



WYAS
**Archaeological
Services**

Haigh Hall Farm to Coca- Cola Plant

Tingley

West Yorkshire

Archaeological Trial Trenching

Report no. 2945
March 2017

Client: CgMs Consulting



**Haigh Hall Farm to Coca-Cola Plant
Cable Route
Tingley
West Yorkshire**

Archaeological Trial Trenching

Summary

Three trenches were excavated along the route of the Haigh Hall to Coca-Cola Plant Cable Route in order to examine geophysical anomalies. Two of the geophysical anomalies were identified as plough furrows, with a further anomaly explained by the thin patchy layer of iron mineralisation sitting just above the natural. No further archaeological features or deposits were observed.



Report Information

Client: CgMs Consulting
Address: Suite D10, Joseph Well, Hanover Walk, Leeds, West Yorkshire, LS3 1AB
Report Type: Archaeological Trial Trenching
Location: Tingley
County: West Yorkshire
Grid Reference: NGR 428500, 423650 to 431650, 424700
Period(s) of activity represented: Modern?
Report Number: 2945
Project Number: 6621
Site Code: FTC 17
Planning Application No.: 15/06778/FU
Museum Accession No.: N/A
Date of fieldwork: February 2017
Date of report: March 2017
Project Management: David Williams BA MCifA
Fieldwork supervisor: Rosie Scales BA
Report: Rosie Scales
Illustrations: Rosie Scales
Photography: Rosie Scales

Authorisation for
distribution: _____



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1 Introduction

Archaeological Services WYAS (ASWYAS) was commissioned by CgMs Consulting to carry out trial trenches along a cable route from Haigh Hall to Coca-Cola Plant in Tingley, West Yorkshire. The evaluation was carried out in accordance with the standards laid down by Historic England (2006, 2008) and the Chartered Institute for Archaeologists (2014). ASWYAS's own methodologies were also adhered to.

Site location and topography and land-use

The development site comprises a 4.5km corridor (NGR 429000 424000) linking the Haigh Hall Solar Farm in Leeds to the Coca-Cola Bottling Plant in Wakefield (Fig. 1). In total, three evaluation trenches (Fig. 2) were excavated in areas that were identified as having archaeological potential.

Soils and geology

The underlying bedrock of the site consists of Pennine middle coal measures formation (British Geological Survey 2017). The soils are classified in the Dale association, described as slowly permeable seasonally waterlogged clayey, fine loamy over clayey and fine silty soils on soft rock, often stoneless (Soil Survey of England and Wales 1983).

2 Archaeological and Historical Background

The development corridor was the subject of a heritage assessment and geophysical survey. Based on the Heritage Statement (Turley 2015), the corridor was split into four sections or phases (Mott MacDonald 2015):

Phase 1 was across two agricultural fields; the east field is occupied by Haigh Hall A, Solar Farm. The west field was rough sheep pasture. A small wooded area bound Phase 1 to the north within this field and is centred at NGR SE 28795 23638. A Roman camp or enclosure at Jaw Hill (MM33) was identified by cropmarks 110m south of Phase 1. The site was excavated revealing ditches over 3m wide with internal postholes and tentatively interpreted as a seasonal military marching camp abandoned in the 2nd or 3rd centuries AD (ASWYAS, 2017).

Phase 2 was arranged across three arable fields. The proposed geophysical area was bisected by Woodhouse Lane. The eastern line of the proposed cable route was bound to the south and west by Woodhouse Hall Farm which includes the grade II listed North Lodge and is centred at NGR SE 29805 24102. The Historic Environment Record suggests that the area surrounding Woodhouse Hall Farm is the location of the presumed medieval tenement or settlement of Woodhouse.

Phase 3 was arranged across two fields under pasture. The area was bounded by the M1 motorway to the north and the A650 carriageway to the east and centred at NGR SE 30611 24269. Evidence of Iron Age/Romano-British activity has also been identified during

archaeological excavations at Carr Gate Police Station (MM44) approximately 200m south of Phase 3. This included a small complex of enclosures with outlying ditches and gullies, possible pits and post-holes associated with Roman pottery sherds (Tinsley and Roberts 2013).

Phase 4 was located within an arable field used as pastoral land and is centred at NGR SE 31105 24530. Iron Age/Romano-British cropmarks (MM21) have been identified 200m north east of Phase 4. The cropmarks indicate the presence of rectilinear ditches, which have been tentatively attributed to a large sub-rectangular enclosure.

Based on the findings of the Heritage Statement, geophysical survey was undertaken across four areas (GA1-4; Wessex Archaeology 2015). The results are summarised below, with numbers taken from the Wessex Archaeology report:

GA1: a number of pit-like anomalies (4000) were identified which were difficult to interpret. It is possible that the pit-like features identified may be related to shafts recorded in the area as seen on Coal Authority Mapping (Coal Authority, 2015) but this is not clear given the disturbance caused by the modern services (Wessex Archaeology 2015, 5)

GA2: linear anomalies identified are considered to represent remnant furrows which may have been related to the medieval settlement of Woodhouse.

GA3: a small cluster of pits is evident in GA3 (4011), but given their isolation and scale it was difficult to interpret these further. It is possible that these may be of Iron Age or Romano-British origin given their proximity to the activity recorded at Carr Gate Police Station (ibid).

GA4: a small anomaly possibly representing a linear feature (4014) was noted.

In response to consultation on the application, Leeds City Council's archaeological advisors (West Yorkshire Archaeological Advisory Service – WYAAS) have identified the site's archaeological significance in the following terms; The route of the proposed cable trench runs through or alongside several areas of known or suspected archaeological potential. These include a possible Roman period enclosure or camp at the cable's western end (Leeds District) (West Yorkshire Historic Environment Record PRN 6305); a possible medieval settlement at Woodhouse Hall Farm (Leeds District) (WYHER PRN 5100 and 4549); and two areas of crop marks which are currently of unknown or uncertain date (Wakefield District) (WYHER PRN 4490 and 4493). A geophysical survey carried out by the applicant's agent identified several areas of archaeological potential within the cable corridor, but none of these appeared to be of greater than local significance. Given this, the WYAAS recommended that an appropriate level of archaeological observation and recording was carried out in areas GA1, GA2 (Leeds City District) and GA3 & 4 (Wakefield District).

3 Aims and Objectives

The broad aim of the archaeological trial trenching was to identify and record the presence/absence, extent, condition, character and date of any archaeological features and deposits - as far as circumstances permit. Specifically it was intended to:

- establish the nature of the pit-like anomalies (4000) in GA1 and whether these relate to Roman remains associated with the Roman camp or enclosure at Jaw Hill 110m to the south;
- establish the nature of the fragmented linear anomalies (4006) and linear feature (4007) in GA2 and whether these are related to the presumed medieval settlement at Woodhouse.

The results of the trial trenching, in conjunction with the heritage statement and geophysical survey results, will be used to inform the level and type of mitigation work that might be required in order to ensure that the archaeological resource is adequately recorded before development.

4 Methodology

The evaluation comprised three trenches; Trench 1 to the west of the corridor in GA1, with Trenches 2 and 3 in GA2. The trenches were laid out using a dGPS with an accuracy of $\pm 10\text{mm}$. Excavation of the trenches was carried out using a mechanical excavator equipped with a toothless ditching bucket under direct archaeological supervision. Soil was removed in level spits of no more than 0.2m until either the top of the first archaeological horizon or undisturbed natural was reached. The resulting surface was inspected for archaeological remains. All features revealed were excavated to establish their depth and profile.

A full written, drawn and photographic (35mm monochrome and digital) record of all material revealed during the course of the work was made. The trench locations were set out using GPS survey equipment with hand drawn trench plans and sections produced at a suitable scale and tied to the Ordnance Survey National Grid. All sections, plans and elevations included spot-heights related to Ordnance Datum in metres as correct to two decimal places.

An inventory of the primary archive is presented in Appendix 2, with a concordance of contexts found in Appendix 3. ASWYAS currently hold the site archive in a stable and secure location.

5 Results

Trench 1 (Fig. 3)

Trench 1 measured 10m by 1.8m, it was aligned northwest-southeast and was situated on a slope, declining towards the southeast. It contained a possible plough furrow, 103, running northeast – southwest (Plate 1). This measured 1m wide and 0.14m deep and was cut into a bright-orange-brown clay natural. Its fill, 104, a firm sterile pale-blue-grey clay, was sealed by 0.3m of mid-black-brown clay topsoil with rare stone inclusions. A field drain was present running northwest-southeast along the length of the trench. Towards the southeast of the trench a mid-brown-clay subsoil, measuring 0.15m deep was present, probably as a result of the slope of the hill.

Trench 2 (Fig. 4)

Trench 2 measured 20m by 1.8m, it was aligned north-south and was situated in a field with a slight rise towards the north. There was 0.37m of dark-black-brown clay topsoil with moderate stone inclusions overlaying a bright-orange-brown clay natural. There were occasional patches of a very thin, *c.* 0.02m, of dark-brown-black crumbly material sitting between the topsoil and the natural (Plate 2). This appears to be a thin layer of intermittent layer of iron panning or mineralisation at the interface of the topsoil and natural. This deposit was not associated with any archaeological feature, and no other archaeological features or deposits were revealed.

Trench 3 (Fig. 5)

Trench three (Fig. 5) measured 20m by 1.8m, it was aligned northwest-southeast and was situated on a relatively flat field, with only a very slight rise to the northwest. It contained a single plough furrow, 302, aligned northeast-southwest (Plate 3). It measured 3.2m wide and 0.1m deep and was cut into a bright-orange-brown clay natural. Its single fill, 303, a mid-brown-grey sandy-clay was sealed by 0.32m of dark-black-brown sandy-clay topsoil with moderate stone inclusions. No subsoil was present throughout the whole trench, and no archaeological features or deposits were revealed.

6 Conclusions

The trial trenches revealed that there is little archaeological potential in the areas evaluated. The geophysical anomalies 4000 and 4007, in Trenches 1 and 3 respectively, have been shown to be plough furrows. The anomaly, 4006, in Trench 2 may have been caused by the thin patches of iron panning material identified.

The trial trenching has confirmed the results of the geophysical survey; the survey appears to have been effective in identifying shallow anthropogenic features, suggesting that the results provide a good indication of the archaeological potential of the survey areas.

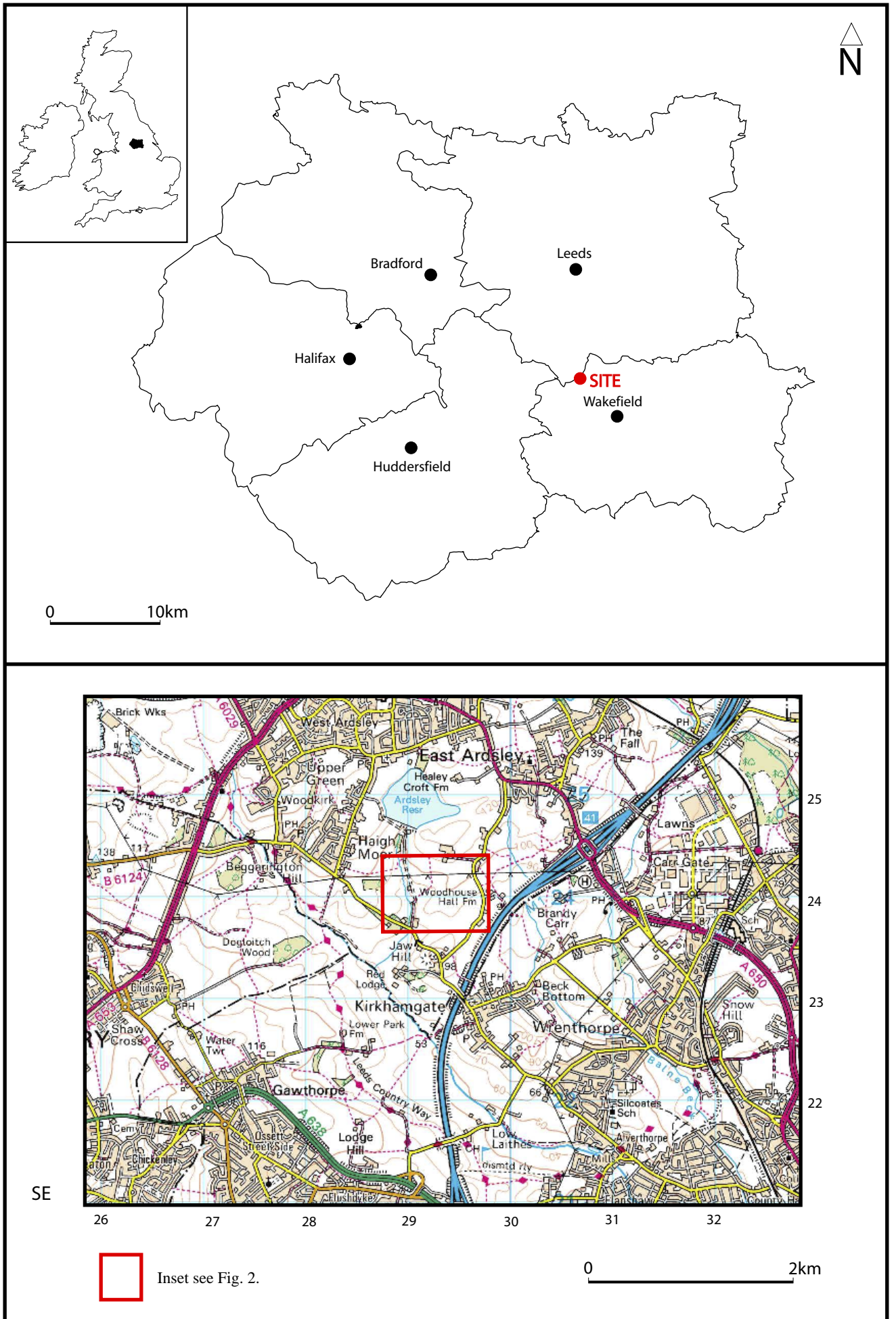


Fig. 1. Site location

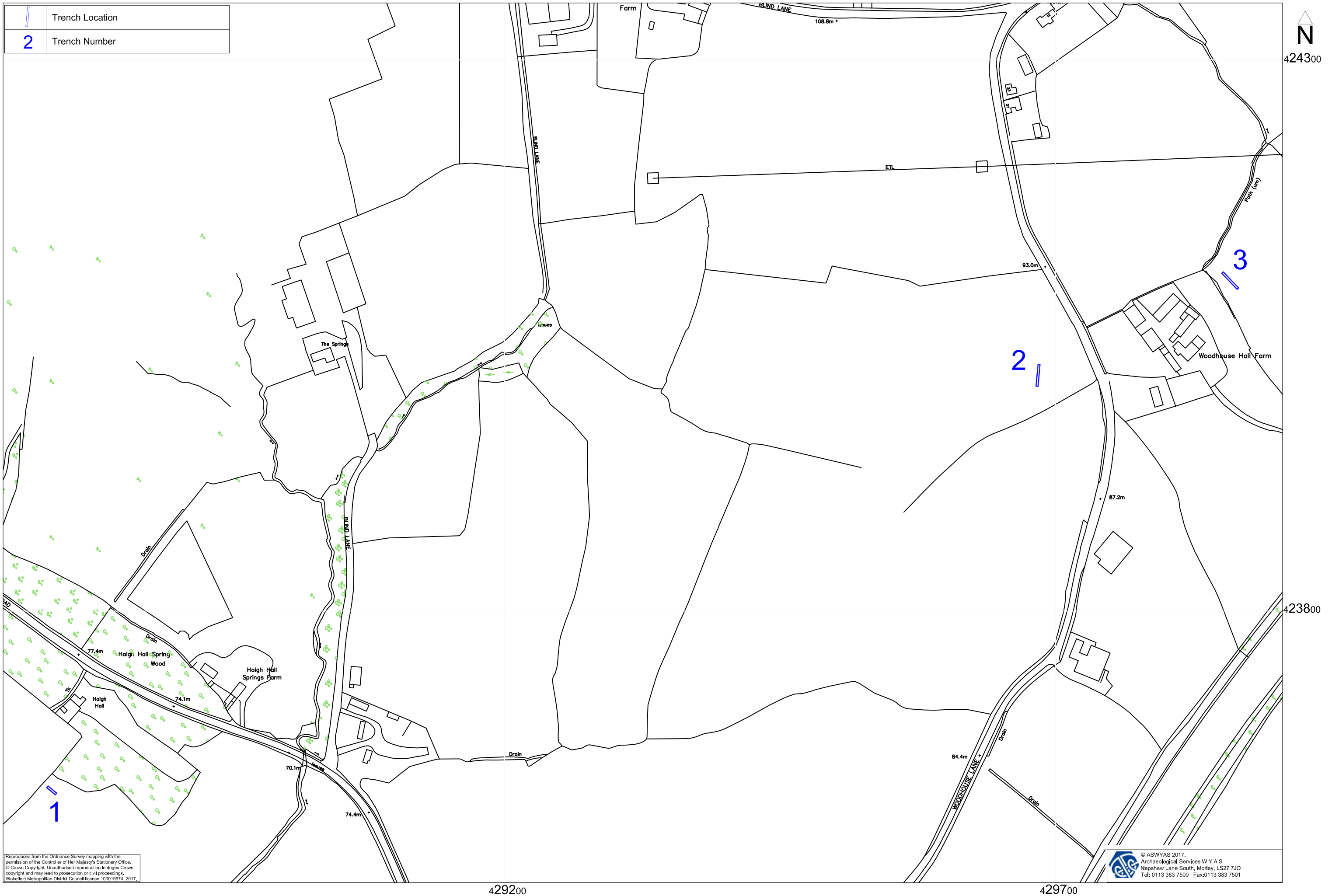


Fig. 2. Trench Locations (1:3000 @ A3)

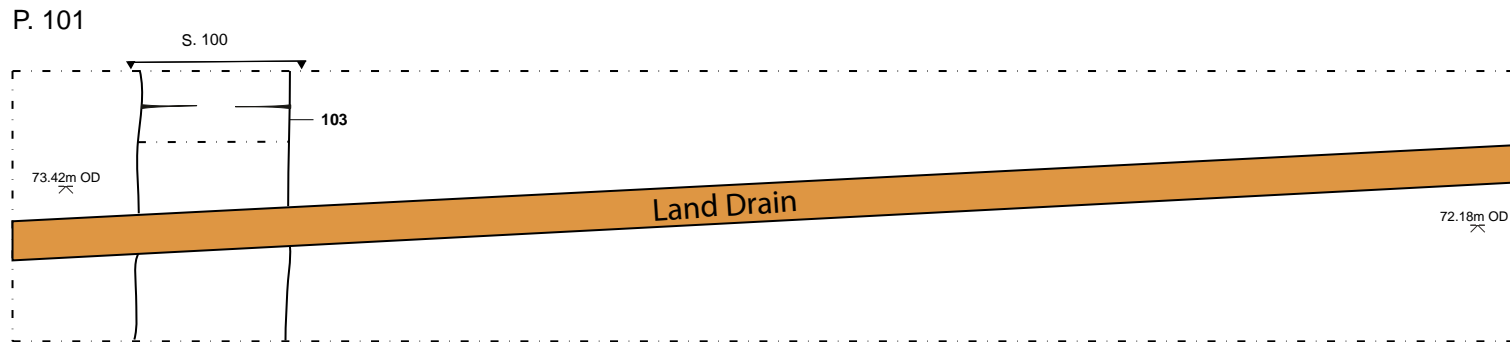
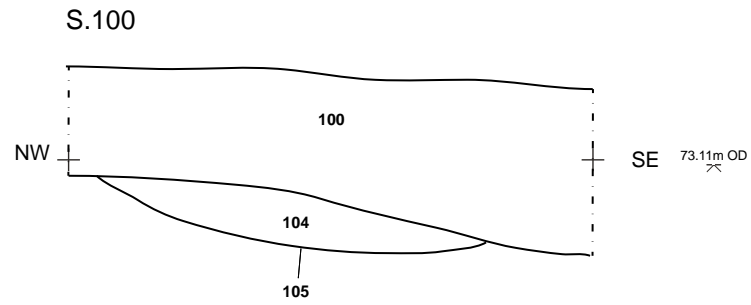


Fig. 3 Trench 1 section and plan

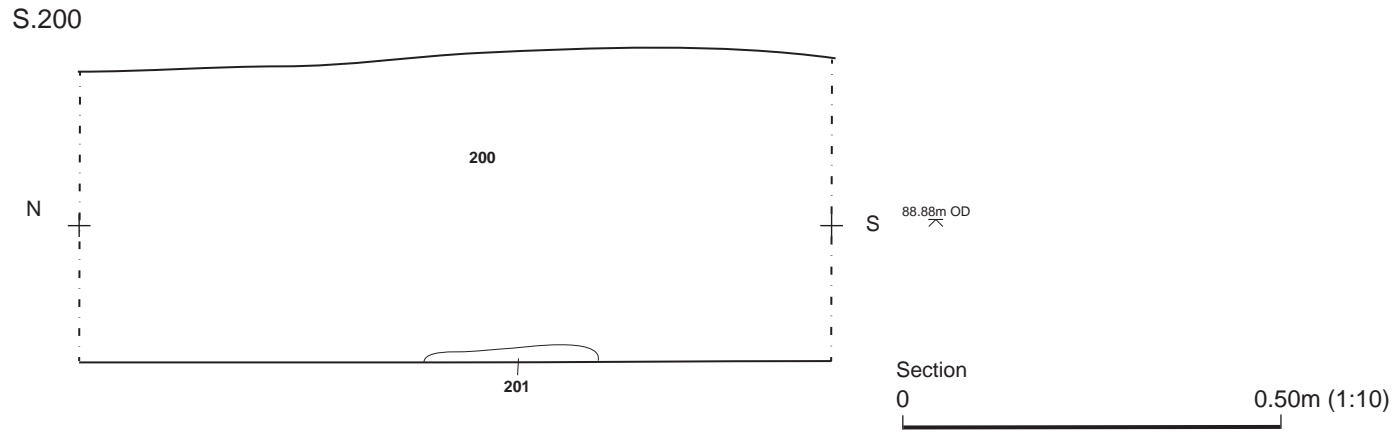


Fig. 4 Trench 2 section and plan

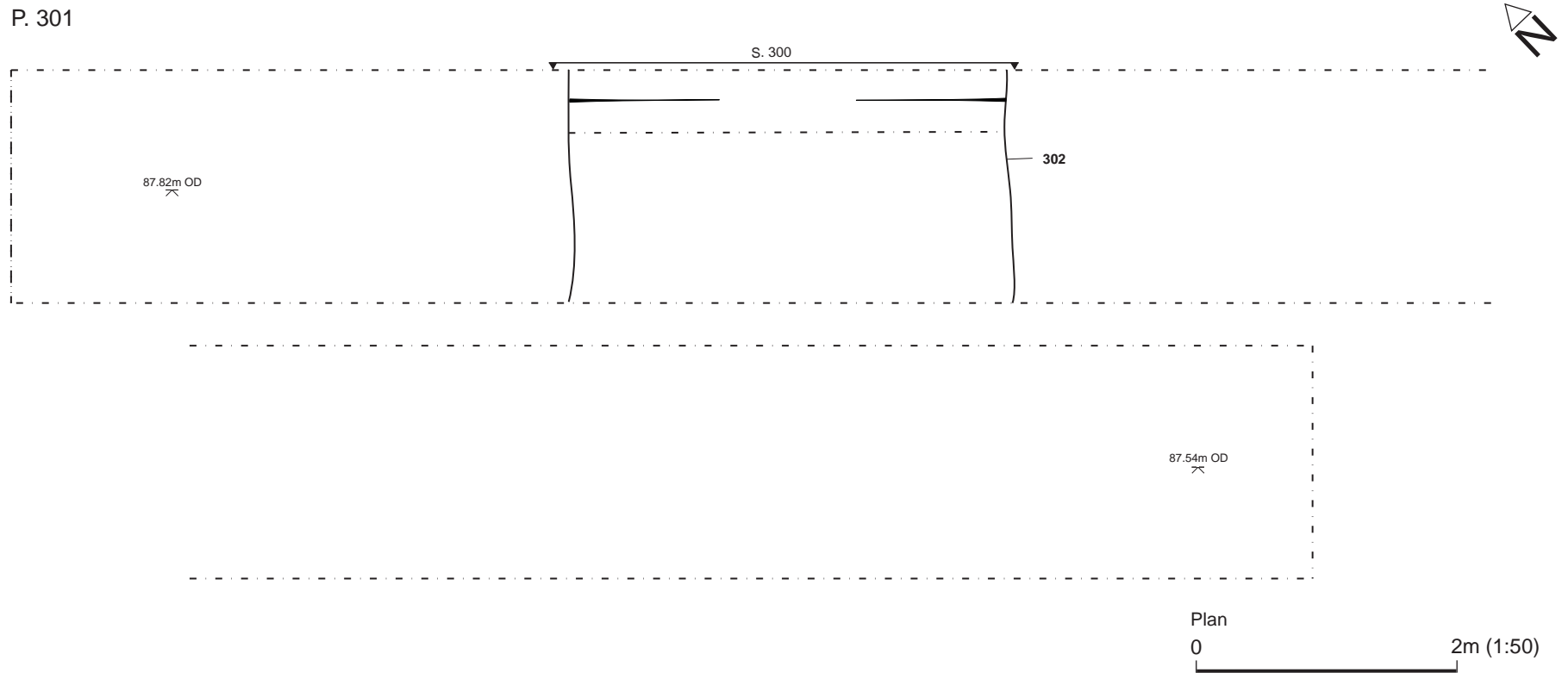
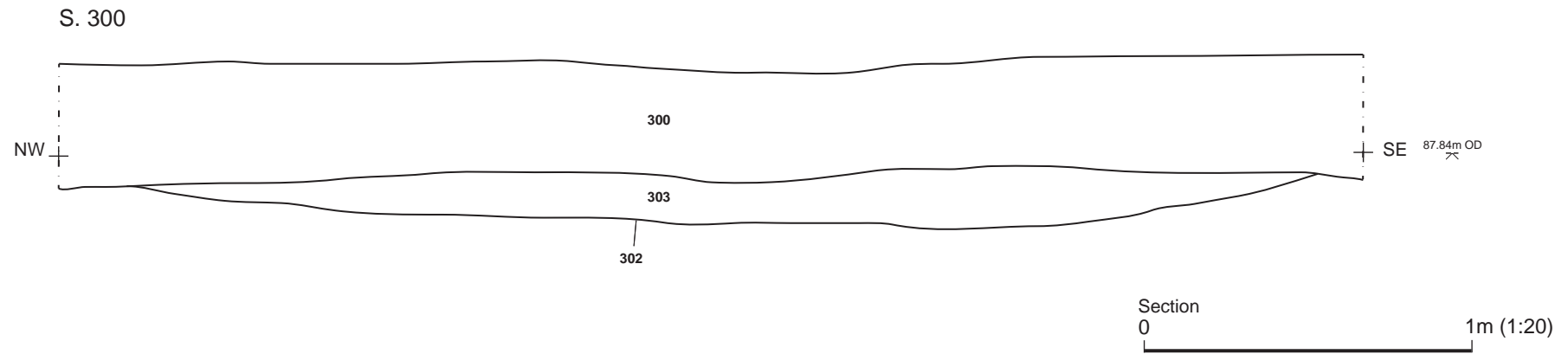


Fig. 5 Trench 3 section and plan



Plate 1. Trench 1, showing plough furrow 103 in the background, looking northwest



Plate 2. Sample section of Trench 2, showing thin, patchy layer 201, looking west



Plate 3. Trench 3, showing plough furrow 302, looking northeast

Appendix 1: Written Scheme of Investigation



**HAIGH HALL FARM TO
COCA-COLA PLANT
CABLE ROUTE
TINGLEY
WEST YORKSHIRE**

**ARCHAEOLOGICAL
WRITTEN SCHEME OF
INVESTIGATION**

**Planning Ref.:
15/06778/FU**

Condition 9

February 2017

Planning • Heritage

Specialist & Independent Advisors to the Property Industry

**Local Planning Authority:
Leeds City Council**

**Site centred at:
429000 424000**

**Author:
Richard Conolly MA(Hons), MIfA,
FSA Scot**

**Report Status:
FINAL**

**Issue Date:
February 2017**

**CgMs Ref:
RJC/23085/01**

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1.0 INTRODUCTION

1.1 Background

1.1.1 This archaeological Written Scheme of Investigation (WSI) has been prepared by Richard Conolly of CgMs Ltd for ZaraVolt Development Services Ltd and relates to a high voltage cable linking the Haigh Hall Solar Farm in Leeds to the Coca-Cola Bottling Plant in Wakefield, for which planning consent has been granted.

1.2 Site Location and Description

1.2.1 The development site comprises a 4.5km corridor (NGR 429000 424000) linking the Haigh Hall Solar Farm in Leeds to the Coca-Cola Bottling Plant in Wakefield. The greater part of the route crosses open fields with sections running along the embankment of the M1 motorway. There are five road crossings. The laying of the cable will be undertaken using open cut excavation and directional drilling.

1.2.2 The soils underlying Areas GA1 and GA3 are likely to comprise pelo-stagnogley soils of the 712a (Dale) association, whilst those underlying areas GA2 and GA4 are likely to comprise typical brown earths of the 541f (Rivington 1) association (SSEW SE Sheet 1, 1983). No superficial geology is recorded and the route is underlain by Mudstone and Sandstone of the Pennine Middle Coal Measures (www.bgs.ac.uk).

1.3 Planning Background

1.3.1 Planning permission has been granted for the installation of the underground electricity cable between Haigh Hall Farm and the Coca-Cola Bottling Plant in Wakefield (Leeds City Council Planning application reference 15/06678/FU).

1.3.2 Condition 9 of the planning permission relates to treatment of archaeological issues:

No development shall take place/commence until a written scheme of investigation (WSI) has been submitted to and approved by the Local Planning Authority in writing. For land that is included within the WSI, no development shall take place other than in accordance with the agreed WSI, which shall include an implementation programme, the statement of significance and research objectives, and:

- a) The programme and methodology of site investigation and recording and the nomination of a competent person(s) or organisation to undertake the agreed works.*

- b) *The programme for post-investigation assessment and subsequent analysis, publication & dissemination and deposition of resulting material. This part of the condition shall not be discharged until these elements have been fulfilled in accordance with the programme set out in the WSI.*

To ensure that prior to commencement of development that the appropriate methods of archaeological recording are in place in accordance with adopted Leeds UDP Review (2006) policy N29 and ARC6 and the National Planning Policy Framework.

1.4 Archaeological Background

- 1.4.1 The development corridor has been the subject of a heritage assessment and geophysical survey. Based on the Heritage Statement (Turley 2015) the corridor has been split previously into four sections or phases (Mott MacDonald 2015):

Phase 1, across two agricultural fields; the east field is to be occupied by Haigh Hall A, Solar Farm. The west field is rough sheep pasture. A small wooded area bounds GA1 to the north within this field. Centred at NGR SE 28795 23638. A Roman camp or enclosure at Jaw Hill (MM33) was identified by cropmarks 110m south of Phase 1. The site was excavated revealing ditches over 3m wide with internal postholes and tentatively interpreted as a seasonal military marching camp abandoned in the 2nd or 3rd centuries AD (ASWYAS, 1997).

Phase 2, arranged across three arable fields. The proposed geophysical area is bisected by Woodhouse Lane. The eastern line of the proposed cable route is bounded to the south and west by Woodhouse Hall Farm which includes the grade II listed North Lodge. Centred at NGR SE 29805 24102. The Historic Environment Record suggests that the area surrounding Woodhouse Hall Farm is the location of the presumed medieval tenement or settlement of Woodhouse.

Phase 3, arranged across two fields under pasture. The area is bounded by the M1 motorway to the north and the A650 carriageway to the east. Centred at NGR SE 30611 24269. Evidence of Iron Age/Romano British activity has also been identified during archaeological excavations at Carr Gate Police Station (MM44) approximately 200m south of Phase 3. This was a small complex of enclosures with outlying ditches and gullies,

possible pits and post-holes associated with Roman pottery sherds (Tinsley and Roberts, 2013).

Phase 4, located within an arable field used as pastoral land. Centred at NGR SE 31105 24530. Iron Age/Romano British cropmarks (MM21) have been identified 200m north east of Phase 2. The cropmarks indicate the presence of rectilinear ditches, which have been tentatively attributed to a large sub-rectangular enclosure.

1.4.2 Based on the findings of the Heritage Statement, geophysical survey (Wessex Archaeology 2015) was undertaken across four areas (GA1-4). The results are summarised below, numbers are taken from the Wessex Archaeology report:

- GA1: a number of pit-like anomalies (4000) were identified which were difficult to interpret. 'It is possible that the pit like features identified maybe related to shafts recorded in the area as seen on Coal Authority Mapping (Coal Authority, 2015) however this is not clear given the disturbance caused by the modern services' (Wessex Archaeology 2015, 5)
- GA2: linear anomalies considered to represent remnant furrows. A linear anomaly (4007) was also identified. These are interpreted as possible archaeology and are likely evidence for remnant furrows which may have been related to the medieval settlement of Woodhouse.
- GA3: A small cluster of pits is evident in GA3 (4011), *however given their isolation and scale it is difficult to interpret these further. It is possible that these maybe of Iron Age or Romano-British origin given their proximity to the activity recorded at Carr Gate Police Station (ibid).*
- GA4: A small anomaly possibly representing a linear feature (4014).

1.4.3 In response to consultation on the application, Leeds City Council's archaeological advisors (West Yorkshire Archaeological Advisory Service – WYAAS) have identified the site's archaeological significance in the following terms:

The route of the proposed cable trench runs through or alongside several areas of known or suspected archaeological potential. These include: a possible Roman period enclosure or camp at the cable's western end (Leeds District) (West Yorkshire Historic Environment Record PRN 6305); A possible medieval settlement at Woodhouse Hall Farm (Leeds District) (WYHER PRN 5100 and 4549); and two areas of crop marks which are currently of unknown or uncertain date (Wakefield District) (WYHER PRN 4490 and 4493).

A geophysical survey carried out by the applicant's agent has identified several areas of archaeological potential within the cable corridor. However, none of these appear to be of greater than local significance. Given this the WYAAS recommend that an appropriate level of archaeological observation and recording is carried out in areas GA1, GA2 (Leeds City District) and GA3 & 4 (Wakefield District).

(WYAAS consultation response, dated 30/11/2015 – WYAAS file ref P/W15 (1611))

1.5 Scope of Document

- 1.5.1 The current document provides the required details for the programme of archaeological work, and details the programme and nominated archaeological organisation.
- 1.5.2 It has been prepared by CgMs on behalf of the site developer, in compliance with the requirements of Condition 9.
- 1.5.3 The WSI will be submitted to the WYAAS for approval. The archaeological work will be undertaken by a professional team from ASWYAAS, a Chartered Institute for Archaeologists (CIfA) Registered Organisation (RAO) who will be directed by CgMs Ltd. This WSI presents the strategy and methodology by which the team will undertake the archaeological works.

2.0 AIMS & STANDARDS

2.1 Aims

2.1.1 The broad aim of the archaeological trial trenching is to identify and record the presence/absence, extent, condition, character and date of any archaeological features and deposits - as far as circumstances permit. Specifically it is intended to:

- establish the nature of the pit-like anomalies (4000) in GA1 and whether these relate to Roman remains associated with the Roman camp or enclosure at Jaw Hill 110m to the south.
- Establish the nature of the fragmented linear anomalies (4006) and linear feature (4007) in GA 2 and whether these are related to the presumed Medieval settlement at Woodhouse.

2.1.2 Depending on the results of the trial trenching, it may be necessary to implement a further phase of mitigation, most probably a strip, plan and record exercise. Such works will be covered by a further WSI.

2.2 Standards

2.2.1 This specification conforms to the requirements of National Planning Policy Framework published in March 2012. It has been written to accord with current best archaeological practice and the appropriate national and regional standards and guidelines including:

- Management of Research Projects in the Historic Environment (Historic England, 2006);
- Code of Conduct (Chartered Institute for Archaeologists, December 2014); and
- Standard and Guidance. Archaeological Field Evaluation (Chartered Institute for Archaeologists, December 2014).

3.0 STRATEGY & PROGRAMME

3.1 Strategy

3.1.1 The trenching strategy is based around the excavation of three archaeological trial trenches to comprise two trenches measuring 20 x 1.8m and one measuring 10 x 1.8m to be deployed as follows (Figs. 1-3):

- Area GA1
Trench 1 (T1) 1.8m by 10m, aligned northwest to southeast to target anomaly 4000

- Area GA2
Trench 2 (T2) 1.8m by 20m, aligned NNE to SSW, at an angle perpendicular and to target anomalies 4006;
Trench 3 (T3) 1.8m by 20m, aligned north to south to target anomaly 4007.

3.1.2 Implementation of the trial trenching programme will be monitored by CgMs and WYAAS.

3.1.3 The results of the trial trenching results will reviewed with WYAAS, and an assessment made of the anticipated impact of the proposed development and the need for further mitigation.

3.2 Programme for Fieldwork

3.2.1 The trial trenching is proposed to start week beginning 13th February 2017, and to be completed by 20th February 2017.

3.3 Programme for Analysis and Reporting

3.3.1 Subject to fieldwork results, it is proposed that the assessment report will be completed by 20th March 2017.

3.3.2 Any necessary revisions to this post-investigation programme will be agreed with WYAAS and Leeds City Council.

4.0 METHOD STATEMENT

4.1 Machining

- 4.1.1 The trench locations will be marked out on the ground and scanned with a Cable Avoidance Tool (CAT) in advance of machining. Any significant changes to trench locations will be agreed with CgMs and WYAAS.
- 4.1.2 All machine excavation will be supervised by an archaeologist.
- 4.1.3 Modern deposits and overburden will be removed by machine down to the top of archaeological deposits, or undisturbed geological deposits, whichever is reached first. Overburden will be removed using a toothless ditching bucket.
- 4.1.4 Spoil generated during excavation of the trenches will be temporarily stockpiled adjacent to each trench. Where present, modern overburden will be stockpiled separately from other deposits. These stockpiles will be positioned at a safe distance from the trench edges.
- 4.1.5 The width of the trial trenches will be approximately 1.8 metres. The depth of the trial trenches cannot be specified at this stage but would typically be approximately 0.5 metres. Staff will not enter any excavation deeper than 1.2 metres without prior agreement of the nominated Project Manager and following a risk assessment and implementation of any necessary safety measures.

4.2 Excavation and Recording

- 4.2.1 Each trench will be cleaned by hand as appropriate to assist in the identification and interpretation of any exposed archaeological features. A sufficient sample of identified archaeological features or deposits will be excavated in order to determine date, nature, extent and condition, and their environmental and scientific potential will be assessed. Typically this will involve excavation of 50% of discrete features and 20% of linear features. No features will be wholly excavated; structures and features worthy of preservation in situ will not be unduly excavated. Features not suited to excavation in narrow trenches, such as structures and spreads, will only be investigated in plan.
- 4.2.2 Excavated spoil will be examined as practicable for finds. All pre-20th century finds will be collected and retained for processing.
- 4.2.3 If human remains are encountered and their excavation is required, the appointed fieldwork contractor will notify CgMs, WYAAS and the Coroner and liaise with the Ministry of Justice and acquire the appropriate Burial Licence. Only

in exceptional circumstances will human remains be removed during the current trial trenching programme.

- 4.2.4 The evaluation trenching will satisfy the Standard and Guidance Archaeological Field Evaluation set out by the Chartered Institute for Archaeologists (http://www.archaeologists.net/sites/default/files/CIFAS&GFieldevaluation_1.pdf).
- 4.2.5 In particular: all contexts, small finds and environmental samples will be given unique numbers. Record photographs including a metric scale and general site photographs will be taken and recorded in a register that includes information on context and direction of shot.
- 4.2.6 Black and white photography using orthodox monochrome chemical development should be used. Film should be no faster than ISO400. Slower films should be used where possible as their smaller grain size yields higher definition images. Technical Pan (ISO 25), Pan-F (ISO50), FP4 (ISO125) and HP5 (ISO400) are recommended. The use of dye-based films such as Ilford XP2 and Kodak T40CN is unacceptable due to poor archiving qualities. Black and white photography should be supplemented by colour photography; this should be in transparency format (i.e. slides or digital photography as an acceptable alternative, see below).
- 4.2.7 As an alternative for colour slide photography, good quality digital photography may be supplied, using cameras with a minimum resolution of 10 megapixels. Digital photography should follow the guidance given by Historic England in Digital Image Capture and File Storage: Guidelines for Best Practice, July 2015. 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 as both a JPEG and a TIFF versions. The latter as an uncompressed 8-bits per channel TIFF version 6 file of not less than 25Mbs (See section 2.3 of the Historic England guidance). The contractor must include metadata embedded in the TIFF 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. **Any digital images are to be supplied to WYAAS on gold CDs by the archaeological contractor accompanying the hard copy of the report.**

4.2.8 An overall site and individual trial trench plans and sections will be recorded by digital survey, relative to the National Grid and Ordnance Datum. This will include all archaeological features, structures and deposits. All deposits/cuts will be levelled and this information placed on the plans included in the report. A representative section/soil profile will be drawn and included in the report even in trenches where no features are encountered. Where appropriate (i.e. where significant archaeological information would be lost otherwise) the survey record will be supplemented with hand-drawn sections and plans at standard archaeological scales (generally 1:20 for plans, 1:10 for sections).

4.2.9 The trial trenches will not be backfilled before CgMs and WYAAS have inspected them, or their agreement has otherwise been obtained.

4.3 Metal Detectors

4.3.1 Spoil heaps are to be scanned for ferrous and non-ferrous metal artefacts using a metal detector capable of making this discrimination, operated by an experienced metal detector user. Modern artefacts are to be noted but not retained (19th-century material and earlier should be retained.) Artefacts recovered by metal detecting should be identified in the report.

4.4 Finds & Environmental Samples

4.4.1 Bulk finds will be collected by context and small finds will be 3D-plotted where appropriate. Finds will be cleaned, dried and stored as appropriate and in accordance with First Aid for Finds (Watkinson & Neal 1998). They will be catalogued and assessed by an appropriately experienced specialist and the results included in the assessment report.

4.4.2 Bulk environmental samples (up to 40 litres) will be collected from primary archaeological contexts and a representative number processed by wet sieving and flotation. The resulting artefacts and environmental remains shall be collected and assessed by an appropriately experienced specialist and the results included in the assessment report.

4.4.3 The terms of the Treasure Act 1996, as amended, 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.

4.5 Reporting & Archive

- 4.5.1 The results of the trenching will be presented in a draft report within four weeks of the completion of fieldwork. The report will include specialist assessments of recovered artefacts or environmental material where appropriate. It will also include an analysis of the efficacy of the geophysical survey and appropriate cross-referencing between the trenching and survey results. The reports will be supplied to WYAAS in a digital format suitable for inclusion in their HER database and to the relevant records office and the Archaeological Data Service (ADS). An entry will be submitted to the online OASIS database.
- 4.5.2 A full project archive will be compiled in accordance with Historic England (MoRPHE) standards.
- 4.5.3 Archives will be compiled in accordance with the guidelines published by the CIfA (December 2014).
- 4.5.4 Before commencing the project, the archaeological contractor must contact the archaeological curator of the museum to determine the museum's requirements for the deposition of an excavation archive. In this case the contact is Katherine Baxter, Leeds Museum Discovery Centre, Carlisle Road, Hunslet, Leeds, LS10 1LB (Tel.: 0113 2305492; email: katherine.baxter@leeds.gov.uk).
- 4.5.5 It is the policy of Leeds Museums to accept complete excavation archives, including primary site records and research archives and finds, from all excavations carried out in the District that it serves.
- 4.5.6 It is the responsibility of the archaeological contractor to endeavour to obtain consent of the landowner, in writing, to the deposition of finds with Leeds Museum.
- 4.5.7 It is the responsibility of the archaeological contractor to meet Leeds Museums' requirements with regard to the preparation of excavation archives for deposition.

5.0 TIMETABLE & PERSONNEL

5.1 Timetable

5.1.1 The projected start will be week commencing 7th February 2017, subject to relevant approvals. The brief will be implemented as necessary during the construction programme. The draft report will be submitted to WYAAS within four weeks of completion of the watching brief.

5.1.2 Post-excavation work will commence immediately upon completion of fieldwork.

5.2 Personnel

5.2.1 The project will be managed on behalf of the Client by Richard Conolly MCIfA of CgMs. CgMs is a Registered Organisation and abides by the Codes of Conduct and Approved Practice and Standards of the Chartered Institute for Archaeologists.

5.2.2 The fieldwork will be undertaken by ASWYAS, a Registered Organisation of the Chartered Institute for Archaeologists. The site work will be undertaken by an archaeologist of Project Officer (or equivalent) level with suitable experience. The name and contact details of the principal member of the field team will be forwarded to WYAAS when finalised.

5.2.3 Prior to the work commencing appropriate specialists to provide advice on sampling and artefacts shall also be identified. Curricula vitae of key personnel will be supplied upon request. The project team will familiarise themselves with the background to the site and will be aware of the project's aims and methodologies.

6.0 MONITORING

- 6.1.1 The project will be monitored to ensure that the archaeological works are undertaken within the limits set by the WSI and to the satisfaction of the Local Planning Authority.
- 6.1.2 The archaeological aspects of the project will be managed on behalf of the developers, by Richard Conolly MCIfA of CgMs Consulting with assistance from other CgMs staff as required.
- 6.1.3 WYAAS will be free to visit at any reasonable time to monitor the implementation of the works on behalf of the Local Planning Authority, subject to relevant Health and Safety restrictions. Access to the Site will be arranged through CgMs.
- 6.1.4 Any significant discoveries or unexpected conditions shall be communicated immediately to the client and WYAAS.
- 6.1.5 At a suitable point during the trenching a site meeting will be held with the archaeological contractor, WYAAS, CgMs and any relevant members of the client's design team to discuss the results (positive or negative). This will be aimed at establishing whether the evaluation has provided sufficient information to meet its objectives.

7.0 INSURANCE

7.1.1 The archaeological contractor will produce evidence of Public Liability Insurance to the minimum value of £5m and Professional Indemnity Insurance to the minimum of £2m.

8.0 HEALTH & SAFETY

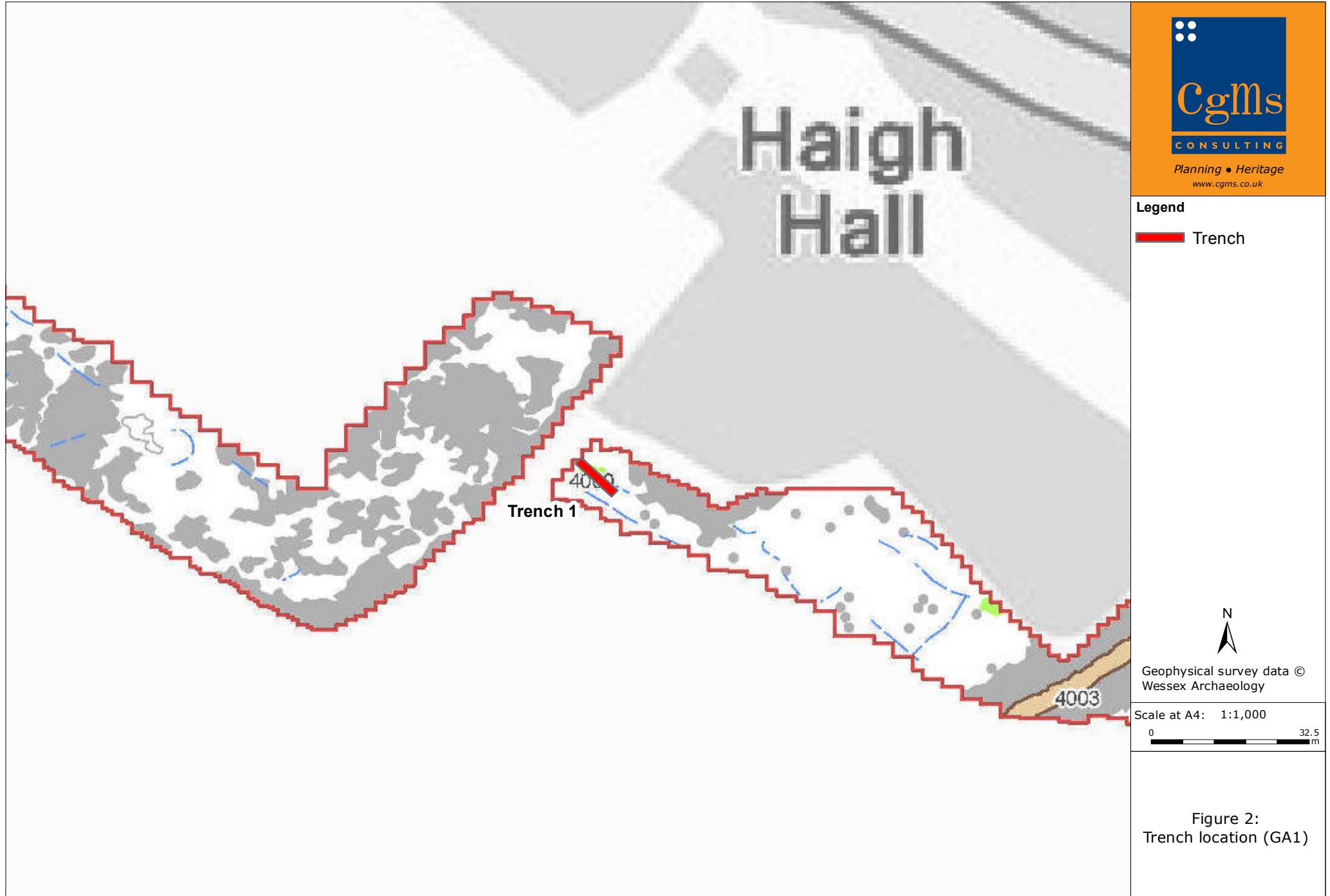
- 8.1.1 All works will be in compliance with the Health and Safety at Work Act (1974) and all applicable regulations and Codes of Practice.
- 8.1.2 All archaeological staff will undertake their operations in accordance with safe working practices. A site-specific risk assessment will be undertaken and recorded prior to the commencement of work on site.
- 8.1.3 A continuous process of dynamic risk assessment will be undertaken and if significant hazards are identified a specific risk assessment will be undertaken and recorded. Control measures will be implemented as required in response to specific hazards.
- 8.1.4 Safe working will take priority over the desire to record archaeological features or remains, and where it is considered that recording is dangerous, any such features or remains will be recorded by photography, at a safe distance.

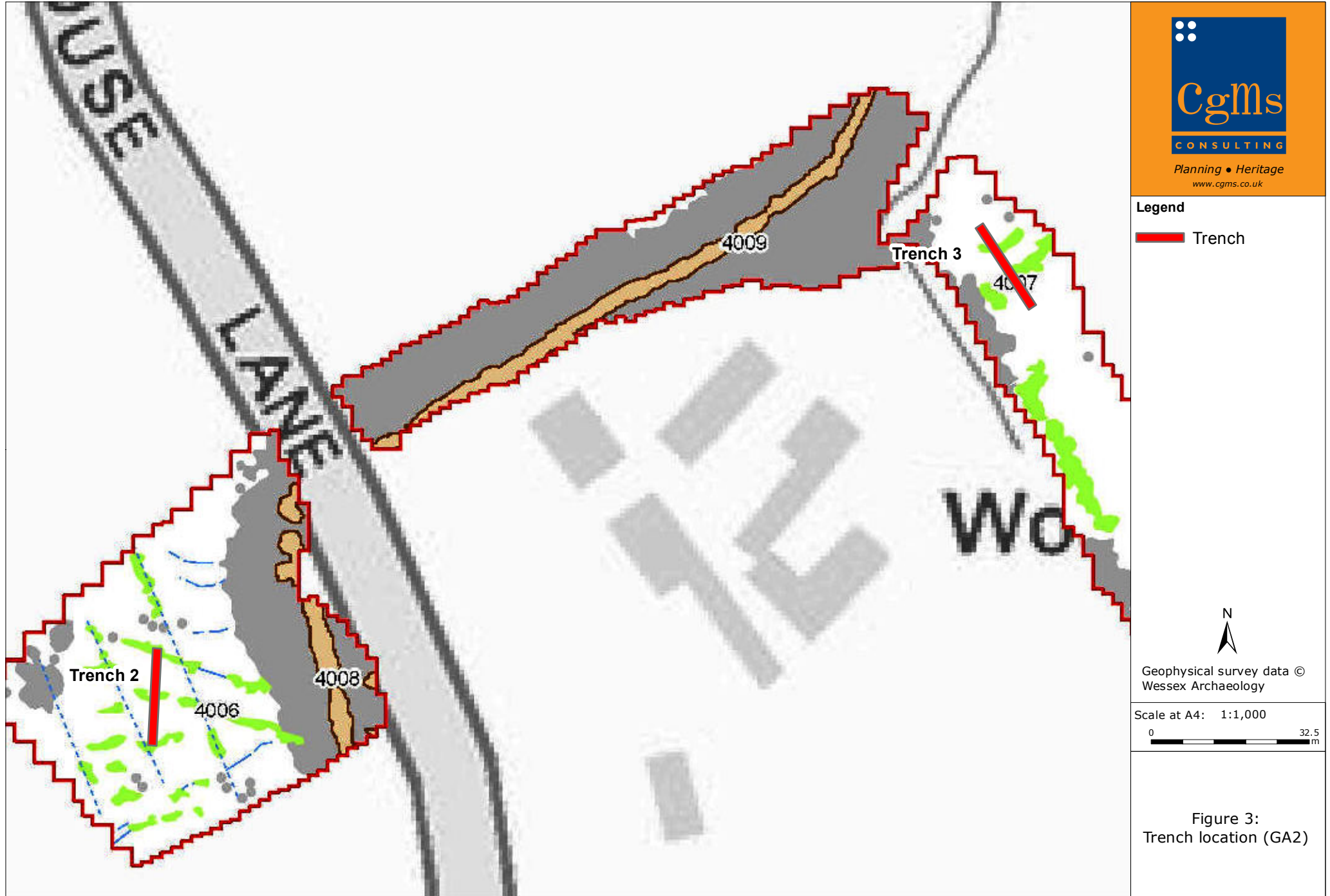
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Legend

 Trench



Geophysical survey data ©
Wessex Archaeology

Scale at A4: 1:1,000



Figure 3:
Trench location (GA2)

Appendix 2: Inventory of primary archive

Phase	File/Box No	Description	Quantity
Evaluation	File no.1	Risk Assessment and Method Statement	1
		Written Scheme of Investigation	1
		Geophysics report	1
		Trench Record Sheet	3
		Context Register	1
		Context Cards	4
		Digital Photograph Record Sheet	1
		Photograph Record Sheet	1
		Drawing Register	1
		Permatrace Sheet	1

Appendix 3: Concordance of contexts

Context	Trench	Group	Description	Artefacts and environmental samples
100	1		Topsoil	
101	1		Subsoil	
102	1		Natural	
103	1		Cut of plough furrow	
104	1		Fill of 103	
200	2		Topsoil	
201	2		Subsoil	
			Patchy layer iron	
202	2		mineralisation	
300	3		Topsoil	
301	3		Natural	
302	3		Cut of plough furrow	
303	3		Fill of 302	

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