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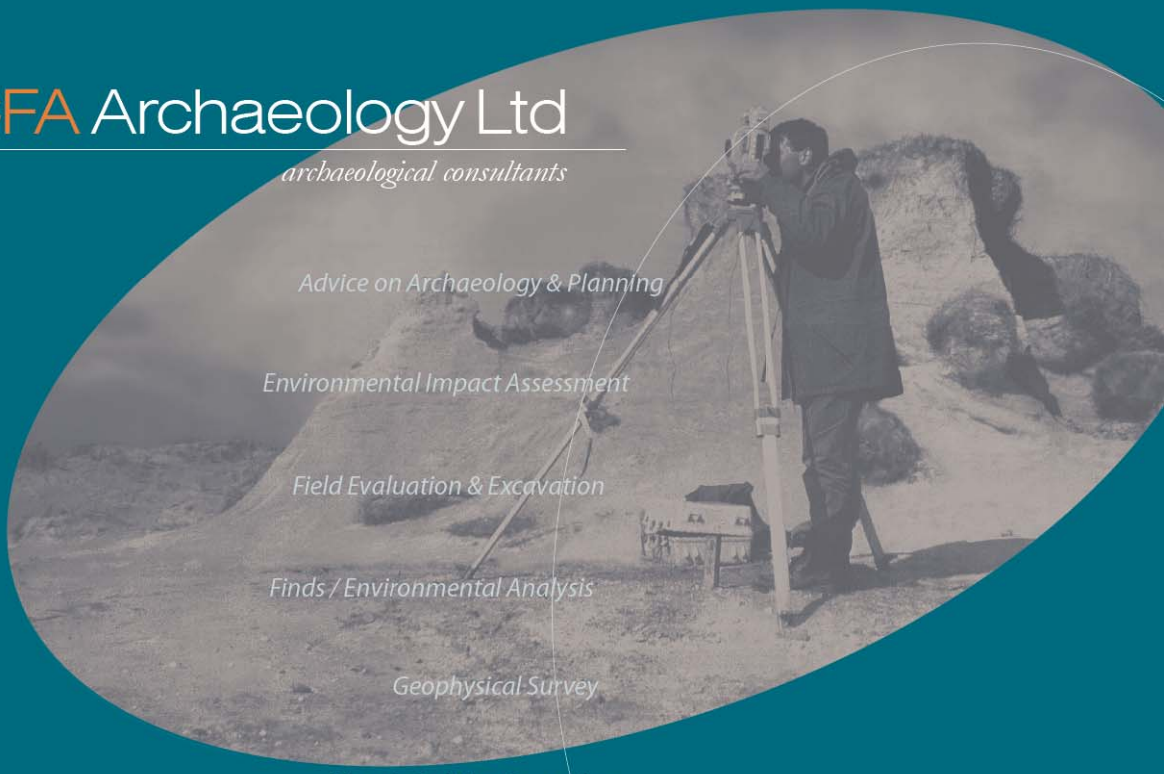

Advice on Archaeology & Planning

Environmental Impact Assessment

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Historic Building Recording

Site & Landscape Survey

Interpretation, Design & Display

Land at Outlane Golf Club, Outlane, West Yorkshire

Archaeological Watching Brief

Report No. Y149/14

t 0113 271 6060 f 0113 271 3197 e yorkshire@cfa-archaeology.co.uk w www.cfa-archaeology.co.uk

CFA ARCHAEOLOGY LTD

Offices C1 & C2
Clayton Business Centre
Midland Road
Leeds LS10 2RJ

Tel: 0113 271 6060

email: Yorkshire@cfa-archaeology.co.uk
web: www.cfa-archaeology.co.uk

Author	Phil Mann BA, Jamie Walker BSc and Christina Hills BA
Illustrator	Shelly Werner BA MPhil PhD MCIfA
Editor	Melanie Johnson MA PhD FSA Scot MCIfA
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Land at Outlane Golf Club, Outlane, West Yorkshire

Archaeological Watching Brief

Report No. Y149/14

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An archaeological watching brief was undertaken by CFA Archaeology Ltd on land at Outlane Golf Club, Slack Lane, Outlane, Huddersfield during October 2013 and April 2014. A topsoil strip and foundation trenches for a new building were monitored. A Roman road and two possible rampart footings were recorded and assemblages of pottery and glass were also recovered.

1. INTRODUCTION

1.1 General

This report presents the results of an archaeological watching brief undertaken by CFA Archaeology Ltd (CFA) during October 2013 and April 2014 at the site of a machinery shed at Outlane Golf Club, Slack Lane, Kirklees. The work was commissioned by Outlane Golf Club.

A Specification (Appendix 5) was produced by West Yorkshire Archaeological Advisory Service (WYAAS) on behalf of Kirklees Council, at the request of Gillian Goodlass of Outlane Golf Club in order to meet the requirements of archaeological conditions on planning consent.

1.2 Site Location and Description

The proposed development area is located in the village of Outlane, Kirklees (Fig. 1, SE 0837 1754). The site was bounded to the north by the M62 motorway, to the south by the Outlane Golf Club clubhouse, to the east by the golf course, and by open fields to the west.

The site area at the time of groundworks consisted of a landscaped grass lawn and sloped from a height of 268.77m above the Ordnance Datum (AOD) to the west to 268.18m AOD in the east.

The underlying geology is Huddersfield White Rock Sandstone formed approximately 314-315 million years ago (BGS 2014). The superficial geology consists of soft to firm alluvial clay, contain layers of silt, sand, peat and basal gravel (NERC 2014).

1.3 Previous Archaeological work and Historical Background

The Outlane Golf Clubhouse is at the location of the Slack Roman Fort. The Roman fort was built in the 1st century AD and abandoned in AD 138. To the north-west was the likely area of a civilian settlement (*vicus*) that continued to exist after the abandonment of the site by the Roman army.

An excavation of Slack Roman Fort was undertaken by the Tolson Memorial Museum with Heath Grammar School in 1962. This showed that the southern and eastern ramparts were built of turf and clay with stone pitching under the outer edge (SE 085 174). A bath house was located outside the fort, and part of the hypocaust and

stokehole of one room were excavated, with finds including pottery, bones, tiles and *graffito* bearing the inscription PHILO.....IVS recovered (Manby 1963).

The report indicated three phases of construction as evidenced by alterations to the intervallum road and its ditches. A cookhouse was located at the rear of the rampart during its second phase c. AD 100-125. Trenches excavated on the east side of a natural gully, formerly believed to mark the eastern limit of Roman occupation, revealed pitching with pottery of a 2nd-century date, a glass bead and a glass counter recovered (Manby 1964).

The excavation of the annexe of Slack Roman Fort (SE 085 176) revealed at least two series of timber-framed buildings linking the southern side of the Chester to York Road. The last series dated to the Hadrianic period and, with no dating evidence later date AD 140, must have ended at the same time as the fort. The area, once excavated, was found to be 'riddled with pits and gullies' (Hartley 1969).

A series of small huts set along the York–Chester Road within the *vicus* of Slack Roman Fort belong to the period AD 80-120. Rudimentary defences link to fort defences in the Hadrianic period. The site was abandoned by AD 140, with the use of the Roman road which only had a single layer of cobbles above a foundation paving ending at the same time (Hartley 1970).

During the construction of the M62 Motorway, a cemetery at Slack Roman Fort with cremations and inhumations was discovered. One coffin was constructed from wooden planks. Also recovered were the lower stone of a beehive quern, early 2nd century fine- and coarse-ware pottery, sandal fragments, glass beads, lead weights, and a bronze pin (Gilks 1970).

Geophysical work carried out by the Bradford University, showed that the site was heavily disturbed during the construction of the M62 with an underpass and bridge immediately to the north-west. In addition, between the road and the Golf Club clubhouse there are septic tanks and other service structures (Vernon 2006).

An excavation by the Huddersfield and District Archaeological Society (HDAS) uncovered a complex of conduits designed to carry fresh water to the *vicus* and also a number of pottery sherds dating from the 1st to 4th century AD (Brown and Hobson 2012).

1.4 Aims

In accordance with the specification, the aim of the watching brief was to identify and record the presence/absence, extent, condition, character and date of any archaeological features and deposits which were disturbed or exposed as a result of ground works in the area of interest.

2. WORKING METHODS

2.1 General

All work was undertaken according to the Chartered Institute for Archaeologists' Code of Conduct, and relevant Standards and Guidance documents (CIfA 2014), and the terms of the specification.

All excavation and on-site recording was carried out according to standard CFA procedures, principally by drawing, photography and by completing standard CFA record forms.

The excavation of the foundation trench and the stripping of topsoil from the site were carried out using a mechanical excavator equipped with a toothless ditching bucket under the constant supervision of the archaeologist. Where archaeology was present, the excavated area was rapidly cleaned and the need for further work assessed. All features and finds were hand excavated and recorded.

All features/deposits of archaeological interest were accurately located on a site plan and were also located using a Trimble GeoXR GPS and recorded by photographs, scale drawings and written descriptions. Section drawings were recorded at a minimum scale of 1:20 and include all heights AOD. Plans were recorded at a minimum scale of 1:50 and include AOD spot heights for all principal strata and any features.

The actual areas of ground disturbance were recorded on a suitable base map/development plan and the stratigraphic sequence and the depth of the excavations was recorded.

Excavated soil was searched as practicable for finds. All finds, except unstratified 20th century material, were collected and retained for processing.

All securely stratified contexts were sampled for environmental analysis and scientific dating. Additional 'spot' samples were taken of suitable material encountered during the watching brief.

2.2 Standards and Guidance

CFA Archaeology is a registered organisation (RO) with the Chartered Institute for Archaeologists (CIfA). All work was conducted in accordance with relevant CIfA Standards and Guidance documents (CIfA 2014), English Heritage guidance (2005, 2006, 2008, and 2011), and CFA's standard methodology.

2.3 Archiving

The project archive, comprising all CFA records, will be ordered according to nationally recognised standards (CIfA 2014) and deposited with the appropriate museum within an agreed timescale. A summary of the results of archaeological works will be submitted for inclusion in OASIS.

2.4 Monitoring

The archaeological works were monitored by Rebecca Remmer, Senior Archaeological Officer for West Yorkshire Archaeology Advisory Service (WYAAS), who was informed in advance of the works taking place and visited the site.

3. RESULTS

The watching brief area consisted of the footprint for a new golf shed, and a narrow service trench leading from the existing golf house to the new shed (Fig. 1), and which covered 144m².

The natural substrate of the area consisted of light brown-white friable sandy clay (002). This was sealed by a mixed layer of subsoil and topsoil (003) 0.12m thick (Fig. 10), and which was overlain by 0.25m of dark brown silty-clay topsoil (001).

The northern half of the site had been heavily truncated by an existing north-west to south-east orientated modern service trench (Fig. 1), and had been subject to modern landscaping resulting from the construction of the nearby M62 Motorway, and as a result no archaeological features were recorded in this area.

The south-western half of the site, although truncated in places by modern activity, was found to contain the remains of a Roman road (G100) and other contemporary features (Figs. 2a, 2b, 9). A full detailed list of contexts recorded during the excavation can be found in Appendix 1, along with the photographic, drawing and sample registers (Appendices 2, 3 and 4).

3.1 Roman Road

The Roman road (G100) was identified on a north-west to south-east orientation and lay directly above a black humic silt peat-like layer (010, 028, 035) that measured 0.02-0.06m in thickness, and a layer of pink, likely re-deposited, natural clay (Fig. 11; 013, 029 and 034).

The road was constructed of flat sandstone slabs of varying sizes and shapes (Fig. 12), overlain by a layer of mixed angular sandstone fragments and sandstone cobbles (Fig. 13). This was sealed by a layer of flat paving stones in places.

The road was 4.5m wide and survived to a length of 3.8m towards the northern end of the excavation area, where it was 0.34m deep (towards the centre of the camber); the depth decreasing to around 0.15m to the east and west of the feature (Fig. 3).

Towards the centre of the excavation area the road was 2.2m long by 1.5m wide , and had a depth of 0.25m (Fig. 4). Here, there was no visible mortar bonding; the stones and the interstices were filled with dark brown-grey friable silty clay with occasional charcoal flecks, from which a range of Romano-British pottery and glass was recovered.

Overlying the road towards the south was a compact layer of degraded sandstone (037). A Roman melon bead was recovered from the road surface (011). The full extent of the road is unknown due to the heavy truncation by modern services, although a section cut to the immediate south of this disturbed area showed fragments of the road survived to a width of 3m and a depth of 0.24m (Fig. 5).

To the south-eastern end of the excavation area, a fragment of a possible south-east to north-west orientated wall (036) was recorded; this feature continuing through the baulk to the south-east (Fig. 6). It consisted of rough, angular sandstone of varying shape and size, and survived to a height of 0.5m. No evidence of any bonding material was visible, although a large concentration of metal slag was found within the matrix of the wall. The feature was sealed by the same compact degraded sandstone layer (037) which overlay the remains of the Roman road to the west (Fig. 14).

A small fragment of a possible wall or rampart footing (023) (Figs 15 and 16) was recorded to the west of wall 036, with the feature surviving to a height of 0.25m and to a width of 1.5m (Fig. 7). Here the feature was formed of unbonded sandstone blocks of varying sizes and likely formed the base of a much larger feature, with modern truncation having disturbed the remains to the south.

Overlying the footings were a series of layers (004, 006, 018-021) which were sealed by subsoil and topsoil, with modern disturbance very evident in this area (Fig. 8).

3.2 Service Trench

The service trench was excavated to a depth of 0.5m below the existing ground level. The trench was 0.35m wide and ran from the watching brief area to the existing golf club to the south (Fig. 1).

At the northern end of the service trench a 2m wide area of probable wall foundations or rampart footing, consisting of angular sandstones of varying shape and size and on an east to west orientation (039) (Fig. 9), was recorded below a layer of dark brown soft silty clay that contained frequent charcoal inclusions (040) and which measured 0.06m in depth (Fig. 17). Overlying this was a layer of modern disturbance.

The remainder of the trench was shown to be devoid of archaeological remains and had been heavily truncated by activity related to the construction of Golf Club shop.

4. SPECIALIST REPORTS

4.1 Romano-British Pottery

by David Griffiths

A total of 306 sherds (5.4kg) of Roman pottery was recovered from stratified deposits, of which 132 sherds were considered diagnostic, representing as many as 39 vessels. All Roman pottery was classified and quantified by ware class, with Table 1 presenting the bulk pottery data (by sherd count/weight (grams)) by context. Full fabric descriptions for each ware class are presented, along with a detailed written description for all diagnostic sherds. Due to the relatively small size of the pottery assemblage (5.4kg), little may be gained from statistical analysis.

Context	Amphorae	Samian	Finewares	Mortaria	Black-burnished ware	Cream wares	Oxidised wares	Reduced wares	Total count/ weight
001	3/184				3/14		1/52	2/33	**9/283**
003	4/170	1/23				1/22	1/4		**7/219**
004	7/133				35/306		2/11	3/25	**47/475**
005							4/99	3/13	**7/112**
006	4/402	1/1	1/3		6/53		5/26	10/185	**27/670**
007	43/2027	2/4	6/16	1/37	4/83	10/36	23/93	7/27	**96/2323**
008	8/387		1/1						**9/388**
009		4/8			3/96		13/67	31/174	**51/345**
011	5/17				5/15		6/31	2/5	**18/68**
021							1/43		**1/43**
030	3/103	2/22				18/41	1/8	6/8	**30/182**
036	2/333								**2/333**
040						1/2		1/9	**2/11**
Total	**79/3756**	**10/58**	**8/20**	**1/37**	**56/567**	**30/101**	**57/434**	**65/479**	**306/5452**

Table 1: Roman bulk pottery by context (sherd count/weight (grams)).

Discussion

Context 001 was topsoil, with contexts 003, 004, and possibly, 005, all containing 'modern' material (i.e. clay pipes and post-medieval pottery). However, these contexts also contained Romano-British pottery; most notably, fragments of a Spanish Dressel 2-4 wine amphora (No. 1, 001); the base of a Central Gaulish Samian bowl (No. 2, 003), and two Black-burnished ware I vessels (No's 3 and 4, 004) manufactured in South-West Britain, possibly during the 2nd-century AD. Vessel No. 3 had joining sherds (004 and 006).

One fragment of mortaria was recovered (No. 13, 007). The remains of five fine tablewares (including Samian) were recovered: No. 2, (003); No. 19, (007); No. 25, (008); and Nos 32 and 33, (030).

The extremely aggressive soil conditions at Slack have heavily eroded much of the slip and surface decoration (if present) on the pottery, especially on the fineware vessels,

so only broad chronologies and production centres have been provided for these wares (see catalogue).

Many of the oxidised and reduced coarseware vessels were likely to have been produced at the nearby Roman tilery in Grimescar Wood (Purdy and Manby 1973). Tiles stamped **COH IIII BRE** have been found at Slack and during excavations at Grimescar (Purdy and Manby 1973, 96), which also produced bricks, coarse pottery and mortaria during the main period of military occupation at Slack (late 1st century to the mid 2nd century AD).

There were at least five (possibly six), amphorae present in the assemblage (No. 1, (001), Nos 35 and 39 (007), Nos 36 and 37 (009), and No. 38 (036). All are Spanish in origin, and would have been used to transport wine (No. 1, Dressel 2-4) and olive oil (Nos 35 to 39, Dressel 20s) to Britain. The relatively large number of amphorae present in this assemblage; 69% (by weight) compared to 40% and 37% in previous excavations at Slack (Griffiths 2011a and 2011b), and the quantities of Black-burnished wares, clearly highlight the military nature of the site.

The pottery assemblage corresponds closely with previous excavations at Slack Roman Fort and *vicus* such as the excavations conducted by Brian Hartley, University of Leeds, during 1968-9 in advance of the construction of the M62 motorway, and more recent investigations, conducted by the Huddersfield and District Archaeological Society (2007-8). The majority of the Roman pottery was produced from the second-half of the 1st century AD, and throughout the 2nd century AD, which corresponds to the established period of military occupation at the site (Richmond 1925; Hunter *et al.* 1970). However, some of the pottery may have been produced later. For example, olive oil continued to be shipped from Spain in Dressel 20 form amphorae to Britain until the early 3rd century AD (Peacock and Williams 1986, 136); the production of Black-burnished wares was sustained until the 4th century AD; and some of the Cream ware vessels present at Slack (e.g. Nos 20, 21, manufactured in North Yorkshire) may well have been produced beyond the end of the second century AD. However, the Cream wares in this assemblage are very fragmentary and highly degraded, which has hindered firm identification. Given that the majority of clearly datable pottery from the assemblage date firmly from the late 1st and the 2nd centuries AD, any suggestion, based on the evidence presented here, for occupation into the 3rd century AD is very tentative. However, previous pottery studies (Griffiths 2011a and b) do suggest activity at Slack into the third century AD.

Catalogue

This catalogue only includes those vessel sherds where form may be firmly identified; quantification was by sherd count and weight.

Abbreviations:
RE - rim equivalent (percentage)
BE - base equivalent (percentage)

Fabric inclusions:
A - abundant
C - common
S - sparse
VS – very sparse

Context 001

No. 1
Dressel 2-4 wine amphora with bifid handle (broken) and body sherds. Produced in Spain (Catalonia) from the late 1st century BC until mid- 2nd century AD. Peacock and Williams (1986, 105-6) Class 10 (Catalan Fabric 1). Fabric A09. Count 1; wt. 139g. Context 001.

Context 003

No. 2
Samian (Central Gaulish) bowl base with raised foot-ring. Surface very heavily eroded. Fabric S04. Base diam. 40mm; BE 7.5%; count 1; wt. 24g. Context 003.

Context 004

No. 3
South-West Black-burnished ware I flat-rimmed bowl with incised intersecting arc decoration to outer-surface and rim. 2nd century AD. Joining sherds found in Context 6. Fabric B01. Rim diam. 240mm; RE 5%; count 32; wt. 246g. Context 004.

No. 4
South-West Black-burnished ware I shallow dish with slightly inverted beaded rim. Base diam. appx. Fabric B01. Rim diam. 120mm; RE 15%; count 1; wt. 51g. Context 004.

No. 5
Coarseware vessel with flat base. Fabric O06. Base diam. 68mm; BE 17.5%; count 1; wt. 14g. Context 004.

No. 6
Coarseware jar with everted rim; heavily burnt. Similar form to Slack 366. Fabric R10. Rim diam. 116mm; RE 10%; count 1; wt. 5g. Context 004.

Context 005

No. 7
Ring-necked flagon with flared neck and partial shoulder. No evidence of handle(s). Similar to No's 9, 10, 11 (Fabric 41) found at Castleford (Rush *et al.* 2000) - late 1st century AD. Sherds from both Context's 005 and 009. Fabric O01. Rim diam. 80mm; RE 80%; count 5; wt. 115g. Context 005.

Context 006

No. 8
Black-burnished ware I jar with everted rim. Heavily eroded surface. Similar rim to Slack 366 and 370 (Griffiths 2011b). Fabric B01. Rim diam. 120mm; RE 15%; count 1; wt. 13g. Context 006.

No. 9
Black-burnished ware I body sherd with incised cross-hatch decorated. Fabric B01. Count 1; wt. 17g. Context 006.

No. 10
Narrow-necked jar with flat-topped rim. Small fragment, rim diameter approximate. Fabric R02. Rim diam. 100mm; RE 5%; count 1; wt. 3g. Context 006.

No. 11
Large, coarseware vessel with flat base. Over-fired, heavily reduced; grey margins, brown-orange core. Fabric R08. Rim diam.80mm; RE 17.5%; count 4; wt. 103g. Context 006.

No. 12
Coarseware vessel base. Crudely formed. Fabric R02. Base diam. 64mm; BE 42.5%; count 2; wt. 68g. Context 006.

Context 007

No. 13
Mortaria hooked-rim with lid-seat around outer-edge; groove where rim meets body. Grey fabric with burnished outer- surface. Corroded iron adhered to outer- surface. Fabric M08. Rim diam. 240mm; RE 7.5%; count 1; wt. 37g. Context 007.

No. 14
Black-burnished I narrow-necked jar with slightly hooked rim. Similar form to Slack 157 (Griffiths 2011b). Fabric B01. Rim diam. 220mm; RE 8%; count 1; wt. 29g. Context 007.

No. 15

Wide-mouthed coarseware jar with flat rim. Fabric R04. Rim diam. 200mm; RE 7.5%; count 1; wt. 15g. Context 007.

No. 16
Globular coarseware jar with sharply everted rim and rounded carinated shoulder. Orange surface with grey (reduced) core. Rim diameter approximate. Fabric O19. Rim diam. 200mm; RE 2.5%; count 3; wt. 21g. Context 007.

No. 17
Coarseware jar with everted, slightly up-turned, and square rim. Very crudely made and heavily eroded. Fabric O02. Rim diam. 184mm; RE 8%; count 1; wt. 12g. Context 007.

No. 18
Very small coarseware vessel base. Fabric R03. Base diam. 50mm; BE 25%; count 1; wt. 2g. Context 007.

No. 19
Fineware beaker with everted multi-grooved rim; carinated shoulder with single incised band; dark grey colour-coated isf and osf. Possibly 'Parisian' ware (Lincoln Market Rasen Fine Reduced ware (LMR FR), Tomber and Dore 1998, 159). Fabric F01. Rim diam. 70mm; RE 11%; count 2; wt. 1g. Context 007.

No. 20
Cream ware vessel rim and body sherds, handle (broken). Crudely formed, brittle, and heavily eroded. Fabric C03. Count 9; wt. 29g. Context 007.

No. 21
Cream ware bowl with plain, inverted rim. Possibly Aldborough White ware or Catterick Vicinity ware? Fabric C01. Rim diam. 200mm; RE 7.5%; count 2; wt. 7g. Context 007.

No. 35
Dressel 20 amphora handle fragment. Buff fabric. Possibly part of vessel No. 36. Fabric A03. Count 1; wt. 416g. Context 007.

No. 39
Dressel 20 rim, neck, body sherds, and a handle fragment. Orange-pink fabric. Pieces from Contexts 007 and 008. Late 1st and 2nd century AD. Peacock and Williams (1986, p.137, Fig. 65). Fabric A10.Rim diam. 176mm; RE 50%; count 11; wt.548g. Context 007.

Context 008

No. 25
Fineware base with raised pedestal foot-ring. Crudely formed with patchy, heavily eroded red-orange slip. Fabric O14. Base diam. 48mm; BE 12.5%; count 1; wt. 4g. Context 008.

Context 009

No. 22
Coarseware jar with everted rim. Fabric R06. Rim diam. 140mm; RE 10%; count 1; wt. 7g. Context 009.

No. 23
Coarseware jar with everted, slightly up-turned rim. Very coarse, crudely formed. Heavily burnt. Fabric O06. Rim diam. 140mm; RE 10%; count 1; wt. 12g. Context 009.

No. 24
Coarseware jar with everted rim. Heavily burnt to outer-surface. Fabric R04. Rim diam. 124mm; RE 13.5%; count 2; wt. 24g. Context 009.

No. 26
Black-burnished I jar with everted rim. Possibly rim to No. 27. Fabric B01. Rim diam. 180mm; RE 8%; count 1; wt. 11g. Context 009.

No. 27
Black-burnished ware I base and body. Possibly joins with rim No. 26. Fabric B01. Base diam. 120mm; BE 12.5%; count 1; wt. 72g. Context 009.

No. 28
Coarseware vessel base. Crudely formed. Fabric R11. Base diam. 90mm; BE 37.5%; count 2; wt. 39g. Context 009.

No. 36
Dressel 20 handle fragment and 2 rim sherds. Buff fabric. Possibly part of vessel No. 35. Rim sherds too small for accurate diameter measurement. Late 1st and 2nd century AD (Peacock and Williams 1986, 136-140). Fabric A03. Count 3; wt. 212g. Context 009.

No. 37
Dressel 20 rim, neck, and handle fragments. Buff fabric. Other body sherds likely to be present in bulk pottery bags. Late 1st and 2nd century AD (Peacock and Williams 1986, 136-140). Fabric A03. Rim diam. 188mm; RE 100%; count 10; wt. 971g. Context 009.

Context 011

No. 29
Small Black-burnished ware I vessel base. Fabric B01. Base diam. 70mm; BE 25%; count 2; wt. 10g. Context 011.

No. 30
Small coarseware jar with everted rim. Fabric R02. Rim diam. 112mm; RE 7%; count 1; wt. 2g. Context 011.

No. 31
Small coarseware beaker with narrow rim. Dimensions approximate due to small size. Fabric R02. Rim diam. 50mm; RE 8%; count 1; wt. 3g. Context 011

Context 030

No. 32
Central Gaulish Samian ware base with broad raised foot-ring. Heavily eroded with only a very small quantity of slip remaining. Fabric S04. Base diam. 72mm; BE 23.5%; count 1; wt. 18g. Context 030.

No. 33
Central Gaulish Samian bowl rim. Possibly a Dragendorf Form 30, late 1st or 2nd century AD (Webster 1996, 42-3). Very heavily eroded with no remaining slip. Possibly rim to base No. 32. Rim diameter approximate do to size and erosion. Fabric S04. Rim diam. 160mm; RE 6%; count 1; wt. 3g. Context 030.

No. 34
Cream ware base and body sherds. Possibly part of No. 20. Very heavily eroded and crudely formed. Fabric C03. Base diam. 70mm; BE 17.5%; count 18; wt. 41g. Context 030.

Context 036

No. 38
Dressel 20 handle fragments. Buff fabric. Possibly part of vessel No. 35. Encrusted with corroded iron to surface. Late 1st and 2nd century AD (Peacock and Williams 1986, 136-140). Fabric A03. Count 2; wt. 333g. Context 036.

Fabric Descriptions

Class A Amphorae

A03 Dressel 20 amphora (Peacock and Williams 1986, 136-140). Source: southern Spain. Sandy fabric, well-sorted. Inclusions: A: quartz, S: red, S: dark grey. Munsell: 10YR 6/4 light yellowish brown.

A09 Dressel 2-4 amphora (Peacock and Williams 1986, 105-6). Source: Catalonia, Spain. Hard, rough fabric. Inclusions: C: quartz, S: felspar, VS: gold mica. Munsell: 2.5YR 5/6 to 5/8 red.

A10 Dressel 20 amphora (Peacock and Williams 1986, 136-140). Source: Spain. Thick, rough sandy fabric. Inclusions: C: quartz; C: lime, S: mica. Munsell: margins 2.5YR 7/6 light red, core 7.5YR 6/4 light brown.

Class S Samian wares

S04 S04 Central Gaulish, Les Martres-de-Veyre samian (Tomber and Dore 1998, LMV SA). Very fine, hard, sandy fabric with red gloss surface. Inclusions: A: lime, S: black. Munsell: 2.5 YR 5/6 red.

Class F Finewares

F01 F01 Fine, sandy fabric, black colour-coated isf and osf. Inclusions: S: black/grey. Munsell: 10YR 6/8 brownish yellow.

Class M Mortaria

M08 Reduced. Fine, hard, sandy, well-sorted, wheel-made. Grey core with red/brown margins. Inclusions: s: quartz, S: white. Munsell: Margins 7.5YR 4/6 strong brown, core 7.5YR 5.1 grey.

Class B Black-burnished wares

B01 Black-burnished wares BB1, probably south-east and south-west Dorset, but also possibly Rossington Bridge Black-burnished ware 1 (Tomber & Dore 1998). It is notably difficult to distinguish between Dorset and South Yorkshire Black- burnished wares.

Class C Cream wares

C01 North Yorkshire white ware, possibly Crambeck Parchment ware (Tomber and Dore 1998, CRA PA)**.** Fine, hard, soapy, soft, ill-sorted. Late third to end of the fourth century. Inclusions: A: quartz, sub-rounded, S: red, angular (c. 1 – 1.5mm), S: black. Munsell: 10YR 8/3 to 8/4 Very pale brown.

C03 North Yorkshire white ware, possibly Crambeck White ware (Tomber and Dore 1998, CRA WH)**.** Fine, hard, soapy, soft, ill-sorted. Late third to end of the fourth century. Inclusions: C: quartz. Munsell: 5Y 8/1 white.

Class O Oxidised wares

O01 Oxidised. Fine, soft, ill-sorted, wheel-made. Inclusions: C: red/brown, S: black, rounded (>1mm), S: quartz. Munsell: 5YR 5/8 yellowish red.

O02 Oxidised. Coarse, hard, sandy, light slip, wheel-made. Inclusions: C: quartz, angular (>1mm), C: white, C: black, S: mica. Munsell: 5YR 5/8 yellowish red to 2.5YR 4/8 red.

O06 Oxidised. Coarse, hard, sandy, well-sorted, wheel-made. Inclusions: A: brown, sub-rounded (c. >3mm), C: quartz, S: white. Munsell: 7.5YR 5/4 brown to 3/2 dark brown.

O14 Oxidised. Fine, well-sorted with colour-coated inner- and outer-surface. Inclusions: C: black.

O19 Oxidised. Coarse, hard well-sorted fabric. Orange-brown outer-core, light grey inner-core. Inclusions: C: black/grey, C: red/brown, S: quartz. Munsell (outer): 7.5YR 6/6 reddish yellow, Munsell (inner): 5YR 6/1 grey.

Class R Reduced wares

R02 Reduced. Fine, hard, irregular break, well-sorted, wheel-made. Similar to Rossington Bridge Fine Reduced Ware. Inclusions: C: quartz, C: white, S: red, S: black (iron rich). Munsell: 7.5YR 6/1 gray.

R03 Reduced. Coarse, soft, sandy, well-sorted, wheel-made. Inclusions: C: quartz (c. 0.1 – 0.3mm), S: mica (silver). Munsell: 7.5YR 5/2 brown.

R04 Reduced. Grey, hard, ill-sorted. Similar to Holme-on-Spalding Moor Reduced ware, wheel-made. Inclusions: A: white (0.1mm), C: black, rounded (some c. 1-2mm). Munsell: 7.5YR 4/1 dark gray to 4/2 brown.

R06 Reduced. Hard, irregular fracture, ill-sorted, wheel-made. Inclusions: C: quartz, S: white. Munsell: 7.5YR 3/1 very dark grey.

R08 Reduced. Fine, hard, sandy, well-sorted, wheel-made. Red/brown core with grey margins. Inclusions: C: quartz, C: white. Munsell: Core – 7.5YR 4/6 strong brown, Margins – 7.5YR 5/1 grey.

4.2 Ceramic Building Materials

by David Griffiths

The extensive use of fired ceramic brick and roof tile are two of the defining characteristics of Roman construction techniques used throughout the Empire, and are ubiquitous at urban centres, military sites (and their associated civilian settlements), and countryside villas in Britain. The Roman military's involvement in the production of brick and tile was common; for example, material produced by the Sixth Legion has been found in York and also at the villa estate of Dalton Parlours, near Tadcaster, West Yorkshire (Betts 1990, 170); a major group of military-run kilns at Holt (near Chester), Denbighshire, were excavated in the early part of the 20th century (Grimes 1930); and Roman period tile kilns have been identified at Grimescar Wood, West Yorkshire, which produced building material for the construction of the fort at Slack, was built and run by the military (in this case, the Fourth Cohort of the *Breuci*) (Purdy and Manby 1973). Roof tiles with the stamp **COH. IIII. BRE**. have been found at the fort and bath house at Slack, providing a clear link with the tilery at Grimescar (Richmond 1925; Hunter et al 1970; Purdy and Manby 1973, 96).

A total of 123 fragments weighing 4.8kg (Table 2) were recovered from excavations at Outlane Golf Club (Slack Roman Fort and *vicus*). *Tegulae* (large, flat, flanged tile) and *imbrices* (curved ridge tiles – to cover any gaps between *tegulae*) fragments were present in the assemblage, along with a single (partial) brick. Fabric descriptions follow the methodology for the analysis of Roman pottery outlined in Tomber and Dore (1998). Two tile fabrics (Fabrics 1 and 2) were identified, both red in colour with a very similar mineral composition. The brick (Fabric 3) was produced in coarse, yellow clay. All of these were likely produced locally, at Grimescar (Purdy and Manby 1973).

Context	**Fabric 1**	**Fabric 2**	**Fabric 3**	**Total**
001	19/417			19/417
003	1/40	15/328		16/368
004	30/1167	20/431		50/1598
006		7/108		7/108
007	5/599	4/339		9/938
009	2/461	9/52		11/513
011		2/201		2/201
030	4/156			4/156
040	4/76		1/457	5/533
Total	**65/2916**	**57/1459**	**1/457**	**123/4832**

Table 2: Bulk ceramic building material by context; sherd count/weight (g)

The majority of the ceramic building material (CBM) fragments are heavily abraded and eroded. However, most fragments were clearly identifiable as pieces of *tegulae* or *imbrices,* along with one large fragment of brick. While there were no complete examples of tiles or bricks, a number of *tegulae* were identified through the presence of plain and flanged edges (001, 003, 004, and 007). Three *imbrex* fragments were recovered (2 fragments, 004) and (1 fragment, 011). One brick fragment was recovered (040), and this piece was relatively large, with a thickness of between 55 – 59 mm, and very crudely formed, with a slight curvature. A similar example has been found at Castleford, and Betts notes that bricks of this thickness fall outside the standard size range and are rare in Britain, and may have been used to form a circular column (1998, 227). The brick clay matrix has abundant inclusions, and is yellow/buff

in colour. This contrasts sharply with Fabrics 1 and 2, which are finer and bright red. However, tiles in red and yellow fabrics have been found at the Grimescar Roman tilery, and all items were very likely produced there. Unfortunately, none of the CBM analysed were stamped with a makers mark. However, a fragment of a tile stamped **COH.IIII.BRE** has also found been at the *vicus* at Castleford (Betts 1998, 231), suggesting some transportation and exchange of building materials between military centres, a phenomenon for which there is little evidence in Roman Britain (Betts 1998, 231-2).

Fabric Descriptions

Fabric inclusions: A – abundant, C – common, S – sparse, VS - very sparse

Fabric 1

Coarse, relatively soft red fabric, irregular fracture, abundant inclusions of various sizes, ill- sorted. Inclusions: A: iron oxide, angular, c. 1-4mm, C: red/brown, S: grey: VS: lime. Munsell: 2.5YR 5/8 red.

Fabric 2

Fine, relatively soft red fabric with few inclusions, ill-sorted. Inclusions: C: sandstone, rounded, c. 3-6mm diameter, S: iron oxide, angular, up to c. 4mm in length; S: quartz, S: red, rounded, c. 0.5 – 1mm diameter. Munsell: 5YR 6/8 reddish yellow.

Fabric 3

Coarse, hard, yellow to pale brown fabric with abundant inclusions, some large grit-stone ill-sorted. Inclusions: C: iron oxide, angular, up to 20mm, C: grey (grit-stone), sub-rounded, up to 12mm in diameter; S: red, S: white (calcite); S: quartz. Munsell: 10YR 7/4 very pale brown.

Ceramic Building Material by Context

Context 001: Fabric 1: 19 fragments of *tegulae*; very rough/coarse surfaces; all fragments heavily eroded and abraded; general thickness of between 23 – 26mm; 2 edge fragments and 1 corner fragment.

Context 003: Fabric 1: 1 edge fragment of *tegulae*. Fabric 2: 15 fragments (including 2 flat *tegulae* pieces, the first, with a thickness between 17-19mm, the second, between 19-22mm).

Context 004: Fabric 1: 30 fragments (including 3 fragments of *tegulae*: 1 with a large flanged edge, 65mm in height, with a body thickness of 35mm. Fabric 2: 20 fragments, including 2 pieces of *imbrex*.

Context 006: Fabric 2: 7 fragments.

Context 007: Fabric 1: 5 fragments, including 1 flat piece, c. 30mm in thickness; 1 fragment of flanged- edge at a 90 degree angle, and slight groove in corner where flat meets flange (e.g. Purdy and Manby, 1973, 101, Fig. 3, 4.3; Betts 1998, 225, Fig. 97,

B); 2 further fragments of flanged-edge. Fabric 2: 4 fragments, including 1 piece with a flanged-edge, slightly obtuse angle, c. 100-110 degrees.

Context 009: Fabric 1: 2 fragments, including 1 flat piece with a thickness between 25 – 27mm, and a very rough underside (from tile mould). Fabric 2: 9 fragments.

Context 011: Fabric 2: 2 fragments, including 1 piece of *tegulae*, and 1 piece of *imbrex*.

Context 030: Fabric 1: 4 fragments, including 1 flat piece of *tegulae* with a thickness of 25mm.

Context 040: Fabric 1: 4 fragments. Fabric 3: 1 large brick fragment manufactured in a yellow fabric, crudely made with a slight curvature, and a thickness of between 55 and 59mm.

4.3 Glass and Frit

By Hilary Cool

The assemblage consisted of 16 fragments weighing 124.5g and is very similar to that found during previous excavations in and around the fort at Slack, and is of a similar date, i.e. late 1st to early 2nd century AD.

Three fragments (nos 1-2) would appear to come from the same yellow/green vessel which would have had a convex, lightly ribbed body and a base that was either concave or part of an open pushed-in base ring. The combination of the colour and shape would suggest it came from either a collared jar (Isings Form 67c) or a globular long-necked jug (Isings Form 52). Both types were in use during the final third of the 1st century and were going out of use early in the 2nd century (Price and Cottam 1998, 137-8, 150-52).

All of the other identifiable fragments come from the range of blue/green bottles that were very common from the later 1st into the 3rd century (Price and Cottam 1998, 191-200). Nos 3-4 are from cylindrical bottles, the body fragments no. 4 being identified by the characteristic vertical scratch marks. Nos 5 and 6 are from a square bottle or possibly, in the case of no. 5, from one of the other body shapes in the family of prismatic bottles. The shoulder fragment no. 7 cannot be assigned to a particular body shape. The square bottle fragment no. 8 has to be identified as Roman with some caution. Whilst the glass itself is typical of Roman glass, the rib running along the junction of the angle would be most unusual in a Roman square bottle, and is more typical of a prismatic bottle made in the 19th or 20th century which were also made in blue/green soda glass. The fragment comes from a deposit overlying a Roman wall which has Roman pottery and CBM. Cylindrical bottles have a much shorter life span than the prismatic bottles, going out of use early in the 2nd century.

The fort and *vicus* at Slack have seen various excavations which have produced glass assemblages, to which this small group can be compared. First there is the material from the excavations in 1913-5 (Dodd and Woodward 1921/2 72-4). Then there is the material from the Hartley excavations of 1958 and 1968-9 which produced in total fewer than 100 fragments weighing just over 0.5kg. The bulk of this material came

from the 1968-9 work in advance of the construction of the M62 Motorway to the north. To celebrate their centenary the Huddersfield and District Archaeological Society also carried out excavations in the *vicus* to the south-west. These produced 56 fragments weighing a little over 100g. In all of these excavations there is a relatively strong presence of cylindrical bottles, as here. The only other vessel type identified here, the globular jar or jug (nos 1-2), was identified in both the 1969 and the 2007 assemblages. At Slack it is common for the glass to indicate strong use in the later 1st to earlier 2nd century AD, and for there to be no secure evidence of the use of glass vessel after the mid third of the 2nd century AD. This is precisely the pattern this assemblage shows.

Catalogue

Vessel glass

1 Jug or jar; one base and bone body fragment. Yellow/green. Base - shallow concave base broken at junction with base ring or side. Dimensions 44 x 22mm, wall thickness 3mm. Body fragment - convex-curved with faint optic blown ribbing. Dimensions 32 x 24mm, wall thickness 1.5mm. Total weight 5.2g. (030).

2 Body fragment. Yellow/green. Convex-curved with faint optic blown ribbing. Dimensions 24 x 17mm, wall thickness 1.5mm. Weight 1.1g. (009)

3 Cylindrical bottle; shoulder and side fragment. Blue/green. Shoulder curving over with slight bulge above cylindrical side. Heavy wear on shoulder, on lower part of bulge and many vertical scratch marks on body. Approximate diameter at shoulder c. 170mm, present height c. 80mm, wall thickness 6mm. Weight 52.5g. (006).

4 Cylindrical bottle. Two body fragments with vertical scratch marks. Wall thickness 2.5mm. (006)

5 Prismatic bottle; handle fragment. Lower part of lightly reeded handle retaining part of shoulder. Dimensions 26 x 25mm. Weight 6.4g. (004)

6 Square bottle; lower body and base fragment. Blue/green. Corner of base, heat affected and distorted. Present height 28mm. Weight 24.6g. (009)

7 Bottle; shoulder fragment. Blue/green. Wear marks and scar from handle attachment. Dimensions 16 x16mm. Weight 3.4g. (011).

8 Prismatic bottle, shoulder and body fragment. Blue/green. Shoulder curving over to side; broken at junction to adjoining side with marked rib between. Dimensions 34 x 27mm. Weight 4.8g. (040)

Objects

A single melon bead was recovered from the excavations. These are very common from the mid 1st to mid 2nd century AD in Roman Britain, especially on military sites. Again this is a type of find that has regularly been found at Slack before. The

1913-15 excavations produced twelve examples (Dodd and Woodward 1921/2, 74) and Brian Hartley's excavations recovered two in 1968 and four in 1969.

9 Melon bead. Turquoise frit not retaining any glaze. Regular gadroons, cylindrical perforation. Diameter 14mm, length 11mm, perforation diameter 6mm. (011).

4.4 Metalworking Debris

By David Starley

Excavation recovered nearly 3kg of material of possible metallurgical significance. Most of this was collected as bulk finds but a further 162g was retrieved during processing of soil samples.

Visual examination was supplemented by testing with magnet and streak plate. The material was classified into the standard categories used by the specialist, based on those developed by the former English Heritage Ancient Monuments Laboratory. Table 3 presents the entirety of these findings.

All but one of the contexts examined contained material classified as ferruginous concretion. This material forms as a result of the re-deposition of iron hydroxides, a process similar to iron panning. On archaeological sites, such material may be of relevance in identifying ironworking activities and deserves close examination, as its formation is likely to be enhanced by the nature of the surrounding archaeological deposits. In particular, examination may reveal the presence of hammerscale within concretions (Starley 1995) and therefore help to identify the location of iron smithing. However, no hammerscale was found within the Outlane Golf Course concretions. In the absence of hammerscale or any diagnostic metalworking evidence, this category of material would seem to be an entirely natural deposit.

Context 38 contained one very large piece of stone, collected because of the presence of adhering ferruginous concretion; it was not considered to have any relevance to metalworking.

There was, however, some evidence of high temperature processes. Both coal and charcoal were identified, together with the light weight and light coloured combustion product, fuel ash slag. There was also one fragment of vitrified hearth lining and some cinder, produced when fuel ash reacts with the clay of a hearth at elevated temperatures. Unfortunately, none of these waste products are specifically identifiable as deriving from metalworking.

Context No.	Sample No.	Slag Type	Mass (g)	Comments
003		Ferruginous concretion	135	Tested for hammerscale, none found
006	3	coal	3	
006		Ferruginous concretion	188	Vitrified hearth lining attached. Tested for hammerscale, none found
006	3	Fuel Ash Slag	3	
006		Vitrified hearth lining	29	
009	4	Charcoal	9	
009	4	Cinder	32	
009	4	Fuel Ash Slag	88	
009	4	Stone	27	
038		Ferruginous concretion	983	Tested for hammerscale, none found
038		Stone	1336	Ferruginous concretion attached
040		Ferruginous concretion	96	Tested for hammerscale, none found
Total			**2929**	

Table 3: Metallurgical debris by context

The site produced no bulk or microslags that were diagnostic of specific metalworking processes, or any of fayalitic composition which indicate, more generally, metalworking. The only high temperature residues identified could derive from a wide range of burning processes. Further examination of the material is not justified. It is normally recommended that all finds be saved; however, there would seem little value in retaining the 'natural' content (038).

4.5 Faunal Remains

By Jennifer Thoms

No identifiable bone was retrieved and all the material was burnt and highly fragmented. In all cases the quantity of burnt bone retrieved was very small (always less than 3 grams). Small quantities of bone such as this may have derived from ash from domestic fires, or from other cooking waste. The acidic nature of the soil has been noted elsewhere (Griffiths, this report section 4.1) and explains why only burnt bone has survived.

A catalogue of the retrieved bone is presented in **Table 4** below.

Context	Size: > 4mm	Size: 2 – 4mm	Size: < 2mm
004	1 fragment (0.8g)		
006	8 fragments (1.0g)	10 fragments (0.4g)	c. 50 fragments (0.3g)
030	7 fragments (2.5g)		

Table 4: Animal bone remains by context

Contexts 004 and 006 are both widespread, mixed deposits covering large areas of the site, so the presence of small amounts of burnt bone is unremarkable, and could have derived from ash from domestic fires. Context 030 is a smaller deposit, only visible in the section: the small amount of bone retrieved from it could be indicative of a larger bone deposit, but it is still a negligible quantity of bone.

It is not recommended that any further work be carried out on this material. The bone fragments are dry and stable and suitable for long-term storage if necessary.

4.6 Environmental Assessment

By Mhairi Hastie

The soil samples were processed through a system of flotation, the floating debris (flot) was collected in a 250μm sieve, and once dry, scanned using a binocular microscope; the remaining material in the tank (retent) was washed through a 1mm mesh and sorted for any archaeological significant remains.

The results are presented in tables 5 and 6 below.

			RETENTS					
Sample number	**Context number**	**Sample description**	**Sample vol (litres)**	**Pot sherds /frags**	**Fired clay/ daub**	**Burnt bone**	**Slag**	**Charcoal**
1	020	Deposit, prob. under wall	5					+ (sf)
2	028	Organic layer underlying road	10					+ (vsf)
3	006	Deposit, prob. under wall	5	++		+ (vsf)	+	+ (sf)
4	009	Deposit east of wall poss. fill of ditch	10	+	++		++++	+++

Table 5: Composition of Retents

			FLOTS			
Sample number	**Context number**	**Sample description**	**Flot vol (ml)**	**Non-ferrous slag**	**Charcoal**	**Cinders**
1	020	Deposit, prob. under wall	50		+++	+ (vsf)
2	028	Organic layer underlying road	30		++ (sf)	
3	006	Deposit, prob. under wall	30	+	+++ (sf)	
4	009	Deposit east of wall poss. fill of ditch	30		++++ (sf)	+ (sf)

Table 6 Composition of Flots

Key :
+ = rare (1-10 items), ++ = occasional (11-50 items), +++ = common (51-100 items) and ++++ = abundant (>101 items) SF = small fragments (<5mm in diameter) VSF = very small fragments (<2mm in diameter)

Much of the charcoal was vitrified and with lots of iron mineralisation, would not be suitable for AMS dating: however, large quantities of charcoal were recovered from samples 1, 3 and 4 (deposits 006, 009 and 020) and there may be some charcoal fragments from these samples suitable for AMS dating.

4.7 Peat Assessment

By Mike Cressey

A sample of peat (Sample 5) was taken (010). This material consisted of very black humic silt which was not rich in plant remains but there are occasional reed-type stems (Phragmites communis/common reed) suggestive of aquatic plants standing in water. The silt would have formed under steady-state conditions, probably a result of poor drainage in the area.

4.8 Statement of Potential and Recommendations for further work

No further work is recommended for any of the materials recovered from site, though all materials should be retained with the archive except the natural material which may be discarded.

5. DISCUSSION

The watching brief identified an area of archaeological significance in the south-western half of the site. Earlier work had suggested that the route of the Roman road ran from the entrance of Slack Roman Fort to the south of the site and headed north before joining the route of the Chester to York Road. The results of watching brief, support this idea as the road here was on a north-west to south-east orientation and appeared to be on an alignment that would have led it to join to the Chester-York Road to the north.

The site was heavily truncated in places making the preservation of the archaeology in some areas very poor. The presence of a service trench cutting through the middle of the site is testament to this, with this trench truncating the earlier Roman road in a number of places.

The Roman road surface and wall (036) are likely to be contemporary with both of these features being sealed by the same compact degraded sandstone deposit. To the immediate west of the road, what could have been the surviving remains of an earlier footing or pitching of a rampart (023) was uncovered. This feature is very similar to the ramparts seen in Manby's (1967) report on the excavation of the eastern rampart of Slack Roman Fort. Truncation of the site here meant that any further indications of a potential rampart were not present, with any accompanying banks associated with the feature not surviving.

The stone footings of the rampart in Manby's excavations were more pronounced and had evidence of the bank and accompanying ditches for the intervallum. The possible rampart on this site has neither the bank nor the ditch but similarities to the fort ramparts can be seen: the unbounded and un-faced stone used are similar to those in Manby's excavations.

The 2m wide section of stone in the service trench could also be another remnant of possible pitching or footing of a rampart foundation, but due to the size of the trench a firm interpretation cannot be made.

The amount of pottery recovered shows that there was a high level of activity during the late 1st and the 2nd centuries AD. These dates are supported by those of the glass artefacts, and could provide a date for when the ramparts were first created.

6. CONCLUSION

The watching brief has produced results of some archaeological significance with the presence of a Roman road leading from the fort and on a likely orientation that would join the Chester to York Road to the north. In addition to this, two possible footings or pitching for a rampart foundation were recorded, contributing to the overall study of Slack Roman Fort and its relationship with the Road.

The presence of the ramparts could indicate a possible extension, or even an earlier phase to the construction of the fort, but the lack of the ditch and banks make a firm interpretation difficult. However, the similarities of the possible pitchings to those recorded during Manby's excavation are a strong indication of a possible rampart in this area. Combining the evidence from the pottery and the glass gives the activity on the site a date in the late 1st and 2nd centuries AD.

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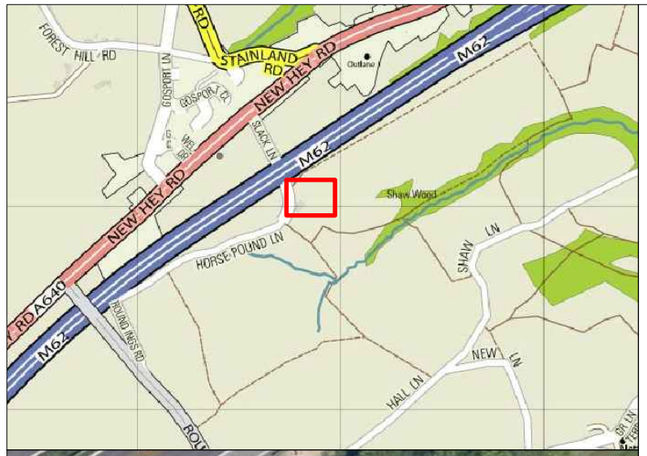
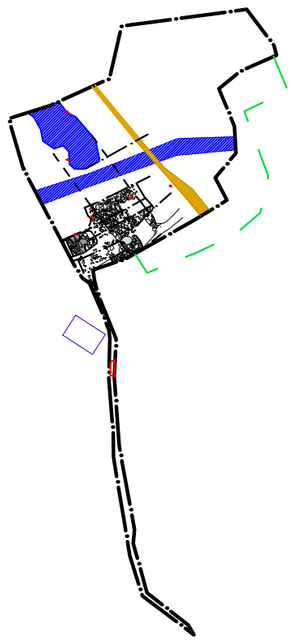
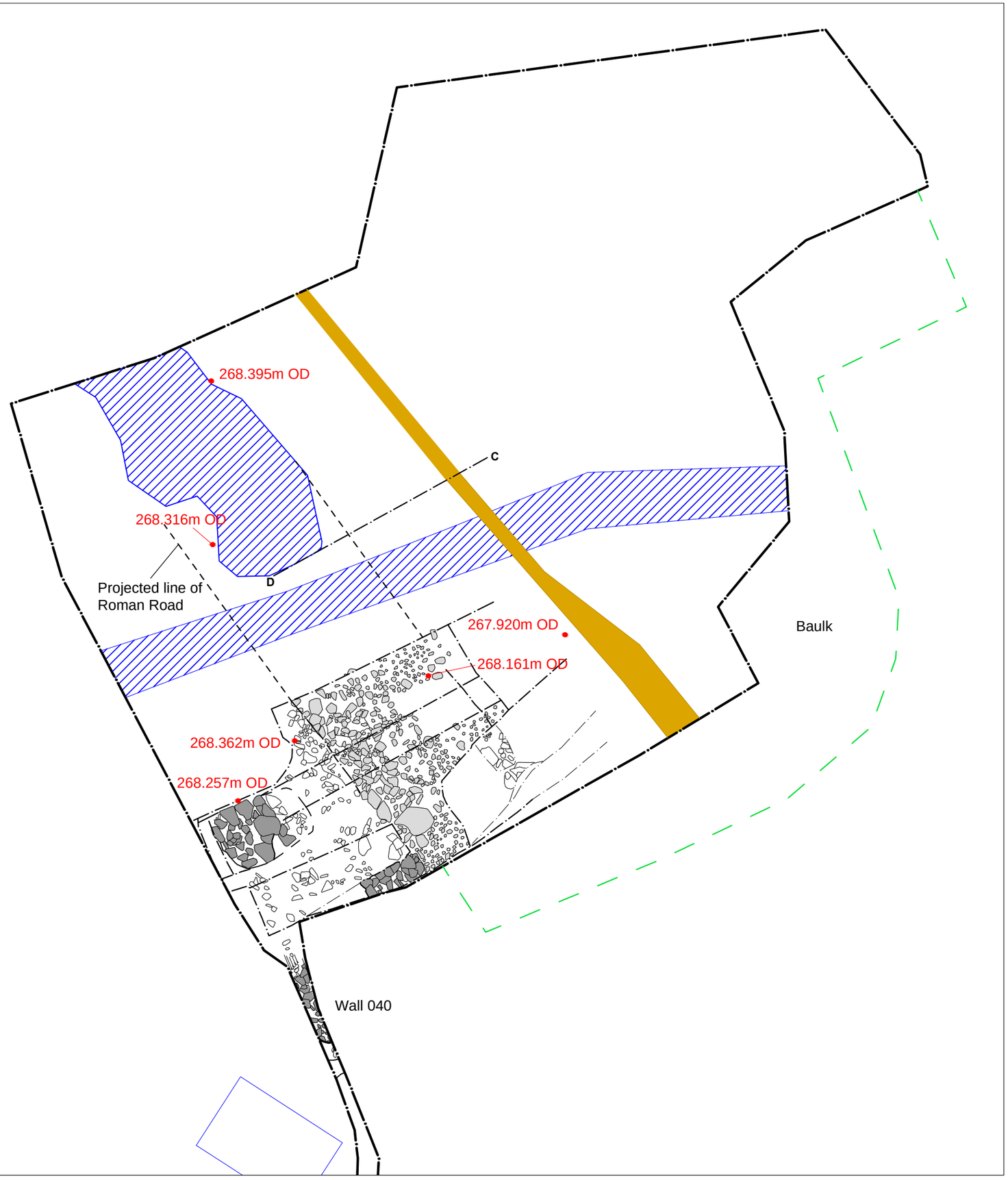
Figures 1 – 18







Key:

- Limit of excavation
- Modern Service
- Field Drain
- Road
- Wall
- Spot Height

CFA ARCHAEOLOGY LTD
Offices C1 & C2
Clayton Business Centre
Midland Road
Leeds, LS10 2RJ
T: 0113 271 6060
F: 0113 271 3197
yorks@cfa-archaeology.co.uk
www.cfa-archaeology.co.uk

Fig. No:	Report No:
1	Y149/14

Title:
Site location and plan

Project:
Outlane Golf Club, Slack Lane, Outlane, Huddersfield

Client:
Outlane Golf Club

Scale at A3:
1:100

Drawn by:	Checked:	Date:
LW	ML	22/07/2014

Key:

- Trench Limits
- Road
- Wall

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Offices C1 & C2
Clayton Business Centre
Midland Road
Leeds. LS10 2RJ
T: 0113 271 6060
F: 0113 271 3197
yorks@cfa-archaeology.co.uk
www.cfa-archaeology.co.uk

Fig. No:	Report No:
2a	Y149/14

Title:
Pre-excavation plan of area

Project:
Outlane Golf Club, Slack Lane, Outlane, Huddersfield

Client:
Outlane Golf Club

Scale at A3:
1:40

Drawn by:	Checked:	Date:
LW	ML	22/07/2014

Key:

- Trench Limits
- Road
- Wall

CFA ARCHAEOLOGY LTD
Offices C1 & C2
Clayton Business Centre
Midland Road
Leeds, LS10 2RJ
T: 0113 271 6060
F: 0113 271 3197
yorks@cfa-archaeology.co.uk
www.cfa-archaeology.co.uk

Fig. No:	Report No:
2b	Y149/14

Title:
Post-excavation plan of area

Project:
Outlane Golf Club, Slack Lane, Outlane, Huddersfield

Client:
Outlane Golf Club

Scale at A3:
1:40

Drawn by:	Checked:	Date:
LW	ML	22/07/2014

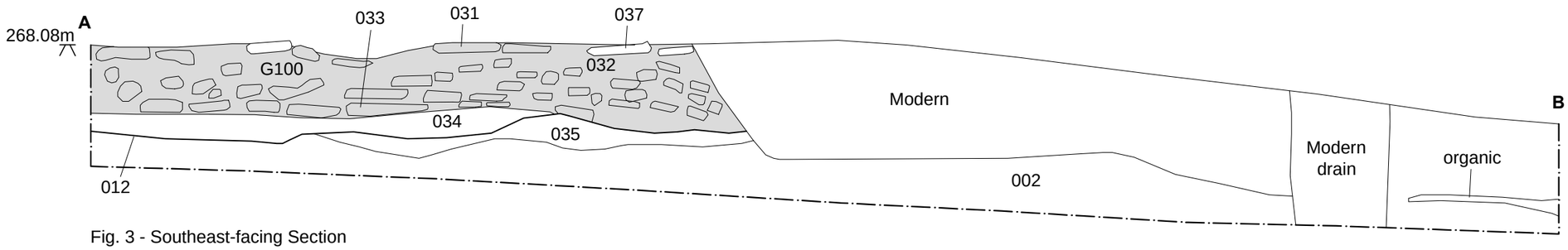


Fig. 3 - Southeast-facing Section

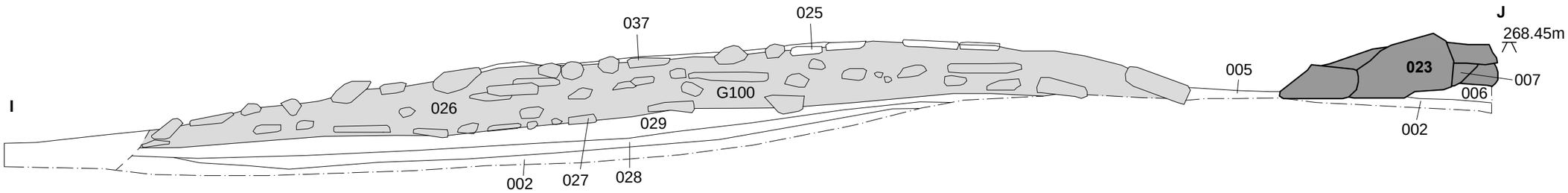


Fig. 4 - Northwest-facing Section

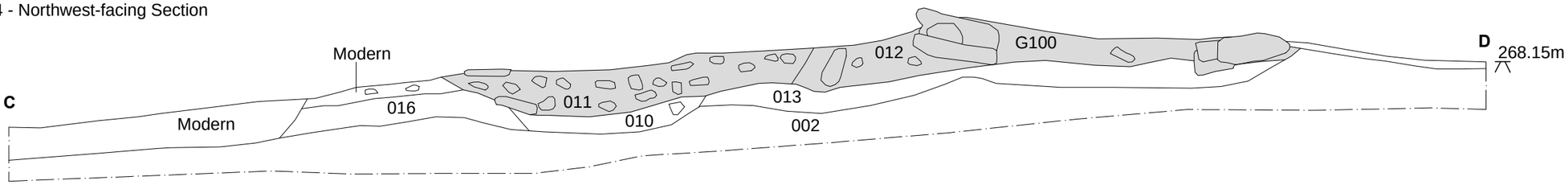


Fig. 5 - Northwest-facing Section

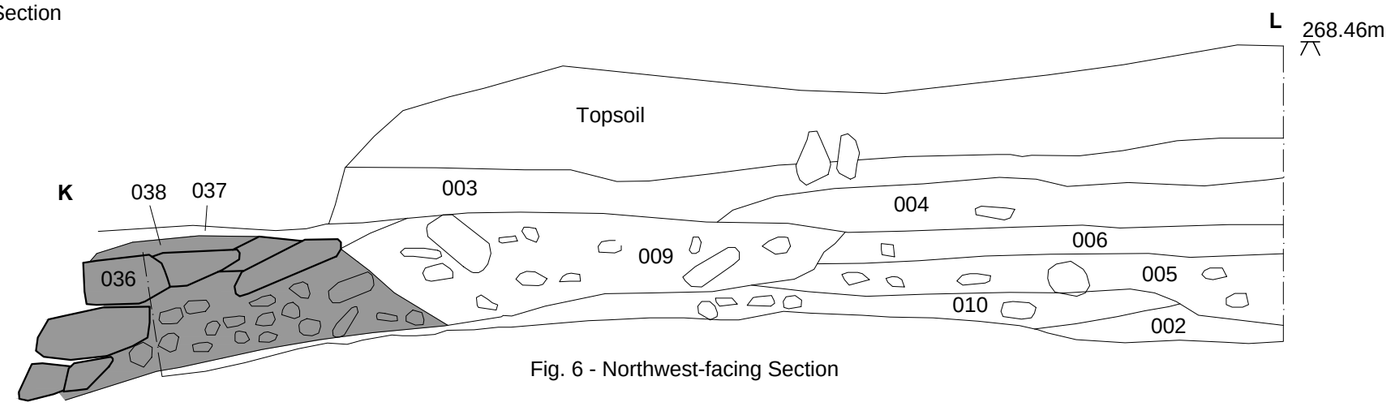


Fig. 6 - Northwest-facing Section

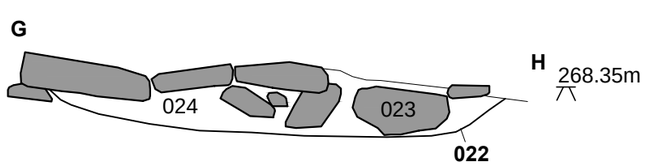


Fig. 7 - Northeast-facing Section

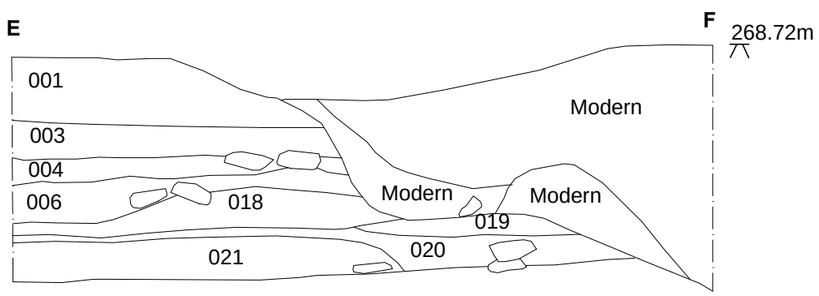


Fig. 8 - Northeast-facing Section

Key:

Trench Limits

Road

Wall

CFA ARCHAEOLOGY LTD
Offices C1 & C2
Clayton Business Centre
Midland Road
Leeds, LS10 2RJ
T: 0113 271 6060
F: 0113 271 3197
yorks@cfa-archaeology.co.uk
www.cfa-archaeology.co.uk

Fig. No:	Report No:
3-8	Y149/14

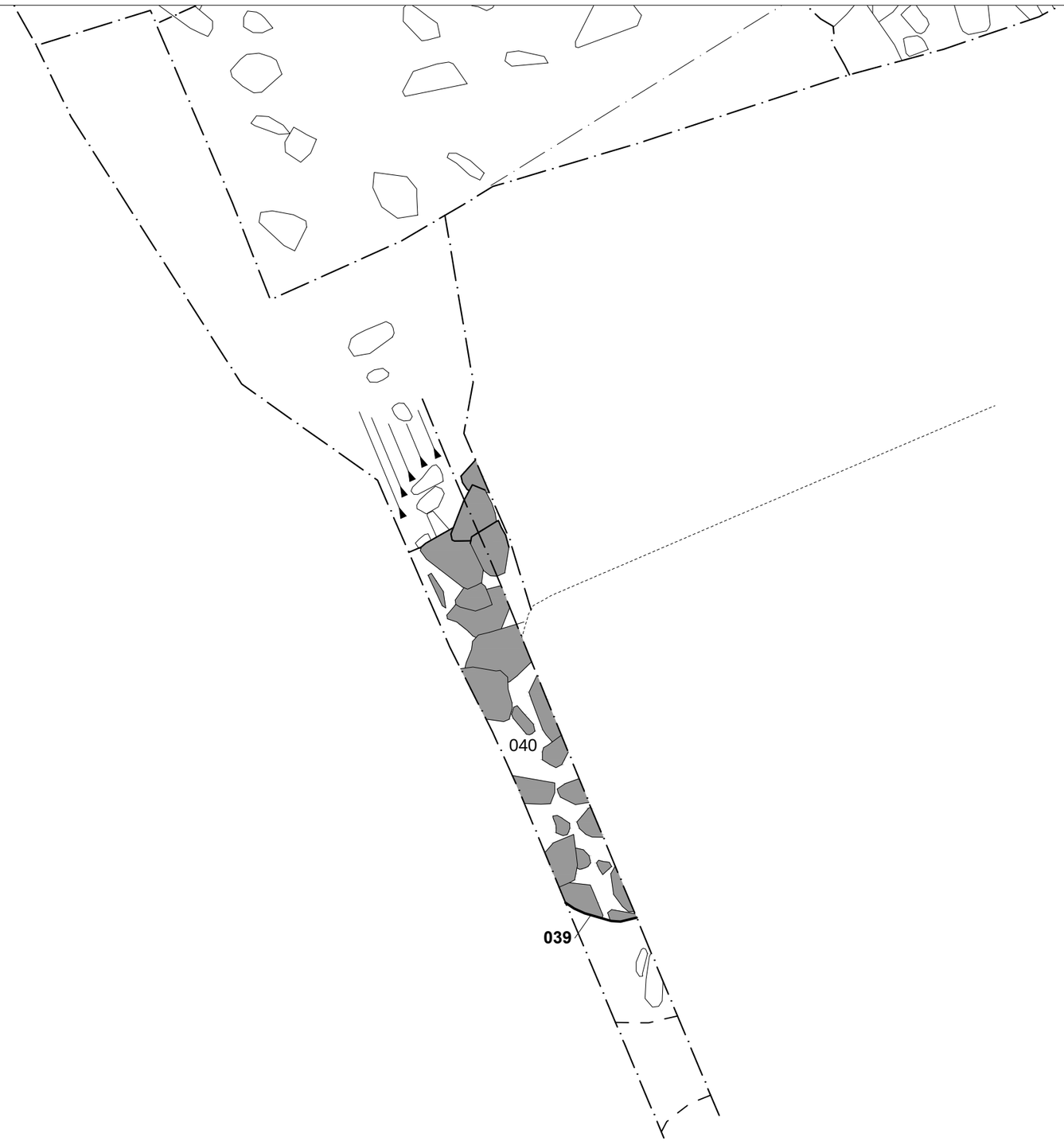
Title:

Project:
Outlane Golf Club, Slack Lane, Outlane, Huddersfield

Client:
Outlane Golf Club

Scale at A3:
1:20

Drawn by:	Checked:	Date:
LW	ML	22/07/2014



Key:

Trench Limits

Wall

CFA ARCHAEOLOGY LTD
Offices C1 & C2
Clayton Business Centre
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Leeds, LS10 2RJ
T: 0113 271 6060
F: 0113 271 3197
yorks@cfa-archaeology.co.uk
www.cfa-archaeology.co.uk

Fig. No:	Report No:
9	Y149/14

Title:
Plan of Wall 039

Project:
Outlane Golf Club, Slack Lane, Outlane, Huddersfield

Client:
Outlane Golf Club

Scale at A3:
1:20

Drawn by:	Checked:	Date:
LW	ML	22/07/2014

Fig. 10 - North-west-facing section of trench

Fig. 11 - North-west-facing shot of Roman road surface

Fig. No: 10-11	Revision: A	Project: Outlane Golf Club, Slack Lane, Outlane, Huddersfield
Drawn by: LW / Checked: CH	Report No: Y149/14	Client: Outlane Golf Club

CFA ARCHAEOLOGY LTD
Unit 22
Moorland's Business Centre
Balme Road, Cleckheaton
West Yorkshire, BD19 4EZ

T: 01274 864245
F: 01274 878494
yorkshire@cfa-archaeology.co.uk

Fig. 12 - North-west-facing section of Roman road 031/032

Fig. 13 - Pre-excavation shot of cobbles underneath paving stones of Roman road 032

Fig. No:		Revision:	Project:
12-13		A	Outlane Golf Club, Slack Lane, Outlane, Huddersfield
Drawn by: LW	Checked: CH	Report No: Y149/14	Client: Outlane Golf Club

CFA ARCHAEOLOGY LTD
Unit 22
Moorland's Business Centre
Balme Road, Cleckheaton
West Yorkshire, BD19 4EZ

T: 01274 864245
F: 01274 878494
yorkshire@cfa-archaeology.co.uk

Fig. 14 - South-west-facing shot of Roman road and possible wall 036

Fig. 15 - North-east-facing section of possible rampart bank with modern intrusion

Fig. No:		Revision:	Project:
14-15		A	Outlane Golf Club, Slack Lane, Outlane, Huddersfield
Drawn by: LW	Checked: CH	Report No: Y149/14	Client: Outlane Golf Club

CFA ARCHAEOLOGY LTD
Unit 22
Moorland's Business Centre
Balme Road, Cleckheaton
West Yorkshire, BD19 4EZ

T: 01274 864245
F: 01274 878494
yorkshire@cfa-archaeology.co.uk

Fig. 16 - South-east-facing shot of possible Rampart 023

Fig. 17 - Shot of service trench after topsoil removal with possible rampart footing 039

Fig. No:		Revision:	Project:
16-17		A	Outlane Golf Club, Slack Lane, Outlane, Huddersfield
Drawn by: LW	Checked: CH	Report No: Y149/14	Client: Outlane Golf Club

CFA ARCHAEOLOGY LTD
Unit 22
Moorland's Business Centre
Balme Road, Cleckheaton
West Yorkshire, BD19 4EZ

T: 01274 864245
F: 01274 878494
yorkshire@cfa-archaeology.co.uk

Fig. 18 - Working shot of planning the road

Fig. No:		Revision:	Project:
18		A	Outlane Golf Club, Slack Lane, Outlane, Huddersfield
Drawn by: LW	Checked: CH	Report No: Y149/14	Client: Outlane Golf Club

CFA ARCHAEOLOGY LTD
Unit 22
Moorland's Business Centre
Balme Road, Cleckheaton
West Yorkshire, BD19 4EZ

T: 01274 864245
F: 01274 878494
yorkshire@cfa-archaeology.co.uk

APPENDICES 1-5

Appendix 1: Context Register

Context	Fill of	Type	Description
001		Deposit	Dark brown clayey silt, top soil. Covered whole area
002		Deposit	Natural substrate. Consisted of light brownish white sandy clay.
003		Deposit	Dark brown, friable, silty clay deposit in southern corner of site. Mixed deposit layer covering most of the area of the trench. 3m wide x 3m long x 0.18m deep.
004		Deposit	Dark grey brown, friable clay silt with occasional angular stones and charcoal. Mixed deposit/layer covering most of the site in the south-east area, also included mixed finds of Roman date. 5m long x 3m wide x 0.12m deep.
005		Deposit	Light grey, friable silty clay with occasional charcoal fragments and small angular stones. Deposit is east of wall 023 and within a possible structure. 2.5m Long x 1.0m wide x 0.12m deep
006		Deposit	Mid grey, friable clay silt, with frequent charcoal flecks and fragments and occasional angular and smooth stones, possibly the same as 005 but mostly excavated and recorded in south-east part of trench. 3m long x 3m w x 0.22m deep.
007		Deposit	Brown-grey friable silty clay with occasional charcoal flecks. Deposit was found on top of the wall 023 and with the stones. Roman pottery was found and full extent unknown due to modern intrusions. 2.6m l x 1.6m w x 0.1m deep.
008		Deposit	Mid grey friable clay silt with occasion charcoal flecks and very rare small stones. Immediately west of wall 023 and possible fill to a possible foundation cut. Disturbed by a modern pipe. 1.6m l x 0.2m w x 0.2m deep.
009		Deposit	Dark grey, soft-friable silty clay with frequent charcoal fragments and small stones. Within possible structure east to wall 023. 1m L x 1.6m W x 0.35m.
010		Deposit	Black humic silt. Organic layer with organic matter with a peaty smell. Probable original turf line when road was put in place. >5m in length x >2.5m wide x 0.02-0.05m deep.
011		Masonry	Layer of Roman road material. Firm sandstone fragments that would make up the core of the road, to build up the camber, mostly cobbles of varying sizes but some small angular stones. Heavily truncated by a modern pipe on the north-east side. Part of G100.
012		Masonry	Flat sandstone slabs for the paving of the Roman road. Only a small amount of the slabs have survived. Very good clarity in plan but poor in section. Fragments vary in size from 0.2m to 0.4m long and 0.1-0.5m wide, with varying depths as well. Part of G100.
013		Deposit	Light grey firm, silty clay. Sterile deposit that could be re-deposited natural contained occasional flat sand stone slabs with could possibly be the base of the road. >3m L x >2.4m wide x 0.2 - 0.35m deep.
014			Void
015			Void
016		Deposit	Dark grey, friable silty clay possibly disturbed by modern intrusion. >1m in length x 0.8m wide x 0.2m deep.
017			void
018		Deposit	Light orange yellow, friable silty sand with frequent degraded sandstone. 0.5m Long x 1.2m wide x 0.14m deep
019		Deposit	Light greyish white, soft sand. Sterile deposit probably cause of modern disturbance of area. Only seen in section. 0.5m Long x 0.7m Wide x 0.6m deep.
020		Deposit	Dark grey, soft-friable, sandy silt with frequent charcoal flecks. >0.5m long x >2m wide x 0.1m deep.

Context	Fill of	Type	Description
021		Deposit	Light brownish grey, soft-friable, sandy silt with occasional charcoal flecks. Immediately east of wall 023. 0.5m long x 1.2m wide x 0.15m deep.
022		Cut	Linear cut of NE-SW wall with a flat base and near vertical sides. Filled by 023. >3m Long x 1.5m Wide x 0.25m Deep.
023	022	Masonry	Sandstone formation. 1-2 course drystone wall/ rampart footings, probably the foundations for a larger structure. Orientated NE-SW. 2.2m long x 1.5m wide x 0.25m deep.
024		Deposit	Dark greyish brown, soft sandy silt with occasional charcoal fragments and small angular stones. >0.5m long x 1.5m wide x 0.12m deep.
025		Masonry	Paving layer of flat paving slabs for Roman road surface. Only a few remain in situ. Same as 031. >5m long x >4m wide x 0.08-0.01m deep. Part of G100.
026		Masonry	Layer of cobbles underneath paving stones 025. Main make up of Roman road camber. >5m long x >4m wide x >0.25m. Part of G100.
027		Masonry	Flat sandstone slabs used as the foundation stones of the Roman road. Noticed during excavation but very poor in section. >5m long x >4m wide x >0.25m. Part of G100.
028		Deposit	Dark brown, friable silty clay with frequent charcoal flecks and fragments. Layer of organic soil underneath road, possible original layer of soil at time of the building of the road. >5m long x >4m wide x >0.03 - 0.05.
029		Deposit	Light pinkish brown, soft clay with occasional charcoal flecks. Immediately under and also contained flat sandstone slabs. Possible re-deposited natural similar to 013.
030		Deposit	Mid grey, friable silty clay with frequent angular and rounded stones 1.45m long x 0.45m deep. Only visible in section.
031		Masonry	Paving slabs for top of Roman road same as 025. Vary in size and only a few remain in situ. >5m long x >4m wide x >0.01-0.05 deep. Part of G100.
032		Masonry	Layer of cobbles underneath paving stones 025. Main make up of Roman road camber. >5m long x >4m wide x >0.25m. Same as 026, 011. Part of G100.
033		Masonry	Flat sandstone slabs used as the foundation stones of the Roman road. Noticed during excavation but very poor in section. >5m Long x >4m Wide x >0.25m. Part of G100.
034		Deposit	Light pinkish brown, soft clay with occasional charcoal flecks. Immediately under and also contained flat sandstone slabs. Possible re-deposited natural similar to 013, 028.
035		Deposit	Dark brown friable peat. layer of fibrous peat below road.. >5m in length x >2.5m wide x 0.02-0.05m deep.
036		Deposit	Roman wall. 2-3 course drystone wall, probably the foundations for a larger structure. Orientated NE-SW. Full extent unknown as continues through limit of excavation. 1.3 long x 0.9 wide x 0.35m – 0.45m deep.
037		Deposit	Light orange firm sand with frequent sandstone fragments. Layer of heavily degraded sandstone, possibly crushed and pushed down to protect road surface. >5m long x >4m wide x 0.08-0.01m deep.
038		Deposit	Dark brownish red hard slag. Found on top of wall 036 fragments where solid but some areas could be trowelled away. 0.3m deep.
039		Masonry	Roman wall. 1-2 course drystone wall, probably the foundations for a larger structure. Orientated NE-SW. Full extent unknown only seen in plan. 2m wide.
040		Deposit	Dark brown, soft silty clay with frequent charcoal flecks and Roman pottery and CBM. 0.006m deep above possible rampart/wall 039.

Appendix 2: Photographic Register

No	Contexts/description	Facing	Conditions
1	Shot showing area of made ground towards the north end of the site	North	Overcast
2	Pre-excavation shot of cremated bone	South-east	Overcast
3	Pre-excavation shot of Roman wall	North-east	Overcast
4	North-west-facing section of 004 and 005	South-east	Overcast
5	Shot of Roman road surface	North-west	Bright
6	South-west-facing shot showing area of made ground towards the north-east end of the site	North-east	Bright
7	North-west-facing section of machine excavated slot through roman road	South-east	Bright
8	South-east-facing section of machine excavated slot through roman road	North-west	Bright
9	South-east-facing shot of Roman road truncated by modern intrusion	North-west	Bright
10	North-west-facing section of Roman road	South-east	Overcast
11	North-west-facing section of Roman road	South-east	Overcast
12	Oblique shot of the north-west-facing section of Roman road	North-east	Overcast
13	North-west-facing section of Roman road	South-east	Overcast
14	Working shot of JW planning Roman road	North	Overcast
15	North-east-facing section of area of modern intrusion, with Wall 023 not continuing	South-west	Overcast
16	North-east-facing section of trench with modern intrusion	South-west	Rain
17	Post excavation shot of Wall 023 not continuing into section	West	Rain
18	Working shot of wall and road	North-east	Rain
19	South-west-facing section of Wall 023	North-east	Rain
20	Plan shot of cobbled surface below flat paving stones	North-west	Rain
21	Working shot showing cobbles underneath paving stones of Roman road	South-west	Rain
22	Pre-excavation shot of cobbles underneath paving stones of Roman road	North-east	Rain
23	North-west-facing section of Roman road	South-east	Rain
24	Oblique shot of the north-west-facing section of Roman road	South	Rain
25	Oblique shot of the north-west-facing section of Roman road	East	Rain
26	Oblique shot of the north-west-facing section of deposits 003/004/006/005/010/030	North-east	Rain
27	Oblique shot of the north-west-facing section of deposits 003/004/006/005/010/030	South	Rain
28	Plan post excavation shot of layered deposits, within a possible structure	North-east	Rain
29	Area shot showing 037 over road surface	South	Rain
30	North-west-facing section of trench.	South-east	Rain
31	Post excavation shot of possible Rampart 023	South-east	Rain
32	Post excavation shot of Roman wall 023	North-west	Rain
33	Post excavation shot of Roman wall 023	South-west	Overcast
34	Above shot of possible Roman wall 036	South-east	Overcast
35	Shot of Roman road and Wall 036 after removal of 037	South-west	Overcast
36	Shot of Roman road and Wall 036 after removal of 037	West	Overcast
37	North-west-facing section of Wall 036	South-west	Overcast
38	Post excavation shot of removal of baulk. Wall 036 continues	South-west	Overcast
39	Shot of New shed in previous excavation		Bright
40	Shot of New shed in previous excavation		Bright
41	Pre-excavation shot of possible Wall 039	East	Bright
42	Pre-excavation shot of possible Wall 039	North	Bright
43	Pre-excavation shot of possible Wall 039	South	Bright
44	Post-excavation shot of Wall 039	East	Bright

No	Contexts/description	Facing	Conditions
45	Post-excavation shot of Wall 039	South	Bright
46	Post-excavation shot of Wall 039	South	Bright
47	Post-excavation shot of Wall 039	East	Bright
48	Post-excavation shot of Wall 039	North	Bright
49	Post-excavation shot of Wall 039	East	Bright
50	Post-excavation shot of possible disturbed wall.	East	Overcast
51	Post-excavation shot of possible disturbed wall.	North	Overcast
52	Post-excavation shot of possible disturbed wall.	South	Overcast
53	Shot of service trench after topsoil removal	South	Overcast
54	Shot of service trench after topsoil removal	North	Overcast
55	Shot of service trench after topsoil removal with disturbed ground and modern finds	South	Overcast
56	Shot of service trench after topsoil removal with Wall 039	North	Overcast
57	Shot of service trench after topsoil removal with Wall 039	South	Bright
58	Shot of service trench after topsoil removal	East	Bright
59	Shot of service trench after topsoil removal	South	Bright
60	Shot of service trench after topsoil removal	South	Bright
61	Shot of service trench after topsoil removal	North	Bright
62	Shot of service trench after topsoil removal	West	Bright
63	Shot of service trench after topsoil removal	North	Bright
64	Shot of service trench after topsoil removal	South	Bright

Appendix 3: Drawing Register

Sheet	No.	Scale	Plan / Section	Description/contexts
1	1	1:20	Plan	Plan of excavation area, including Roman wall 023/036 and road (southern half of site)
1	2	1:20	Plan	Plan of excavation area, including Roman wall 023/036 and road (Northern half of site)
1	6	1:20	Plan	Plan of north-west end of excavated area
1	7	1:20	Plan	Plan of north-west end of excavated area
2	3	1:20	Section	South-east-facing section of possible Roman road and modern intrusion
3	3	1:20	Section	North-west-facing section of Roman road
4	3	1:20	Section	North-east-facing section of trench
5	3	1:20	Section	South-west-facing section of Roman wall 023
6	4	1:20	Section	North-west-facing section of Roman road
7	4	1:20	Section	North-west-facing section of South eastern baulk of trench
8	5	1:20	Plan	Overlay plan of excavated areas
9	8	1:10	Plan	Plan of Wall 039 in Service trench

Appendix 4: Sample Register

Sample	Context No.	Type	Volume (l)
1	020	Bulk	5
2	028	Bulk	10
3	006	Bulk	5
4	009	Bulk	10
5	010	Peat	10
6	038	Slag	5

Appendix 5: Specification

WEST YORKSHIRE ARCHAEOLOGY ADVISORY SERVICE:
SPECIFICATION FOR AN ARCHAEOLOGICAL EVALUATION BY TRIAL TRENCHING AT OUTLANE GOLF CLUB, SLACK LANE, OUTLANE.

Specification prepared at the request of Dr Gillian Goodlass of Outlane Golf Club.

1. Summary

1.1 A limited amount of archaeological work consisting of trial trenching is proposed to help establish the archaeological significance of the above site. Any work arising from the results of the evaluation will be covered by a further specification.

1.2 This specification has been prepared by the West Yorkshire Archaeology Advisory Service, the holders of the WY Historic Environment Record.

1.3 The proposed site lies just outside the scheduled boundary of Slack Roman Fort (SAM no WY158)

NOTE: The requirements detailed in paragraphs 6.3, 6.4, 6.5, 6.6 and 8.1 are to be met by the archaeological contractor **prior** to the commencement of fieldwork by completing and returning the attached form to the WY Archaeology Advisory Service.

2. Site Location & Description

Grid Reference: centred on SE 0840 1750

2.1 The proposed development site lies to the south of the village of Outlane, and immediately west of the small hamlet known as 'Slack'. It is bounded by the M62 motorway to the north, by Slack Lane to the west, and by the golf course and club house to the south and east. The land proposed for the new machinery shed is a grassed area in between the club house and the motorway.

2.2 The site is located in the district of Kirklees, and historically within the township of Longwood.

3. Background

3.1 A planning application has not yet been submitted for this site. In October 2010, Kirklees Council were contacted by Trevor Pickles of Outlane Golf Club regarding the building of a new 16m by 10m machinery shed, as the existing one was not fit for purpose. Kirklees council recommended that Mr Pickles contact WYAAS and English Heritage. Following a recent site meeting with WYAAS, English Heritage, Kirklees Council and members of the golf club a site for the new shed was selected that would have least impact upon the scheduled ancient monument.

3.2 The gold club has been advised by the WYAAS and English Heritage that there is reason to believe that important archaeological remains may be affected by the proposed development and that an archaeological evaluation is required to establish the degree of archaeological recording that is necessary.

3.3 This specification has been prepared by the WYAAS at the request of Dr Gillian Goodlass of Outlane Golf Club (Gillian.goodlass@adas.co.uk) to detail what is required for the evaluation and to allow an archaeological contractor to provide a quotation.

4. Archaeological Interest

4.1 The proposed development site lies in an area of known archaeological significance, adjacent to Slack Roman Fort, a scheduled ancient monument (SAM no WY158). The buried remains of the fort are scheduled and the whole surrounding area is also of high archaeological potential. The site if the proposed shed lies to the north of the scheduled area, within the civilian settlement, or vicus.

4.2 Slack Roman fort was built in the 1st century AD and abandoned in c.AD 138. To the north-west was a further enclosed annexe which is the likely area of a civilian settlement that continued to exist after the abandonment of the site by the Roman army.

4.3 Previous small scale archaeological excavation within the annexe yielded a rich assemblage of finds that indicated occupation into the 3rd century. Other fieldwork (in 1913-15 and 1958) confirmed that there are well-preserved buried deposits in the fort and to the north of the scheduled area, although these may have been disturbed by the construction of the golf course in the early 1970s; a watching brief in advance of the construction of an extension to the club house in 2003 found no archaeological remains. The fort's scheduled status reflects its national significance.

4.4 Recent work by the Huddersfield and District Archaeological Society in the field to the west of the proposed site has located a stone lined channel that contained organic remains which was dated by radiocarbon dating to the Roman period. The HDAS have also excavated a trench close to the site of the proposed trench but details of this are not yet available.

5. Aim of the Evaluation

5.1 The aim of the evaluation is to gather sufficient information to establish the extent, condition, character and date (as far as circumstances permit) of any archaeological features and deposits within the area of interest.

6. General Instructions

6.1 Health and Safety

6.1.1 The archaeologist on site will naturally operate with due regard for Health and Safety regulations. Where archaeological work is carried out at the same time as the work of other contractors, regard should also be taken of any reasonable additional constraints that these contractors may impose. This work may require the preparation of a Risk Assessment of the site, in accordance with the Health and Safety at Work Regulations. The West Yorkshire Archaeology Advisory Service and its officers cannot be held responsible for any accidents or injuries that may occur to outside contractors while attempting to conform to this specification.

6.2 Confirmation of Adherence to Specification
6.2.1 Prior to the commencement of *any work,* the archaeological contractor must confirm adherence to this specification in writing to the WYAAS, or state (with reasons) any proposals to vary the specification. Should the contractor wish to vary the specification, then written confirmation of the agreement of the WYAAS to any variations is required prior to work commencing. Unauthorised variations are made at the sole risk of the contractor. **Modifications presented in the form of a re-written specification/project design will not be considered by the WYAAS.** Any technical queries arising from the specification detailed below should be addressed to the WYAAS *without delay*.

6.3 Confirmation of Timetable and Contractors' Qualifications
6.3.1 Prior to the commencement of *any work*, the archaeological contractor **must** provide WYAAS **in writing** with:

- a projected timetable for the site work;
- details of the staff structure and numbers;
- names and *CVs* of key project members (the project manager, site supervisor, any proposed specialists, sub-contractors *etc.*),

6.3.2 All project staff provided by the archaeological contractor must be suitably qualified and experienced for their roles. The timetable should be adequate to allow the work to be undertaken to the appropriate professional standard, subject to the ultimate judgement of WYAAS.

6.4 Notification
6.4.1 The project will be monitored as necessary and practicable by the WYAAS, in its role as "curator" of the region's archaeology. The WYAAS should receive as much notice as possible, and certainly one week, of the intention to start fieldwork. This notification is to be supplied **in writing**, and copied to the relevant District Museum (see para. 9.1 below). As a courtesy, English Heritage's Regional Science Adviser Dr Andy Hammon should also be notified of the intention to commence fieldwork (contact : tel. 01904 601983; email andy.hammon@english-heritage.org.uk). A copy of the contractor's risk assessment should accompany notification of intention to commence work.

6.5 Documentary Research
6.5.1 Prior to the commencement of *fieldwork*, the WY HER should be visited by either the project manager or the site supervisor, in order to gain an overview of the archaeological/historical background of the site and environs. In addition to providing a knowledge base for the work in hand, the results of this assessment may be incorporated into the contractor's report where they are considered to contribute to that report, but any extraneous material should be omitted. Please note that the WY HER makes a charge for consultations of a commercial nature. The results of this exercise should be used to inform the whole project. Please note, however, that a formal desk-based report is not required and the results of this stage of work should be incorporated in the final report.

7. Fieldwork Methodology

7.1 Trench Size and Placement (Fig. 1)

7.1.1 The work will involve the excavation of one 5m by 2m trench within the footprint of the proposed shed, which can be machine-opened. The contractor should also allow for a contingency amount of 5 square metres. The use of the contingency will depend upon the results obtained in the initial trial trenching. The use of the contingency will be at the decision of the WYAAS, whose decision will be issued in writing, if necessary in retrospect after site discussions. Proposed trench locations are shown on Figure 1.

Total site area: **160m^2**
Total area of trenching: **10m^2**
Contingency trenching: **5m^2**

7.2 Method of Excavation

7.2.1 The trial trenches may be opened and the topsoil and recent overburden removed down to the first significant archaeological horizon in successive level spits of a **maximum** 0.2m. thickness, by the use of an appropriate machine using a wide toothless ditching blade. **Under no circumstances should the machine be used to cut arbitrary trenches down to natural deposits.** All machine work must be carried out under direct archaeological supervision and the machine halted if significant archaeological deposits are encountered. The top of the first significant archaeological horizon may be exposed by the machine, but must then be cleaned by hand and inspected for features and then dug by hand.

7.2.2 No archaeological deposits should be entirely removed unless this is unavoidable in achieving the objectives of this evaluation, although **all** features identified are expected to be half-sectioned and the **full** depth of archaeological deposits must be assessed. All trenches are to be the stated dimensions at their base.

7.2.3 All artefacts are to be retained for processing and analysis except for unstratified 20th-century material, which may be noted and discarded. Finds will be stored in secure, appropriate conditions following the guidelines in First Aid for Finds (3rd edition).

7.3 Method of Recording

7.3.1 The trenches are to be recorded according to the normal principles of stratigraphic excavation. The stratigraphy of each trial trench is to be recorded even where no archaeological deposits have been identified.

7.3.2 The actual areas of trenching and any features of possible archaeological concern noted within the trenches should be accurately located on a site plan and recorded by photographs, summary scale drawings and written descriptions sufficient to permit the preparation of a report on the material. The site grid is to be accurately tied into the National Grid and located on the largest scale map available of the area (either 1:2500 or 1:1250).

7.3.3 Digital photography: as an alternative to colour slide photography, good quality digital photography may be supplied, using cameras with a minimum resolution of 4 megapixels. Note that conventional black and white print photography is still required and constitutes the permanent record. Digital images will only be acceptable as an alternative to colour slide photography if each image is supplied in three file formats (as a RAW data file, a DNG file and as a JPEG file). The contractor must include metadata embedded in the DNG file. The metadata must include the following: the commonly used name for the site being photographed, the relevant centred OS grid coordinates for the site to at least six figures, the relevant township name, the date of photograph, the subject of the photograph, the direction of shot and the name of the organisation taking the photograph. Images are to be supplied to WYAAS on gold CDs by the archaeological contractor accompanying the hard copy of the report.

7.4 Use of Metal Detectors on Site

7.4.1 Spoil heaps are to be scanned for both ferrous and non-ferrous metal artefacts using a metal detector capable of making this discrimination, operated by an experienced metal detector user (if necessary, operating under the supervision of the contracting archaeologist). Modern artefacts are to be noted but not retained (19th-century material and earlier should be retained.)

7.4.2 If a non-professional archaeologist is to be used to carry out the metal-detecting, a formal agreement of their position as a sub-contractor working under direction must be agreed in advance of their use on site. This formal agreement will apply whether they are paid or not. To avoid financial claims under the Treasure Act a suggested wording for this formal agreement with the metal detectorist is: "In the process of working on the archaeological investigation at [*location of site*] between the dates of [*insert dates*], [*name of person contributing to project*] is working under direction or permission of [*name of archaeological organisation*] and hereby waives all rights to rewards for objects discovered that could otherwise be payable under the Treasure Act 1996."

7.5 Environmental Sampling Strategy

7.5.1 Bulk samples must be taken from **all** securely stratified deposits using the methodologies outlined by English Heritage in the Centre for Archaeology Guidelines no.1 (2002), “Environmental Archaeology. A Guide to the Theory and Practice of Methods, from Sampling and Recovery to Post-excavation”.

7.5.2 Samples for specialist environmental analysis and scientific dating (soil profiles, archaeomagnetic dating, dendrochrology etc.) should be taken if suitable material is encountered during the excavation. The English Heritage Regional Science Advisor should be consulted (Dr Andy Hammon, tel.: 01904 601983, email: andy.hammon@english-heritage.org.uk) and provision should be made for an appropriate specialist(s) to visit the site, take samples and discuss the sampling strategy, if necessary.

7.6 Conservation Strategy

7.6.1 A conservation strategy must be developed in collaboration with a recognised laboratory. All finds must be assessed in order to recover information that will contribute to an understanding of their deterioration and hence preservation potential, as well as identifying potential for further investigation. Furthermore, all

finds must be stabilised and packaged in accordance with the requirements of the receiving museum. As a guiding principle only artefacts of a "displayable" quality would warrant full conservation, but metalwork and coinage from stratified contexts would be expected to be X-rayed if necessary, and conservation costs should also be included as a contingency.

7.7 Location of Services, etc.

7.7.1 The archaeological contractors will be responsible for locating any drainage pipes, service pipes, cables *etc*. which may cross any of the trench lines, and for taking the necessary measures to avoid disturbing such services.

7.8 Human Remains

7.8.1 Any human remains that are discovered must initially be left *in-situ*, covered and protected. WYAAS will be notified at the earliest opportunity. If removal is necessary the remains must be excavated archaeologically in accordance with the *Guidance for Best Practice for Treatment of Human Remains Excavated from Christian Burial Grounds in England* published by English Heritage (2005), a valid Ministry of Justice licence and any local environmental health regulations.

7.9 Treasure Act

7.9.1 The terms of the Treasure Act 1996 must be followed with regard to any finds that might fall within its purview. Any finds must be removed to a safe place and reported to the local coroner as required by the procedures as laid down in the "Code of Practice". Where removal cannot be effected on the same working day as the discovery, suitable security measures must be taken to protect the finds from theft.

8. Monitoring

8.1 The representative of the WYAAS will be afforded access to the site at any reasonable time. It is usual practice that the visit is arranged in advance, but this is not always feasible. The WYAAS' representative will be provided with a site tour and an overview of the site by the senior archaeologist present and should be afforded the opportunity to view all trenches, any finds made that are still on site, and any records not in immediate use. It is anticipated that the records of an exemplar context that has previously been fully recorded will be examined. Any observed deficiencies during the site visit are to be made good to the satisfaction of the Advisory Service's representative, by the next agreed site meeting. Access is also to be afforded at any reasonable time to English Heritage's Regional Archaeological Science Advisor.

9. Archive Deposition

9.1 Before commencing any fieldwork, the archaeological contractor must contact the relevant District museum archaeological curator in writing (copied to WYAAS) to determine the museum's requirements for the deposition of an excavation archive. In this case the contact is: The Tolson Memorial Museum, Ravensknowle Park, Wakefield Road Huddersfield HD5 8DJ; tel 01484 223830.

9.2 It is the policy of the Tolson Memorial Museum to accept complete excavation archives, including primary site records and research archives and finds, from all excavations carried out in the District, which it serves.

9.3 It is the responsibility of the archaeological contractor to endeavour to obtain consent of the landowner, in writing, to the deposition of finds with the Tolson Memorial Museum.

9.4 It is the responsibility of the archaeological contractor to meet the Tolson Memorial Museum's requirements with regard to the preparation of fieldwork archives for deposition.

10. Unexpectedly Significant or Complex Discoveries

10.1 Should there be unexpectedly significant or complex discoveries made that warrant, in the professional judgement of the archaeologist on site, more detailed recording than is appropriate within the terms of this specification, then the archaeological contractor should urgently contact the WYAAS with the relevant information to enable them to resolve the matter with the developer.

11. Post-Excavation Analysis and Reporting

11.1 Finds and Samples

11.1.1 On completion of the fieldwork, any samples taken shall be processed and any finds shall be cleaned, identified, assessed/analysed, dated (if possible), marked (if appropriate) and properly packed and stored in accordance with the requirements of national guidelines.

11.1.2 Samples should be processed for the recovery of artefactual material, animal/fish/human bones, industrial residues, shell, molluscs, charcoal and mineralised plant remains as a minimum. 'Specialist' samples (e.g. monoliths, cores, plant/invertebrate macrofossils) should be processed separately as appropriate.

11.1.3 Material suitable for scientific dating (e.g. charcoal) should be identified to species and assessed for suitability by an environmental specialist prior to submission to a dating laboratory. Any human remains submitted for C14 dating should also have carbon (delta 13C) and nitrogen isotope analysis carried out by the radiocarbon laboratory.

11.1.4 All finds and biological material must be analysed by a qualified and experienced specialist.

11.1.5 Following identification, finds of 20th-century date should be noted, quantified and summarily described, but can then be discarded if appropriate. All finds which are of 19th century or earlier date should be retained and archived.

11.2 Field Archive

11.2.1 A fully indexed field archive shall be compiled consisting of all primary written documents, plans, sections, photographic negatives and a complete set of labelled photographic prints/slides. Standards for archive compilation and transfer should conform to those outlined in Archaeological Archives – a guide to best practice in

creation, compilation, transfer and curation (Archaeological Archives Forum, 2007). An index to the field archive is to be deposited with the West Yorkshire Archaeology Advisory Service (preferably as an appendix in the report).

11.2.2 Prints may be executed digitally from scanned versions of the film negatives, and may be manipulated to improve print quality (but **not** in a manner which alters detail or perspective). All digital prints must be made on paper and with inks which are certified against fading or other deterioration for a period of 75 years or more when used in combination. If digital printing is employed, the contractor must supply details of the paper/inks used in writing to the WY Archaeology Advisory Service, with supporting documentation indicating their archival stability/durability. Written confirmation that the materials are acceptable must have been received from the WYAAS prior to the commencement of work on site.

11.2.3 The original archive is to accompany the deposition of any finds, providing the landowner agrees to the deposition of finds in a publicly accessible archive (see para. 8.4 above). In the absence of this agreement the field archive (less finds) is to be deposited with the West Yorkshire Archaeology Advisory Service.

11.3 Report Format and Content

11.3.1 A report should be produced, which should include background information on the need for the project, a description of the methodology employed, and a full description and interpretation of results produced. It is not envisaged that the report is likely to be published, but it should be produced with sufficient care and attention to detail to be of academic use to future researchers.

11.3.2 Location plans should be produced at a scale which enables easy site identification and which depicts the full extent of the site investigated (a scale of 1:50,000 is not regarded as appropriate unless accompanied by a more detailed plan or plans). Site plans should be at an appropriate scale showing trench layout (as dug), features located and, where possible, predicted archaeological deposits. Upon completion of each evaluation trench all sections containing archaeological features will be drawn. Section drawings (at a minimum scale of 1:20) must include heights O.D. Plans (at a minimum scale of 1:50) must include O.D. spot heights for all principal strata and any features. Where no archaeological deposits are encountered at least one long section of each trench will be drawn.

11.3.3 Artefact analysis is to include the production of a descriptive catalogue, quantification by context and discussion/interpretation if warranted, with finds critical for dating and interpretation illustrated.

11.3.4 Environmental analysis is to include identification of the remains, quantification by context, discussion/interpretation if warranted, and a description of the processing methodology. Radiocarbon results must be presented in full (laboratory sample number, conventional radiocarbon age, delta C13 value, calibration programme). Copies of the laboratory-issued dating certificates must be included as an appendix to the report.

11.3.5 Details of the style and format of the report are to be determined by the archaeological contractor, but should include a full bibliography, a quantified index to the site archive, and as an appendix, a copy of this specification.

11.4 Summary for Publication

11.4.1 The attached summary sheet should be completed and submitted to the WYAAS for inclusion in the summary of archaeological work in West Yorkshire published on WYAAS' website.

11.5 Publicity

11.5.1 If the project is to be publicised in any way (including media releases, publications etc.), then it is expected that the WYAAS will be given the opportunity to consider whether it wishes its collaborative role to be acknowledged, and if so, the form of words used will be at the WYAAS' discretion.

11.6 Consideration of Appropriate Mitigation Strategy

11.6.1 The report should not give a judgement on whether preservation or further investigation is considered appropriate, but should provide an interpretation of results, placing them in a local and regional, and if appropriate, national context. However, a client may wish to separately commission the contractor's view as to an appropriate treatment of the resource identified.

11.7 Report Submission and Deposition with the WY HER

11.7.1 A copy of the report is to be supplied **directly** to the WYAAS within a period of **two months** following completion of fieldwork, unless specialist reports are awaited. In the latter case a revised date should be agreed with the WYAAS. Completion of this project and advice from WYAAS on an appropriate mitigation strategy are dependant upon receipt by WYAAS of a satisfactory report which has been prepared in accordance with this specification. Any comments made by WYAAS in response to the submission of an unsatisfactory report will be taken into account and will result in the reissue of a suitably edited report to all parties, within a timescale which has been agreed with WYAAS.

11.7.2 The report will be supplied on the understanding that it will be added to the West Yorkshire Historic Environment Record where it will be publicly accessible once deposited with the WYAAS unless confidentiality is explicitly requested, in which case it will become publicly accessible six months after deposition.

11.7.3 A copy of the final report (in .pdf format) shall also be supplied to English Heritage's Regional Science Advisor (Andy Hammon, English Heritage, 37 Tanner Row, York Y01 6WP).

11.7.4 Copyright - Please note that by depositing this report, the contractor gives permission for the material presented within the document to be used by the WYAAS, in perpetuity, although The Contractor retains the right to be identified as the author of all project documentation and reports as specified in the *Copyright, Designs and Patents Act* 1988 (chapter IV, section 79). The permission will allow the WYAAS to reproduce material, including for non-commercial use by third parties, with the copyright owner suitably acknowledged.

11.7.5 The West Yorkshire HER supports the Online Access to Index of Archaeological Investigations (OASIS) project. The overall aim of the OASIS project is to provide an online index to the mass of archaeological grey literature that has been produced as a result of the advent of large-scale developer funded fieldwork. The archaeological contractor must therefore complete the online OASIS form at http://ads.ahds.ac.uk/project/oasis/. Contractors are advised to contact the West Yorkshire HER officer prior to completing the form. Once a report has become a public document by submission to or incorporation into the HER, the West Yorkshire HER may place the information on a web-site. Please ensure that you and your client agree to this procedure in writing as part of the process of submitting the report to the case officer at the West Yorkshire HER.

12. General Considerations

12.1 Authorised Alterations to Specification by Contractor

12.1.1 It should be noted that this specification is based upon records available in the West Yorkshire Historic Environment Record and on a brief examination of the site by the WYAAS. Archaeological contractors submitting tenders should carry out an inspection of the site prior to submission. If, on first visiting the site or at any time during the course of the recording exercise, it appears in the archaeologist's professional judgement that:

i) a part or the whole of the site is not amenable to evaluation as detailed above, and/or
ii) an alternative approach may be more appropriate or likely to produce more informative results,

then it is expected that the archaeologist will contact the WYAAS as a matter of urgency. If contractors have not yet been appointed, any variations which the WYAAS considers to be justifiable on archaeological grounds will be incorporated into a revised specification, which will then be re-issued to the developer for redistribution to the tendering contractors. If an appointment has already been made and site work is ongoing, the WYAAS will resolve the matter in liaison with the developer and the Local Planning Authority.

12. 2 Unauthorised Alterations to Specification by Contractor

12.2.1 It is the archaeological contractor's responsibility to ensure that they have obtained the WYAAS' consent in writing to any variation of the specification prior to the commencement of on-site work or (where applicable) prior to the finalisation of the tender. Unauthorised variations may result in the WYAAS being unable to recommend determination of the planning application to the Local Planning Officer based on the archaeological information available and are therefore made solely at the risk of the contractor.

12.3 Technical Queries

12.3.1 Similarly, any technical queries arising from the specification detailed above, should be addressed to the WYAAS without delay.

12.4 Valid Period of Specification

12.4.1 This specification is valid for a period of one year from date of issue. After that time it may need to be revised to take into account new discoveries, changes in policy or the introduction of new working practices or techniques.

Rebecca Remmer **February 2011**
West Yorkshire Archaeology Advisory Service

WY Historic Environment record
West Yorkshire Archaeology Advisory Service
Registry of Deeds
Newstead Road
Wakefield
WF1 2DE

Telephone: (01924) 305992
Fax: (01924) 306810
E-mail: rremmer@wyjs.org.uk

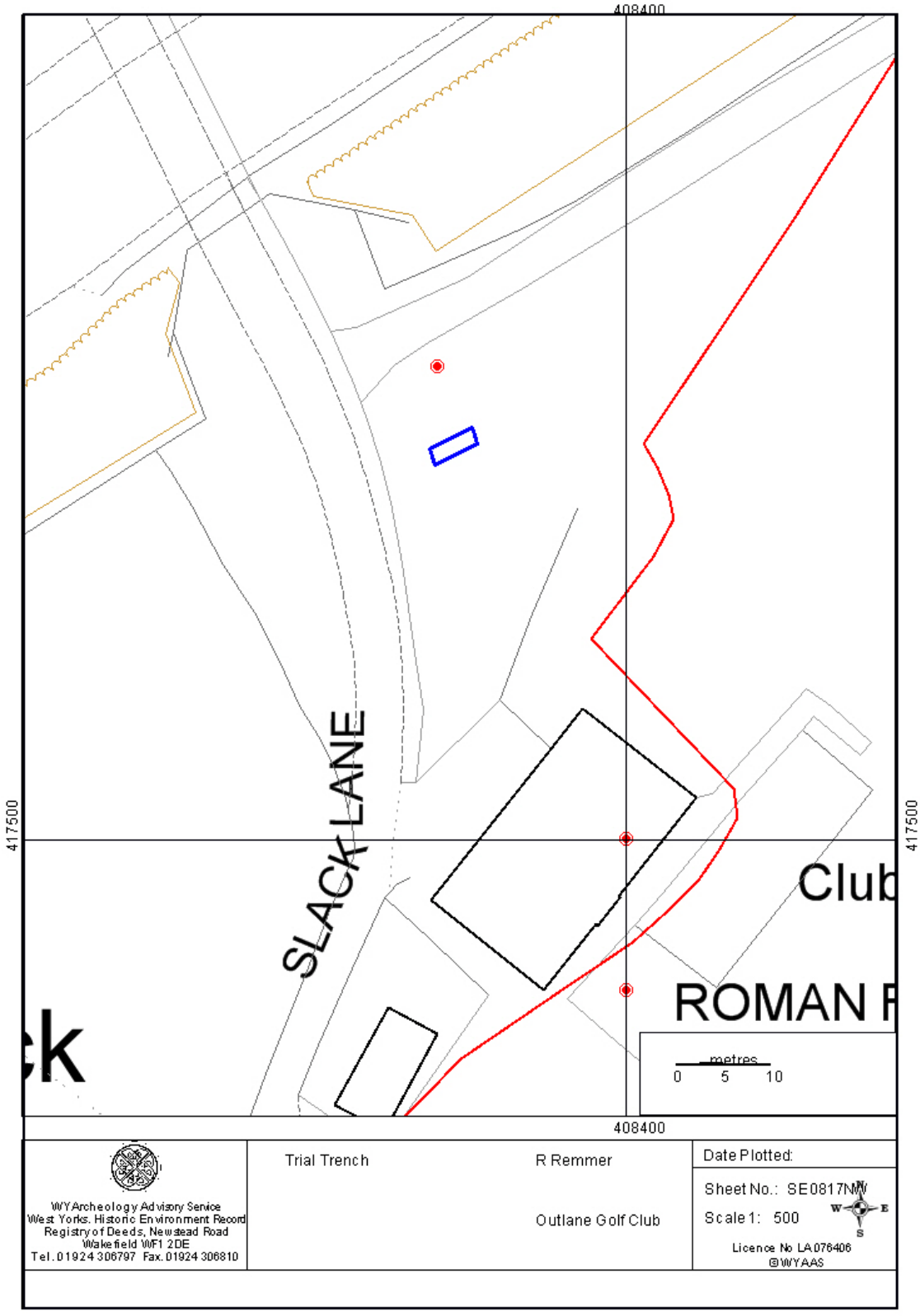

Figure 1. Trench location (blue) and scheduled monument boundary (red)

WEST YORKSHIRE ARCHAEOLOGY ADVISORY SERVICE SUMMARY SHEET
ARCHAEOLOGICAL FIELDWORK IN WEST YORKSHIRE

Site name / Address Outlane Golf Club	
Township Longwood	**District** Kirklees
National Grid Reference SE 0837 1754	
Contractor CFA Archaeology	
Date of Work October 2013 and April 2014	
Title of Report (in full) Land at Outlane Golf Club, Outlane,West Yorkshire Archaeological Watching Brief Report No. Y149/14	
Date of Report February 2015	
SUMMARY OF FIELDWORK RESULTS (100 WORDS OR LESS) An archaeological watching brief was undertaken by CFA Archaeology Ltd on land at Outlane Golf Club, Slack Lane, Outlane, Huddersfield during October 2013 and April 2014. A topsoil strip and foundation trenches for a new building were monitored. A Roman road and two possible rampart footings were recorded and assemblages of pottery and glass were also recovered.	
Author of summary Jamie Walker	Date of summary February 2015