the measurement of the magnetic response. An anomaly can have a positive polarity (values above 0nT) and/or a negative polarity (values below 0nT).

Strength of response
The amplitude of a magnetic response is an important factor in assigning an interpretation to a particular anomaly. For example a positive anomaly covering a 10m2 area may have values up to around 3000nT, in which case it is likely to be caused by modern magnetic interference. However, the same size and shaped anomaly but with values up to only 4nT may have a natural origin. Trace plots are used to show the amplitude of response.

Thermoremnant response
A feature which has been subject to heat may result in it acquiring a magnetic field. This can be anything up to approximately +/-100 nT in value. These features include clay fired drains, brick, bonfires, kilns, hearths and even pottery. If the heat application has occurred insitu (e.g. a kiln) then the response is likely to be bipolar compared to if the heated objects have been disturbed and moved relative to each other, in which case they are more likely to take an irregular form and may display a debris style response (e.g. ash).

Weak background variations
Weakly magnetic wide scale variations within the data can sometimes be seen within sites. These usually have no specific structure but can often appear curvy and sinuous in form. They are likely to be the result of natural features, such as soil creep, dried up (or seasonal) streams. They can also be caused by changes in the underlying geology or soil type which may contain unpredictable distributions of magnetic minerals, and are usually apparent in several locations across a site.

Appendix C: OASIS Form

OASIS DATA COLLECTION FORM: England

List of Projects | Search Projects | New project | Change your details | HER coverage | Change country | Log out

Printable version

OASIS ID: aocarcha1-48889

Project details

Project name	RAF Wyton
Short description of the project	A 53 trench evaluation was undertaken on the land of the RAF Whyton base in Cambridgeshire. Although some linear features and smaller pits were recorded all are , as yet, undated. metal finds from spoil scanning of each trench retrieved a fragment of a possible crotal bell and undated iron nail heads, as well as modern ammunition casings and fittings typical for an RAF base.
Project dates	Start: 31-07-2008 End: 12-09-2008
Previous/future work	No / Not known
Any associated project reference codes	7969 - Contracting Unit No.
Any associated project reference codes	ECB 3012 - HER event no.
Type of project	Field evaluation
Site status (other)	Defence Establishment
Monument type	DITCH Uncertain
Significant Finds	IRON NAILS Uncertain
Significant Finds	CROTAL BELL Uncertain

Methods & techniques	'Sample Trenches'
Development type	Not recorded
Prompt	Planning condition
Position in the planning process	Pre-application

Project location

Country	England
Site location	CAMBRIDGESHIRE HUNTINGDONSHIRE HOUGHTON AND WYTON RAF Wyton
Postcode	PE28 2EA
Study area	20.00 Hectares
Site coordinates	TL 5283 2741 51.9237392737 0.222776699257 51 55 25 N 000 13 22 E Point

Project creators

Name of Organisation	AOC Archaeology Group
Project brief originator	Entec UK LTD
Project design originator	Entec UK LTD
Project director/manager	Melissa Melikian
Project supervisor	Chris Clarke

Project supervisor	Ian Hogg
Project supervisor	Tim Carew
Type of sponsor/funding body	Ministry of Defence
Name of sponsor/funding body	Defences Estate Environment Services Team

Project archives

Physical Archive recipient	Cambridgeshire County Council Archaeology Store
Physical Archive ID	ECB 3012
Physical Contents	'Metal'
Physical Archive notes	copper alloys, lead and iron-mostly 20th C. some undated
Digital Archive recipient	Cambridgeshire County Council Archaeology Store
Digital Archive ID	ECB 3012
Digital Contents	'Stratigraphic'
Digital Media available	'Images raster / digital photography','Spreadsheets','Text'
Digital Archive notes	final report and context table, digital images on CD-R(s)
Paper Archive recipient	Cambridgeshire County Council Archaeology Store

Paper Archive ID	ECB 3012
Paper Contents	'Stratigraphic'
Paper Media available	'Context sheet','Correspondence','Microfilm','Plan','Section','Unpublished Text'

Project bibliography 1

Publication type	Grey literature (unpublished document/manuscript)
Title	RAF Wyton, Cambridgeshire: An Archaeological Evaluation Report
Author(s)/Editor(s)	Melikian,M.
Date	2008
Issuer or publisher	AOC Archaeology Group
Place of issue or publication	AOC Twickenham
Description	A4 text with site/trench location figures

Project bibliography 2

Publication type	Grey literature (unpublished document/manuscript)
Title	RAF Wyton: Archaeological Written Scheme of Investigation
Author(s)/Editor(s)	Entec Uk Ltd
Date	2008
Issuer or publisher	Entec Uk Ltd

Place of issue or publication	Entec Uk Ltd
Description	A4 report with illustrations

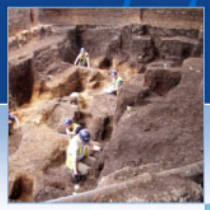
Project bibliography 3

Publication type	Grey literature (unpublished document/manuscript)
Title	A Cultural Heritage Desk Study of RAF
Author(s)/Editor(s)	Entec Uk Ltd
Date	2008
Issuer or publisher	Entec Uk Ltd
Place of issue or publication	Entec Uk Ltd
Description	A4 repot with illustrations

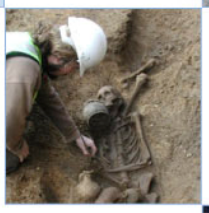
Entered by	Andy Leonard (andy.leonard@aocarchaeology.com)
Entered on	3 October 2008

OASIS:

Please e-mail English Heritage for OASIS help and advice









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