



Greenfield Road, Colne, Lancashire

Archaeological Landscape Survey



Oxford Archaeology North

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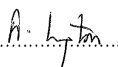
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SUMMARY

Oxford Archaeology North (OA North) was commissioned by Nexus Planning Ltd, acting on behalf of RB Business Park Ltd, to undertake an archaeological investigation in advance of the proposed development of land off Greenfield Road in Colne, Lancashire (centred on NGR 387380 439696). The work was carried out to satisfy a condition attached to planning consent (Application Ref 13/13/0593P) that required an appropriate programme of archaeological investigation of the site be carried out in advance of development.

The scheme of archaeological work was carried out in accordance with a Written Scheme of Investigation, prepared by OA North, with allowed for an enhanced English Heritage Level 1-type landscape survey. The survey was undertaken in February 2015.

The archaeological survey revealed evidence for medieval/post-medieval agricultural exploitation across most of the site, including broad ridge and furrow cultivation typically associated with medieval open-field agriculture. Three, tree-lined bank and ditch field boundaries were also recorded, indicative of post-medieval enclosure of open-field cultivation into enclosed field plots within the property of Greenfield Farm. The post-medieval field boundaries were overlain by an industrial/modern period dry-stone wall associated with a row of houses on the north side of Greenfield Road.

Whilst the archaeological survey has identified physical evidence for medieval/post-medieval agricultural activity in the study area, these features have little potential for any further study. It is thus concluded that there is little merit in carrying out any additional archaeological investigation in advance of, or during, the construction phase of the proposed development.

ACKNOWLEDGEMENTS

Oxford Archaeology North would like to thank Mr T Relph of the Nexus Planning for commissioning the project on behalf of RB Business Park Ltd.

The topographic survey was undertaken by Peter Schofield and Andy Phelps. The report was written by Andy Phelps, and the illustrations were produced by Mark Tidmarsh. The report was edited by Ian Miller, who was also responsible for project management.

1. INTRODUCTION

1.1 CIRCUMSTANCES OF THE PROJECT

- 1.1.1 Oxford Archaeology North (OA North) was commissioned by Nexus Planning Ltd, acting on behalf of RB Business Park Ltd, to undertake an archaeological investigation in advance of the proposed development of land off Greenfield Road in Colne, Lancashire. The work was carried out to satisfy a condition attached to planning consent (Application Ref 13/13/0593P) that required an appropriate programme of archaeological investigation of the site be carried out in advance of development. The scheme of archaeological work was undertaken in accordance with a Written Scheme of Investigation, prepared by OA North (*Appendix 1*), which allowed for an enhanced English Heritage Level 1-type landscape survey. The field survey was completed in February 2015.

1.2 LOCATION, TOPOGRAPHY AND GEOLOGY

- 1.2.1 The proposed development site lies upon agricultural land to the south of the M65 motorway, 1.2km to the west of the town of Colne, and just over 2km to the east of Nelson in the Borough of Pendle, Lancashire (centred on NGR 387380 439696). The site is bounded to the north by the motorway, to the east by Whitewalls Drive, and to the south by Greenfield Road and a row of terraced houses on its northern edge (Plate 1). To the west, the site borders an area of mixed scrub and sparse woodland.



Plate 1: Recent aerial view across the study area

- 1.2.2 The study area lies at a height of approximately 138m above Ordnance Datum (aOD), rising steadily from south to north from the northern banks of Colne Water, a tributary of the River Calder and the main watercourse through Colne, which lies a little over 50m from the southern boundary. The geology is comprised of deposits of Devensian Till or boulder clays, laid down during the last glaciation, which overlies sedimentary mill stone grit, deposited during the Carboniferous period (British Geological Survey).

2. METHODOLOGY

2.1 INTRODUCTION

- 2.1.1 A Written Scheme of Investigation was submitted by OA North (*Appendix 1*), in response to a recommendation from Pendle Borough Council for archaeological works to be carried out prior to the commencement of any development works. All work carried out was consistent with the relevant standards and procedures of the Institute for Archaeologists (IfA), and generally accepted best practice.
- 2.1.2 The work programme was divided into two principal elements: archaeological field survey; and reporting/archive preparation. The survey area was limited to four fields to the south of the M65 motorway, to the west of Whitewalls Drive to the north of Greenfield Road and east of an area of mixed scrub and woodland. (Fig 1).

2.2 FIELD SURVEY METHODOLOGY

- 2.2.1 The survey was undertaken as an English Heritage Level 1/2-type survey, and comprised four elements: reconnaissance; mapping; description; and photography.
- 2.2.2 **Reconnaissance:** the reconnaissance consisted of close field walking, varying from 5m to 10m line intervals. The survey aimed to identify, locate and record archaeological earthworks/features on the ground, and all sites of potential archaeological interest were recorded.
- 2.2.3 **Survey mapping:** a Satellite Global Positioning System (GPS) was utilised to satisfy English Heritage defined Level 1/2 survey requirements (Ainsworth *et al* 2007). The GPS was used to record the extent of any archaeological features within the survey area, recording all sites as point data and any significantly sized archaeological features (more than 3m in diameter) with line or polygon data. No archaeological artefacts or ecofacts were identified during the fieldwork.
- 2.2.4 **Site Description and Assessment:** site data was directly input on site into a palm computer and the data incorporated into an Access compatible database. The input into the system was guided by a *pro-forma* to ensure uniformity and consistency of input. The descriptions incorporate a provisional interpretation of the function and purpose of the site, where possible.
- 2.2.5 **Photographic Survey:** a digital photographic archive was also generated in the course of the fieldwork, comprising landscape and detailed photography, including significant archaeological features. A camera with a 10 mega-pixel resolution was employed with a 1m scale bar used to take detailed photographs of all sites. A photographic *pro-forma* sheet was produced, describing the subject, orientation and date.

- 2.2.6 **Documentary and cartographic material:** a documentary study is an important part of any archaeological program of works, and provides the basis for an assessment of the nature and significance of the known surface remains. Such a study was compiled during the earlier landscape survey undertaken by West Yorkshire Archaeological Service (WYAS) in 1997 and the following report has used this study, accompanied by the extensive OA North library, as the basis of the present documentary study.

2.3 REPORT AND GAZETTEER OF SITES

- 2.3.1 **Reporting:** the present report identifies areas of defined archaeology and an assessment and statement of the actual and potential archaeological significance of the material, within the broader context of regional and national archaeological priorities. Information concerning the sites of archaeological interest within the study area has been collated into a gazetteer, which is included as an appendix at the rear of the document (*Appendix 2*). Site locations are given as ten-figure National Grid References where possible, and the position of each site is indicated on Figure 2.

2.4 ARCHIVE

- 2.4.1 A full archive has been produced to a professional standard in accordance with English Heritage guidelines (1991) and the *Guidelines for the Preparation of Excavation Archives for Long Term Storage* (UKIC 1990). The project archive represents the collation and indexing of all the data and material gathered during the course of the project. The archive is provided in the English Heritage Centre for Archaeology format, both as a printed document and digitally. A digital copy of the report will be forward to the Lancashire County Archaeology Service for inclusion in the Lancashire Historic Environment Record.

3. HISTORICAL AND ARCHAEOLOGICAL BACKGROUND

3.1 BACKGROUND

- 3.1.1 The following section presents a brief summary of the historical and archaeological background of the general area in order to provide a general context within which to understand the results of the landscape survey. For a more detailed account, reference should be made to an earlier report prepared by West Yorkshire Archaeological Services (WYAS, 1997)

Period	Date Range
Palaeolithic	30,000 – 10,000 BC
Mesolithic	10,000 – 3,800 BC
Neolithic	4000 – 2,500 BC
Bronze Age	2,500 – 700 BC
Iron Age	700 BC – AD 43
Romano-British	AD 43 – AD 410
Early Medieval	AD 410 – AD 1066
Late Medieval	AD 1066 – AD 1540
Post-medieval	AD 1540 – c1750
Industrial Period	cAD1750 – 1901
Modern	Post-1901

Table 1: Summary of British archaeological periods and date ranges

- 3.1.2 **Earlier Prehistoric:** no Prehistoric activity is recorded on the present site or within the immediate vicinity. The closest significant site is the late Bronze Age Castercliff Hill Fort, which is situated c 1.7km to the south-east of the proposed development site. A possible sub-rectangular enclosure just to the north of the enclosure has also been identified from aerial photography (WYAS, 1997).
- 3.1.3 **Roman Period:** several finds of Roman date are known from the immediate surroundings, including a coin and an amulet that were recovered during the construction of the sewage works to the south (PRN 225). Coins were also recovered during the excavation of foundations for Greenfield Mill, less than 200m to the south-west in 1824 (PRN 227), and to the north at Barrowfield (PRN 229). The latter coins were dated to the late third century.
- 3.1.4 **Early Medieval Period:** a fragment of a stone cross, comprising one arm and the central boss, was recovered in 1883 during the excavations for the construction of the Greenfield Sewage Farm (PRN 3623). The fragment was reportedly recovered at a depth of 1m beneath the surface, and was dated to the tenth-or eleventh century.
- 3.1.5 **Medieval Period:** the Banastre family are recorded as living at Greenfield in the mid-fifteenth century, and Greenfield Estate is referred to in 1518 (Farrer and Brownbill, 1911). It was held by the Houghton family in 1533, before passing to the Townley's in 1541 (Page 1966). Greenfield Farmhouse, a Grade II listed building, is located 150m to the east, within the Greenfield Conservation Area, and retains a sixteenth-century cross-wing of a hall house.

3.1.6 ***Post-medieval Period:*** Greenfield Farmhouse and its associated barn (also a Grade II listed building) is not annotated on William Yates' map of Lancashire that was surveyed in the 1770s, but a building is marked in approximately the same position. However, 'Green Field' is marked on Greenwood's map of Lancashire that was published in 1818 (Plate 2). The tithe map of 1842 indicates three large fields on the site, denoted as Near Meadow, Far Meadow and Long Field. The character and arrangement of the fields suggests they were enclosed before the eighteenth century, and were associated with Greenfield Farm to the east. Further Lee Farmhouse, some 600m to the south of the present study area, dates to the mid-seventeenth century, and is also afforded statutory designation as a Grade II listed building.



Plate 2: Extract from Greenwood's map of 1818, with arrow marking the approximate location of the study area

3.1.7 **Industrial Period:** the growth of the local textile industry from the late eighteenth century onwards has played an important part in development and history of Colne. This has been formally recognised by the designation of Primet Bridge, less than 200m to the east of the site, as a conservation area. The Leeds and Liverpool Canal, constructed between 1770 and 1816, passes just 300m to the east of the proposed development site and Greenfield Mill, constructed in 1824 is less than 200m to the south west (PRN 6365).

- 3.1.8 The Ordnance Survey map of 1848 (Plate 3) depicts a mill race cutting across the land now occupied by the Greenfield Nature Reserve, immediately to the south of the study area, and this feature survives, along with its associated mill pond within the nature reserve. The row of six terraced houses bordering the southern boundary of the site was constructed between 1840 and 1891, and may have been built to house some of the mill workers in Greenfield.

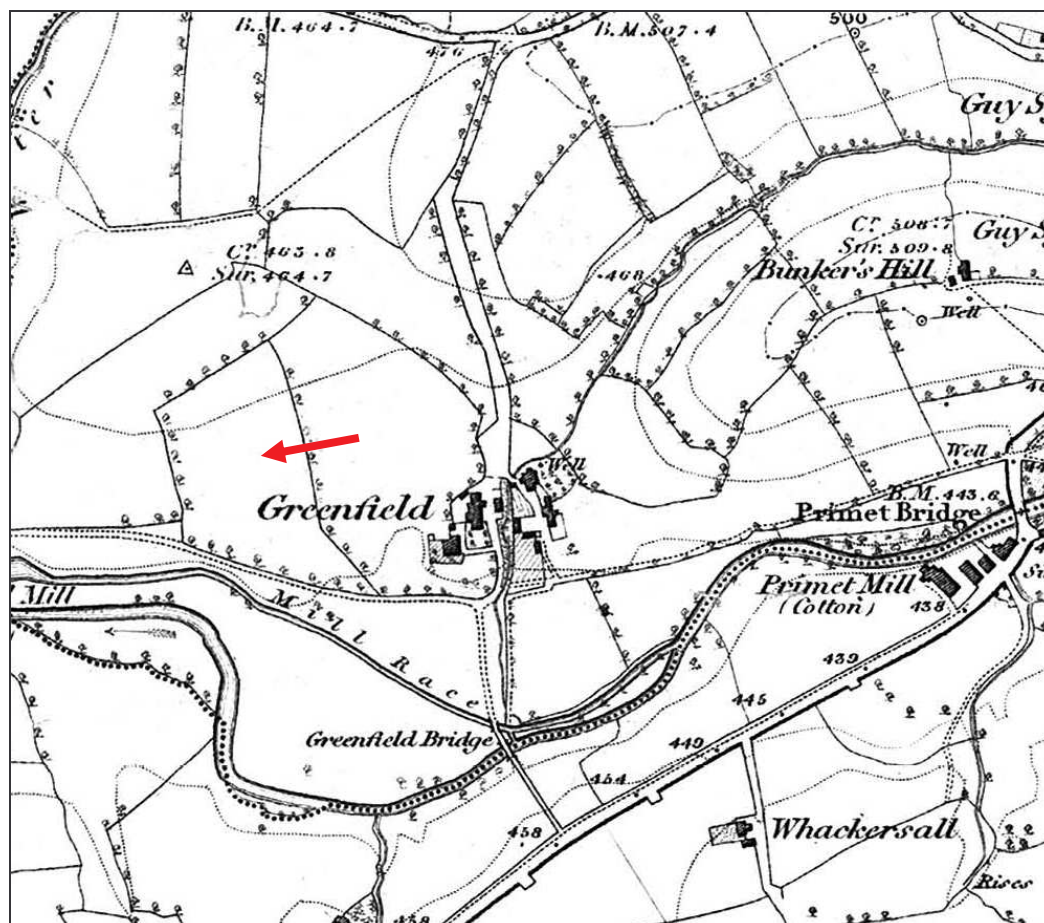


Plate 3: Extract from the Ordnance Survey map of 1848, with arrow marking the location of the study area

- 3.1.9 **Modern Period:** the 1932 edition of Ordnance Survey mapping notes a tennis court in the south-eastern corner of the westernmost field in the study area. This no longer existed by 1961, but several buildings referred to as 'works' have been constructed on the land immediately to the north of the houses.

4. SURVEY RESULTS

4.1 INTRODUCTION

- 4.2.1 The present Level-1/2 survey has identified and recorded a total of 18 archaeological features within the proposed development site at Greenfield Road (Fig 2; *Appendix 1*). The features identified all relate to agricultural activity, and each site is described below.

4.2 DESCRIPTIONS

- 4.2.1 The most significant features recorded during the survey were the well-defined ridge and furrow, running sinuously north/south across the larger central field (**12**). Each feature measured approximately 6m across from ridge to ridge, and reached a maximum height of 0.4m from the base of each furrow. The ridges were most well defined to the south, becoming more indistinct towards the top of the slope.
- 4.2.2 A broad, low bank (**09**), 8m wide and 0.5m high on a perpendicular alignment at the northern end of these features may possibly have been a headland associated with the ridge and furrow. Further traces of more ephemeral ridge and furrow were recorded in the eastern field (**15** and **16**) and the western field (**03** and **05**) on the same, or perpendicular alignments. A north/south-aligned ditch (**13**) was recorded to the east, measuring some 5m wide and 0.3m deep. It divided the eastern field and larger central field, and was most pronounced at the northern end, becoming increasingly shallow to the south before disappearing completely, approximately 30m from the present boundary. A steep bank (**14**), 0.5m high and 5.9m wide, lay immediately to the east of this ditch. It was topped by a line of mature trees, and disappeared at the same point to the south as the ditch.
- 4.2.3 A second shallow ditch (**04**) was encountered at the south-eastern corner of the westernmost field. It was 7m wide, 0.3m deep, and continued to the north-east along the northern boundary of the two central fields before being truncated by the modern boundary of the M65. A bank (**08**) on its southern side, 8m wide and 0.3m high, shared its alignment for much of its length, but turned sharply to the south just beyond the present boundary wall between the smaller central field and the western field.
- 4.2.4 Another bank (**02**) and associated ditch (**01**) were recorded at the western end of the western field, upon a north-east/south-west alignment. The bank measured 0.3m high and 5m wide, with the ditch on its western side 3.8m wide and reaching a depth of 0.3m. They both extended beyond the limits of the survey area to the south-west, and were not recorded beyond the present field boundary to the north east.

- 4.2.5 A steep bank (11) topped with mature trees divided the two central fields, but was interrupted at either end where the tree line disappeared. The bank had a height of 0.4m, a width of 2.5m, and a surviving length of approximately 95m. A deep hollow (18) or depression was recorded at the southern end of the bank, immediately to the north of the present fence line.
- 4.2.6 The hollow had irregular sides, and measured 8m long and 4.7m wide. Just to the east of the tree-lined bank (11), a sinuous north/south-aligned ditch (10) extended the full length of the larger central field. Its broad U-shaped profile varied slightly along its length, but was best defined to the south where it measured 9.5m wide and 0.7m deep.
- 4.2.7 The boundary between the western field and the smaller central field was defined by a drystone wall (06) with a crenelated top, which extended northwards from the eastern boundary of the terraced houses for a distance of 37m before turning sharply to the north-east. It then turned again to the north-west some 47m distant, ending as a ruin just beyond the corner, where it had been replaced with a fence on the same alignment. The wall stood to a height of between 1.2m and 1.5m, and was 0.6m thick at the base, diminishing in width to 0.3m at the top. The wall clearly overlay both ditch (04) and bank (08). Wall (06) abutted wall (07) at its southern end, with this wall then continuing on the same north/south alignment to the southern boundary. Wall (07) was again of stone construction, and of similar dimensions to (06), but used cement mortar.

5. CONCLUSION

5.1 DISCUSSION

- 5.1.1 The survey of the study area revealed evidence for medieval/post-medieval agricultural exploitation throughout most of the site. The centre of the area contained well-defined 6m-wide broad ridge and furrow cultivation (12) with a possible headland banked and ditched boundary on the northern end (6/8/9). These features are typical of medieval reversed S-shaped open-field ox ploughing. Smaller truncated areas of less well-defined broad ridges and furrow survive on the edges of the study area (3, 5, 15 and 16), and these are either on the same alignment or are at right angles to the main orientation. The study area is in turn sub-divided by three tree-lined bank and ditch field boundaries (1/2, 13/14 and 11) and a wide ditch (10). The ditch may have had an early origin, but the field boundaries are indicative of post-medieval enclosure of open-field cultivation into enclosed field plots within the property of Greenfield Farm (Plate 4). The post-medieval field boundaries are overlain by an industrial/modern period dry-stone wall (4) associated with the row of houses on the north side of Greenfield Road. The present survey identified no surface evidence for feature 17 recorded in the earlier report.



Plate 4: 1960s aerial photograph of enclosed fields and relict ridge and furrow cultivation to the north-west of Greenfield Farm

- 5.2.2 The survival of potentially medieval period cultivation in the study area is locally significant, although there is little scope for further archaeological recording to assess these remains further. The few isolated chance finds from the Romano-British and later periods that have been in the immediate surrounding areas raises the possibility that other artefacts may survive in the study area, although any such finds these are likely to have been disturbed by ploughing and would thus be out of context.

5.2 CONCLUSION

- 5.2.1 The archaeological survey has identified physical evidence for medieval/post-medieval agricultural activity of local importance in the study area, although these features have little potential for any further study. Whilst the Written Scheme of Investigation allowed for a watching brief during construction works, it is concluded in the light of the landscape survey that there is little merit in such monitoring. It is thus recommended that no additional archaeological investigation is carried out in advance of, or during, the construction phase of the proposed development.

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APPENDIX 1: WRITTEN SCHEME OF INVESTIGATION

January 2015

**Oxford
Archaeology
North**

LAND AT GREENFIELD ROAD,
COLNE,
PENDLE,
LANCASHIRE



ARCHAEOLOGICAL INVESTIGATION
WRITTEN SCHEME OF INVESTIGATION

Proposals

The following Written Scheme of Investigation is offered in response to a request from Mr T Relph, of Nexus Planning Ltd, for an archaeological investigation in advance of the proposed development of land off Greenfield Road in Colne, Lancashire (Planning Application Ref 13/13/0593P)

1. INTRODUCTION

1.1 PROJECT BACKGROUND

- 1.1.1 Pendle Borough Council has granted planning permission for the development of 4.1 hectares of land off Greenfield Road in Colne, Lancashire (centred at NGR SD 874 397). The existing planning permission (APP 13/13/0593P) allows for the erection of a 9,040m² garden centre, including a cafe and farm shop with outdoor sales/display area, together with the creation of a 452-space car park, servicing and circulation space, access and highway improvements, landscaping and associated ground works. The proposed works will inevitably necessitate considerable earth-moving works, with the potential to damage or destroy any buried archaeological remains that may survive on the site.
- 1.1.2 An archaeological desk-based assessment of the application area was carried out in 1997 to support a proposal for a previous development, which was not implemented. This study concluded that the site has remained under meadow or pasture for at least 150 years, and survives as an example of a post-medieval agricultural landscape, although there was no evidence for settlement activity of any period. The report further concluded that any further archaeological prospection of the site, namely geophysical survey or excavation, was unlikely to yield meaningful results, although it was recommended that a record should be made of the site by means of an archaeological survey, which should be focused on the earthwork features thought to exist on the site (WYAS 1997).
- 1.1.3 In order to secure archaeological interests for the present development proposals, Pendle Borough Council has recommended that an appropriate programme of archaeological investigation of the site is carried out in advance of development, in accordance with the recommendations provided by the previous archaeological assessment. A condition (No 25) was thus attached to planning consent that stated:
- No development shall take place until the applicant has secured the implementation of a programme of archaeological investigation and recording in accordance with a written scheme of investigation which has been submitted to the Local Planning Authority and approved in writing and thereafter carried out in accordance with the approved scheme and timescales.*
- Reason:** *To record the features of archaeological importance.*
- 1.1.4 This document presents the required Written Scheme of Investigation for the approval of the Local Planning Authority. It has been produced by OA North at the request of Nexus Planning Ltd.

1.2 Oxford Archaeology North

- 1.2.1 OA North has considerable experience of investigation historic landscapes throughout Northern England and Wales, which have been undertaken for a variety of clients (both private and national agencies such as English Heritage and the former Royal Commission on the Historical Monuments of England (RCHM(E)). Surveys include the Lake District National Park Survey, Haweswater and Thirlmere estate surveys (Lake District), Lyme Park (Peak District), most of the Forest of Bowland AONB, Lancashire, and a multitude of smaller landscape projects which include the Otterburn Range surveys in the Northumberland National Park. In particular OA North has undertaken a detailed survey of an upland estate at Hartley, Eden Valley involving a detailed documentary study and surface survey. To date OA North has undertaken archaeological field surveys of over 930sqkm of upland landscapes and has recorded over 24,000 field monuments. OA North can claim to be one of the foremost specialists in the field of upland landscape recording.
- 1.2.2 OA North has the professional expertise and resources to undertake the project detailed below to a high level of quality and efficiency. OA North is **an Institute for Archaeologists (IfA) registered organisation, registration number 17**, and all its members of staff operate subject to the IfA Code of Conduct.

2. OBJECTIVES

- 2.1 The primary purpose of the current project is to identify and record archaeological earthworks/remains on the surface on the application area prior to development, and enhance the record of any such remains that do survive via archaeological monitoring during the construction programme. To achieve these objectives, the following specific aims are proposed:
- **Level 1 Landscape Survey:** to establish sufficient information to establish the location, extent, character, period, condition, fragility and potential of any surviving archaeological features;
 - **Watching Brief:** pending the results obtained from the initial landscape survey, it may be appropriate to monitor topsoil stripping/earth-moving works during the construction programme;
 - **Report and Archive:** to complete a written report and compile a project archive.

3. METHOD STATEMENT

3.1 Scope of Investigation

The following work programme is submitted in line with the objectives of the archaeological work summarised above. It is divided into three elements: archaeological field survey; monitoring of earth-moving works; and reporting/archive preparation.

3.2 Field Survey Methodology

The survey will be undertaken as an enhanced Level 1 type survey. The survey will involve four elements: Reconnaissance; Mapping; Description; and Photography.

Reconnaissance: the reconnaissance will consist of close field walking, varying from 5m to 10m line intervals dependent on visibility and safety considerations. The survey will aim to identify, locate and record archaeological earthworks/features on the ground, and thus all sites of potential archaeological interest will be recorded.

Survey mapping: a Satellite Global Positioning System (GPS) will be utilised to satisfy English Heritage defined Level 1 survey requirements (Ainsworth *et al* 2007). The GPS techniques will be used to record the extent of any archaeological features. The survey will record all archaeological sites as point data and any significantly sized archaeological features (more than 3m in diameter) with line or polygon data. The locations of any retrieved archaeological artefacts and ecofacts identified and/or retrieved during the project will also be recorded.

- 3.2.1 **Site Description and Assessment:** it is proposed that the data be directly input on site into a palm computer, which is within a weatherproof case. The data will be incorporated into an Access compatible database. The input into the system will be guided by a *pro-forma* to ensure uniformity and consistency of input. The description will incorporate a provisional interpretation of the function and purpose of a site, where possible, and similarly will provide a provisional interpretation where possible.
- 3.2.2 **Photographic Survey:** a digital photographic archive will be generated in the course of the fieldwork, comprising landscape and detailed photography. This will record any significant archaeological features, ecofacts or other small finds located. Detailed photographs will be taken of all sites using a scale bar. All photography will be recorded on photographic *pro-forma* sheets which will show the subject, orientation and date.
- 3.2.3 Digital imagery is acceptable for the photographic recording, although 10mega pixel resolution will be used as a minimum. Unedited images should be archived as tiff files, as well as processed images. A full image catalogue is required as part of the archive.

3.3 Watching Brief Methodology

- 3.3.1 Pending the results obtained from the initial survey, topsoil stripping / earth-moving works necessitated by the construction programme may need to be monitored closely by a suitably experienced archaeologist. The watching brief will be targeted on those parts of the site considered to have archaeological potential in the light of the results obtained from the initial field survey.

- 3.3.2 The stripping of the modern ground surface will be followed by the rapid manual cleaning of any exposed remains and archaeological recording. This programme of field observation will accurately record the location, extent, and character of any surviving archaeological features and/or deposits exposed during the construction programme. This work will comprise observation during the excavation for these works, the systematic examination of any subsoil horizons exposed during the course of the groundworks, and the accurate recording of all archaeological structures and features, and any artefacts, identified during observation. Putative archaeological structures, features and/or deposits exposed will be cleaned by hand, using either shovels and/or trowels depending on the ground conditions and, where appropriate, sections will be studied and drawn. During this phase of work, recording will comprise a full description and preliminary classification of features or materials revealed, and their accurate location (either on plan and/or section, and as grid co-ordinates where appropriate). Features will be planned accurately at appropriate scales and annotated on to a large-scale plan. A photographic record will be undertaken simultaneously. A plan will be produced of the areas of groundworks showing the location and extent of the ground disturbance.
- 3.3.3 It is assumed that the archaeological contractor will have the authority to stop the works for a sufficient time period to enable an accurate assessment of important deposits. In the event of these deposits being extensive, then a programme of further detailed archaeological investigation may be anticipated.
- 3.3.4 **Recording:** all information identified in the course of the site works will be recorded stratigraphically, with sufficient pictorial record (plans, sections and colour photographs) to identify and illustrate individual features. Results of all field investigations will be recorded on *pro-forma* context sheets. Archaeological features will be planned using manual techniques or by means of a total station.
- 3.3.5 **Finds policy:** artefact and palaeoecology specialists, with appropriate expertise in the investigation, excavation, and finds management of sites of all periods and types, will be readily available for consultation. Finds storage during fieldwork and any site archive preparation will follow professional guidelines (UKIC). Any gold and silver artefacts recovered during the evaluation will be removed to a safe place and reported to the local Coroner according to the Treasure Act, 1996.
- 3.3.6 Human remains are not expected to be present, but if they are found they will, if possible, be left *in-situ*, covered and protected. The remains will then be subject to a formal appraisal by an appropriate specialist. If removal is necessary, then the relevant Department of Cultural Affairs permission will be sought, and the removal of such remains will be carried out with due care and sensitivity, as required by current legislation.
- 3.3.7 **Environmental Sampling:** a programme of palaeo-environmental sampling will be carried out during the archaeological investigation in accordance with the guidelines provided by English Heritage (2002). Samples will be collected for technological, pedological and chronological analysis as appropriate. The samples taken will be fully assessed and not subject to sub-sampling. The contexts will be sampled as appropriate, subject to palaeo-environmental survival.

3.4 Post-Excavation, Reporting and Archive Production

- 3.4.1 An archive for the project will be prepared during and immediately following the fieldwork programme for deposition in an appropriate repository, in accordance with current English Heritage guidelines (*Management of Research Projects in the Historic Environment*, 2006). The deposition of a properly ordered and indexed project archive in an appropriate repository is considered an essential and integral element of all archaeological projects by the Institute for Archaeologists' in that organisation's Code of Conduct.
- 3.4.2 An appropriate programme of analysis will be undertaken to prepare a research archive, as detailed in Appendix 6 of *Management of Archaeological Projects* (English Heritage 1991). A provisional programme of post-excavation analysis is proposed, on the basis of the anticipated recovery of data/material from the survey and watching brief; however, the extent of the programme can only be reliably assessed on completion of the fieldwork.
- 3.4.3 The final report will present, summarise, and interpret the results of the archaeological work, and will incorporate specialist reports, as appropriate. It will include an index of archaeological features identified in the course of the project, with an assessment of the site's development. It will incorporate appropriate illustrations, including copies of the site plans and section drawings, all reduced to an appropriate scale.
- 3.4.4 The report will consist of a statement of acknowledgements, lists of contents, executive summary, introduction summarising the brief and project design, methodology, interpretative account of the site, gazetteer of features, a complete bibliography of sources from which data has been derived, and a list of further sources identified during the programme of work. Nexus Planning Ltd and Pendle Borough Council will be supplied with digital copies of the report, with a bound, hard copy prepared for deposition with the Lancashire Historic Environment Record (HER). All digital survey information will be supplied in a CAD compatible format as a .dwg file, and all digital photographs will also be supplied as individual jpegs.
- 3.4.5 The Arts and Humanities Data Service (AHDS) online database project *Online Access to index of Archaeological Investigations* (OASIS) will be completed as part of the archiving phase of the project.
- 3.4.6 **Confidentiality:** all internal reports to the client are designed as documents for the specific use of the Client, for the particular purpose as defined in the project brief and project design, and should be treated as such. They are not suitable for publication as academic documents or otherwise without amendment or revision.

4. OTHER MATTERS

- 4.1 **Health and Safety:** full regard will, of course, be given to all constraints (services) during the survey, as well as to all Health and Safety considerations. The OA North Health and Safety Statement conforms to all the provisions of the SCAUM (Standing Conference of Unit Managers) Health and Safety manual, as well as the OA Health and Safety Statement. Risk assessments are undertaken as a matter of course for all projects.
- 4.2 Archaeological staff and visitors will respect Health and Safety provisions and site-specific safety regulations. It is the policy of OA North ('the Employer') to conform fully with the requirements of the Health and Safety at Work Act (1974), and all site procedures will be in accordance with the guidance set out in the Health and Safety Manual compiled by the Standing Conference of Archaeological Unit Managers (2002). Attention will also be paid to the requirements of more recent legislation, including the provision and use of Work Equipment Regulations (1992), the Management of Health and Safety at Work Regulations (1992), and the Construction (Design and Management) Regulations (1994).
- 4.3 **Insurance:** the insurance in respect of claims for personal injury to or the death of any person under a contract of service with OA North and arising in the course of such person's employment shall comply with the employers' liability (Compulsory Insurance) Act 1969 and any statutory orders made there under. For all other claims to cover the liability of OA North in respect of personal injury or damage to property by negligence of OA North or any of its employees there applies the insurance cover of £10m for any one occurrence or series of occurrences arising out of one event.
- 4.4 **Access:** it is assumed that OA North will have unrestricted pedestrian access to the study area for the duration of the survey.
- 4.5 **Timetable:** the initial survey will require a maximum of two days in the field to complete. The timetable for the watching brief will be dictated by the principal contractor's programme. A report will be submitted within four weeks of the completion of all elements of the fieldwork.

5. STAFFING

- 5.1 The project will be under the overall charge of **Ian Miller BA FSA** (OA North Senior Project Manager) to whom all correspondence should be addressed. Ian has considerable experience and particular research interests in the archaeology of Lancashire.
- 5.2 The field survey will be led by **Peter Schofield** (OA North Project Officer) who works full time on landscape surveys across the north of England and Wales. He has undertaken surveys at Little Asby Common, Hardknott Forest and Hartley Fold Estate, Cumbria. Whole valley surveys of Ennerdale, Buttermere, Borrowdale and Wasdale in the central Lake District fells, and eight seasons of landscape survey across over 300sq km of upland areas in North Wales. Peter undertook the survey of the Western part of Stags Fell.

APPENDIX 2: SURVEY GAZETTEER

GREENFIELD ROAD

Site Number	01
Site Name	Earthwork
NGR	387203 439719
Type	Boundary Ditch
Period	Post-medieval
Surveyor	Peter Schofield, OA North Survey 2015
Description	A ditch was identified at the western end of the site upon a north-east to south-west alignment. It had a width of approximately 3.8m, and a maximum depth of 0.3m.



Boundary ditch (01) with bank to left (02), facing south-west

Site Number	02
Site Name	Earthwork
NGR	387203 439719
Type	Field Boundary Bank
Period	Medieval to Post-medieval
Surveyor	Peter Schofield, OA North Survey 2015
Description	A bank was identified at the western end of the site, associated with a boundary ditch immediately to its west. It measured approximately 5m in width, and 0.3m in height

Site Number	03
Site Name	Earthwork
NGR	387255 439723
Type	Possible Ridge and Furrow
Period	Medieval to Post-medieval
Surveyor	Peter Schofield, OA North Survey 2015
Description	Identified in the westernmost field, these features consisted of a repeating pattern of shallow linear depressions divided by raised linear banks. The features were aligned north-east to south-west, and ran parallel to the line of the earlier field boundaries.

Site Number	04
Site Name	Earthwork
NGR	387321 439735
Type	Ditch
Period	Medieval to Post-medieval
Surveyor	Peter Schofield, OA North Survey 2015
Description	A shallow linear depression upon a north-east/south-west alignment was identified in south-eastern corner of the westernmost field. It extended to the north-east along the boundary of the two central fields before being truncated by the modern boundary of the M65. It had a width of approximately 7m and a depth of 300mm.

Site Number	05
Site Name	Earthwork
NGR	387246 439684
Type	Possible Ridge and Furrow
Period	Medieval to Post-medieval
Surveyor	Peter Schofield, OA North Survey 2015
Description	Identified in the westernmost field, these features consisted of a repeating pattern of shallow linear depressions divided by raised linear banks. The features were aligned north east to north-west to south-east, perpendicular to those described in site 03 .

Site Number	06
Site Name	Boundary Wall
NGR	387283 439689
Type	Wall
Period	Post-medieval-Modern
Surveyor	Peter Schofield, OA North Survey 2015
Description	A dry stone wall with a crenallated coping divided the westernmost field from that to the east. It had a height of approximately 1.5m and a width of 600mm, diminishing in width to the head. The wall extended northwards from the boundary dividing the houses on Greenfield Road from the central fields to the east, before turning north-eastwards. The wall then turned to the north-west for a short distance before the boundary was replaced with a modern fence.

Site Number	07
Site Name	Boundary Wall
NGR	387289 439658
Type	Wall
Period	Modern
Surveyor	Peter Schofield, OA North Survey 2015
Description	A stone wall, with cement mortar, approximately 1m high and 500mm wide, divided the houses on Greenfield lane from the central field.



Junction between drystone wall (06) and cement mortar wall (07) wall, facing north-east

Site Number	08
Site Name	Earthwork
NGR	387305 439721
Type	Boundary Bank
Period	Medieval to Post-medieval
Surveyor	Peter Schofield, OA North Survey 2015
Description	A low bank was identified toward the western end of the survey site, to the south-east of the dry stone wall (06). It had a width of 8m, a depth of 0.3m and extended from north-east to south-west, where it turned to the south. The bank appeared to lie beneath the dry stone wall at its western end.

Site Number	09
Site Name	Earthwork
NGR	387355 439747
Type	Bank
Period	Medieval to Post-medieval
Surveyor	Peter Schofield, OA North Survey 2015
Description	A low, broad bank approximately 8m in width and 0.5m high lay at the northern end of the central field. Its location to the north of an area of ridge and furrow (12) suggests it may have been an associated headland.

Site Number	10
Site Name	Earthwork
NGR	387345 439680
Type	Boundary ditch
Period	Medieval to Post-medieval
Surveyor	Peter Schofield, OA North Survey 2015
Description	A broad, north/south-aligned sinuous ditch running along the eastern edge of the present tree lined field boundary (11). The ditch had a width of 9.5m and depth of up to 700mm



Sinuous ditch, facing north with tree lined boundary to left

Site Number	11
Site Name	Earthwork
NGR	387335 439679
Type	Boundary Bank
Period	Post-medieval
Surveyor	Peter Schofield, OA North Survey 2015
Description	A narrow steep bank, approximately 2.5m wide and 0.4m high associated with the tree-lined boundary between the two central fields. The bank occurred between the trees, upon a broadly north/south alignment, surviving for a length of 95m, and was presumably contemporary with them.

Site Number	12
Site Name	Earthwork
NGR	387406 439670
Type	Ridge and Furrow
Period	Post-medieval-Medieval
Surveyor	Peter Schofield, OA North Survey 2015
Description	A series of sinuous linear banks, approximately 6m wide and up to 0.4m high with a broadly north/south alignment were noted in the eastern central field. The banks were separated by shallow depressions, suggestive of ridge and furrow ploughing. The earthworks were aligned to the present day field boundaries, with a possible headland noted at the northern end (09).

Site Number	13
Site Name	Earthwork
NGR	387429 439759
Type	Boundary Ditch
Period	Medieval to Post-medieval
Surveyor	Peter Schofield, OA North Survey 2015
Description	A ditch was recorded to the west of the tree-lined boundary between the easternmost and central field. It varied in depth with a maximum of 300mm at the northern end and a width of 5m.



Northern end of boundary ditch (13), facing north

Site Number	14
Site Name	Earthwork
NGR	387441 439735
Type	Building Platform
Period	Post-medieval
Surveyor	Peter Schofield, OA North Survey 2015
Description	A steep bank on the same north/south alignment of the tree-lined field boundary between the easternmost field and central field. It had a height of approximately 0.5m and width of 5.9m and the mature trees lay above it. A boundary ditch (13) located lay immediately to the west shared its alignment.



*Steep tree-lined bank (**14**) with ditch (**13**) to right, facing south*

Site Number	15
Site Name	Earthwork
NGR	387465 439689
Type	Ridge and Furrow
Period	Medieval- Post-medieval
Surveyor	Peter Schofield, OA North Survey 2015
Description	At the eastern end of the proposed development site a series of ephemeral, liner raised banks alternating with shallow ditches were just visible upon a north/south alignment. The features crossed the present fence line and shared the alignment of the pronounced ridge and furrow to the west (12).

Site Number	16
Site Name	Earthwork
NGR	387466 439665
Type	Ridge and Furrow
Period	Medieval- Post-medieval
Photo Ref	
Surveyor	Peter Schofield, OA North Survey 2015
Description	At the southern end of the easternmost field a series of ephemeral, liner raised banks alternating with shallow ditches were just visible upon an east/west alignment. The features were aligned perpendicular to the ridge and furrow to the north (15) and west (12) and extended right to the modern eastern boundary.

Site Number	17
Site Name	Earthwork
NGR	387371 4397160
Type	Unknown
Period	Unknown
Surveyor	WYAS, 1997
Description	In 1963, a three-sided rectangular enclosure was observed from aerial photography towards the northern end of the central field. A circular feature was noted in the centre of the enclosure. The feature was not observed during the present survey or the previous survey of 1997.

Site Number	18
Site Name	Earthwork
NGR	387347 439627
Type	Hollow
Period	Unknown
Surveyor	Peter Schofield, OA North Survey 2015
Description	A broad hollow with irregular sides, located at the southern end of the boundary between the two central fields. It had a length of 8m and width of 4.7m and a maximum depth of 0.5m

ILLUSTRATIONS

FIGURES

Figure 1: Site location

Figure 2: Plan of gazetteer sites and topographic detail

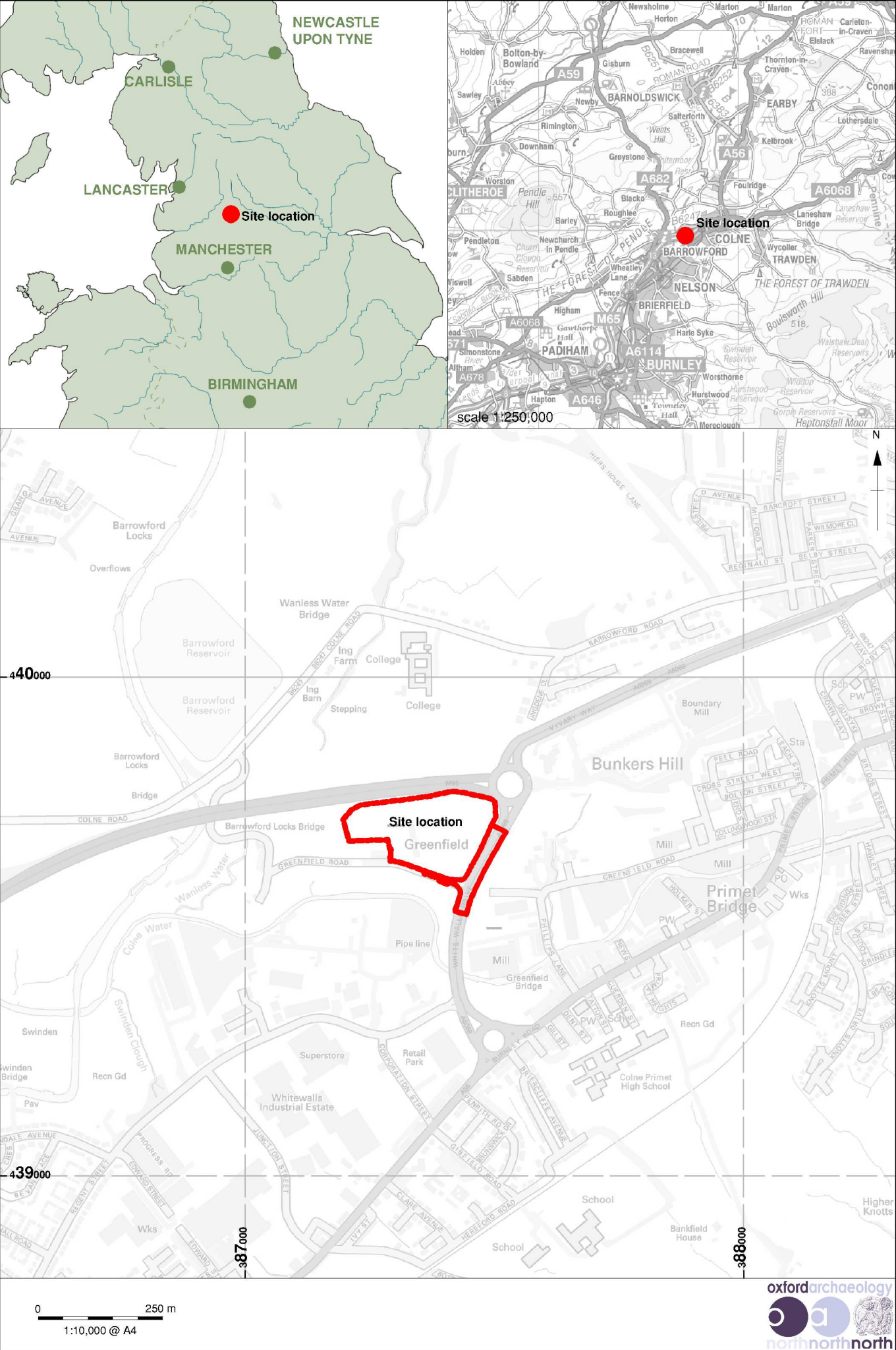


Figure 1: Site location

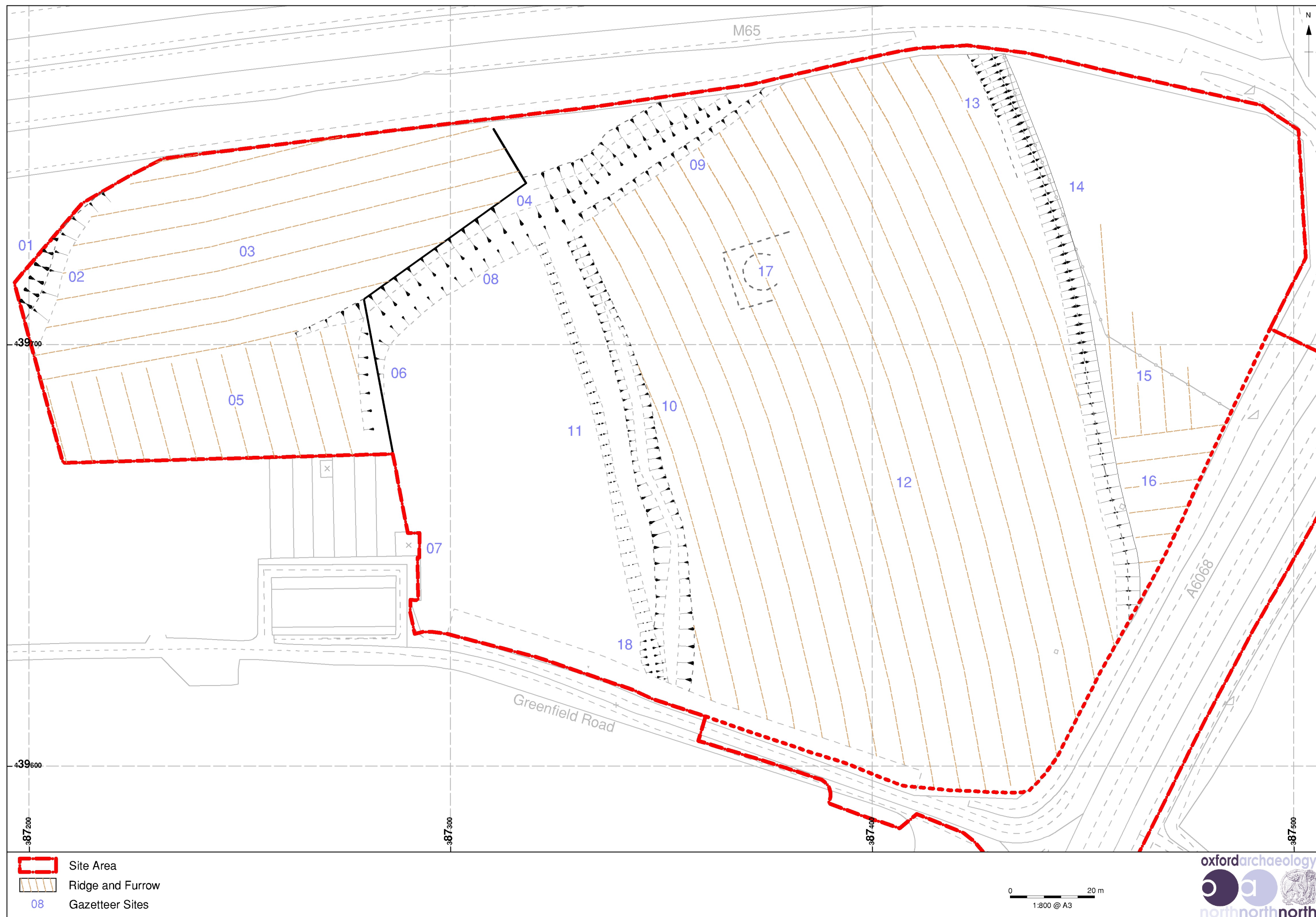


Figure 2: Plan of gazetteer sites and topographic detail