Cultural Heritage Features

The tables include sites recorded by the Lancashire Historic Environment Record (HER) within 1 km of the centre of the site. Not all HER sites discussed in the text are shown on Figure 8.1 or in this table. PRN = Public Record Number.

Table 8.1.1 Sites Recorded by Lancashire HER within 1 km of the Centre of the Site

PRN	Description	Date
720	Inhumation	Roman
1584	Part of Ribchester –Elslack Road	Roman
1869	Stone relief figure	Roman
3175	Field boundaries	Undated
3588	Site of wayside cross	medieval?
5609	Primrose Mill and Print works	1787
5614	Church of St James	1839
6122	Limehouse Farm	19th century
12021	James I silver shilling	1621-1623
13669	Tenter field	post-medieval
13673	Mill pond	post-medieval
13674	Bridge	post-medieval
13675	Weir and pond	post-medieval
13676	Bridge	post-medieval
13677	Footbridge	post-medieval
13678	Footbridge	post-medieval
13679	Kennels at Standen Hall	post-medieval
13680	Footbridge at Standen Hall	post-medieval
13681	Standen Bridge	post-medieval
15514	Ribchester to Ilkley Roman Road (fifth section)	Roman
15515	Ribchester to Ilkley Roman Road (sixth section)	Roman
15516	Ribchester to Ilkley Roman Road (seventh section)	Roman
17776	The Old Bothy	post-medieval
17777	Terrace, nos 1 to 9 (odd) Little Moor	post-medieval
17778	Cottages, nos 11 to 15 Little Moor	post-medieval
17821	Public house and houses nos 90 to 110 (even) Whalley Road	early 19th century

Table 8.1.1 (continued) Sites Recorded by Lancashire HER within 1 km of the Centre of the Site

PRN	Description	Date
17831	House Little Moor House Little Moor	post-medieval
18024	Standen Hall country house	15th century
18025	Mounting block	early 19th century
18040	Lower Standen Farmhouse	early 19th century
19175	Turnpike milestone	post-medieval
19227	Flour mill, Littlemoor Mill	post-medieval
20622	Fountain	post-medieval
20628	Craven Heifer no 105 Whalley Road	post-medieval
21899	Site of lodge	post-medieval
24372	Cricket ground	1892
26145	Ribchester to Ilkley Roman road	Roman
31867	Spindle whorl or lead weight	medieval
31875	Spindle whorl or lead weight	medieval
31912	Coin of Tetricus II	Roman
31913	Half of seal box	Roman
31916	Lock pin	Roman
31917	Terret ring	Roman
33671	Cut voided longcross penny of Henry III	medieval

Table 8.1.2 Listed Buildings

PRN	Description	Grade
1072085	Standen Hall	II*
1072091	Lower Standen	II
1072324	78-88 Whalley Road	II
1072342	1-9 Little Moor	II
1072343	11-15 Little Moor	II
1072358	Church of St James	II
1072386	The Old Bothy, Standen Hall	II
1362198	Little Moor House	II
1362229	90-110 Whalley Road	II
1362348	Mounting block Standen Hall	II

Appendix 8.2
Archaeological Desk Based Assessment (October 2011)

29 Pages

ARCHAEOLOGICAL
SERVICES
DURHAM UNIVERSITY

on behalf of
Steven Abbott Associates LLP
for
The Trustees of the Standen Estate

Land at Higher Standen Farm Clitheroe Lancashire archaeological desk-based assessment

report 2741
October 2011

Durham University

Contents

Figures

South Road Durham DH1 3LE tel 0191 334 1121 fax 0191 334 1126
archaeological services@durham ac uk www dur ac uk/archaeological services

1. Summary

The project

1.1 This report presents the results of an archaeological desk-based assessment that was conducted in advance of a proposed development at Higher Standen Farm, Clitheroe, Lancashire. The assessment comprised a search of pertinent documentary and cartographic records, records of archaeological interventions, the Historic Environment Record, and a site walk-over survey.

1.2 The works were commissioned by Steven Abbott Associates LLP on behalf of the Trustees of the Standen Estate, and conducted by Archaeological Services Durham University.

The archaeological resource

1.3 There are no or statutorily protected buildings on the site. There are no Scheduled Ancient Monuments on or in the vicinity of the site. Clitheroe Castle (SAM 27744, Registered Park and Garden 1001361) lies over 1km to the north-west.

1.4 An as yet unidentified resource relating to the later prehistoric period exploitation of the area has the potential to exist.

1.5 There is direct evidence for a Roman road crossing the site, the archaeological remains of which will survive. Roman artefacts have been found by metal detecting within the study area, and there is potential for evidence for Roman settlement or burial activity associated with the road to survive.

1.6 Archaeological deposits relating to the medieval and post-medieval period may survive over the site. Artefacts from this period have been found on the site. This evidence is more likely to relate to agricultural activities and boundary features rather than settlement

1.7 Two barns of 19th-century (or possibly late 18th-century) date survive. One in the northern part of the area is in a ruined state The one at Little Moor is in a good state of repair.

Recommendations

1.8 It is recommended that a programme a geomagnetic survey is carried out over the area, where groundworks are proposed. This will assist in confirming the exact location of the Roman road, and the identification of any associated settlement or burial activity, as well as any remains from the prehistoric and later periods. This may form the first phase of a programme of archaeological works.

1.9 It is recommended that consideration is given to the preservation *in situ* of the Roman road and any associated remains, for example as open space within the development area. Where impact is unavoidable, a mitigation strategy can be devised.

1.10 It is recommended that consideration is given to the retention of the existing historic barn structures within the proposed development, which may involve their redevelopment for future use. Impact upon the structures can be mitigated by a programme of archaeological building recording.

2. Project background

Location (Figures 1 & 2)

2.1 The site is located to the south-east of Clitheroe (NGR centre: SD 75000 40800). It covers an area of approximately 70 ha divided into 18 fields. The eastern part of the area is split by the A59. There are modern housing estates and playing fields to the north-west. Pendleton Brook runs along the south-western boundary and woodland surrounding Standen Hall forms the southern boundary. Pendle Hill, to the east, dominates the landscape.

Development proposal (Figure 3)

2.2 The proposed development is for mixed development through the LDF Core Strategy process for the Ribble Valley.

Objective

2.3 The objective of the scheme of works was to assess the nature, extent and potential significance of any surviving archaeological resource within the proposed development area so that an informed decision may be made regarding the nature and scope of any further scheme of archaeological works that may be required in relation to the proposed development.

Methods statement

2.4 The works have been conducted in accordance with standard Archaeological Services' procedures for desk-based assessments. The works comprised the study of pertinent cartographic and other historical sources, records of previous archaeological interventions, sites listed in the Historic Environment Record (HER) within 1km of the proposed development area, and a site walk-over survey. HER references are referred to in brackets throughout the text of this report, and are listed in Appendix 1

Planning guidance

2.5 This assessment and its recommendations are a considered response to the proposed development in relation to Government policy, as it is set out in *Planning Policy Statement 5: Planning for the Historic Environment*, and the *Historic Environment Planning Practice Guide*.

Dates

2.6 The field visit took place on 29th September 2011. This report was prepared for October 2011.

Personnel

2.7 Research was conducted and this report prepared by Judith Roberts, with illustrations by David Graham. The Project Manager was Daniel Still.

OASIS

2.8 Archaeological Services Durham University is registered with the **O**nline **A**cces**S** to the **I**ndex of archaeological investigation**S** project (**OASIS**). The OASIS ID number for this project is **archaeol3-111964**.

Acknowledgements

2.9 Archaeological Services Durham University is grateful for the assistance of the staff of Lancashire County Council Historic Environment Record and County Record Office in facilitating this scheme of works.

3. Landuse, topography and geology

Landuse

3.1 At the time of this assessment, the proposed development area comprised eighteen fields of improved grassland Several of the fields were being grazed by cattle.

Topography

3.2 The study area was predominantly level on a slight slope down to the west with a mean elevation of approximately 120m OD in the east to 90m close to Littlemoor. The eastern part of the area was cut by the A59. The Pendleton Brook flowed along the southern boundary. Pendle Hill rose steeply to the east.

Geology and soils

3.3 The underlying solid geology of the area comprises undifferentiated Clitheroe Limestone Formation and Hodder Mudstone Formation overlain by Devensian till.

4. Site walk-over survey

4.1 A walk-over survey was conducted, to help ascertain the potential of the proposed development area to contain any archaeological resource. The visit noted site topography, earthworks and areas of modern overburden, modern services, boundaries, buildings and other upstanding remains. A *pro forma* recording sheet was completed. For the purpose of this survey the fields have been numbered 1-17.

4.2 Field 1, to the east of the A59, sloped down slightly to the south-west. It comprised improved grassland bounded by hedges and mature trees with slight undulations Figure 9). The field was crossed by overhead wires.

4.3 Field 2 was bounded to the east by the tree belt along the A59. It contained improved grass with slight undulations (Figure 10). In the northern corner was a small, largely infilled, pond.

4.4 Field 3, between Four Lane Ends and the A59, contained a hedge running approximately east to west across the western part. It sloped down to the Pendleton Brook along its southern boundary. A slight hollow runs down to the brook; this appeared to be a natural feature (Figure 11). The field was crossed by overhead wires on wooden poles. Four Lane Ends Cottages lie to the east of the lane in the north-western part of the field. The northern part of the field had not been grazed and slight undulations were visible. The northern boundary comprised a wooden post and rail fence and the eastern boundary had trees and a hedge with the A59 beyond.

4.5 Field 4, approximately triangular in shape, lay to the east of the A59. It had a ditch and pond along the south-eastern boundary and trees in the southern corner (Figure 12). The land had been ploughed and planted with grass.

4.6 Field 5, to the north of the Four Lanes End cross-roads, had slight undulations which were visible in the south-western hedge line (Figure 13). The field was bounded by hedges and mature trees with close-cropped grass. A line of overhead wires crossed from north-east to south-west. In the northern part of the field was an area of open deciduous woodland with a mast and ancillary buildings in a fenced compound.

4.7 Field 6 was bounded by hedges with a modern housing estate beyond its western edge A public footpath crossed from a derelict stone barn (Figure 14) in the southern corner to the main road at its northern corner. The field sloped gradually down to the west.

4.8 Field 7 was surrounded by low hedges and mature trees. The field had been ploughed and sown with grass and was relatively close cropped. The western field entranced was marked by a pair of stone gateposts (Figure 15).

4.9 Field 8 was bounded on all sides by mature hedges. The ground was uneven but there were no obvious earthwork features. A footpath ran from Four Lane Ends Road, along the northern boundary to a ruined barn. The western part of the field was crossed by overhead wires (Figure 16).

4.10 Field 9, to the south of the derelict barn, was bounded by low hedge with modern houses beyond. The field was being grazed by cattle at the time of the walk-over survey. A concrete service marker, just to the east of the barn, indicated a service run along the field boundary.

4.11 Field 10, to the north of Higher Standen Farm buildings, was poached near to the farmyard (Figure 18). The field had been divided by an electric fence running approximately north-west to south-east. A small paddock had also been created immediately east of the barn This was being grazed by a horse.

4.12 Field 11 was bounded on the north-east by modern housing and on the north-west by a playing field The southern boundary was a post and wire fence with occasional mature trees. The grass was relatively coarse with weeds, including dock (Figure 19).

4.13 Field 12 sloped slightly up to the east and was bordered on the west by a hedge and stream with a playing field beyond (Figure 20). The field had been ploughed and planted with grass. There was no visible evidence for the Roman road crossing the western part of the field. The southern boundary of the field was marked by a post and wire fence with occasional large trees. A pile of bricks and rubble had been dumped parallel to the fence line in the southern part of the field. A track was visible alongside the path leading from Higher Standen Farm to the crossing place of the stream.

4.14 Field 13 contained close-cropped grass and very slight undulations. It was bounded on the north, west and south by post and wire fences. Clitheroe Castle could be seen to the west and Pendle Hill to the east. A broad track, fenced on both sides, led between fields 12 and 13 to Higher Standen Farm

4.15 Field 14, to the south of the track, contained more mature grassland with occasional large trees (Figure 22) It was bounded on the east by mature woodland.

4.16 Field 15 was covered in close-cropped grass and there were cows grazing. In its western part was a slight ridge with trees extending along it (Figure 23). Numerous other undulations were noted and the line of the Roman road was visible as an earthwork. The field rose to the south-east towards a tree-belt around Standen Hall. The western part of the field was crossed by a footpath.

4.17 Field 16 was roughly rectangular, sloping down to the south-west where it was bounded by a small stream that ran into Pendleton Book. The field was bounded by hedges and mature trees and crossed by a public footpath that crossed the stream and continued south (Figure 24).

4.18 Field 17 was roughly rectangular, oriented approximately north-east to south-west. It was bounded by hedges and mature trees. The ground was generally flat with slight unevenness. Beyond the western boundary was a post-medieval stone barn (Figure 25).

4.19 Field 18 was reached via a small group of cottages at Little Moor. The field sloped up towards the east. It was bounded by hedges with modern housing beyond its northern edge. The barn built against the eastern boundary was reached by a slightly raised track (Figure 26).

5. Historical and archaeological development

Previous archaeological works

5.1 No previous archaeological works have been identified within the proposed development area. Archaeological excavation and recording has been carried out at Clitheroe Castle and at Moor Lane, to the west of the development area.

The prehistoric period (up to AD 70)

5.2 There is no direct evidence of prehistoric activity in the proposed development area. There is, however, evidence that the surrounding area was exploited in prehistory. Six Neolithic stone axes have been reported from the Clitheroe area, two over 2km to the north-east, one at Sawley, several kilometres to the north-east and one at Bleasdale. Two further axes are reported to have come from Clitheroe but the location that they were found is not recorded (Clough, T H McK and Cummins, W A 1988). A stone mace head (HER 195) and a bronze flanged axe head (HER 198) dating from the Bronze Age have been found in Clitheroe. There is little evidence of Bronze and Iron Age occupation in the area but agricultural settlements of these periods probably took the form of scattered hamlets and farmsteads. An as yet unidentified resource relating to prehistoric exploitation may therefore survive within the proposed development area.

The Roman period (AD 70 to 5th century)

5.3 The line of the Roman road linking the forts at Ribchester (*Bremetennacum Veteranorum*) and Ilkley (Verbeia) runs through the west side of the proposed development area and there are several places within the study area where the road has been recorded (HERs 1584, 15514, 15515, 15516, 26145).

5.4 The road was classified by I D Margary as 72a and described in the vicinity of the site '*...a distinct turn to north-east occurs, the new line being followed for 6 miles past the east side of Clitheroe to Downham Park, and this was done in order to pass*

around the north side of Pendle Hill (1,830) conveniently..... the agger is traceable beyond a fence and through a plantation, and at various points near Clitheroe.' (Margary 1967, 372).

5.5 The course of the road is known in several places where there have been investigations and projected in others. Between Ribchester and Lidgett Flatt Farm, the road has been recorded and between Lidgett Flatt Farm and Elier Gill the line of the road is projected. The road appears to be well preserved in a pasture field at Dinckley where limited investigations have taken place On the Whalley Road and Clitheroe Road to the south of the study area, a house building project exposed the road and a Roman inhumation (HER 720). Geophysical survey at the quarry site at Bellham Park revealed a series of ditches to the north of the road. LiDAR has also identified the line of the road at SD 66688 35413.

5.6 The discovery of Roman artefacts in the surrounding area further attests to the Roman presence within the proposed development site. A Roman stone relief figure (HER 1869) is built into a light well at Standen Hall At Higher Standen Farm a Roman coin (HER 31912) of Tetricus II (AD270-273), half of a Roman seal box (HER 31913), part of a lock pin (HER 31916), and a terret ring for harness (HER 31917) were recovered during metal detecting at the site.

5.7 Roman roads are often associated with road-side settlement and burial activity; there is potential for archaeological remains relating to this to be present within the proposed development area.

The medieval period (5th century to 1540)

5.8 Clithero (named as Cliderhou in 1175 and Clederhowe in Gough's map of *c* 1360; Figure 4) is not mentioned by name in the Domesday survey and may have been a small rural settlement at this time. It has been suggested that an Anglo-Saxon wooden palisaded enclosure existed in the town (Lancs. County Archaeology Service 2006, 14). The castle was built on a limestone knoll overlooking the surrounding plain by 1102 and the borough was created between 1146 and 1177 by Henry de Lacy (Farrer and Brownbill 1911, 367). Throughout the medieval period Clitheroe acted as a market place for the area with scattered rural settlement in the surrounding countryside. In 1258 two barns were recorded at Standen to be worth 7 shillings and in 1311 the Earl of Lincoln had a property, 80 acres of demesne land, 36 acres of meadow and several pastures, at Standen Standen was the most favoured of the demesne granges and produced oats, wheat, barley and beans (Atking 1994, 15). It is probable that the proposed development area was primarily exploited as agricultural land during the medieval period.

5.9 In the medieval period Clitheroe lay on one of the main highways between Lancashire and Yorkshire with a route leading south to the ecclesiastical centre at Whalley, via Four Lane Ends, along the boundary of the development site. The site of a medieval wayside cross has been identified close to Four Lanes End (HER 3588)

5.10 A medieval spindle whorl or weight (HER 31867) was found in the south-western part of the development site and another (HER 31875) was found just south-west of the Pendleton Brook. A coin dating from the reign of Henry III was discovered in Clitheroe in 2008 (HER 33671).

5.11 Standen Hall (HER 18024) was said to have been erected in the 15th century (remodelled in the 18th century) and was occupied by the Aspinall family (Farrer and Brownbill 1911, 394)

The post-medieval period (1541 to 1899)

5.12 In the post-medieval period the development area continued to be used as agricultural land. Speed's map of the county (Figure 5) shows Clitheroe but does not provide any detail of the surrounding land. An early 17th-century coin (HER 12021) was found in the area in 1998.

5.13 The town of Clitheroe developed and grew in the post-medieval period with a number of industries including a water-powered cotton mill built in 1787 (HER 5609). Limehouse Farm (HER 6112), to the south of the development area suggests the presence of a lime kiln in the area before the mid-19th century. A mill pond (HER 13673) fed by a weir on the Pendleton Brook fed the Primrose Printworks. A further weir (HER 13675) may have fed the Littlemoor Mill (HER 19227). A bridge to the east crossed the brook (HER 1367). The houses to the west of Field 18 at Little Moor (HERs 17777 and 17778, Grade II listed buildings) are of 18th- and early 19th-century date. Little Moor House (HER 17831) is also of late 18th- or early 19th-century date.

5.14 Yates map of 1786 (viewed on-line http://www.Lancashire.gov.uk/environment oldmap/Yates) shows Standen Hall and the estate as agricultural land and marks Four Lane Ends crossroad. There are no other structures shown in the proposed development area. The land around Clitheroe, including the Standen Estate, was enclosed by an Act of Enclosure in the late 18th century (Figure 6).

5.15 Greenwood's map of 1818 shows the Primrose Print Works, Lower Standen and Standen Hall. Two structures are marked in the location of Higher Standen Farm. The Church of St. James (HER 5614, Grade II listed building) was built in 1839. Early 19th-century public houses (HER 17821 and 20628) were established along Whalley Road to provide for the growing population of the town.

5.16 Standen Hall (HER 18024) was rebuilt in 1757 but was in a poor state of repair in 1842. Major repairs were undertaken by the Aspinall family and the west wing rebuilt around 1858. An early 19th-century mounting block (HER 18025) still exists at Standen Hall. The Old Bothy at Higher Standen (HER 17776, Grade II listed building) was built in the 17th and extended in the 18th century. During the later 19th century kennels were built at the Hall (HER 13679) and the fountain south of the Hall (HER 20622) also dates to the later 19th century.

5 17 A number of bridges cross the Pendleton Brook in the vicinity of Standen Hall (HERs 13676, 13677, 13678 and 13680). The bridge carrying the road to the east of Standen Hall over the Pendleton Brook was named on the 1st edition Ordnance Survey map as Old Mill or Pendleton Bridge (HER 13681).

5 18 The 1st edition 1" Ordnance Survey map of 1857 (Figure 7) shows the topography of the area and marks the Roman road crossing the development site. This map also shows Higher Standen and the barn in the northern part of the site reached by a track. Various other tracks are also shown crossing the property.

5.19 Lower Standen Farmhouse (HER 18040) dates from the early 19th century and is also shown on the 1st edition Ordnance Survey map.

The modern period (1900 to present)

5.20 Early 20th-century Ordnance Survey maps (viewed on-line) show there have been minor variations to the field layout of the development area and the field boundary changes can also be seen in aerial photographs from the 1940s onwards.

5.21 The barn at the corner of field 6 appears from aerial photographs to have been roofed until the early 1970s. By 1978 it has lost its roof.

5.22 The Clitheroe By-pass (A59) was constructed between 1968 and 1970 and appears on the revised 1954 edition (Figure 8). This map also shows residential development extending eastwards from Clitheroe towards the development area A foot-path crosses field 17 from the barn near Little Moor and joins the footpath leading towards Standen Hall. A spring is marked close to the course of the Roman road. The field layout is similar to that on Higher Standen Farm at the time of the walk-over survey.

The buildings

5.23 There are no statutorily protected buildings within the site. There are several Grade 2 listed buildings in Little Moor and associated with Standen Hall (Appendix 1): these are unlikely to be affected by the proposed development. Buildings within the site at Higher Standen and Four Lane Ends Cottages are to be retained. There are also two late 18th- / 19th-century stone barns within the area which form part of the historic landscape.

Scheduled Ancient Monuments and other Designated Heritage Assets

5.24 There are no Scheduled Ancient Monuments within the proposed development area, or the near vicinity. Clitheroe Castle is a Scheduled Ancient Monument (SAM 27744, Registered Park and Garden 1001361).

6. The potential archaeological resource

6.1 An as yet unidentified resource relating to the later prehistoric period exploitation of the area has the potential to exist.

6.2 There is direct evidence for a Roman road crossing the site, the archaeological remains of which will survive. Roman artefacts have been found by metal detecting within the study area, and there is potential for evidence for Roman settlement or burial activity associated with the road to survive.

6.3 Archaeological deposits relating to the medieval and post-medieval period may survive over the site. Artefacts from this period have been found on the site. This evidence is more likely to relate to agricultural activities and boundary features rather than settlement.

6.4 Two barns of 19th-century (or possibly late 18th-century) date survive. One in the northern part of the area is in a ruined state but was roofed until the 1970s The one at Little Moor is in a good state of repair.

7. Impact assessment

Direct impact

7.1 Groundworks associated with the development have the potential to truncate or remove the known and potential archaeological resource on the site.

8. Recommendations

8.1 It is recommended that a programme a geomagnetic survey is carried out over the area, where groundworks are proposed. This will assist in confirming the exact location of the Roman road, and the identification of any associated settlement or burial activity, as well as any remains from the prehistoric and later periods. This may form the first phase of a programme of archaeological works.

8.2 It is recommended that consideration is given to the preservation *in situ* of the Roman road and any associated remains, for example as open space within the development area. Where impact is unavoidable, a mitigation strategy can be devised.

8.3 It is recommended that consideration is given to the retention of the existing historic barn structures within the proposed development, which may involve their redevelopment for future use. Impact upon the structures can be mitigated by a programme of archaeological building recording.

9. Sources

Cartographic sources

Lancashire County Council has a range of historic maps of the county. The following maps were consulted on-line

Greenwood, 1818 Map of the County of Lancashire

Speed, 1610 Map of the County Palatine of Lancashire

Yates, 1786 Map of Lancashire

Ordnance Survey maps, various scales and dates

Ordnance Survey 1st edition, 1" sheet 92, 1857

Ordnance Survey provisional 1:25,000 edition, 1954, revised 1970

Other sources

Atkin, M A 1994 Land Use and Management in the Upland Demesne of the De Lacy Estate of Blackburnshire c 1300 *Ag Hist Rev* ***42***, 1-19

Clough, T H McK and Cummins, W A (eds.) 1988 *Stone Axe Studies Volume 2:The Petrology of Stone Implements from the British Isles* CBA Research Report 67. London

Farrer, W and Brownbill, J (eds.) 1911 *Victoria County History: A History of the County of Lancashire* **6**, 360-372 London

Lancsashire County Archaeology Service 2006 *Lancashire Historic Town Survey Programme: Clitheroe*. Lancashire

Lancashire County Record Office

The Lancashire County Record Office was closed for refurbishment at the time of this assessment. The on-line catalogue was consulted and a number of 19th- and

20th-century maps and plans are held by them. It is unlikely these show anything other than field boundaries, trees and hedges across the development site.

Websites

http://ads.ahds.ac.uk
http://archivecat.lancashire.gov.uk
http://freepages.genealogy.rootsweb.ancestry.com~genmaps
http://www.bl.uk/onlinegallery
http://www.british-history.ac.uk
http://www.dur.ac.uk/picturesinprint
http://www.heritagegateway.org.uk
http://www.lancashire.gov.uk/environment/oldmap
http://www.magic.gov.uk
http://www.nationalarchives.gov.uk
www.english-heritage.org.uk
www.goughmap.org
www.visionofbritain.org.uk

Aerial photographs

Copies of the following aerial photographs were obtained from the NMR and examined:

OS/71345	Frame 016		11/07/1971
OS/71345	Frame 017		11/07/1971
OS/71345	Frame 059		11/07/1971
CLU 9209	Frame 338	SD 7440/1	04/03/1978
CLU 9209	Frame 339	SD 7440/2	04/03/1978
CLU 9209	Frame 340	SD 7440/3	04/03/1978
OS/68199	Frame 270		13/06/1968
OS/68199	Frame 271		13/06/1968
OS/68199	Frame 292		13/06/1968
OS/68199	Frame 293		13/06/1968
OS/68199	Frame 294		13/06/1968
OS/68199	Frame 295		13/06/1968
OS/71345	Frame 060		11/07/1971
OS/71345	Frame 061		11/07/1971
OS/87045	Frame 010		04/05/1987
OS/87045	Frame 011		04/05/1987
OS/93153	Frame 057		11/05/1993
OS/93153	Frame 058		11/05/1993
OS/93153	Frame 059		11/05/1993
RAF/106G/UK/419	Frame 3149		19/06/1945
RAF/106G/UK/419	Frame 3150		19/06/1945
RAF/540/1673	Frame 0193, camera-F21		12/07/1955
RAF/540/1673	Frame 0194, camera-F21		12/07/1955
RAF/540/1673	Frame 0195, camera-F21		12/07/1955
RAF/540/1673	Frame 0279, camera-F21		12/07/1955
RAF/540/1673	Frame 0280, camera-F21		12/07/1955
RAF/540/1673	Frame 0281, camera-F21		12/07/1955
RAF/540/740	Frame 4689		18/05/1952
RAF/540/740	Frame 4724		18/05/1952

RAF/540/740	Frame 4725	18/05/1952
RAF/540/740	Frame 4726	18/05/1952
RAF/540740	Frame 4688	18/05/1952
RAF/541/32	Frame 3453	18/05/1948
RAF/541/32	Frame 3454	18/05/1948
RAF/541/32	Frame 3455	18/05/1948
RAF/CPE/UK/2610	Frame 3313	26/04/1948
RAF/CPE/UK/2610	Frame 3314	26/04/1948
RAF/CPE/UK/2610	Frame 3315	26/04/1948
RAF/CPE/UK/2610	Frame 3316	26/04/1948

Geotechnical works

No records of geotechnical works within the proposed development area were identified for this assessment.

Appendix 1: Historic Environment Record

The tables include sites recorded within the vicinity of the proposed development area (within an approximate radius of 1km from the site). Not all HER sites discussed in the text are shown on the map or in the table below.

Historic Environment Record

(PRN = Public Record Number)

PRN	Description	Date
720	Inhumnation	Roman
1584	Part of Ribchester –Elslack Road	Roman
1869	Stone relief figure	Roman
3175	Filed boundaries	Undated
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6122	Limehouse Farm	19th century
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13669	Tenter field	post-medieval
13673	Mill pond	post-medieval
13674	Bridge	post-medieval
13675	Weir and pond	post-medieval
13676	Bridge	post-medieval
13677	Footbridge	post-medieval
13678	Footbridge	post-medieval
13679	Kennels at Standen Hall	post-medieval
13680	Footbridge at Standen Hall	post-medieval
13681	Standen Bridge	post-medieval
15514	Ribchester to Ilkley Roman Road (fifth section)	Roman
15515	Ribchester to Ilkley Roman Road (sixth section)	Roman
15516	Ribchester to Ilkley Roman Road (seventh section)	Roman
17776	The Old Bothy	post-medieval
17777	Terrace, nos 1 to 9 (odd) Little Moor	post-medieval
17778	Cottages, nos 11 to 15 Little Moor	post-medieval
17821	Public house and houses, nos 90 to 110 (even) Whalley Road	early 19th century
17831	House, Little Moor House, Little Moor	post-medieval
18024	Standen Hall country house	15th century
18025	Mounting block	early 19th century
18040	Lower Standen Farmhouse	early 19th century
19175	Turnpike milestone	post-medieval
19227	Flour mill, Littlemoor Mill	post-medieval
20622	Fountain	post-medieval
20628	Craven Heifer, no 105 Whalley Road	post-medieval
21899	Site of lodge	post-medieval
24372	Cricket ground	1892
26145	Ribchester to Ilkley Roman road	Roman
31867	Spindle whorl or lead weight	medieval
31875	Spindle whorl or lead weight	medieval
31912	Coin of Tetricus II	Roman
31913	Half of seal box	Roman
31916	Lock pin	Roman
31917	Terret ring	Roman
33671	Cut voided longcross penny of Henry III	medieval

Listed buildings

PRN	Description	Grade
1072085	Standen Hall	II*
1072324	78-88 Whalley Road	II
1072342	1-9 Little Moor	II
1072343	11-15 Little Moor	II
1072358	Church of St. James	II
1072386	The Old Bothy, Standen Hall	II

PRN	Description	Grade
1362198	Little Moor House	II
1362229	90-110 Whalley Road	II
1362348	Mounting block, Standen Hall	II

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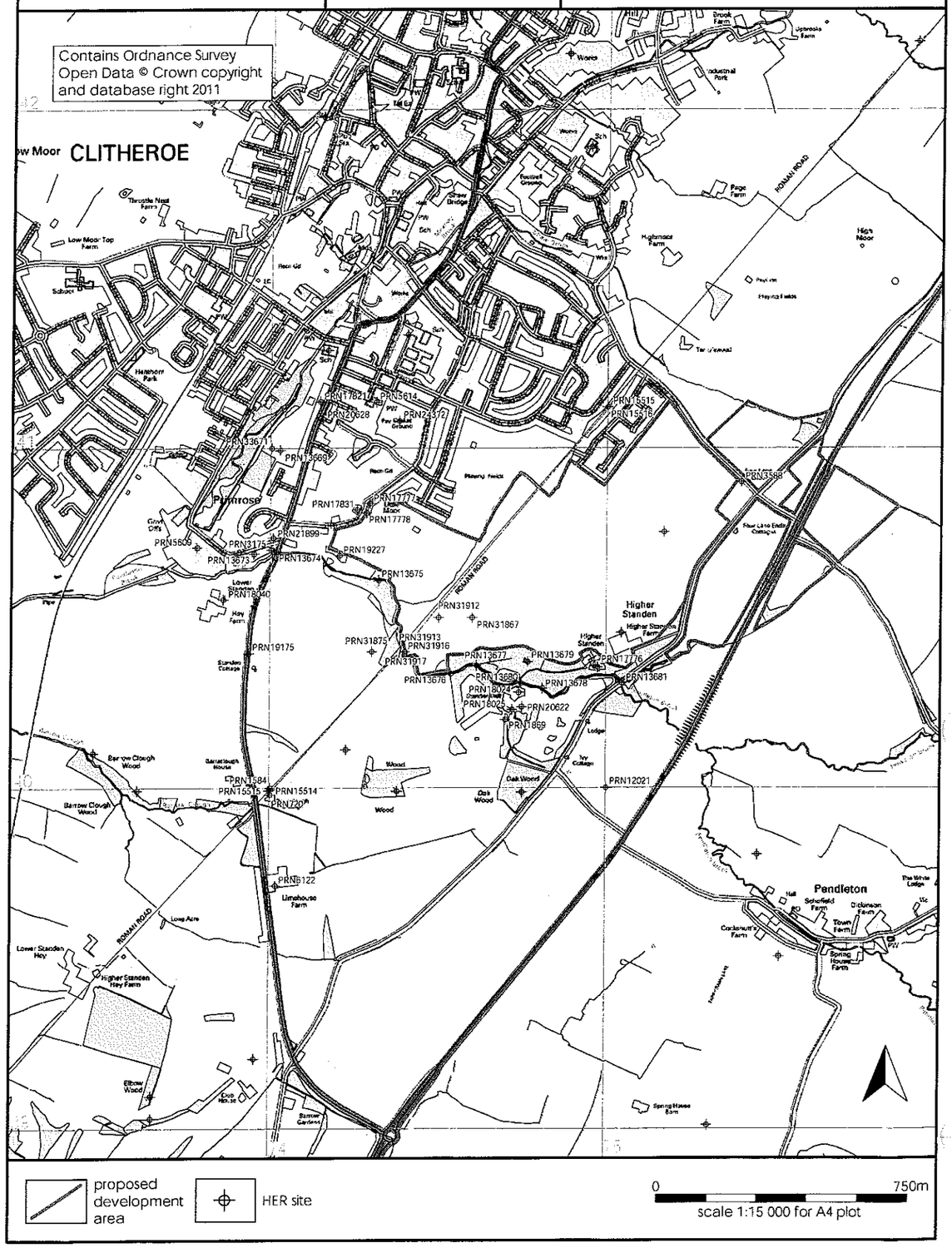
Figure 1: Site location and HER



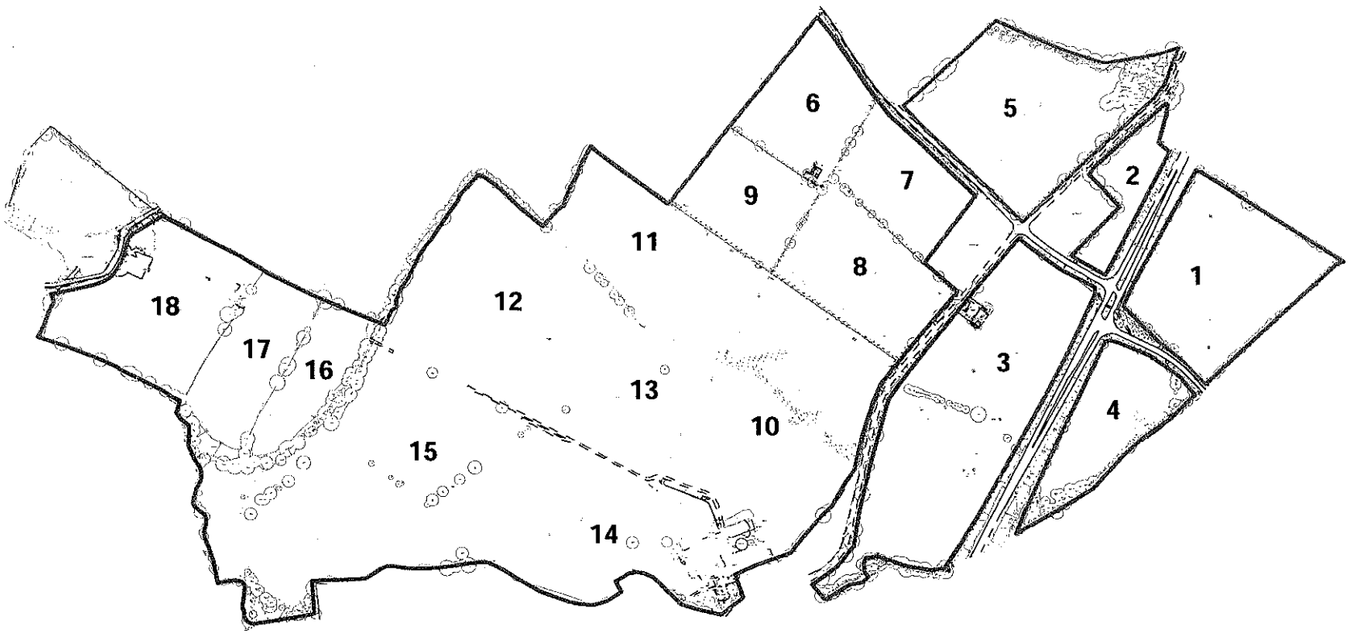


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Figure 2: Site as existing

proposed development area

0 400m
scale 1:8000 for A4 plot

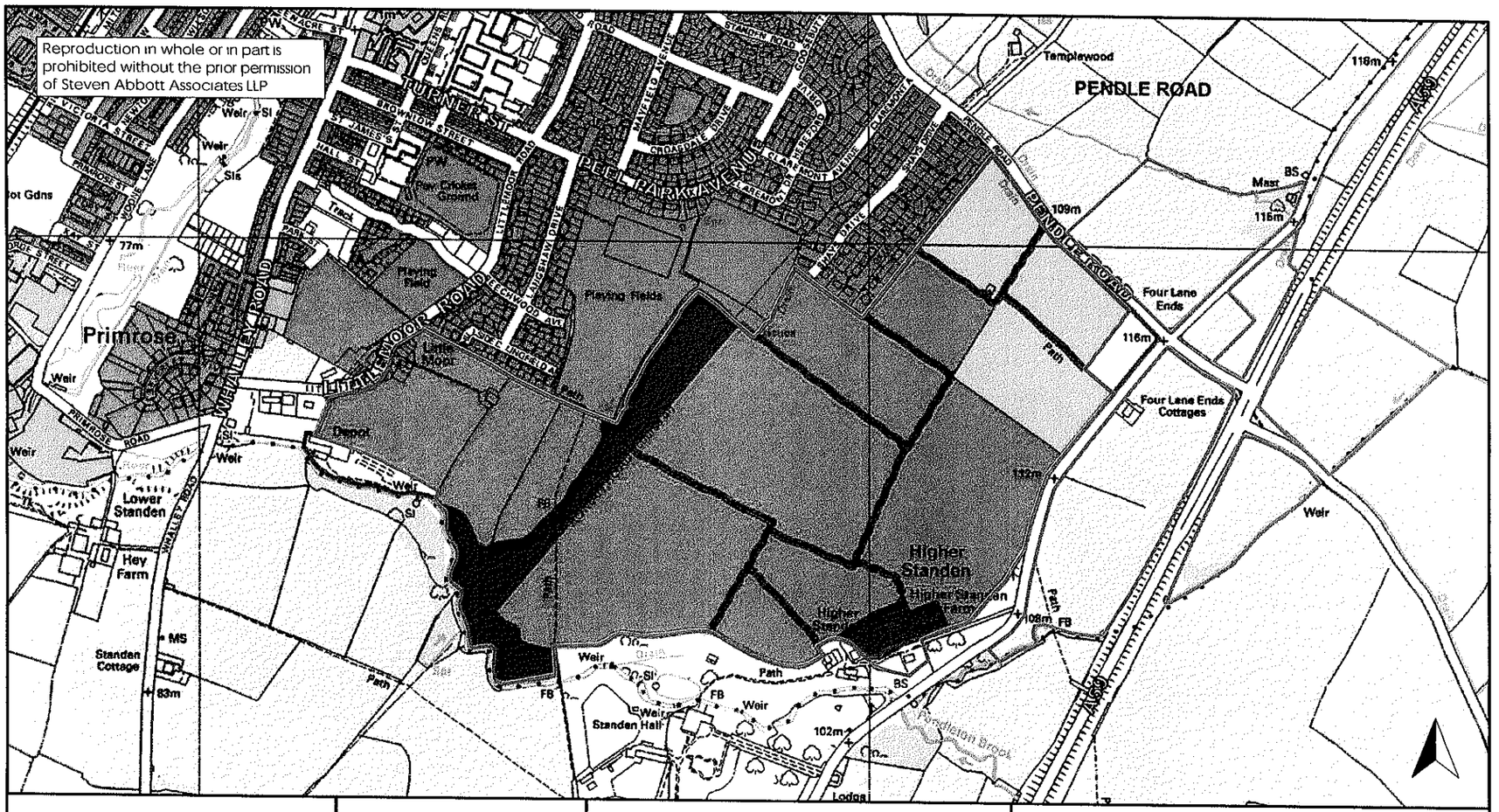

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Figure 3: Proposed development

proposed development area
residential
informal open space, farmland
employment/ commercial
formal recreation

0 400m
scale 1:8000 for A4 plot

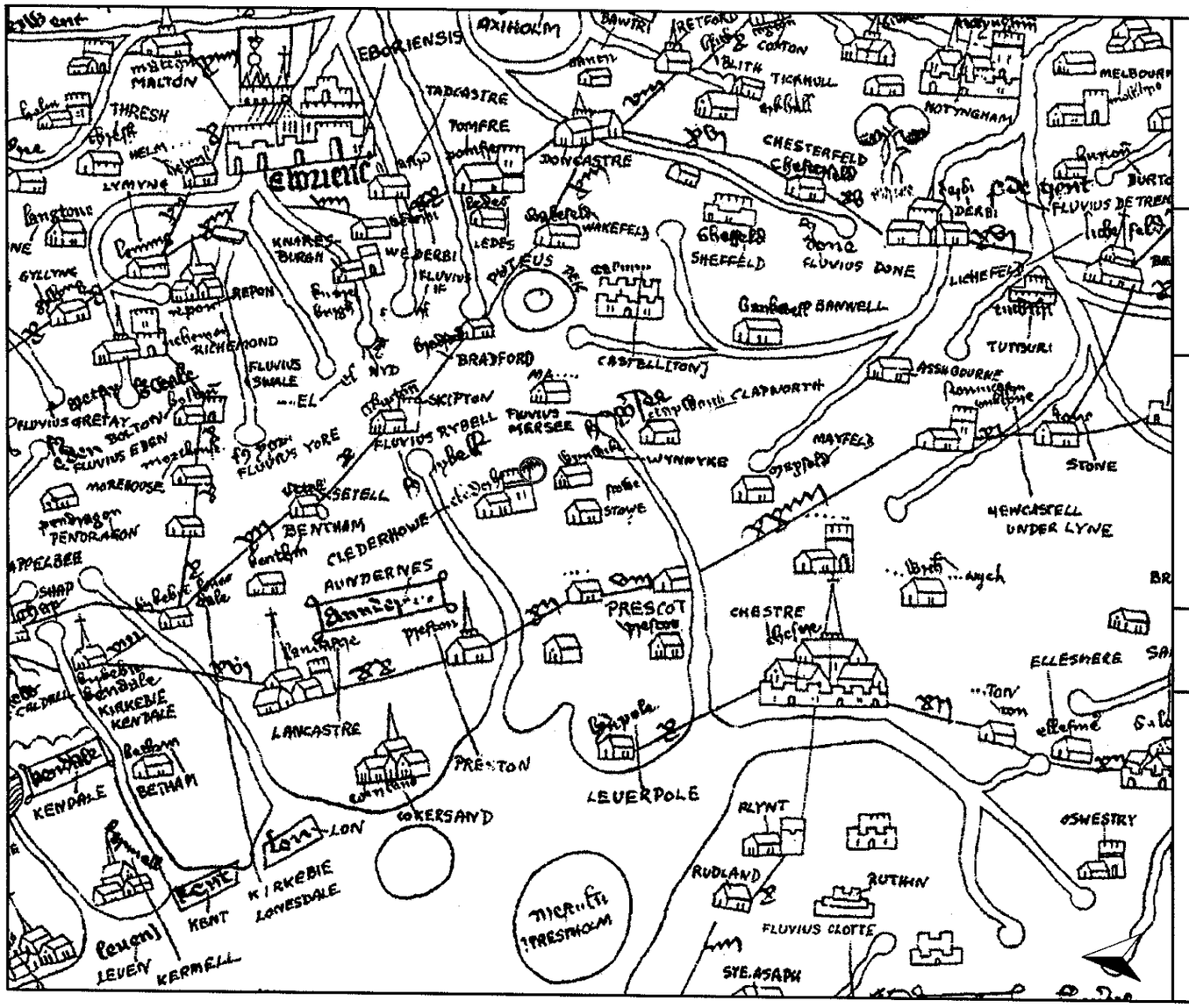

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Figure 4: Extract from Gough's map of England, c 1360

not to scale

approximate location of the proposed development area

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Figure 5: Extract from Speed's map of Lancashire, 1610

not to scale

approximate location of the proposed development area

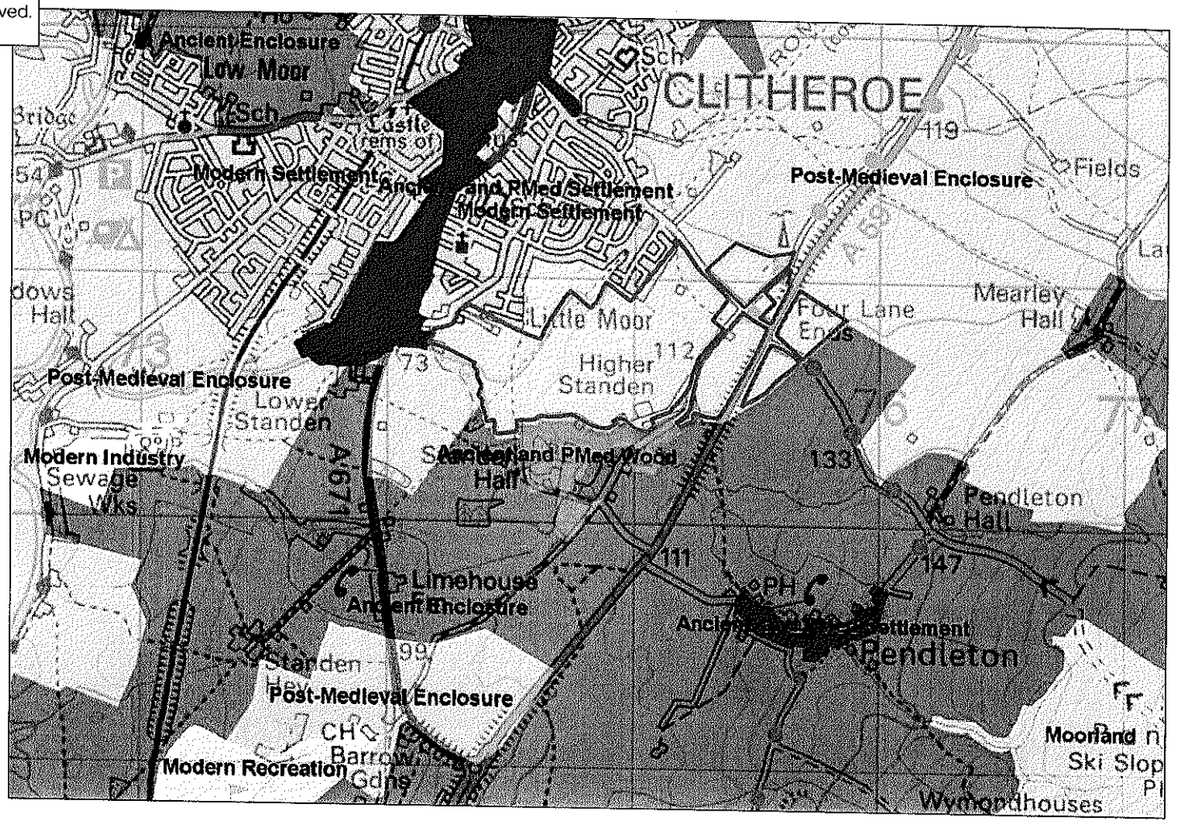

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Figure 6: Historic Land Characterisation map

proposed development area
moorland
ancient & post-medieval wood
ancient enclosure
post-medieval enclosure
ancient & post-medieval settlement
modern industry
modern settlement
modern recreation

0 1km
scale 1:25 000 for A4 plot

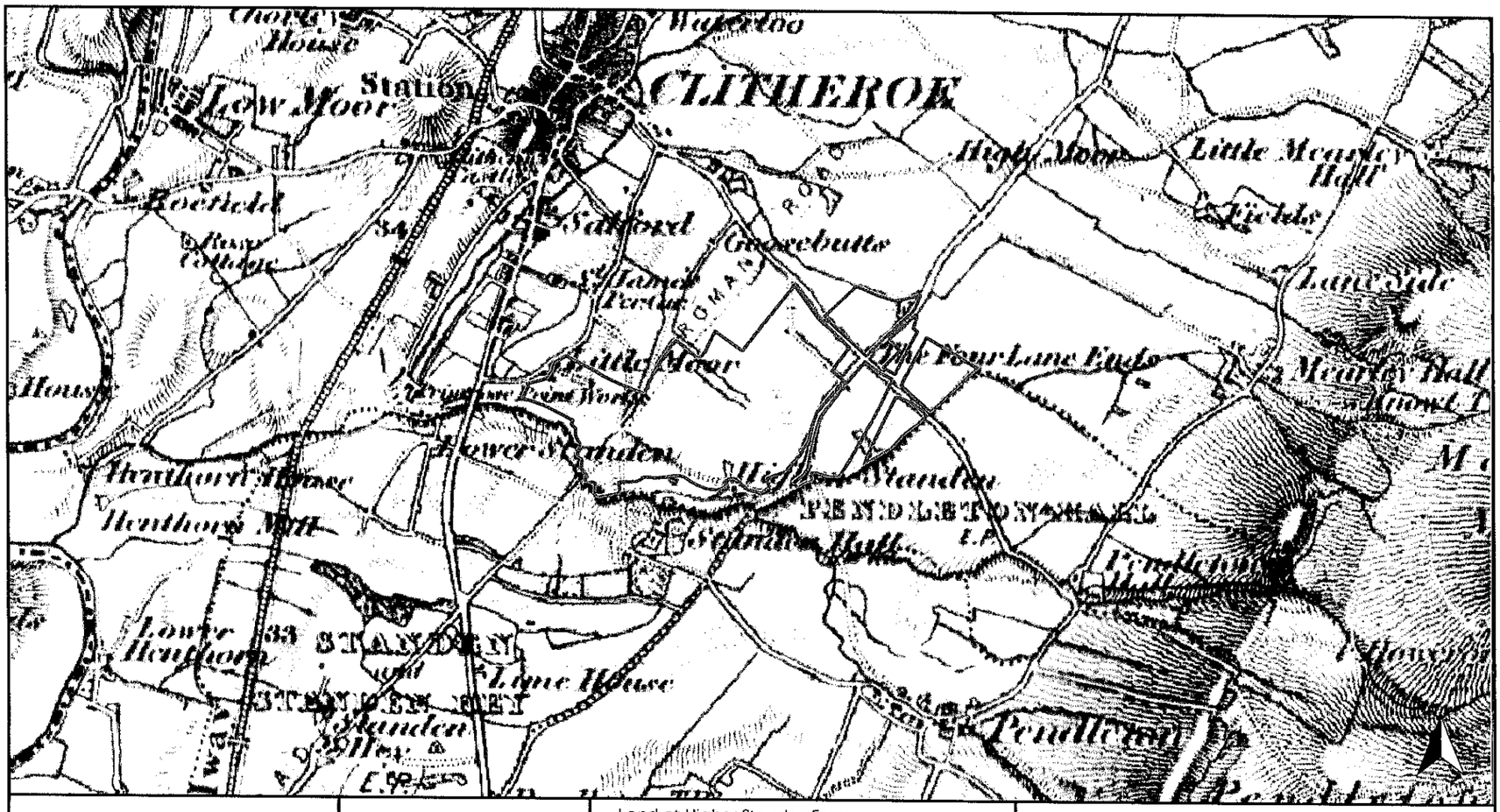

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Figure 7: Extract from the 1st edition Ordnance Survey map, 1857

proposed development area

0 1km
scale 1:20 000 for A4 plot

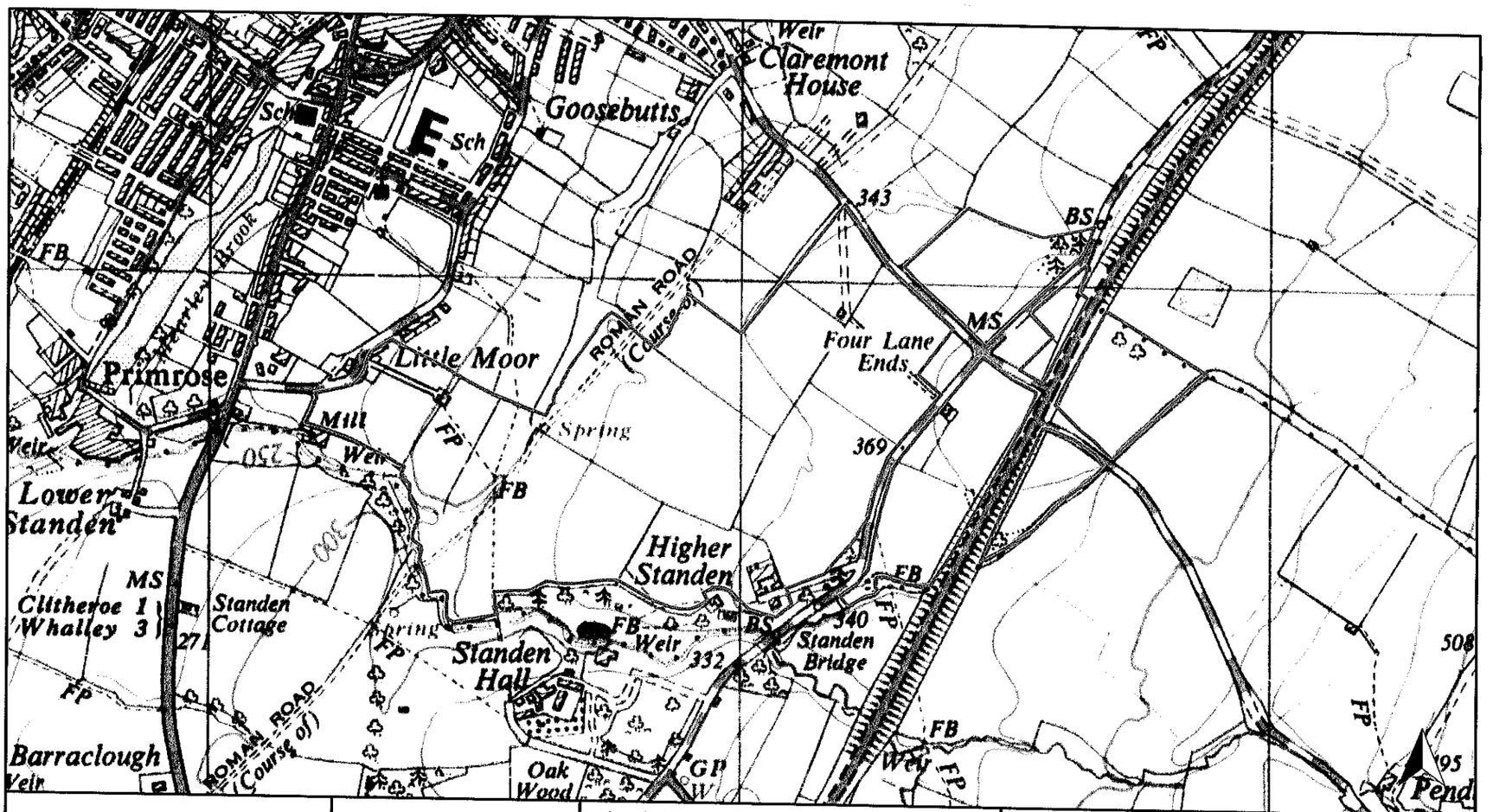

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Figure 8: Extract from Ordnance Survey map, 1970

proposed development area

0 500m
scale 1:10 000 for A4 plot

Figure 9: Field 1, looking north-east towards Pendle Hill

Figure 10: Field 2, looking east towards the A59

Figure 11: Southern part of field 3, looking south-east towards Pendleton Brook

Figure 12: Field 4, looking south

Figure 13: Field 5 with slight undulations visible in the hedge line, looking west

Figure 14: Ruined barn in field 6

Figure 15: Stone gateposts at the entrance to Field 7

Figure 16: Field 8, looking south-east

Figure 17: Field 9, looking south

Figure 18: Field 10, near the yard of Higher Standen Farm, looking north

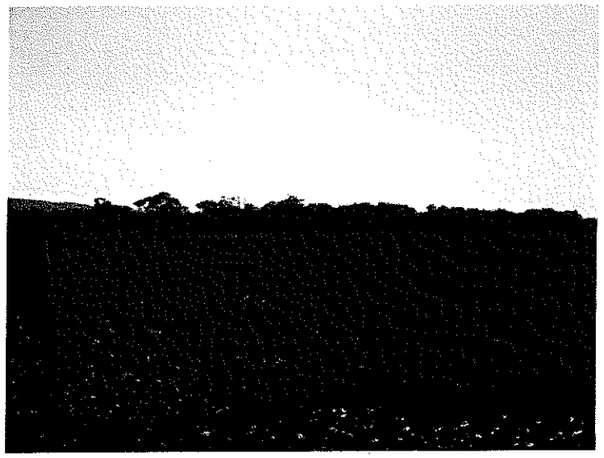

Figure 19: Field 11, looking south

Figure 20: Field 12, looking north-east along the line of the Roman road

Figure 21: Field 13, looking north

Figure 22: Field 14 with trees marking a former field boundary, looking south

Figure 23: Field 15, looking south-west along the line of the Roman road

Figure 24: Field 16, looking south

Figure 25: Field 17, looking west

Figure 26: Field 18, looking east towards the barn

Appendix 8.3
Geophysical Survey (January 2012)

15 Pages

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Land at Higher Standen Farm Clitheroe Lancashire

geophysical survey

report 2811
January 2012

Durham University

Contents

Figures

South Road Durham DH1 3LE tel 0191 334 1121 fax 0191 334 1126
archaeological services@durham ac uk www dur ac uk/archaeological services

1. Summary

The project

1.1 This report presents the results of geophysical surveys conducted in advance of proposed development at High Standen Farm, Clitheroe, Lancashire. The works comprised the geomagnetic survey of 6.5ha of farmland.

1.2 The works were commissioned by Steven Abbott Associates LLP for the Trustees of the Standen Estate and conducted by Archaeological Services Durham University.

Results

1.3 A length of agger associated with a Roman road may have been detected in Area 2. This corresponds with a slight bank in the field. Remains of the road may also survive in Area 3 to the north, where an anomalous band of data was recorded.

1.4 Possible soil-filled ditches were detected in Areas 1 and 3.

1.5 Modern and former footpaths were detected in Areas 1 and 2.

1.6 Evidence of former ridge and furrow cultivation was detected in Areas 2 and 3.

1.7 Two probable services were detected in Area 2.

2. Project background

Location (Figures 1 & 2)

2.1 The proposed development area is located to the south-east of Clitheroe (NGR centre: SD 7500 4080) and covers an area of approximately 70ha divided into 18 fields. The eastern part of the area is split by the A59 road. There are modern housing estates and playing fields to the north-west. Pendleton Brook runs along the south-western boundary and woodland surrounding Standen Hall forms the southern boundary. Pendle Hill, to the east, dominates the landscape. Three surveys totalling 6ha were conducted within three land parcels on the western side of the proposed development area.

Development proposal

2.2 The proposal is for mixed development through the LDF Core Strategy process for the Ribble Valley

Objective

2.3 The principal aim of the surveys was to assess the nature and extent of any sub-surface features of potential archaeological significance within the survey area, so that an informed decision may be made regarding the nature and scope of any further scheme of archaeological works that may be required in relation to the development.

Methods statement

2.4 The surveys have been undertaken in accordance with instructions from the client and in line with national standards and guidelines (below, para. 5 1)

Dates

2.5 Fieldwork was undertaken between 7th and 8th December 2011. This report was prepared for 6th January 2012.

Personnel

2.6 Fieldwork was conducted by Andy Platell and Natalie Swann (Supervisor). The geophysical data were processed by Natalie Swann. This report was prepared by Natalie Swann, with illustrations by Linda Bosveld, and edited by Duncan Hale, the Project Manager.

Archive/OASIS

2.7 The site code is **LCS11**, for **L**ancashire **C**litheroe **S**tanden Farm 20**11**. The survey archive will be supplied on CD to the client for deposition with the project archive in due course. Archaeological Services Durham University is registered with the **O**nline **Acces**S to the **I**ndex of archaeological investigation**S** project (**OASIS**). The OASIS ID number for this project is **archaeol3-116407**.

3. Historical and archaeological background

Previous archaeological works

3.1 A detailed desk-based assessment has previously been undertaken for the site (Archaeological Services 2011); the results of that assessment are summarised here.

The prehistoric period (up to AD 70)

3.2 There is no direct evidence for prehistoric activity in the proposed development area. There is, however, evidence that the surrounding area was exploited in prehistory. Six Neolithic stone axes have been reported from the Clitheroe area, a stone mace head and a bronze flanged axe head dating from the Bronze Age have also been found in Clitheroe. There is little evidence of Bronze and Iron Age occupation in the area but agricultural settlements of these periods probably took the form of scattered hamlets and farmsteads An as yet unidentified resource relating to prehistoric exploitation may therefore survive within the proposed development area.

The Roman period (AD 70 to 5th century)

3.3 The line of the Roman road linking the forts at Ribchester (*Bremetennacum Veteranorum*) and Ilkley (*Verbeia*) passes through the survey area. The course of the road is known in several places, where there have been investigations, and projected in others. Between Ribchester and Lidgett Flatt Farm the road has been recorded and between Lidgett Flatt Farm and Eller Gill the line of the road is projected. The road appears to be well preserved in a pasture field at Dinckley where limited investigations have taken place. On the Whalley Road and Clitheroe Road to the south of the study area, a house building project exposed the road and a Roman inhumation. Geophysical survey at the quarry site at Bellham Park revealed a series of ditches to the north of the road.

3.4 At Higher Standen Farm a Roman coin of Tetricus II (AD270-273), half of a Roman seal box, part of a lock pin and a terret ring for a harness were recovered during metal detecting within the proposed development area.

The medieval period (5th century to 1540)

3.5 Archaeological deposits relating to the medieval and post-medieval period may survive over the site; this evidence is more likely to relate to agricultural activities and boundary features rather than settlement. Artefacts from this period have been found on the site: a medieval spindle whorl was found in the south-western part of the proposed development area and another was found just south-west of the Pendleton Brook.

The post-medieval period (1541 to 1899)

3.6 Historic maps show that the proposed development area has remained as open farmland during the post-medieval period. Two barns of 19th-century (or possibly late 18th-century) date survive One in the northern part of the area is in a ruined state. The one at Little Moor is in a good state of repair.

4. Landuse, topography and geology

4.1 The survey area comprised three fields of improved grassland being grazed by sheep.

4.2 The survey area was predominantly level with a mean elevation of approximately 100m OD dropping to 95m OD along the stream at the centre of the survey area. The Pendleton Brook flowed along the southern boundary; Pendle Hill rose steeply to the east.

4.3 The underlying solid geology of the area comprises undifferentiated Clitheroe Limestone Formation and Hodder Mudstone Formation overlain by Devensian till.

5. Geophysical survey

Standards

5.1 The surveys and reporting were conducted in accordance with English Heritage guidelines, *Geophysical survey in archaeological field evaluation* (David, Linford & Linford 2008); the Institute for Archaeologists (IfA) *Standard and Guidance for archaeological geophysical survey* (2011); the IfA Technical Paper No.6, *The use of geophysical techniques in archaeological evaluations* (Gaffney, Gater & Ovenden 2002); and the Archaeology Data Service *Guide to Good Practice: Geophysical Data in Archaeology* (Schmidt & Ernenwein 2011).

Technique selection

5.2 Geophysical survey enables the relatively rapid and non-invasive identification of sub-surface features of potential archaeological significance and can involve a suite of complementary techniques such as magnetometry, earth electrical resistance, ground-penetrating radar, electromagnetic survey and topsoil magnetic susceptibility survey. Some techniques are more suitable than others in particular situations, depending on site-specific factors including the nature of likely targets; depth of likely targets; ground conditions; proximity of buildings, fences or services and the local geology and drift.

5.3 In this instance, based on the desk-based assessment and other work in the area, it was considered likely that cut features such as ditches and pits might be present on the site, and that other types of feature such as trackways, wall foundations and fired structures (for example kilns and hearths) might also be present

5.4 Given the anticipated shallowness of targets and the non-igneous geological environment of the study area a geomagnetic technique, fluxgate gradiometry, was considered appropriate for detecting the types of feature mentioned above. This technique involves the use of hand-held magnetometers to detect and record anomalies in the vertical component of the Earth's magnetic field caused by variations in soil magnetic susceptibility or permanent magnetisation; such anomalies can reflect archaeological features.

Field methods

5.5 A 30m grid was established across each survey area and tied-in to known, mapped Ordnance Survey points using a Leica GS15 global navigation satellite system (GNSS) with real-time kinematic (RTK) corrections typically providing 10mm accuracy.

5.6 Measurements of vertical geomagnetic field gradient were determined using Bartington Grad601-2 dual fluxgate gradiometers. A zig-zag traverse scheme was employed and data were logged in 30m grid units. The instrument sensitivity was nominally 0.03nT, the sample interval was 0.25m and the traverse interval was 1m, thus providing 3,600 sample measurements per 30m grid unit.

5.7 Data were downloaded on site into a laptop computer for initial processing and storage and subsequently transferred to a desktop computer for processing, interpretation and archiving.

Data processing

5.8 Geoplot v.3 software was used to process the geophysical data and to produce both continuous tone greyscale images and trace plots of the raw (minimally processed) data. The greyscale images and interpretations are presented in Figures 2-5; the trace plots are provided in Figure 6. In the greyscale images, positive magnetic anomalies are displayed as dark grey and negative magnetic anomalies as light grey. Palette bars relate the greyscale intensities to anomaly values in nanoTesla.

5.9 The following basic processing functions have been applied to each dataset:

clip	clips data to specified maximum or minimum values; to eliminate large noise spikes; also generally makes statistical calculations more realistic
zero mean traverse	sets the background mean of each traverse within a grid to zero; for removing striping effects in the traverse direction and removing grid edge discontinuities
destagger	corrects for displacement of geomagnetic anomalies caused by alternate zig-zag traverses
interpolate	increases the number of data points in a survey to match sample and traverse intervals; in this instance the data have been interpolated to 0.25m x 0.25m intervals

Interpretation: anomaly types

5.10 Colour-coded geophysical interpretations are provided. Three types of geomagnetic anomaly have been distinguished in the data:

positive magnetic	regions of anomalously high or positive magnetic field gradient, which may be associated with high magnetic susceptibility soil-filled structures such as pits and ditches
negative magnetic	regions of anomalously low or negative magnetic field gradient, which may correspond to features of low magnetic susceptibility such as wall footings and other concentrations of sedimentary rock or voids
dipolar magnetic	paired positive-negative magnetic anomalies, which typically reflect ferrous or fired materials (including fences and service pipes) and/or fired structures such as kilns or hearths

Interpretation: features

General comments

5.11 Colour-coded archaeological interpretations are provided.

5 12 Small, discrete dipolar magnetic anomalies have been detected in all of the survey areas. These almost certainly reflect items of near-surface ferrous and/or fired debris, such as horseshoes and brick fragments, and in most cases have little or no archaeological significance. A sample of these is shown on the geophysical interpretation, however, they have been omitted from the archaeological interpretation plan and the following discussion.

Area 1

5.13 Two parallel, strong, positive magnetic anomalies were detected aligned approximately north-south. This almost certainly corresponds to a former trackway, which is now in use as a footpath.

5.14 Another linear positive magnetic anomaly was detected aligned north-west/south-east. This anomaly corresponds to a former footpath marked on historic maps.

5.15 A further linear, very weak, positive magnetic anomaly was detected aligned north-west/south-east in the north of the survey area, which could reflect a soil-filled feature such as a ditch.

Area 2

5.16 A weak curvilinear negative magnetic anomaly was detected in the southern half of this area. This could reflect a band of stone or gravel, which could reflect the remains of an agger for the Roman road. The anomaly corresponds to a slight upstanding bank with trees along it and is indicated as the course of the Roman road on the 1970 Ordnance Survey edition. The anomaly is slightly oblique to the course of the road further south; this slight deviation in the alignment of the road may have been to avoid the adjacent beck.

5.17 Two parallel positive magnetic anomalies were detected aligned approximately north-south, an apparent continuation of those detected in Area 1. These again almost certainly correspond to a former trackway, now in use as a footpath.

5.18 A series of parallel, alternate positive and negative magnetic anomalies was detected across much of the survey area. These anomalies reflect former ridge and furrow cultivation of this area and correspond to upstanding earthworks.

5.19 A chain of dipolar magnetic anomalies was detected aligned north-west/south-east in the southern part of the survey area, which almost certainly reflects a modern service. The dipolar magnetic anomalies along the northern edge of this area probably reflect another service along the field boundary there.

Area 3

5.20 A concentration of small dipolar magnetic anomalies was detected within a broad band aligned approximately north-east/south-west throughout this area. This band of anomalies corresponds to the presumed course of the Roman road, and may be associated with remains of the road. The breadth of this anomalous band may indicate that the remains of the road have been disturbed by ploughing in this area.

5.21 A discontinuous line of small dipolar magnetic anomalies which was detected aligned broadly east-west in this area may reflect a former field boundary. A linear positive

magnetic anomaly is aligned parallel to this, which could reflect a former headland or soil-filled feature such as a boundary ditch.

5.22 A further linear positive magnetic anomaly was detected in the south-west of this area, aligned north-west/south-east, which could also reflect a soil-filled ditch

5.23 Two series of weak parallel positive magnetic anomalies were detected, one aligned north-east/south-west and the other south-east/north-west, which may reflect former ridge and furrow cultivation of the area.

6. Conclusions

6.1 6.5ha of geomagnetic survey was undertaken at High Standen Farm, Clitheroe, Lancashire, prior to proposed development.

6.2 A length of agger associated with a Roman road may have been detected in Area 2. This corresponds with a slight bank in the field. Remains of the road may also survive in Area 3 to the north, where an anomalous band of data was recorded.

6.3 Possible soil-filled ditches were detected in Areas 1 and 3

6.4 Modern and former footpaths were detected in Areas 1 and 2

6.5 Evidence of former ridge and furrow cultivation was detected in Areas 2 and 3.

6.6 Two probable services were detected in Area 2.

7. Sources

Archaeological Services 2011 *Land at Higher Standen farm, Clitheroe, Lancashire: archaeological desk-based assessment*. Unpublished report 2741, Archaeological Services Durham University

David, A, Linford, N, & Linford, P, 2008 *Geophysical Survey in Archaeological Field Evaluation*. English Heritage

Gaffney, C, Gater, J, & Ovenden, S, 2002 *The use of geophysical techniques in archaeological evaluations*. Technical Paper **6**, Institute of Field Archaeologists

IfA 2011 *Standard and Guidance for archaeological geophysical survey*. Institute for Archaeologists

Schmidt, A, & Ernenwein, E, 2011 *Guide to Good Practice: Geophysical Data in Archaeology*. Archaeology Data Service

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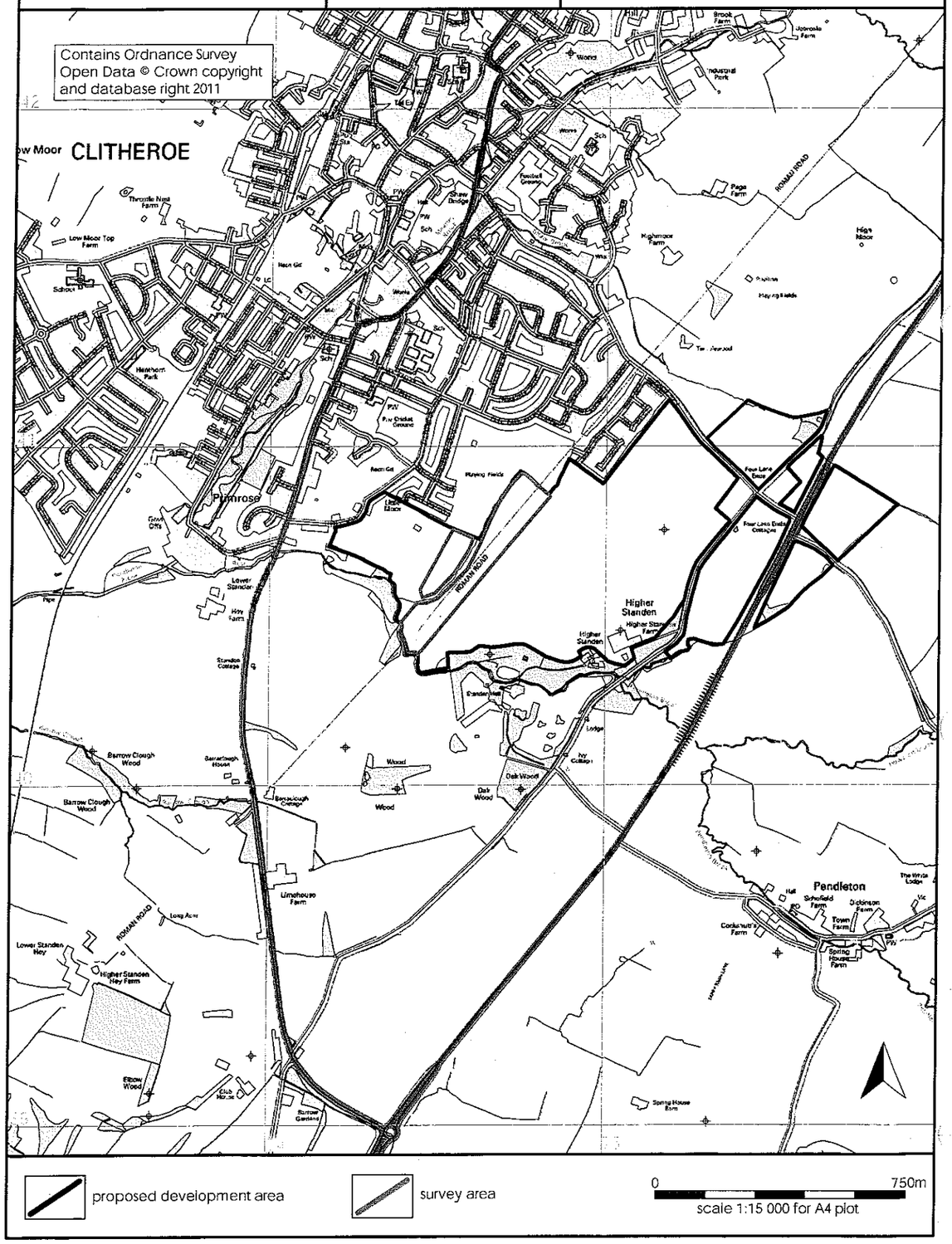
Figure 1: Site location



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proposed development area

survey area

presumed course of Roman road (as shown on Ordnance Survey map of 1970)

0 250m
scale 1:5000 for A3 plot

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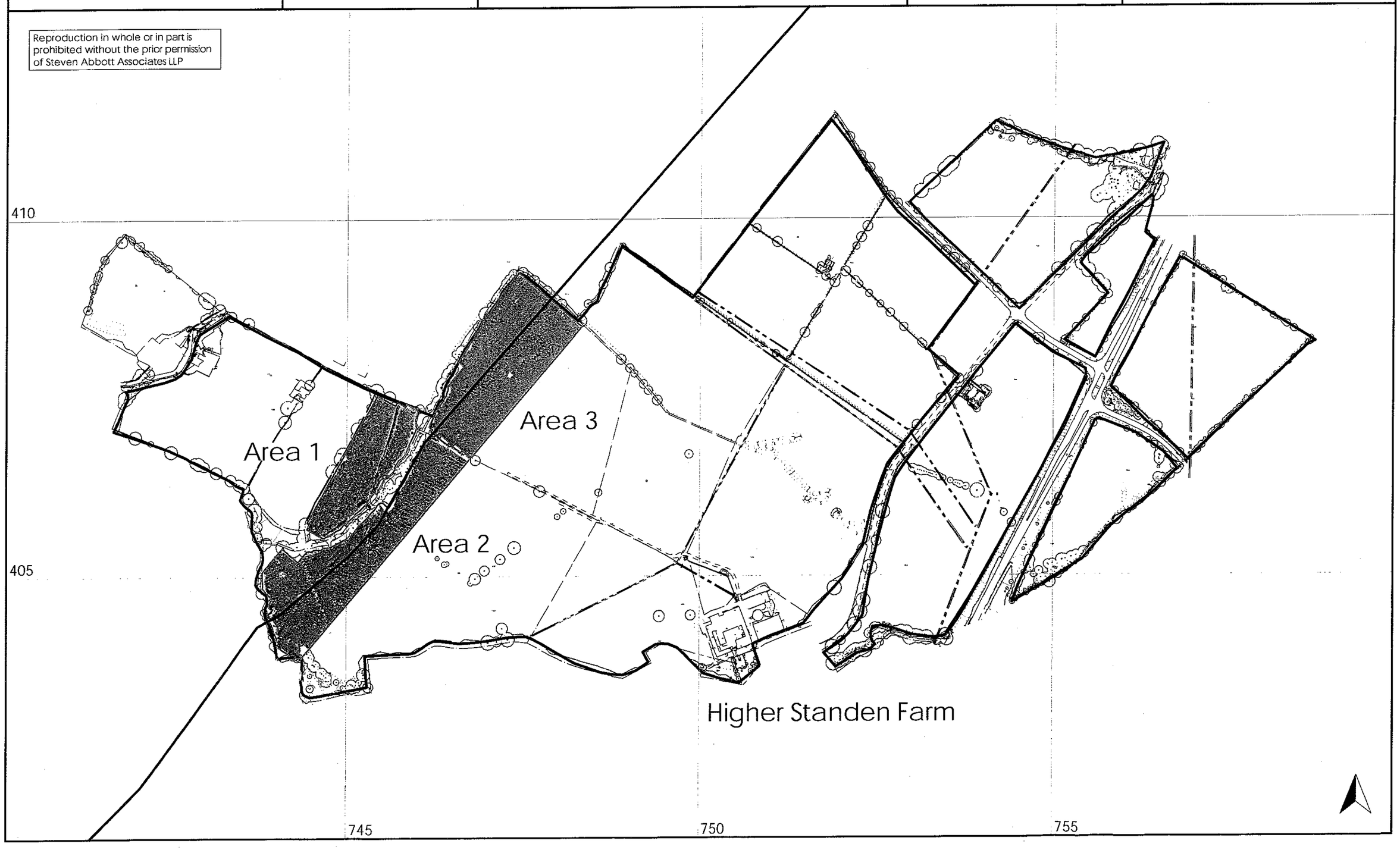
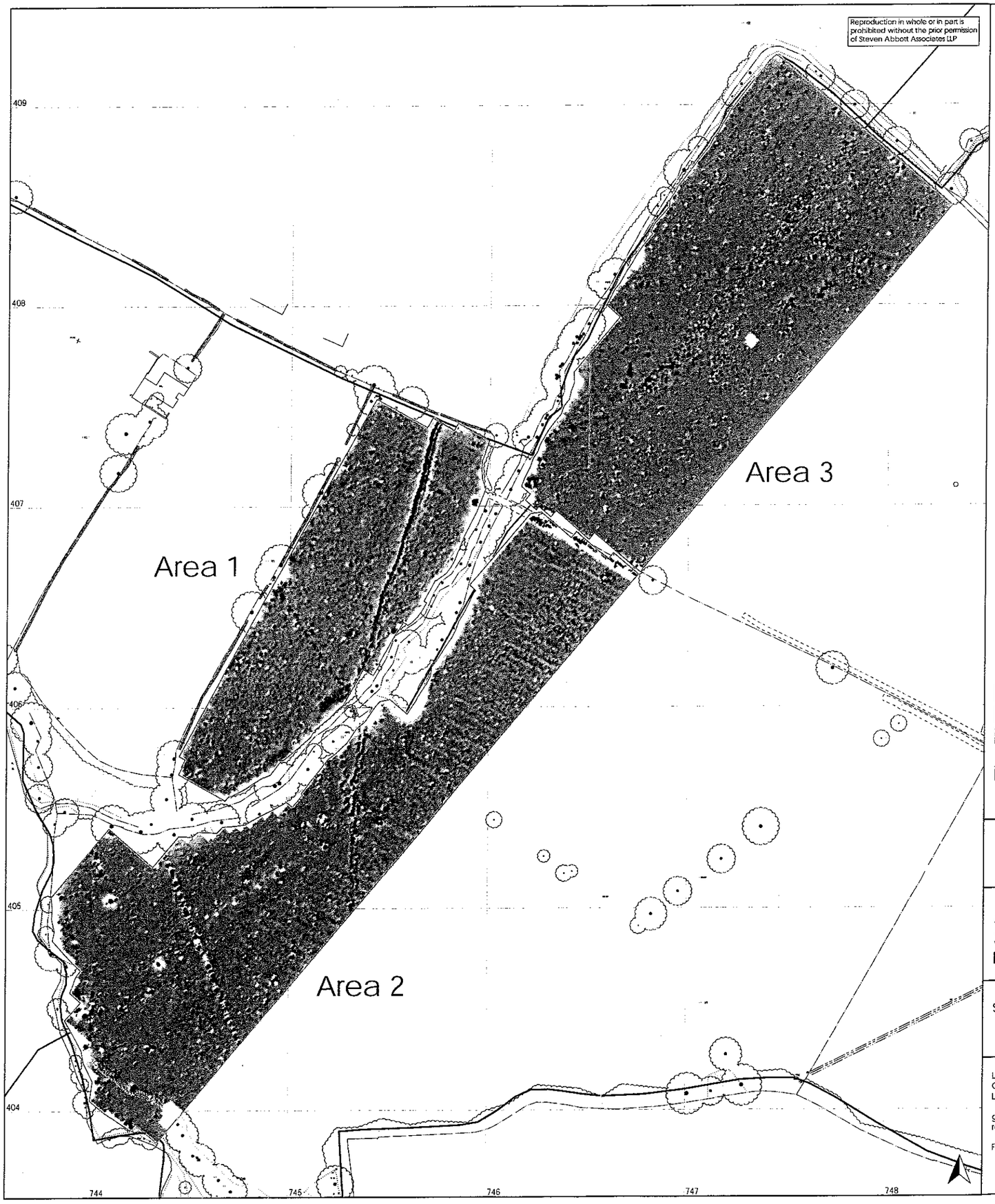
Figure 2: Survey overview





proposed development area

magnetic survey

presumed course of Roman road (as shown on Ordnance Survey map of 1970)

-5 nT 5

0 50m

scale 1:1000 for A1 plot

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Figure 3: Geophysical survey

409
408
407
406
405
404

744 745 746 747 748

Area 1

Area 2

Area 3

proposed development area
magnetic survey
presumed course of Roman road (as shown on Ordnance Survey map of 1970)
dipolar magnetic anomaly
positive magnetic anomaly
negative magnetic anomaly

0 50m
scale 1:1000 for A1 plot

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Figure 4: Geophysical interpretation

409
408
407
406
405
404
744
745
746
747
748

Area 1

Area 2

Area 3

proposed development area
magnetic survey
presumed course of Roman road (as shown on Ordnance Survey map of 1970)
probable course of Roman road
soil filled feature
services
ridge and furrow
possible former field boundary
former footpath
former track now footpath

0 50m
scale 1:1000 for A1 plot

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Figure 5: Archaeological interpretation

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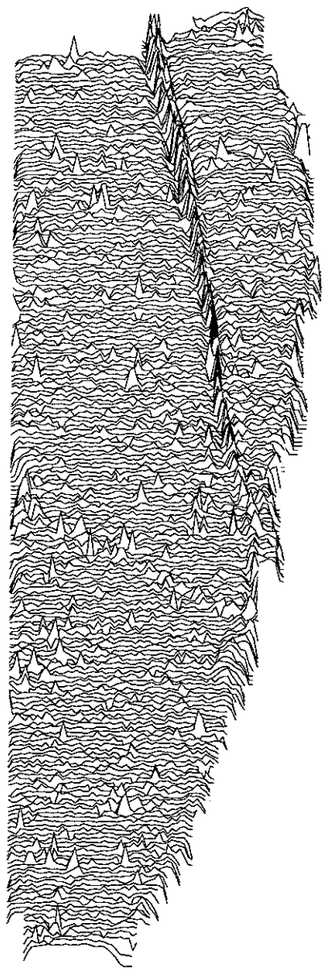
Figure 6:
Trace plots of geomagnetic data

Area 1

20 00nT/cm

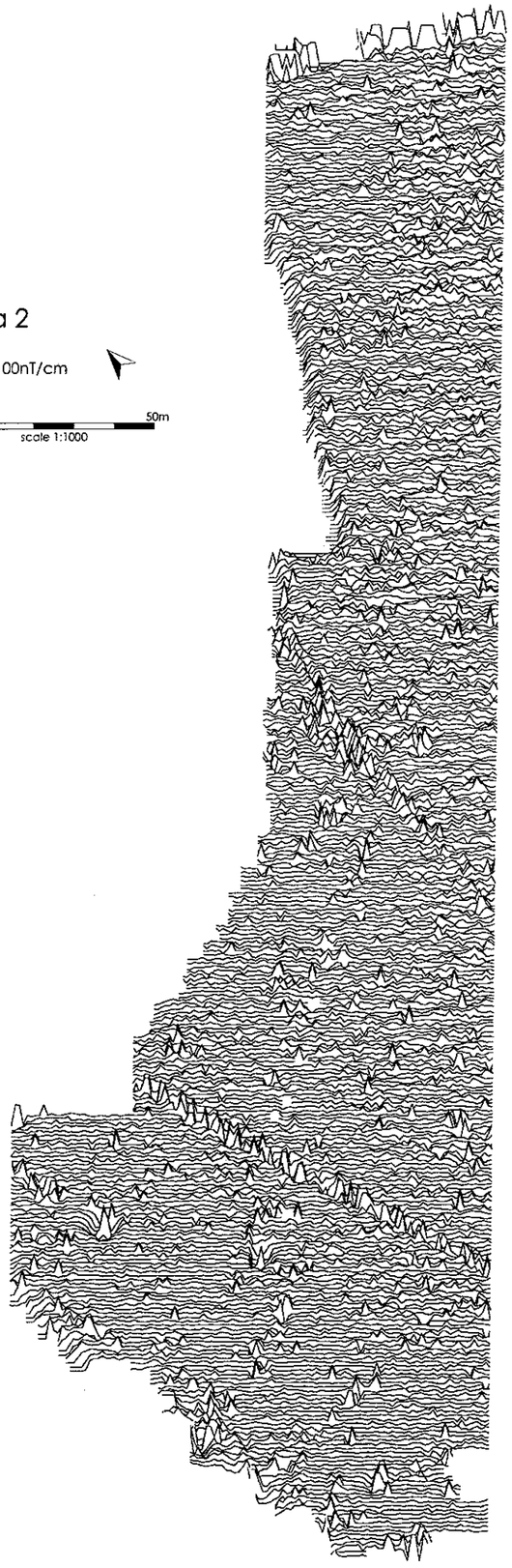
0 50m
scale 1:1000



Area 2

20 00nT/cm

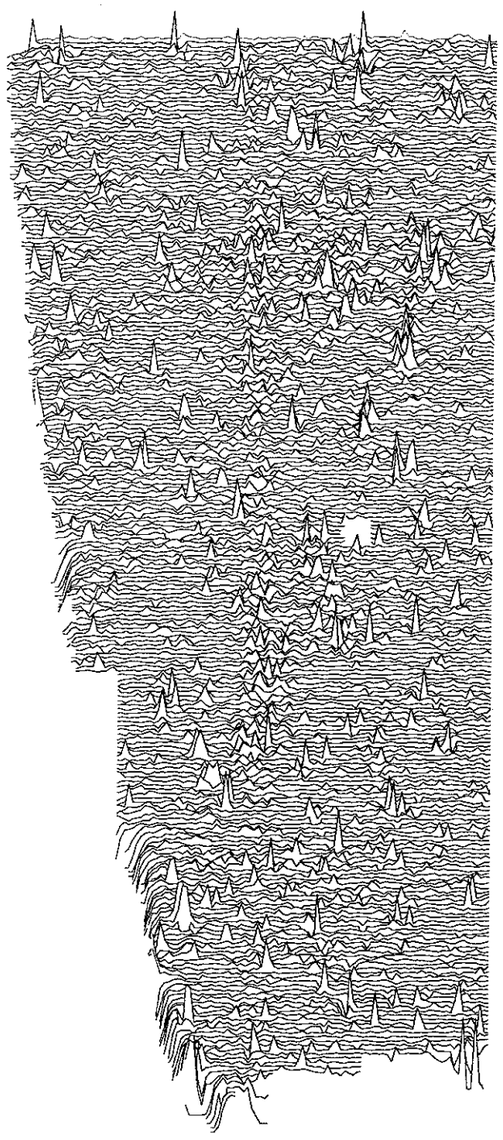
0 50m
scale 1:1000



Area 3

12 00nT/cm

0 50m
scale 1:1000



Appendix 8.4
Geophysical Survey (August 2012)

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Land at Higher Standen Farm
Clitheroe
Lancashire

geophysical survey

report 2945
August 2012

Durham
University

Contents

Figures

South Road · Durham · DH1 3LE · tel 0191 334 1121 · fax 0191 334 1126
archaeological services@durham ac uk · www dur ac uk/archaeological services

1. Summary

The project

1.1 This report presents the results of geophysical surveys conducted in advance of proposed development at High Standen Farm, Clitheroe, Lancashire. The works were undertaken in two phases and comprised the geomagnetic survey of 47.53ha of farmland.

1.2 The works were commissioned by Steven Abbott Associates LLP for the Trustees of the Standen Estate and conducted by Archaeological Services Durham University.

Results

1.3 A few features of potential archaeological origin have been identified in the surveys. These include a length of Roman road, two possible ring-ditches, possible pit alignments and miscellaneous ditch remains.

1.4 Several former field boundaries, paths, tracks and plough regimes have also been identified.

1.5 It is likely that the planning authority may require further investigation of some of the above features in order to try to establish their condition, age, function and significance.

2. Project background

Location (Figure 1)

2.1 The proposed development area is located at Higher Standen Farm, to the south-east of Clitheroe (NGR centre: SD 74925 40685) in Lancashire. There are housing estates and playing fields to the north-west and woodland and farmland on all other sides. Pendle Hill, to the east, dominates the landscape.

2.2 The majority of the study area lies to the west of the A59 road, however, two small areas were also surveyed at the junction of the A59 and Pendle Road. Seventeen surveys have been undertaken, in two phases, covering 47.53ha in total.

Development proposal

2.3 The proposal is for mixed development through the LDF Core Strategy process for the Ribble Valley. It is understood that if the development proposal is approved, there may be a further proposal for constructing a roundabout at the junction of the A59 and Pendle Road.

Objective

2.4 The principal aim of the surveys was to assess the nature and extent of any sub-surface features of potential archaeological significance within the proposed development area, so that an informed decision may be made regarding the nature and scope of any further scheme of archaeological works that may be required in relation to the development.

2.5 A specific objective was to determine the course of a Roman road and any associated remains in the western part of the proposed development area.

Methods statement

2.6 The surveys have been undertaken in accordance with instructions from the client and in line with national standards and guidelines (below, para. 5 1).

Dates

2.7 The initial surveys (Areas 1-3), in the area of the Roman road, were undertaken on 7th and 8th December 2011; the surveys of the remaining areas (B1-B14) were undertaken between 2nd-5th July 2012 and 7th-10th August 2012. This report was prepared for 24th August 2012.

Personnel

2.8 Fieldwork was conducted by Matthew Claydon, Jonny Dye, Duncan Hale (the Project Manager), Andy Platell, Natalie Swann (Supervisor), Nathan Thomas and Richie Villis. The geophysical data were processed by Natalie Swann and Duncan Hale. This report was prepared by Duncan Hale and Natalie Swann, with illustrations by David Graham and Janine Watson.

Archive/OASIS

2.9 The site codes are **LCS11** and **LCS12**, for **L**ancashire **C**litheroe Higher **S**tanden Farm 20**11** and 20**12**. The survey archive will be supplied on CD to the client for deposition with the project archive in due course Archaeological Services Durham University is registered with the **O**nline **A**cces**S** to the **I**ndex of archaeological investigation**S** project (**OASIS**). The OASIS ID number for this project is **archaeol3-132722**.

Acknowledgements

2.10 Archaeological Services Durham University is grateful for the assistance of Bryan Collinge and family at Higher Standen Farm in facilitating this scheme of works.

3. Historical and archaeological background

Previous archaeological works

3.1 A detailed desk-based assessment has previously been undertaken for the site (Archaeological Services 2011); the results of that assessment are summarised below. The first phase of geophysical survey at the site was conducted in 2011 in the area of the Roman road (Archaeological Services 2012)

The prehistoric period (up to AD 70)

3.2 There is no direct evidence for prehistoric activity in the proposed development area. There is, however, evidence that the surrounding area was exploited in prehistory. Six Neolithic stone axes have been reported from the Clitheroe area; a stone mace-head and a bronze flanged axe-head dating from the Bronze Age have also been found in Clitheroe. There is little evidence of Bronze and Iron Age occupation in the area but agricultural settlements of these periods probably took the form of scattered hamlets and farmsteads. An as yet unidentified resource relating to prehistoric exploitation may therefore survive within the proposed development area.

The Roman period (AD 70 to 5th century)

3.3 The line of the Roman road linking the forts at Ribchester (*Bremetennacum Veteranorum*) and Ilkley (*Verbeia*) passes through the survey area. The course of the road is known in some places, where there have been investigations, and projected in others. Between Ribchester and Lidgett Flatt Farm the road has been recorded and between Lidgett Flatt Farm and Eller Gill the line of the road is projected. The road appears to be well-preserved in a pasture field at Dinckley, where limited investigations have taken place. On the Whalley Road and Clitheroe Road to the south of the study area, a house-building project exposed the road and a Roman inhumation. Geophysical survey at the quarry site at Bellham Park revealed a series of ditches to the north of the road.

3.4 At Higher Standen Farm a Roman coin of Tetricus II (AD270-273), half of a Roman seal box, part of a lock pin and a terret ring for a harness were recovered during metal detecting within the proposed development area.

The medieval period (5th century to 1540)

3.5 Archaeological deposits relating to the medieval and post-medieval period may survive over the site; such evidence is likely to relate to agricultural activities and boundary features rather than settlement. Artefacts from this period have been found on the site: a medieval spindle whorl was found in the south-western part of the proposed development area and another was found just south-west of the Pendleton Brook.

The post-medieval period (1541 to 1899)

3.6 Historic maps show that the proposed development area has remained as open farmland during the post-medieval period. Two barns of 19th-century (or possibly

late 18th-century) date survive One in the northern part of the area is in a ruined state. The one at Little Moor is in a good state of repair.

4. Survey areas - landuse, topography and geology

4.1 The 2011 survey areas are referred to as Areas 1-3. The 2012 survey areas are referred to as Areas B1-B14.

4.2 The study area comprised eight fields of pasture and seven fields of meadow. All the meadow areas had been cut prior to survey; Areas B13 and B14 in the west were then being grazed by cattle at the time of survey.

4.3 The area slopes gently downwards from 116m OD in the easternmost survey area by the A59 to approximately 80m OD in the westernmost corner near Little Moor.

4.4 The underlying solid geology of the area comprises Visean mudstone of the Clitheroe Limestone Formation and Hodder Mudstone Formation (undifferentiated), which are overlain by Devensian till.

5. Geophysical survey

Standards

5.1 The surveys and reporting were conducted in accordance with English Heritage guidelines, *Geophysical survey in archaeological field evaluation* (David, Linford & Linford 2008); the Institute for Archaeologists (IfA) *Standard and Guidance for archaeological geophysical survey* (2011); the IfA Technical Paper No 6, *The use of geophysical techniques in archaeological evaluations* (Gaffney, Gater & Ovenden 2002); and the Archaeology Data Service *Guide to Good Practice: Geophysical Data in Archaeology* (Schmidt & Ernenwein 2011).

Technique selection

5.2 Geophysical survey enables the relatively rapid and non-invasive identification of sub-surface features of potential archaeological significance and can involve a suite of complementary techniques such as magnetometry, earth electrical resistance, ground-penetrating radar, electromagnetic survey and topsoil magnetic susceptibility survey. Some techniques are more suitable than others in particular situations, depending on site-specific factors including the nature of likely targets; depth of likely targets; ground conditions; proximity of buildings, fences or services and the local geology and drift.

5.3 In this instance, based on the desk-based assessment and other work in the area, it was considered likely that cut features such as ditches and pits might be present on the site, and that other types of feature such as trackways, wall foundations and fired structures (for example kilns and hearths) might also be present.

5.4 Given the anticipated depth of targets and the non-igneous geological environment of the study area a geomagnetic technique, fluxgate gradiometry, was considered appropriate for detecting the types of feature mentioned above. This technique involves the use of hand-held magnetometers to detect and record anomalies in the vertical component of the Earth's magnetic field caused by variations in soil

magnetic susceptibility or permanent magnetisation; such anomalies can reflect archaeological features.

Field methods

5.5 A 30m grid was established across each survey area and related to Ordnance Survey National Grid using a Leica GS15 global navigation satellite system (GNSS) with real-time kinematic (RTK) corrections typically providing 10mm accuracy.

5.6 Measurements of vertical geomagnetic field gradient were determined using Bartington Grad601-2 dual fluxgate gradiometers. A zig-zag traverse scheme was employed and data were logged in 30m grid units. The instrument sensitivity was nominally 0.03nT, the sample interval was 0.25m and the traverse interval was 1m, thus providing 3,600 sample measurements per 30m grid unit.

5.7 Data were downloaded on site into a laptop computer for initial processing and storage and subsequently transferred to a desktop computer for processing, interpretation and archiving.

Data processing

5.8 Geoplot v.3 software was used to process the geophysical data and to produce both continuous tone greyscale images and trace plots of the raw (minimally processed) data. The greyscale images and interpretations are presented in Figures 2-5; the trace plots are provided in Figure 6. In the greyscale images, positive magnetic anomalies are displayed as dark grey and negative magnetic anomalies as light grey. Palette bars relate the greyscale intensities to anomaly values in nanoTesla.

5.9 The following basic processing functions have been applied to each dataset:

clip	clips data to specified maximum or minimum values; to eliminate large noise spikes; also generally makes statistical calculations more realistic
zero mean traverse	sets the background mean of each traverse within a grid to zero; for removing striping effects in the traverse direction and removing grid edge discontinuities
destagger	corrects for displacement of geomagnetic anomalies caused by alternate zig-zag traverses
interpolate	increases the number of data points in a survey to match sample and traverse intervals; in this instance the data have been interpolated to 0.25m x 0.25m intervals

Interpretation: anomaly types

5.10 Colour-coded geophysical interpretations are provided. Three types of geomagnetic anomaly have been distinguished in the data:

positive magnetic	regions of anomalously high or positive magnetic field gradient, which may be associated with high magnetic susceptibility soil-filled structures such as pits and ditches

negative magnetic	regions of anomalously low or negative magnetic field gradient, which may correspond to features of low magnetic susceptibility such as wall footings and other concentrations of sedimentary rock or voids
dipolar magnetic	paired positive-negative magnetic anomalies, which typically reflect ferrous or fired materials (including fences and service pipes) and/or fired structures such as kilns or hearths

Interpretation: features

General comments

5.11 Colour-coded archaeological interpretations are provided.

5.12 Except where stated otherwise in the text below, positive magnetic anomalies are taken to reflect relatively high magnetic susceptibility materials, typically sediments in cut archaeological features (such as ditches or pits) whose magnetic susceptibility has been enhanced by decomposed organic matter or by burning.

5.13 Small, discrete dipolar magnetic anomalies have been detected in all of the survey areas. These almost certainly reflect items of near-surface ferrous and/or fired debris, such as horseshoes and brick fragments, and in most cases have little or no archaeological significance. A sample of these is shown on the geophysical interpretation plan, however, they have been omitted from the archaeological interpretation plan and the following discussion.

Area 1

5.14 Two parallel, strong, positive magnetic anomalies were detected aligned approximately north-south. This almost certainly corresponds to a former trackway, which is now in use as a footpath.

5.15 Another linear positive magnetic anomaly was detected aligned north-west/south-east. This anomaly corresponds to a former footpath marked on historic maps.

5.16 A further linear, very weak, positive magnetic anomaly was detected aligned north-west/south-east in the north of the survey area, which could reflect a soil-filled feature such as a ditch.

Areas 2 & B7

5.17 These surveys cover one field, surveyed in two phases.

5.18 A weak curvilinear negative magnetic anomaly was detected in the south-west of the field. This could reflect a band of stone or gravel, which could reflect the remains of an agger for the Roman road. The anomaly corresponds to a slight upstanding bank with trees along it and is indicated as the course of the Roman road on the 1970 Ordnance Survey map. The anomaly is slightly oblique to the course of the road further south; this slight deviation in the alignment of the road may have been to avoid the adjacent beck.

5.19 Two parallel positive magnetic anomalies were detected aligned approximately north-south across the field, an apparent continuation of those detected in Area 1. These again almost certainly correspond to a former trackway, now in use as a footpath.

5.20 A series of parallel, alternate positive and negative magnetic anomalies was detected across the field. These anomalies reflect former ploughing of the area

5.21 Two chains of dipolar magnetic anomalies were detected in the southern part of the field, which almost certainly reflect modern services A similar chain of anomalies along the northern edge of this field almost certainly reflects another service near the field boundary there.

5.22 Small areas of intense anomalies probably indicate patches of disturbed ground and a band of small intense anomalies along the northern field boundary almost certainly reflects brick rubble or clinker hardcore for a former track.

Areas 3 & B6

5.23 These surveys cover one field, surveyed in two phases.

5.24 A concentration of small dipolar magnetic anomalies was detected within a broad band aligned approximately north-east/south-west through the western part of the field. This band of anomalies corresponds to the presumed course of the Roman road, and may be associated with remains of the road. The breadth of this anomalous band may indicate that the remains of the road have been disturbed by ploughing in this area.

5.25 A discontinuous line of small dipolar magnetic anomalies which was detected aligned broadly east-west in this field may reflect a former field boundary. A linear positive magnetic anomaly is aligned parallel to this, which could reflect a former headland or soil-filled feature such as a boundary ditch.

5.26 A linear positive magnetic anomaly linked to the feature described above was detected running roughly north-east/south-west near the middle of the field. This could also reflect a soil-filled ditch. It follows the line of a boundary marked on early Ordnance Survey maps.

5.27 Two series of weak parallel positive magnetic anomalies were detected, one aligned north-east/south-west and the other south-east/north-west, which almost certainly reflect former ploughing of the area.

Area B1

5.28 The majority of anomalies detected in this area almost certainly reflect near-surface ferrous and fired debris. Some extremely weak and narrow anomalies could possibly reflect the remains of small ditches or gullies.

5.29 Ferrous pipes have almost certainly been detected along the eastern and northern edges of the field.

Area B2

5.30 One of the pipes in B1 continues across this field. At least three further pipes and cables have also been detected crossing this field.

5.31 A very weak positive magnetic anomaly could possibly reflect a soil-filled feature of uncertain origin.

5.32 Traces of former ploughing have been detected across this area.

Area B3

5.33 Some very weak and narrow positive magnetic anomalies could possibly reflect soil-filled features.

5.34 Traces of former ploughing have been detected across this area.

Area B4

5.35 Several probable services have been detected across this area. One service may lie along the line of a former field boundary.

5.36 Traces of former ploughing have been detected on two alignments across this area.

5.37 Some linear positive magnetic anomalies in the south-west of the area could reflect soil-filled features such as former ditches.

5.38 Telegraph poles, cattle feeders and probable disturbed areas were also present.

Area B5

5.39 A cattle feeder, a well and two small areas of disturbed ground were present here.

5.40 Groups of discrete positive magnetic anomalies were detected which could reflect soil-filled features such as pits. Some of these are arranged in lines. Although these could possibly be archaeological their origin is uncertain.

5.41 Three possible former ditches have been identified.

5.42 Two chains of small anomalies appear to reflect former field boundaries.

5.43 Several probable services have been detected across this area.

Area B8

5.44 Aside from ferrous/fired litter and traces of former ploughing the only anomaly was a very weak and narrow, sinuous, positive anomaly. Such anomalies can sometimes reflect former stream courses, though this is unlikely in this instance. The anomaly could reflect a soil-filled feature of some sort.

Area B9

5.45 The only significant anomaly in this area almost certainly reflects a pipe, probably associated with the derelict farm building in the southern corner of the field.

Area B10

5.46 A circular positive magnetic anomaly was detected in the northern part of this field. This almost certainly reflects a soil-filled ditch of approximately 20m diameter. Such ring-ditches are often associated with round barrows or roundhouses, and could be of local significance, though other functions are also likely. In this instance there is

no evidence for a causewayed entrance across the ditch though the northern part of the circuit lies just outside the survey area.

5.47 A telegraph pole with associated cable and a disturbed area were also present in this field.

Areas B11 & B12

5.48 No anomalies of likely archaeological interest were detected in either of these small areas, at either side of the proposed roundabout on the A59.

Area B13

5.49 The remains of a second possible ring-ditch were identified in the southern part of this survey area. This ditch is incomplete and measures approximately 12m in diameter. Again this could be of local archaeological significance.

5.50 A chain of small positive magnetic anomalies was detected aligned north-west/south-east across this area. This feature is a continuation from Area 1 to the south and corresponds to a former footpath marked on historic maps

5.51 Small areas of disturbed ground were recorded near existing gates and a barn.

Area B14

5.52 The former footpath identified to the south continues northwards across this area also.

5.53 At least four services have been identified crossing this area. One runs adjacent to a prominent raised track linking the isolated barn between areas B13 and B14 with the houses at Little Moor. The track is also evident in the survey data.

5.54 A series of straight parallel anomalies across this area reflects former ploughing.

6. Conclusions

6.1 Approximately 48ha of geomagnetic survey has been undertaken across a proposed development area to the south-east of Clitheroe in Lancashire.

6.2 A few features of potential archaeological origin have been identified in the surveys. These include a length of Roman road, two possible ring-ditches, possible pit alignments and miscellaneous ditch remains.

6.3 Several former field boundaries, paths, tracks and plough regimes have also been identified.

6.4 It is likely that the planning authority may require further investigation of some of the above features in order to try to establish their condition, age, function and significance.

7. Sources

Archaeological Services 2011 *Land at Higher Standen Farm, Clitheroe, Lancashire: archaeological desk-based assessment*. Unpublished report **2741**, Archaeological Services Durham University

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Gaffney, C, Gater, J, & Ovenden, S, 2002 *The use of geophysical techniques in archaeological evaluations*. Technical Paper **6**, Institute of Field Archaeologists

IfA 2011 *Standard and Guidance for archaeological geophysical survey*. Institute for Archaeologists

Schmidt, A, & Ernenwein, E, 2011 *Guide to Good Practice: Geophysical Data in Archaeology*. Archaeology Data Service

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on behalf of
Steven Abbott Associates LLP
for
The Trustees of the Standen Estate

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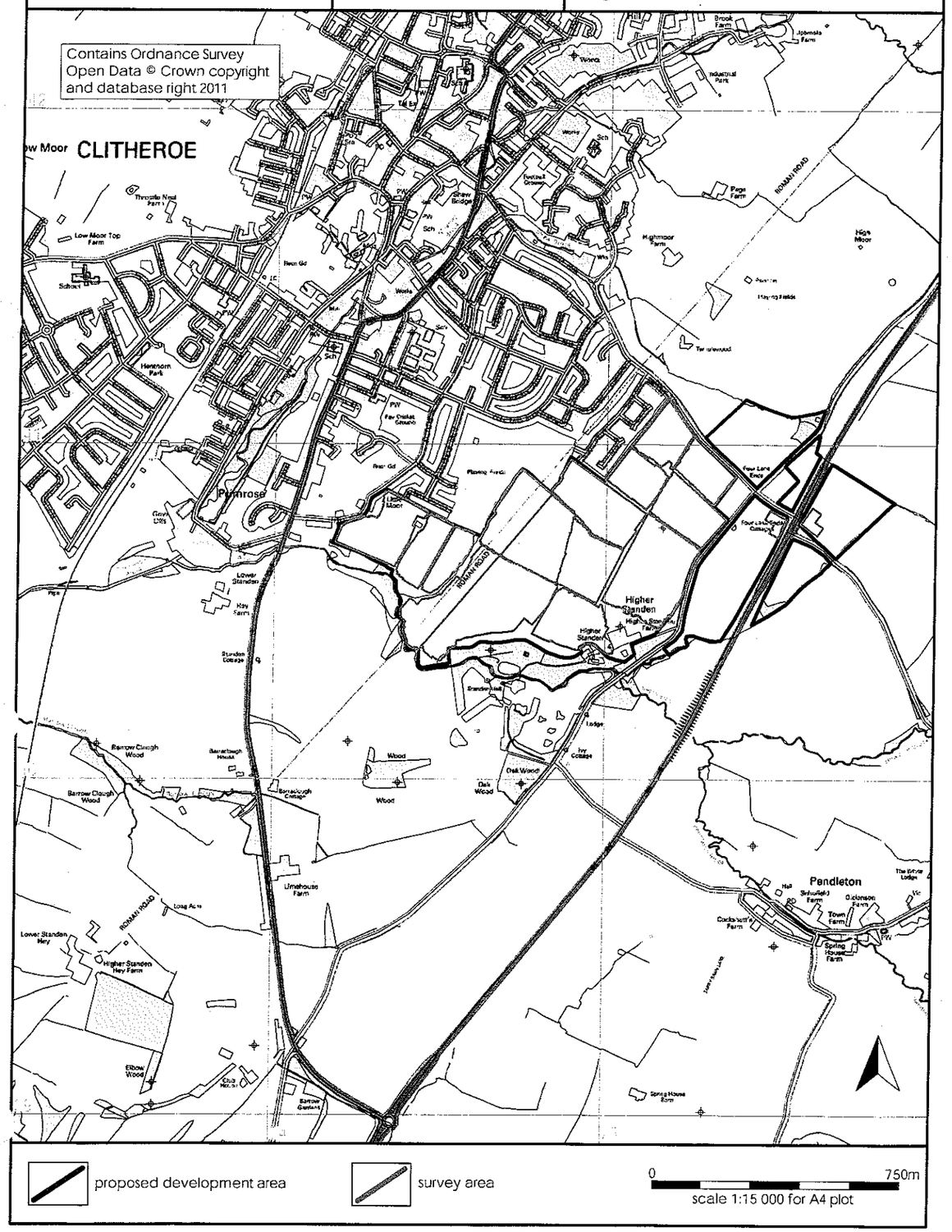
Figure 1: Site location



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proposed development area

presumed course of Roman road (as shown on Ordnance Survey map of 1970)

0 250m
scale 1:5000 for A3 plot

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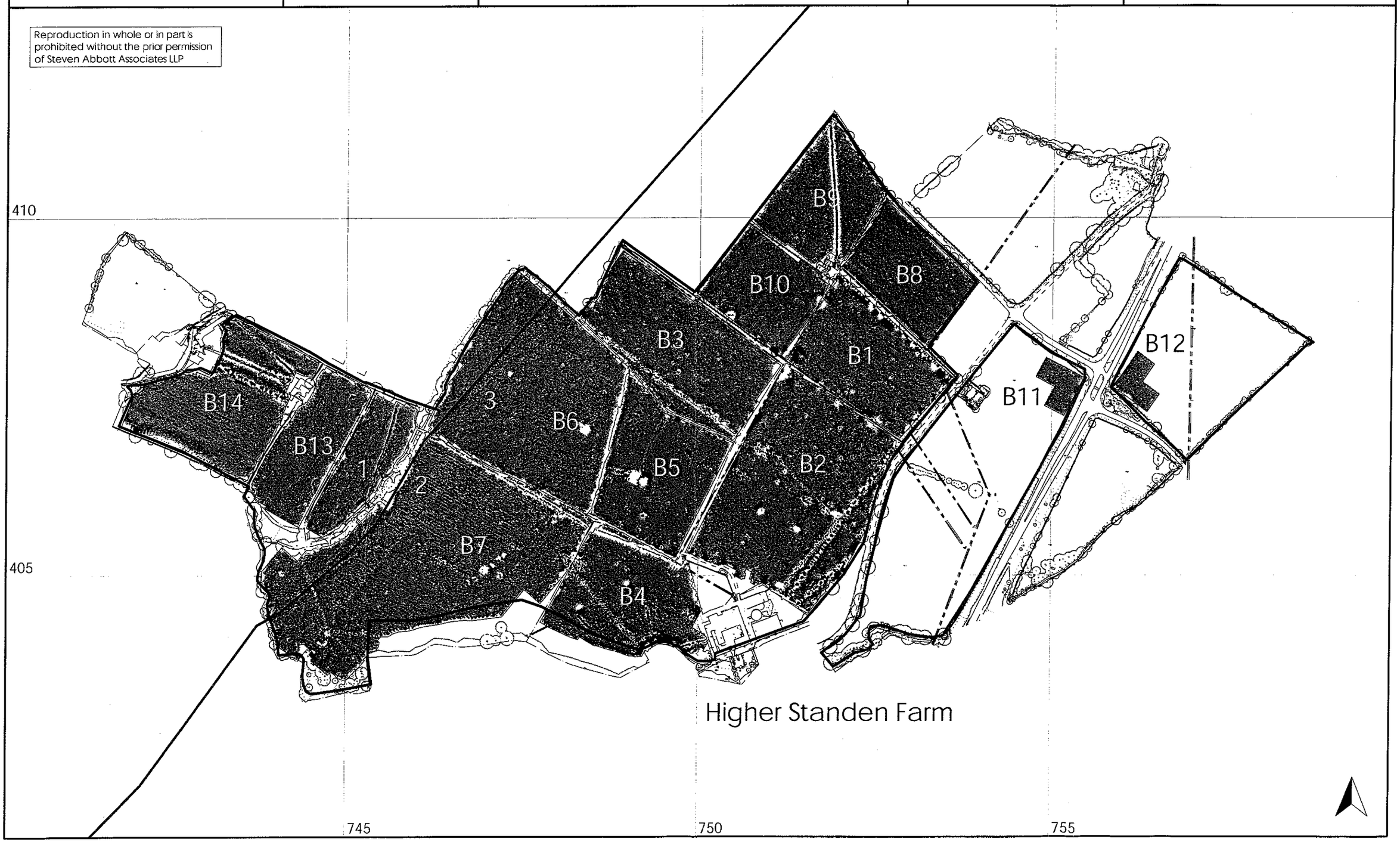
Figure 2: Geophysical survey overview



Area B9

Area B3

Area B10

Area B6

Area 3

Area B8

Area B12

Area 1

Area B11

Area B1

Area B14

Area B13

Area B2

Area B5

Area 2

Area B7

Area B4

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742 743 744 745 746 747 748 749 750 751 752 753 754 755 756

Magnetic survey

scale 1:1250 for A0 plot

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Figure 3: Geophysical survey

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Area B9
Area B3
Area B10
Area B6
Area 3
Area B8
Area B12
Area 1
Area B11
Area B1
Area B14
Area B13
Area B2
Area B5
Area 2
Area B7
Area B4

742 743 744 745 746 747 748 749 750 751 752 753 754 755 756

magnetic survey
dipolar magnetic anomaly
positive magnetic anomaly
negative magnetic anomaly

scale 1:1250 for A1 plot

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Figure 4: Geophysical interpretation

Area B9

Area B3

Area B10

Area B6

Area 3

Area B8

Area B12

Area 1

Area B11

Area B7

Area B14

Area B13

Area B2

Area B5

Area 2

Area B7

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742 743 744 745 746 747 748 749 750 751 752 753 754 755 756

magnetic survey
presumed course of Roman Road (as shown on Ordnance Survey map of 1970)
outline of proposed roundabout
soil-filled feature
disturbed area
service
former ploughing
existing path
possible former field boundary
telegraph pole

scale 1:1250 for A3 plot

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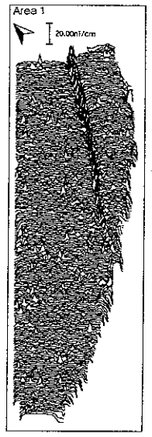
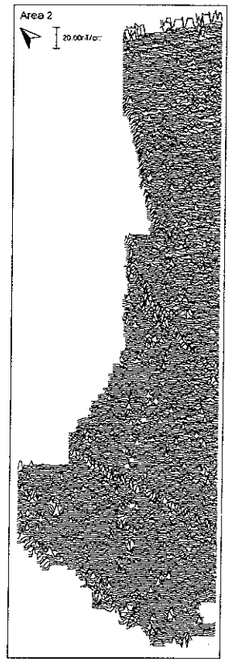
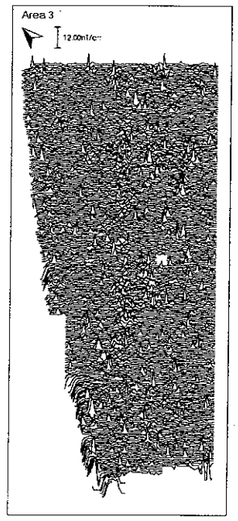
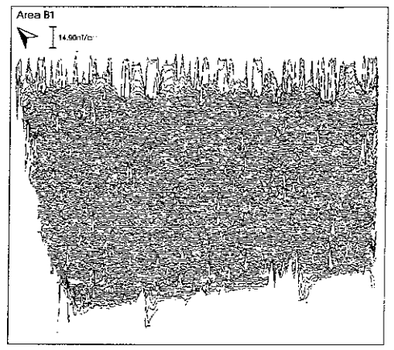
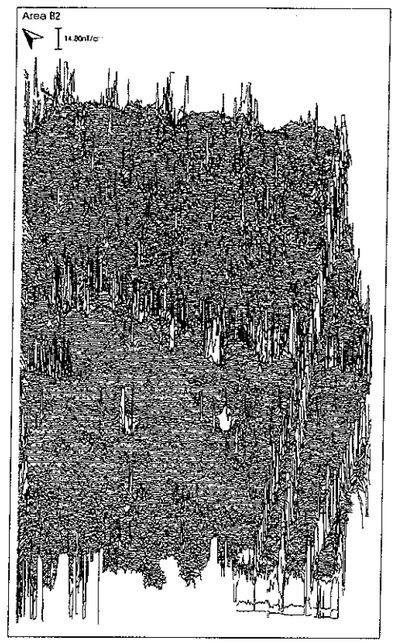
Figure 5: Archaeological Interpretation

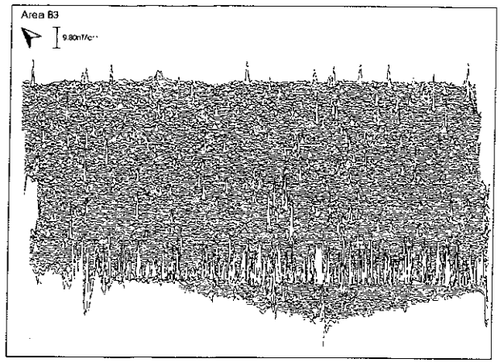


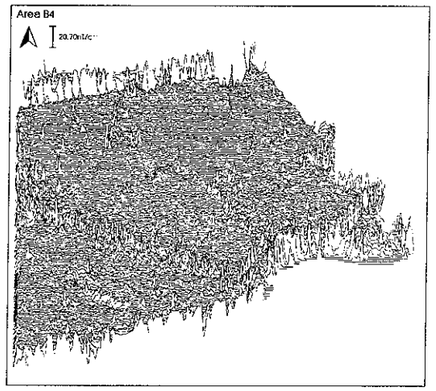


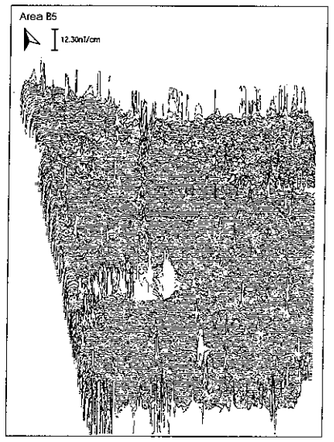


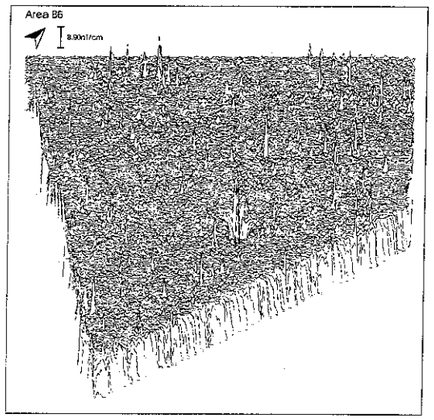


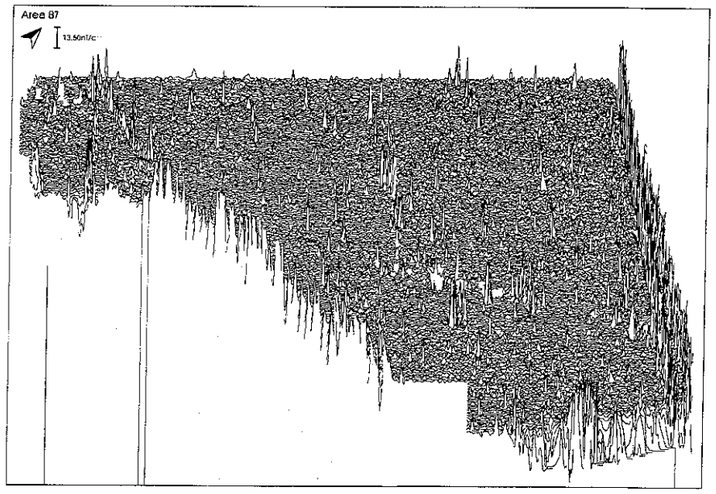


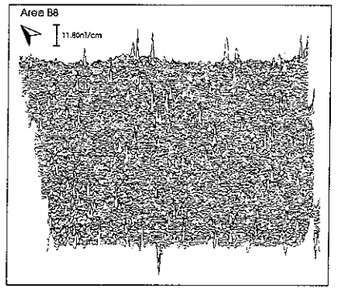


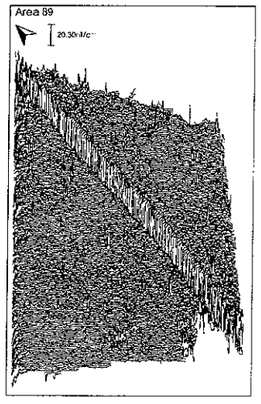


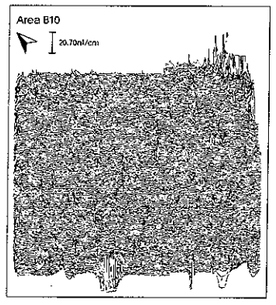


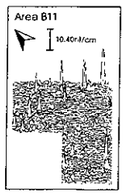


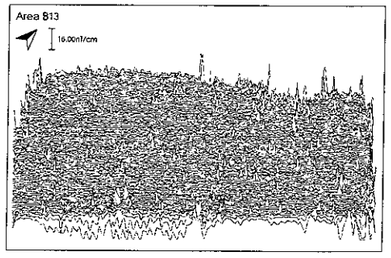


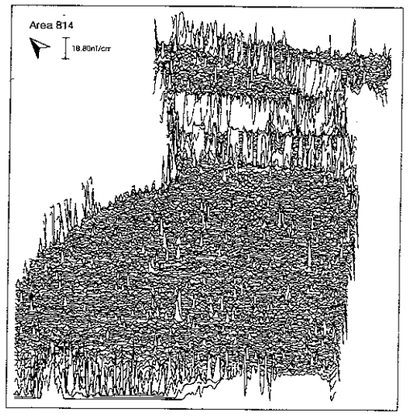












0 50m
scale 1:1250 for A2 plot

on behalf of
Steven Abbott Associates LLP
for
The Trustees of the Standen Estate

ARCHAEOLOGICAL SERVICES
DURHAM UNIVERSITY

Land at Higher Standen
Clitheroe
Lancashire

geophysical survey
report 2945

Figure 6: Traceplots of geomagnetic data

Introduction

The land around Clitheroe is classified and a number of scales by a number of different documents as follows:

- National - Natural England's Landscape Character map of England National Joint Character Area JCA 33 Bowland Fringe and Pendle Hill;
- Regional - Northwest Regional Landscape Character Framework, Countryside Commission, August 2009;
- County - Lancashire Landscape Character Assessment, Lancashire County Council, December 2000; and
- Forest of Bowland, Area of Outstanding Natural Beauty, Landscape Character Assessment, Natural England September 2009

The relevant descriptions from these documents have been extracted and are set-out below.

National Scale - Natural England's Landscape Character map of England National Joint Character Area JCA 33 Bowland Fringe and Pendle Hill

General Characteristics of JCA 33

- Undulating rolling landscape with local variation created by both the numerous river valleys and the outlying upland features of Beacon Fell, Longridge Fell and Pendle Hill;
- Strong outcrops of 'reef knolls' and limestone form distinct landscape features in the Ribble and Hodder Valleys;
- Meandering and commonly tree-fringed rivers with oxbow lakes form prominent features within the predominantly pastoral landscape;
- Predominantly Grade 3 agricultural land supporting permanent pasture, mostly improved, for dairy and livestock farming;
- Intensively managed landscape, with lush hay meadows in small- to medium-scale fields defined by well-maintained hedgerows with mature hedgerow trees. Some rough grazing at higher elevations;
- Extensive semi-natural woodland, much of which is ancient, on main valley bottoms, side valleys and ridges;
- Dense north-south communication corridor, which comprises the M6, the railway line and the Lancaster Canal, defines the western boundary and also provides a physical and psychological barrier;
- Numerous water courses and bodies including the rivers Ribble, Hodder, Calder, Wyre, a number of reservoirs and field ponds north of Preston;
- Small villages, hamlets and scattered farmsteads, mostly in local stone, are well integrated into the landscape and connected by a network of winding hedge-lined country lanes;

- Bowland Fells provide a dramatic backdrop to the east and north with extensive views possible from high ground across the Lancashire and Amounderness Plain and across open valley bottoms.

Landscape Character of JCA 33

The Bowland Fringe and Pendle Hill is a transitional landscape which wraps around the dramatic upland core of the Bowland Fells. It extends from the Lune Valley in the north around the slopes of the Bowland massif before merging imperceptibly eastward into the landscape of the Ribble Valley. The eastern boundary links with the Yorkshire Dales while to the south lie the Lancashire Valleys. This is a diverse landscape of undulating pasture, broadleaved woodland, parkland and water bodies. Fields are small- to medium-sized and are enclosed by well maintained hedgerows with large mature hedgerow trees. The sycamore of the Lancashire and Amounderness Plain is replaced by oak, ash and alder. This is a relatively well wooded landscape, predominantly associated with the myriad of streams and valleys which cascade off the Bowland Fells and support large areas of semi-natural riparian woodland. This includes several areas of ancient woodland along the Brock and Calder and between Dolphinholme and Abbeystead.

To the south of Bowland the moorland outliers of Pendle Hill, Beacon Fell and Longridge Fell enclose the Ribble Valley and reinforce its affinity with the Forest of Bowland. The combination of topography, tree cover and field enclosure creates a sense of intimacy in contrast to the expanse of the coastal plain and exposed moorland heights. The distinguishing characteristic of this area is the influence of human habitation. The settlement pattern is of small stone villages, hamlets and farmsteads. The isolated country houses set in well-maintained formal parkland are a typical feature of this landscape. These managed estates are enclosed by belts of woodland and estate fencing. Farms tend to be larger than those in the Bowland Fells with better quality land supporting large dairy herds. Farms generally consist of a core of stone buildings with some conspicuous modern outbuildings.

The road network is typified by a complex system of narrow lanes with few direct routes between settlements. The railway, canal, and M6 form the major north-south links in Lancashire and are confined to a narrow corridor which defines the western boundary. This is an intimate, tamed landscape in contrast to the wild exposed moorland of the Bowland Fells. The combination of well-maintained hedgerows and hedgerow trees with areas of parkland and well-grazed pasture gives this area an intensively managed character.

Physical Influences

This is a transitional zone between the coastal plain, with its unconsolidated glacial deposits, and the high fells of Bowland formed by the strong sandstone of the Millstone Grit. It is an area of undulating rolling landscape with local variation created by the valleys of the Brock, Calder and Wyre. The transition from plain to fell landscape is rapid and reflects the existence of a substantial boundary fault which separates the soft Permo-Triassic rocks from the harder Carboniferous rocks. The M6 roughly follows the line of the fault. Ribbons of alluvial sand, gravel and silt follow the courses of streams.

In the south where the Brock Valley crosses the area, the coarse-grained sandstones of the Millstone Grit of Bowland give way to the softer calcareous mudstones, with limestone beds, of the Carboniferous Limestone. This accounts for the less dramatic change between the Fringe and the Fells landscape. Surface drift features also become more important as the Fringe merges imperceptibly southeastwards into the landscape of the Ribble Valley

The Ribble and Hodder drain the southern flanks of the Bowland Fells. The broad valleys, framed by the escarpments of the fells to the north and the moors to the south, broadly pick out the less resistant mudstones and limestones from the harder Millstone Grit rocks which form the fells. Within the valleys, strong moundy outcrops of 'reef knolls' form distinctive landscape features which give the area its special character. The Lune Valley area is gently sloping and undulating and is contained by steep scarp slopes with the river as the central feature.

The solid rocks are overlain by a complex of glacial deposits comprising mainly thick tills but with extensive areas of moundy sand and gravel deposited from glacial meltwater. One such complex in the Ribble and Hodder Valleys at Stoneyhurst/ Hurst Green imparts a special quality of small wooded knolls to the local landscape.

Historical and Cultural Influences

The Ribble Valley formed an important Roman communication route to York and some evidence of Roman roads can still be found. The field pattern around settlements and on valley bottoms is generally irregular and small- to medium-scale indicating early piecemeal enclosure. A particular feature of this region is the number of large country houses and halls set in parkland and country estates. These areas have been intensively managed for hunting and farming for many years.

Buildings and Settlements

The most significant characteristic of the Bowland Fringe and Pendle Hill is the influence of human habitation. Settlements are scattered along the valley and have largely escaped the effects of the industrial revolution. There are many villages dating from the 16th to 18th century, together with hamlets, farmsteads and also country houses and halls commonly set in parkland. Isolated stone villages tend to be nestled into the escarpments and are commonly characterised by distinctive becks, greens and mills each with its own unique charm. On higher ground traditional stone barns are commonplace. The predominant building materials are stone and roofs are made of slate or, less commonly, stone flags. There has been some, limited, modern expansion of villages but these developments have generally been done sympathetically using local materials. The settlement pattern is of smaller villages with isolated houses and farms dotted around the winding country lanes. Many of the smaller villages and hamlets are linear in character and commonly take the form of terraced stone cottages along the main road. Farms tend to consist of a core of vernacular stone buildings, many dating from the 17th century, with either stone-flagged or slate roofs.

Modern development around village fringes gives a suburban character with a mix of building materials and styles. In some of the more accessible areas, many farmhouses have been modernised and extensive barn conversions have taken place, not always in an appropriate manner.

Large country houses set in their own parkland settings are located across this area, such as Ellel Grange, Waddow Hall, Bolton Park and Leagram Hall. There are a number of small industrial/ mill settlements at Calder Vale, Oakenclough, Dolphinholme and Galgate with terraced workers' cottages lining the narrow lanes.

Land Cover

This is an area of lush verdant pasture supporting dairy herds and other livestock as well as species-rich hay meadows. The area has an irregular field pattern of medium-sized fields defined by well-maintained hawthorn hedgerows with a high proportion of mature hedgerow

trees - predominantly oak, ash and alder. Hedgerows are replaced by stone walls and post and wire fencing at the transition to the Forest of Bowland Fells.

Areas of semi-natural woodland are commonly associated with managed estates and parkland. Ancient woodland is notable along the Brock and Calder and between Abbeystead and Dolphinholme. These woodlands, combined with hedgerows and hedgerow trees, make a significant contribution to the landscape. Parkland in this area adds to the intensively managed character of the landscape. While there are no famous, large-scale, designed park landscapes, they are generally attractive areas forming the setting for modest country houses. These areas are enclosed by belts and blocks of woodland with areas of open grassland and isolated, well spaced, open grown trees of oak, ash, sycamore and lime.

Several bodies of standing water, including reservoirs and disused gravel pits in the Wyre Valley east of Garstang, form prominent features. A high density of field ponds further contributes towards this important ecological corridor. There are a number of sand and gravel extraction sites, mainly confined to valley bottoms to the south of the area.

The Changing Countryside

- Exploitation of mineral deposits, in particular potential expansion associated with Clitheroe Cement Works as well as sand and gravel deposits in Ribble Valley, could result in indirect pressures for road widening, strengthening of minor bridges and landfill pressures at extraction sites;
- Decline of riverside woods due to excessive grazing and lack of management;
- Marked tendency for farm amalgamations though with less hedgerow removal than in arable parts of the Lancashire and Amounderness Plain;
- Loss of character caused by road widening schemes including loss of hedges and roadside trees;
- Recreational honey pots including Beacon Fell, Brockbottom, Jeffrey Hill and Kemple End which attract large numbers of visitors and require considerable management of various kinds;
- Re-use of hospital sites and considerable impact caused by increased road traffic;
- Substantial urban expansion pressures around major centres of population

Shaping the Future

- The conservation and management of riparian woodland, semi-natural and ancient woodland, hedgerows, hedgerow trees, and avenues should be considered;
- There are opportunities for the appropriate management of recreational sites subject to visitor pressure;
- The subtle variations in character between the western Bowland Fringe and the Ribble Valley, especially field size and boundary treatment, should be respected and maintained;
- The restoration and management of the characteristic field ponds to north of Preston should be addressed;

- Species-rich hay meadows form valuable landscape and ecological areas.

Regional Scale - Northwest Regional Landscape Character Framework, Countryside Commission, August 2009

Regional Character Type - Valley Farmlands
Valley Farmlands: Undulating, settled, pastoral landscape with small ancient woodlands in field corners. Trees are scattered along small streams and rivers.

Location: This type often forms intermediate land between upland fringes and lowland valleys or plains in Cumbria, Lancashire, and southern fringes of Cheshire

Broad Regional Landscape Character Type Farmed Lowland and Valley Landscapes
Physical Landscape:

- Carboniferous rocks, comprising a mixture of rock types, overlain by glacial till and river terrace drift comprising sand and gravels in larger valleys;
- Mixed: seasonally waterlogged clay soils; freer draining loamy and sandy brown soil in places affected by groundwater; locally shallow soil on steep slopes;
- A rolling to undulating topography, varying from small hills to occasional levels through which watercourses flow. Generally occurs between 70 - 200 m AOD;
- Main river valleys and tributary streams dissect this landscape being a repetitive feature, sometimes incised, flowing through narrow gorges.

Biodiversity and Land Use:

- Extensive areas of improved and semi - improved pasture with some arable interspersed with small ancient woodlands;
- A wooded landscape with open areas Small ancient woods in field corners link to settlement/ watercourses Occasional conifer plantations and estate woods;
- Areas of unimproved and semi - improved grassland and ancient woodland.

Cultural Landscape:

- Large former open common fields next to villages; small, irregular fields at times assarted from woodland enclosed by hedgerows;
- Prehistoric earthworks, Roman remains and medieval settlement at times associated with river crossings, designed parkland, industry and water power;
- Dispersed farms and a series of planned, at times clustered villages with greens and medieval origins. Settlement often associated with roads/ river crossings;
- Traditional farm buildings within villages, large churches and designed halls Many buildings vernacular in style, constructed in local stone

Perceptual Landscape:

- Major road routes/ motorways and mainline railways are localised interruptions within what is otherwise a tranquil and peaceful landscape;
- This is a settled landscape and the sense of scale created through enclosure and woodland forms a comfortable sense of intimacy;
- Views vary: being greater from higher ground but the general openness creates long views although undulations, woodlands and hedgerows can be limiting.

Regional Character Area - Ribble Valley Lowlands

This is an area of pastoral slopes and valleys associated with the River Ribble and its wide floodplain and often deeply incised wooded tributaries. It comprises undulating lush lowland pastures and is well wooded. Historic limestone built nucleated villages and parkland landscapes add to the area's local distinctiveness.

County Scale- Lancashire Landscape Character Assessment, Lancashire County Council, December 2000

Set within the framework provided by National Character Areas, the Lancashire Landscape Character Assessment classifies the landscape within the Forest of Bowland AONB into 10 separate Landscape Character Types and 31 Landscape Character Areas. The Lancashire Landscape Classification provides the framework for the definition of more detailed Landscape Character Types and Areas within the Forest of Bowland Clitheroe is located in Character Type: 5 Undulating Lowland Farmland - Character Area: 5e Lower Ribblesdale (Clitheroe to Gisburn) this is described in more detail below. Clitheroe is not identified as one of Lancashire's Urban Landscape Character Types

Character Type. 5 Undulating Lowland Farmland - Character Area. 5e Lower Ribblesdale (Clitheroe to Gisburn)

Landscape Character

Generally below 150 m, the Undulating Lowland Farmland lies between the major valleys and the moorland fringes. The underlying geology is largely masked by heavy boulder clays and hedgerows predominate over stone walls. This lowland landscape is traversed by deeply incised, wooded cloughs and gorges. There are also many mixed farm woodlands, copses and hedgerow trees, creating an impression of a well wooded landscape from ground level and a patchwork of wood and pasture from raised viewpoints on the fells. Some of the most picturesque stone villages of the county occur within this well settled landscape type. The towns of Longridge and Clitheroe also occur within this type, but are not typical of the settlement pattern. The area also has many country houses whose boundary walls and designed landscapes add to the species diversity and visual appeal. There is a high density of farms and scattered cottages outside the clustered settlements, linked by a network of minor roads

Physical Influences

The Undulating Lowland Farmland forms a transitional zone between the low lying plains of soft glacial deposits and the high fells of Bowland, formed from Millstone Grit. To the west of the Forest of Bowland, running along the line of the M6, a substantial fault separates the soft Triassic rock of the lowlands from the harder Carboniferous rocks of the fells. The Clitheroe Reef Knolls SSSI, located between Worston and Downham, comprise an important ecological

feature. This is one of several Reef Knolls which support species-rich calcareous grassland. This landscape type, whether composed of limestone, grit, shale or sandstone, is of gentle topography when compared to the fells and hills. Glacial action has accentuated the differences by further tempering the relief of the low-lying areas by the deposition of glacial drift. Deep drift is conspicuous where hedges predominate over stone walls, as quarrying is only possible where the drift is sufficiently thin.

Many of the woodlands which survive on the steep slopes of the deep cloughs and valley sides are of ancient origin and represent a rich natural resource. They include alder and ash woods on the base-rich soils of the valley floors grading through to lowland oakwoods and upland oak woods on the upper valley sides. Red Scar and Tun Brook Woods, situated east of Preston between Ribbleton and Grimsargh are classified as Sites of Special Scientific Interest (SSSIs) and are important for their extensive examples of ash, wych elm woodland and alder woods. Hedges and hedgerow trees are also important as habitats in an otherwise intensively managed landscape.

Standing bodies of water are important habitats within the area; especially for birds. Rough Hey Wood, located south east of Garstang is designated as a SSSI and contains one of Britain's largest heronries.

Human Influences

The landscape proved more favourable to early settlers than the nearby uplands. At Portfield above Whalley, large earthworks of Iron Age date defend the neck of a steep-sided promontory whose flat top had been utilized since the Neolithic period. The presence of a large aisled barn of probably 18th century date points to an earlier, perhaps medieval, successful farmstead, attesting to the favourable nature of the site. By the Roman period it is probable that much of this landscape type was already settled fairly densely and the fort established at Ribchester is known to have had some civilian government functions. Whilst Roman remains (besides roads) outside the immediate area of the forts are poorly represented in the record, the presence of Roman Kilns at Quernmore show that they exploited the natural resources of the area

Medieval population pressures, which saw the utilisation of small areas of the mosslands elsewhere in Lancashire also led to the continuation of small woodland clearances along the Ribble and the Lune. This created a small scale intimate landscape of scattered farms linked by winding roads with irregular fields and patches of surviving woodland on stream and field edges, a landscape which has remained intact to this day. The majority of enclosure dates from the medieval period and has created a landscape of small fields which are mostly hedged although stone walls are evident where geology lies close to the surface. Country houses are a feature of the area and are often surrounded by parklands and well managed estates. They are evidence of the developing industrial enterprise and increasing wealth between the 16th and 19th centuries.

Architecturally distinctive yeoman and gentry houses are also characteristic of this type and date from the 17th century onwards. During the 17th century lime was used for land improvement in these lowland fringe areas and many small farm kilns remain in the landscape, along with the larger industrial kilns and quarries of the 19th and 20th century. The mining of Millstone Grit also proved to be important in this landscape type. Where suitable stone was available, querns and millstones could be quarried and manufactured to meet the needs of the population. Remains of 19th century millstone production near Quernmore can still be seen on the flanks of Clougha Pike. Lead and Silver were extracted in Rimington from the 17th century and mined

and manufactured in places such as at Quernmore to meet the demands of the rapidly industrialising county

Local Character Area 5e. Lower Ribblesdale (Clitheroe to Gisburn)
This area forms the southern valley side of the Ribble, between Copster Green and Gisburn, on the lowland fringes of Pendle Hill. It is a particularly well settled area and provides a corridor for communication routes along the Ribble Valley. The A59(T) runs the length of the area, linking the settlements of Copster Green, Whalley, Clitheroe, Chatburn and Gisburn. The railway links the valley to Blackburn and Yorkshire. This communication structure has encouraged built development and industry; the large cement works at Clitheroe is a prominent visual landmark for miles around. This character area is underlain by limestone and has some good examples of limestone reef knolls, particularly around Clitheroe; Clitheroe Castle is located on top of one of these knolls.

Forest of Bowland Area of Outstanding Natural Beauty Landscape Character Assessment
Sept 2009 Natural England
Clitheroe and it's environs, including the proposed site, are not within the AONB but are covered in the landscape assessment. The AONB does encompass Pendle Hill to the South-east and the Bowland Fells to the north-east both of which, to some extent, are within the Zone of Theoretical Visual Influence

The Forest of Bowland Landscape Classification
Undulating Lowland Farmland Character Type is sub-classified in the Forest of Bowland Classification as Character Types:

- E. Undulating Lowland Farmland;
- F. Undulating Lowland Farmland with Wooded Brooks;
- G. Undulating Lowland Farmland with Parkland;
- H. Undulating Lowland Farmland with Settlement and Industry.

Landscape Character Types and Areas
The majority of the site is: H - Undulating Lowland Farmland with Settlement and Industry

- Character Area H 1 Clitheroe and Chatburn.

The north-east corner of the site intrudes into: E - Undulating Lowland Farmland

- Character Area E7 Worston.

Adjacent Landscape Classification Area to the south within type H - Undulating Lowland Farmland with Settlement and Industry is:

- Character Area H2 Higher and Lower Standen (H - Undulating Lowland Farmland with Settlement and Industry).

CHARACTER TYPE H: UNDULATING LOWLAND FARMLAND WITH INDUSTRY

General Characteristics:

- Gently undulating farmland, divided by a network of drystone walls and hedgerows;
- Towns and some heavy industrial sites which are associated with main transport corridors;
- Backdrop of Moorland Hills provides a sense of enclosure and contributes to recognisable sense of place within views.

Character Assessment

Location

The Undulating Lowland Farmland with Settlement and Industry Landscape Character Type occurs in three locations in the southern part of the Study Area. This Landscape Character Type is generally located adjacent to other lowland LCT's, and is bordered along its northern edge by the Valley Floodplain Landscape Character Type.

Landscape Character Description

Undulating Lowland Farmland with Settlement and Industry Landscape Character Type generally occurs below 150m within the Study Area (outside the boundaries of the AONB). It encompasses a patchwork of pastoral fields that are punctuated by main transport corridors and relatively large urban areas (including Clitheroe and Whalley) This landscape is generally viewed against either the backdrop of Moorland Hills (looking northwards) or Pendle Hill (looking southwards).

The pastoral fields are enclosed by an intricate network of hedgerows, which often contain hedgerow trees and provide texture to the landscape; and post and wire fences These fields surround the towns of Clitheroe and Whalley, providing the setting for a combination of Victorian and later buildings within the built up areas. A number of major road corridors and a main railway line also dissect this Landscape Character Type, disturbing the overall sense of tranquillity and remoteness.

Pockets of industry including tarmac works, cement works and industrial estates also punctuate the surrounding pastoral landscape. The scale and form of these buildings provides a strong visual contrast with the buildings and settlement patterns of adjacent Landscape Character Types

Key Environmental Features

Physical.

Similarly to the Undulating Lowland Farmland Landscape Character Type (E), this LCT generally occurs below 150 m and is underlain by a combination of soft glacial tills which separate the higher fells of Bowland to the north (formed from Millstone Grit) from Pendle Hill to the south. At Clitheroe, these are quarried for rock and used in cement manufacture. Where these deposits are located close to the surface, they are visible within the landscape in the form of small, isolated hills or reef knolls, such as at Worston at the western edge of Pendle Hill. In its lowland position adjacent to the relatively wide meandering course of the River Ribble, this

Landscape Character Type has flat to gently undulating topography. Within this landscape, Coplow, Salthill and Bellmanpark quarries have been designated as SSSI for their geological interest.

Ecological

Within the Lowland Farmland with Settlement and Industry Landscape Character Type the key ecological habitats include small stream corridors, hedges and hedgerow trees. Intensive farming practices, interspersed with industrial and urban land uses, however, limit the nature conservation value of this area.

Cultural and Historical

The landscape proved much more favourable to early settlers than the nearby uplands to the north and south, probably due to its position adjacent to the corridor of the main River Ribble. By the Roman period it is probable that much of this Landscape Character Type was already settled fairly densely and the fort established at Ribchester (outside the southern boundary of the AONB) is known to have had some civilian government functions. The origins of urban settlement in this landscape date to the 12th Century, when the market town of Clitheroe received its first charter in 1114. Similarly, settlement is known to have existed in Whalley to the south, in 1296, when an Abbey was founded. Clitheroe is dominated by a partially ruined Norman castle (situated on a limestone crag above the town). Despite modern expansion, the town retains much of its historic character, encompassing a winding main street which is lined in places by white fronted Georgian houses. The majority of enclosure within this type dates from the medieval period and has created a landscape of small fields which are mostly hedged although stone walls are evident where geology lies close to the surface. In the middle of the 18th century, rapid changes in the large-scale application of technology resulted in a move towards an industrialised society. To the east and of Clitheroe and west of Chatburn, limestone quarries, (associated with rich surface geological deposits) became prosperous and are still in operation today, providing local employment and introducing industrial features into the landscape.

Development, Settlement and Buildings:

- Settlement pattern is dominated by the large towns of Clitheroe (containing a mixture of historic and more modern houses, shops, hospitals and schools) and Whalley to the south;
- Houses within these towns are often terraced and display a range of local building materials including limestone and gritstone;
- To the north of the area the large village of Chatburn, once a mill village associated with the cotton industry, contains rows of terraced stone cottages;
- Outside these towns and villages, settlement pattern consists of occasional, scattered, isolated farmsteads;
- Clitheroe Castle is a key landmark buildings within views across this landscape;
- The imposing Hall at Standen (erected in the 15th century and rebuilt in 1757) is also a key built feature within the landscape;

- Modern industrial buildings and chimneys associated with cement workings and tarmac works introduce a dominant human element within this landscape and are visible within most views across the Landscape Character Type.

Landscape Character Areas
Landscape Character Areas within this Landscape Character Type include:

H1 Clitheroe and Chatburn

- Landscape pattern within this Landscape Character Area is dominated by the large town of Clitheroe, which is situated at the convergence of major road and railway corridors;
- These corridors introduce a source of noise and visual intrusion and disturb the overall sense of tranquillity;
- Clitheroe contains an assortment of housing (much of which is terraced and built from local stone) and commercial buildings;
- The tower of Clitheroe Castle (situated on a limestone outcrop above the town) is a landmark within views towards this area;
- At the eastern edge of the area, the small village of Chatburn, with its rows of terraced cottages, further contributes to settlement pattern;
- Large-scale quarries and associated works (including tall vertical chimneys) to the east of Clitheroe and west of Chatburn are a dominant human influence within views to this landscape from surrounding Landscape Character Types and Areas;
- Views northwards, across the corridor of the River Ribble are dominated by the rising mass of the central Moorland Hills and Plateau, whilst Pendle Hill contributes to recognisable sense of place within views southwards;
- At the edges of the urban development, patchworks of predominantly pastoral fields are delineated by, in places remnant, hedgerows, with frequent hedgerow trees.

H2 Higher and Lower Standen

- This relatively small landscape character area encompasses an intact patchwork of predominantly pastoral fields, which are interspersed with small patches of mixed woodland;
- This woodland, alongside hedgerows at field boundaries contributes to an intermittent sense of enclosure throughout the area;
- Overall sense of tranquillity is disturbed as a result of traffic on the A671 and A59 main road corridors;
- To the west, dramatic open views across the Ribble Valley contribute to recognisable sense of place, whilst to the east, views to Pendle Hill provide orientation;

- From the northern edge of the area, the urban edge of Clitheroe is clearly visible within views northwards

FORCES FOR CHANGE

Past Landscape Changes

- An expansion of historic settlements, both during the Industrial Revolution, when stone industrial buildings and terraced houses were introduced and Post-War, including infill and edge developments, which have tended to suburbanise the surrounding farmland;
- The introduction of main road corridors (often dual carriageways) and railway line, which has resulted in loss of tranquillity and associated sense of remoteness;
- Upgrading and standardisation of minor rural roads to allow for the volume of traffic associated with the settlements and industry, which has resulted in a loss of species-rich roadside verges and the introduction of signage and lighting;
- Quarrying of the landscape has resulted in spoil heaps and areas of reclaimed land (parts of which now support unique ecological habitats);
- A decline in mature hedgerow trees as a result of age or loss due to agricultural intensification;
- Expansion of villages or modernisation of farmsteads utilising non-local building materials (e.g. red brick) which are intrusive to local vernacular character;
- Amalgamation and diversification of dairy farms;
- Intensification of agricultural management, involving chemical fertiliser and herbicide applications, which has affected herb-rich meadows;

Current Landscape Condition

The overall condition of the Undulating Lowland Farmland with Settlement and Industry Landscape Character Type is considered to be moderate. Most landscape features are generally well managed. Patches of unmanaged hedgerows are, however, visible and there is also evidence of over-mature hedgerow trees.

Future Landscape Changes and Opportunities

In the short-term, negative changes within this Landscape Character Type are likely to include further pressure for the expansion of urban areas (including lighting, access roads and footpaths) which would have a suburbanising influence on the surrounding predominantly rural landscape. There is also likely to be pressure for development of industrial uses, including out of town business parks and leisure developments. Linked to this, there is likely to be pressure to widen main road corridors and standardise minor rural road corridors. Increased financial pressures and reduced availability of higher level agri-environment payments, may lead to field boundaries, walls and hedges suffering from a lack of management.

Longer-term changes (20+ years) will be dependent on prevailing incentives and policies and it is therefore challenging to be prescriptive. The AONB Management Plan will provide a key tool

in managing change and ensuring a positive future for the area. Potential longer-term changes and key guidelines within this Landscape Character Type are outlined below:

- *Agricultural Change and Land Management* –Changes in land ownership or agricultural management may also lead to a decline in the management of hedgerows and hedgerow trees;
- *Climate Change* – The likely effects of climate change on this landscape are not easily identifiable with current information, however, agricultural practices could be affected, with a move to plough up pasture and plant new crops. This Landscape Character Type is situated adjacent to the corridor of the River Ribble and therefore, could be affected by a risk of increased flooding if temperatures rise;
- *Development* – There is likely to be pressure for expansion of the main towns of Clitheroe and Whalley, as the demand for housing increases. Associated with this, the widening of main road corridors would have an impact on landscape character within this area. The dereliction of former industrial sites as these cease operation could lead to a loss of heritage features; however, there is also an opportunity to create new landscape by their restoration. The erosion and loss of vernacular building styles through introduction of cheaper alternatives will reduce the distinctive characteristics of this area. It is also likely that there will be increased pressure from tourist related developments, as a result of the proximity of this landscape to the edges of the AONB, affecting the character and quality

Sensitivities and Capacity for Change

The ecological sensitivity of this Landscape Character Type is represented by the combination of hedges, hedgerow trees and diverse narrow stream corridors. There is also a rich built heritage within the main towns and villages. In addition, the landscape displays a mature structure of hedgerows and hedgerow trees. Overall, landscape character and visual sensitivity is considered to be moderate. In places, hedgerows limit views, whilst there is strong intervisibility with the Unenclosed and Enclosed Moorland Hills, which provide a backdrop to most views from this lower landscape. Industrial chimneys and other industrial buildings at the edges of Clitheroe are also visible within most views to this Landscape Character Type from adjacent Landscape Character Types and Areas within the AONB.

GUIDELINES FOR MANAGING LANDSCAPE CHANGE

The overall strategy for the Undulating Lowland Farmland with Settlement and Industry Landscape Character Type is to conserve and enhance the network of mature hedgerows and hedgerow trees that contribute to the distinctive landscape pattern. The retention and restoration of historic and vernacular building materials and details, and the careful design of new buildings should also be encouraged. Where landscape features have been neglected, opportunities should be sought for restoration. There is also a need to ensure that potential new development at the edges of urban areas, utilises local vernacular limestone and gritstone and includes a robust planting structure of native tree and shrub species, particularly at the edges. Opportunities also exist to screen existing urban edges using native trees and shrubs. Open views towards the Unenclosed and Enclosed moorland hills Landscape Character Types, and framed views across the River Ribble should also be conserved.

Specific guidelines include:

Physical Character: Conserve and enhance hedges and hedgerow trees.

Ecological Character:

- Conserve and enhance herb-rich stream banks;
- Create new hedgerows and regenerate existing hedges to maintain and enhance key landscape linkages;
- Encourage farmers to adopt less intensive farming practices so that the vitality of existing woodlands is not compromised and to facilitate natural regeneration in and around woodland habitats;
- Encourage conservation of existing key landscape features and habitats;
- Encourage habitat linkage to increase robustness to climate change;
- Conserve the water quality of streams and becks and limit run off or pollution from adjacent pastoral farmland;
- Ensure that UK Biodiversity Action Plan habitats are appropriately managed;
- Restore semi-natural habitats;
- Discourage intensive agricultural practices, such as drainage and fertilisation, in areas with species-rich grasslands, hay and wet meadows;
- Seek opportunities to restore abandoned quarries, ensuring that their nature conservation interest is retained.

Cultural and Historic Character:

- Encourage conservation of significant historic features and buildings of industrial and other heritage;
- Ensure that any potential new urban development includes a robust planting of native tree and shrub planting at the edges;
- Encourage sympathetic new uses for disused farm buildings to ensure that they remain a viable and contributory feature within this landscape; and;
- Encourage the use of local building materials, in particular gritstone and limestone;
- Ensure that highway improvement schemes respect and reflect local character and encourage the use of traditional signage where possible;
- Ensure new development does not extend onto prominent hillsides;
- Maintain consistency of building materials, details and design;
- Conserve the pattern and distinctive settings to settlements;
- Give careful consideration to the siting and design of car parks and visitor facilities, which should be well screened by trees and woodlands.

Aesthetic and Perceptual Character

- Conserve open views towards the surrounding higher Moorland Plateaux and Unenclosed and Enclosed Moorland Hills Landscape Character Types;
- Conserve open and framed views across and into the corridor of the River Ribble;
- Maintain the distinctive pattern of hedgerows at field boundaries

CHARACTER TYPE E: UNDULATING LOWLAND FARMLAND

Only a small portion in the north-east corner of the proposed site is within this character type which extends further north and east.

General Characteristics

- Many mixed farm woodlands, copses and hedgerow trees;
- Intricate tapestry of grazed fields;
- A patchwork of wood and pasture when viewed from the fells.

Character Assessment

Location

There are eight occurrences of the Undulating Lowland Farmland within the extended AONB Study Area. Landscape Character Areas within this Type occur at the northern, western, southwestern and eastern edges of the Study Area; and in all cases, this Landscape Character Type extends outside the boundary of the AONB.

Landscape Character Description

Undulating Lowland Farmland covers much of the lower parts of the extended AONB Study Area. It is also the underlying layer to 3 other linked Landscape Character Types – Undulating Lowland Farmland with wooded brooks, Undulating Lowland Farmland with parkland and Undulating Lowland

Farmland with Settlement and Industry. In this case (E) the Landscape Character Type is predominantly farmland.

This lowland landscape, largely under 150 m, has its underlying geology masked by heavy boulder clays deposited by glacial activity. Viewed from the fells this enclosed landscape comprises a rich patchwork of pastures, mixed farm woodlands, copses, hedgerows and scattered picturesque stone villages. Wading birds, hares and roe deer can all be seen here. The small villages consist of stone houses and cottages and the churches provide landmarks in the landscape. Isolated farmsteads are often marked with single mature trees. Quarries and mines can also be found. Winding lanes are lined with hedgerows and herb rich verges, and hedges with mature trees clearly delineate the pastures and meadows in summer and autumn time. Dry stone walls are only seen as boundaries in the areas where boulder clay is absent. This is an intimate and scenic landscape, where there is a relatively strong sense of tranquillity in many places.

Physical

Generally below 150 m, the Undulating Lowland Farmland forms a transitional zone between the low lying plains of soft glacial deposits and the high fells of Bowland, formed from Millstone Grit. This Landscape Character Type, whether composed of limestone, grit, shale or sandstone, is of gentle topography when compared to the fells and hills. Glacial action has accentuated the differences by further tempering the relief of the low-lying areas by the deposition of glacial drift. Deep drift is conspicuous where hedges predominate over stone walls, as quarrying is only possible where the drift is sufficiently thin. Many of the woodlands which survive on the steep slopes of the deep cloughs and valley sides are of ancient origin and represent a rich natural resource. They include alder and ash woods on the base-rich soils of the valley floors grading through to lowland oakwoods and upland oak woods on the upper valley sides.

Ecological

Within the Lowland Farmland Landscape Character Type, hedges, hedgerow trees, roadside verges and small stream corridors provide important ecological habitats within an otherwise intensively farmed landscape. Pockets of habitat within this Landscape Character Type are designated as local wildlife sites for their ecological interest.

Cultural and Historical

The landscape proved more favourable to early settlers than the nearby uplands. By the Roman period it is probable that much of this Landscape Character Type was already settled fairly densely and the fort established at Ribchester (outside the southern boundary of the AONB) is known to have had some civilian government functions. Whilst Roman remains (besides roads) outside the immediate area of the forts are poorly represented in the record, the presence of Roman Kilns at Quernmore show that they exploited the natural resources of the area. Medieval population pressures, which saw the utilisation of small areas of the mosslands elsewhere in Lancashire also led to the continuation of small woodland clearances along the Ribble and the Lune. This created a small scale intimate landscape of scattered farms linked by winding roads with irregular fields and patches of surviving woodland on stream and field edges, a landscape which has remained intact to this day. The majority of enclosure dates from the medieval period and has created a landscape of small fields which are mostly hedged although stone walls are evident where geology lies close to the surface. A field pattern of ridge and furrow is still visible in several places.

During the 17th century lime was used for land improvement in these lowland fringe areas and many small farm kilns remain in the landscape, along with the larger industrial kilns and quarries of the 19th and 20th century. The quarrying of Millstone Grit also proved to be important in this Landscape Character Type. Where suitable stone was available, querns and millstones could be quarried and manufactured to meet the needs of the population. Lead and Silver were extracted in Rimington from the 17th century and mined and manufactured in places such as at Quernmore to meet the demands of the rapidly industrialising county.

Development, Settlement and Buildings

- Pattern of small, nucleated hamlets and villages, including Whitechapel and Quernmore, which contain an assortment of traditional gritstone vernacular houses and cottages;

- The churches in both villages provide landmarks within views from surrounding Undulating Lowland Farmland landscapes.

Landscape Character Areas

Landscape Character Areas within this Landscape Character Type include E7 Worston which covers a small part of the north-eastern corner of the proposed site, many of the descriptions in this section are very similar to those in the character type H (Undulating Lowland Farmland with Industry) that covers the majority of the site:

E7 Worston

- In views north-westwards from this area, the urban edge of Clitheroe is a recognisable feature, set against the rising backdrop of Moorland Hills towards the centre of the AONB;
- Sense of tranquillity within this area is greatly disturbed by its proximity to the A59 main road corridor to the northwest and Pendleton Road to the southeast;
- The patchwork of regularly shaped pastoral fields are lined with a network of hedgerows, which often contain hedgerow trees;
- Within views south-eastwards from the area, the dramatic profile of Pendle Hill contributes to recognisable sense of place and orientation;
- The small, traditional linear village of Worston, in addition to one isolated farmstead, is the only settlement within the area.

FORCES FOR CHANGE

Past Landscape Changes

- A decline in mature hedgerow trees as a result of age or loss due to agricultural intensification;
- Expansion of villages or modernisation of farmsteads utilising non-local building materials (e.g. red brick) which are intrusive to local vernacular character;
- Amalgamation and diversification of dairy farms;
- Intensification of agricultural management, involving chemical fertiliser and herbicide applications, which has affected herb-rich meadows.

Current Landscape Condition

The overall condition of the Undulating Lowland Farmland Landscape Character Type is considered to be good. Most landscape features are generally well managed. Patches of unmanaged woodland are, however, visible and there is also evidence of neglected stone walls and loss of hedgerows which have been replaced by fences.

Future Landscape Changes and Opportunities

An overall consistency in the use of vernacular building materials indicates a local desire to retain the traditional character of the area. Negative changes may include the amalgamation of farms, leading to a change in the character of the landscape, with new access tracks and the

creation of larger fields leading to a loss of traditional stone wall and hedgerow field boundaries. Amalgamation of farms may also result in farmhouses and associated buildings being converted to new uses and key landscape features being lost through neglect or removal to enable the amalgamation of adjacent fields. The increased farm size may lead to the demand for new agricultural buildings, affecting character and views. Increased financial pressures and reduced availability of higher level agri-environment payments, may lead to field boundaries, walls and hedges suffering from a lack of management.

Longer-term changes (20+ years) will be dependent on prevailing incentives and policies and it is therefore challenging to be prescriptive. The AONB Management Plan will provide a key tool in managing change and ensuring a positive future for the area. Potential longer-term changes and key guidelines within this Landscape Character Type are outlined below:

- *Agricultural Change and Land Management* – The amalgamation of farms and increased drive for efficient farm businesses or farms being sold as farmers and their families leave the industry; all have a direct impact on how the land is managed. As the key characteristics of the area are significantly influenced by agricultural practices, change in the industry could lead to an erosion of landscape quality;

- *Climate Change* – The likely effects of climate change on this landscape are not easily identifiable with current information, however, agricultural practices could be affected, with a move to plough up pasture and plant new crops.

- *Development* – Diversification of farm businesses leading to introduction of new buildings and the conversion of farm buildings from residential and other uses could gradually change the nature of the working landscape and its associated attributes. The erosion and loss of vernacular building styles through introduction of cheaper alternatives will reduce the distinctive characteristics of this area. Encroachment of large scale development such as wind farms, masts and pylons into the area would also have a significant effect on landscape character. It is likely that there will also be increased pressure from residential and tourist related developments, affecting the character and quality of the landscape.

Sensitivities and Capacity for Change

The ecological sensitivity of this Landscape Character Type is represented by a combination of hedges, hedgerow trees and small stream corridors. Sensitive cultural and historic features include the intact network of stone walls, stone bridges and historic villages. In addition, the landscape displays a mature structure of hedgerows and hedgerow trees, culminating in moderate landscape character sensitivity. Overall, visual sensitivity is considered to be moderate. In places, woodland and hedgerows limit views, whilst there is strong intervisibility with the Unenclosed and Enclosed Moorland Hills and Moorland Plateaux Landscape Character Types.

GUIDELINES FOR MANAGING LANDSCAPE CHANGE

The overall strategy for the Undulating Lowland Farmland Landscape Character Type is to manage the impact of changes in land and building use, conserve or restore neglected landscape features and encourage the retention and restoration of historic and vernacular building materials and details and the careful design of new buildings. There is also a need to conserve the network of dry stone walls, hedgerows and hedgerow trees which contribute to a diverse landscape pattern. The network of lanes, together with the rich roadside verges should be

maintained and enhanced. Open views towards the Unenclosed and Enclosed Moorland Hills, and the Moorland Plateaux Landscape Character Types should be conserved.

Specific guidelines include:

Physical Character: Conserve and enhance woodland, hedges and stone walls.

Ecological Character

- Link existing woodlands and hedgerows to create a continuous woodland network to reverse habitat fragmentation;
- Create new hedgerows and regenerate existing hedges to maintain and enhance key landscape linkages;
- Encourage farmers to adopt less intensive farming practices so that the vitality of existing woodlands is not compromised and to facilitate natural regeneration in and around woodland habitats;
- Conserve ancient semi-natural woodlands;
- Conserve the lowland herb-rich haymeadows and unimproved neutral grasslands;
- Conserve species-rich grass verges and increase species diversity by management where appropriate;
- Ensure the long-term viability of parkland trees and landscapes by restructuring, using species of local provenance wherever possible;
- Encourage conservation of existing key landscape features and habitats;
- Encourage habitat linkage to increase robustness to climate change;
- Ensure that verges are managed to maximise floristic biodiversity value.

Cultural and Historic Character:

- Encourage conservation of significant historic features and buildings;
- Avoid road widening, improvement works, cable and pipeline laying which would affect species-rich grass verges;
- Avoid road improvements that would affect the setting or structure of stone bridges or walls;
- Encourage sympathetic new uses for disused farm buildings to ensure that they remain a viable and contributory feature within this landscape; and;
- Encourage the use of local building materials, in particular gritstone and limestone;
- Ensure that highway improvement schemes respect and reflect local character and encourage the use of traditional signage where possible;
- Conserve traditional boundary features, such as stone/ metal boundary markers, signage and wells;

- Maintain stone walls, which are often located on the outskirts of villages, respecting local differences in style and construction;
- Conserve local features such as small farm lime kilns which signify the past use of limestone as a soil conditioner;
- Restore white railings, walls and hedgerows.

Aesthetic and Perceptual Character

- Conserve open views towards the surrounding higher Moorland Plateaux and Unenclosed and Enclosed Moorland Hills Landscape Character Types;
- Conserve the distinctive settings to rural settlements;
- Ensure that any potential new development on the edges of villages reflects the characteristic clustered form; development should be sited to retain views to landscape features and landmarks, such as church towers on the approaches to villages.

Lancashire Historic Landscape Characterisation Project (2002)

The Lancashire Historic Landscape Characterisation Project (2002) was restricted to the AONB area and therefore did not cover Clitheroe and its immediate surroundings.

Landscape Character of Proposed Development Site and Immediate Environs

The development site sits largely within the H1 Clitheroe and Chatburn character area **within** Character Type H: Undulating lowland farmland with industry. Character Area H2 Higher and Lower Standen bounds the site to the south. The two most north-easterly fields in the development site fall into character area E7 Worston, Character Type E: Undulating lowland farmland this is a very similar character type to the remainder of the development site and so it is felt appropriate to consider the development site as a whole being part of the H1 Character Area.

Development Site Edges

The site is part of the character area dominated by Clitheroe, including the suburban residential areas which bound the site to the north. These suburban residential areas run in to the historic hamlet of Little Moor at the western boundary of the site.

The southern boundary of the site is coincident with the boundary between the H1 and H2 Character Areas which follows the course of an attractive stream running from east to west in a relatively deep, steep-sided, wooded valley. As such the edge of the development site has much of the qualities described in the H2 Character Area e.g. the "patches of woodland contributing to an intermittent sense of enclosure" and "intact patchwork of predominantly pastoral fields". The historic Standen Hall grounds form part of this southern boundary. The grounds are enclosed in a dense woodland belt along this boundary which is formed also by the steep-sided valley and stream mentioned earlier. Higher Standen, a collection of farm buildings, also lies on this boundary with an open aspect over-looking the development site. The buildings are a mix of traditional and modern functional agricultural buildings.

The H1 and H2 Character Areas are described as:

H1 Clitheroe and Chatburn

- Landscape pattern within this Landscape Character Area is dominated by the large town of Clitheroe, which is situated at the convergence of major road and railway corridors;
- These corridors introduce a source of noise and visual intrusion and disturb the overall sense of tranquillity;
- Clitheroe contains an assortment of housing (much of which is terraced and built from local stone) and commercial buildings;
- The tower of Clitheroe Castle (situated on a limestone outcrop above the town) is a landmark within views towards this area;
- At the eastern edge of the area, the small village of Chatburn, with its rows of terraced cottages, further contributes to settlement pattern;
- Large-scale quarries and associated works (including tall vertical chimneys) to the east of Clitheroe and west of Chatburn are a dominant human influence within views to this landscape from surrounding Landscape Character Types and Areas;
- Views northwards, across the corridor of the River Ribble are dominated by the rising mass of the central Moorland Hills and Plateau, whilst Pendle Hill contributes to recognisable sense of place within views southwards;
- At the edges of the urban development, patchworks of predominantly pastoral fields are delineated by, in places remnant, hedgerows, with frequent hedgerow trees.

H2 Higher and Lower Standen

- This relatively small landscape character area encompasses an intact patchwork of predominantly pastoral fields, which are interspersed with small patches of mixed woodland;
- This woodland, alongside hedgerows at field boundaries contributes to an intermittent sense of enclosure throughout the area;
- Overall sense of tranquillity is disturbed as a result of traffic on the A671 and A59 main road corridors;
- To the west, dramatic open views across the Ribble Valley contribute to recognisable sense of place, whilst to the east, views to Pendle Hill provide orientation;
- From the northern edge of the area, the urban edge of Clitheroe is clearly visible within views northwards.