



WADDINGTON TO LOWCOCKS PIPELINE, CLITHEROE LANCASHIRE

Desk-Based Assessment and Walkover Survey



Oxford Archaeology North

October 2005

United Utilities

Issue No: 2005-06/420

OAN Job No: L9550

NGR: SD 72793 44166 -

SD 73312 43342

CONTENTS

CONTENTS.....	1
SUMMARY	3
ACKNOWLEDGEMENTS.....	4
1. INTRODUCTION	5
1.1 Circumstances of Project.....	5
2. METHODOLOGY.....	6
2.1 Project Design.....	6
2.2 Desk-Based Assessment.....	6
2.3 Walkover Survey.....	6
2.4 Archive.....	7
3. BACKGROUND	8
3.1 Location, Topography and Geology	8
3.2 Historical and Archaeological Background	8
3.3 Map Regression Analysis.....	11
3.4 Archaeological Interventions	12
4. WALKOVER SURVEY	13
4.1 Introduction.....	13
4.2 Results	13
5. GAZETTEER OF SITES.....	14
6. SIGNIFICANCE OF THE REMAINS.....	23
6.1 Introduction.....	23
6.2 Criteria	24
6.3 Significance.....	26
7. IMPACT AND RECOMMENDATIONS	27

7.1	Impact.....	27
7.2	Recommendations	27
8.	BIBLIOGRAPHY	29
8.1	Primary and Cartographic Sources.....	29
8.2	Aerial Photographs.....	29
8.3	Secondary Sources	29
9.	ILLUSTRATIONS	32
9.1	Figures.....	32
9.2	Plates	32
	APPENDIX 1: PROJECT DESIGN.....	33

SUMMARY

Following a proposal to construct a new link main between Waddington and Lowcocks (SD 7331 43347279 4417) by United Utilities a programme of archaeological assessment was carried out by Oxford Archaeology North (OA North). This comprised a desk-based assessment and a walkover survey. Waddington is known to have at least medieval origins; it has a medieval church and two halls, and in addition, a hospital for widows, which was established in the sixteenth century.

In total, 32 sites of archaeological interest were identified within the study area during the assessment, including parts of former field systems, evidence for quarrying, a number of buildings (both industrial and domestic), remains associated with the linen industry, a former hospital, and a prehistoric barrow. Of these, 12 were considered likely to be affected by the proposed development. Although many of these were not considered to have a great deal of individual significance or were of unknown date and function, collectively many formed part of the agricultural landscape surrounding the village and, therefore, had some local importance. In addition there are 16 Listed Buildings within the study area; as the majority of these were very unlikely to be affected they were not included in the gazetteer, but their presence was noted.

A variety of types of further work was recommended in order to more fully record and understand these sites, including topographic survey, watching brief, photographic survey, palaeoenvironmental sampling and evaluation.

ACKNOWLEDGEMENTS

Oxford Archaeology North (OA North) would like to thank United Utilities for commissioning the project. Thanks are also due to Peter Iles and Lesley Mitchell at the Lancashire County Archaeological Service for their help, and all the staff of the Lancashire County Record Office in Preston for their patience and assistance with this project.

Daniel Elsworth undertook the desk-based assessment, the walkover survey was carried out by Peter Schofield and the illustrations were produced by Mark Tidmarsh and Peter Schofield. Alison Plummer managed the project and edited the report, which was also edited by Alan Lupton.

1. INTRODUCTION

1.1 CIRCUMSTANCES OF PROJECT

- 1.1.1 Following a proposal by United Utilities to construct a new main link between Waddington to Lowcocks, Clitheroe, Lancashire (SD 73312 43342 – 72793 44166) a programme of archaeological recording was recommended by the Specialist Advisor (Archaeology) for Lancashire County Council (LCC). This was to comprise a desk-based assessment and walkover survey of the proposed route of the pipeline.
- 1.1.2 The desk-based assessment comprised a search of both published and unpublished records held by the Sites and Monuments Record (SMR) in Preston, the Lancashire County Record Office, also in Preston, and the archives and library held at OA North. The walkover survey comprised a rapid examination of the proposed pipeline route to a Level I standard (see *Appendix I*) in order to identify surviving remains of archaeological interest. This report sets out the results of the desk-based assessment and walkover survey in the form of a short document, outlining the findings, followed by a statement of the archaeological potential and significance, and an assessment of the impact of the proposed development. The significance criteria detailed in PPG 16 (DoE 1990) was employed during the assessment.

2. METHODOLOGY

2.1 PROJECT DESIGN

- 2.1.1 OA North submitted a project design (*Appendix 1*) in response to a verbal brief issued by the Specialist Advisor (archaeology) at LCC. The project design was adhered to in full, and the work was consistent with the relevant standards and procedures of the Institute of Field Archaeologists, and generally accepted best practice.

2.2 DESK-BASED ASSESSMENT

- 2.2.1 A study area of 0.5m either side of the proposed pipeline route was examined, in order to assess the likely presence of archaeological remains within the development area, and demonstrate the general nature of the archaeological record in the wider area. Any sites of archaeological interest identified were collated into a gazetteer and their significance assessed.
- 2.2.2 **Sites and Monuments Record (SMR):** this is a list of all known sites of archaeological interest within the county, including Listed Buildings and Scheduled Monuments, which is maintained by the county council. Each site is provided with a location and brief description, which is the primary source of information for a study of this kind.
- 2.2.3 **Lancashire County Record Office Preston (LRO(Preston)):** primary sources, in particular maps, were examined along the route of the proposed pipeline, in order to identify the location and form of any sites of archaeological interest. Secondary sources regarding these sites and providing general background history were also consulted.
- 2.2.4 **Oxford Archaeology North:** OA North has an extensive archive of secondary sources relevant to the study area, as well as numerous unpublished client reports on work carried out both as OA North and in its former guise of Lancaster University Archaeological Unit (LUAU). These were consulted where necessary.

2.3 WALKOVER SURVEY

- 2.3.1 Following the desk-based assessment an enhanced Level I type survey (*Appendix 1*) was undertaken to relate the existing landscape to research findings. This encompassed a one hundred metre corridor along either side of the pipeline, walked in a systematic fashion. Archaeological features identified within the landscape were recorded using the relevant OA North *pro forma*, and the features accurately located using differential GPS survey, which can achieve an accuracy of $\pm 0.25\text{m}$ with respect to the OS national grid.

2.4 ARCHIVE

A full professional archive has been compiled in accordance with the project design (*Appendix 1*), and in accordance with current IFA and English Heritage guidelines (English Heritage 1991). The paper and digital archive will be deposited in the Lancashire County Record Office in Preston on completion of the project.

3. BACKGROUND

3.1 LOCATION, TOPOGRAPHY AND GEOLOGY

- 3.1.1 The route of the pipeline falls within the area known as the 'Bowland Fringe and Pendle Hill' (Countryside Commission. 1998). This is a transitional region between the upland core of the Bowland Fells and the flat landscape of the Lancaster and Amounderness coastal plain. It is mainly between 50m and 150m above sea level, and consists of an undulating rolling landscape, which is predominantly used for permanent pasture, mostly improved, with some woodland and arable land.
- 3.1.2 The underlying carboniferous geology is mainly of the Worsthorpe Shale Group, although there are areas of both Clitheroe and Chatburn Limestones. This is overlain by drift geology of cambic stagnogley soils of the brickfield 3 association (Soil Survey of England and Wales 1983).
- 3.1.3 The study area is historically in the parish of Mitton, and formerly part of Yorkshire, but it was added to Lancashire following the boundary changes of 1974 (Freethy 2002).

3.2 HISTORICAL AND ARCHAEOLOGICAL BACKGROUND

- 3.2.1 The more general historical background consists entirely of information from secondary sources, including early histories of the area and archaeological reports. It includes evidence from a relatively wide area around the route of the pipeline in order to put it into its historical context and provide a general understanding of the factors that have shaped the heritage of the area.
- 3.2.2 **Prehistoric Period:** evidence for prehistoric activity in the region is currently sparse. This may be due to a lack of research or the fact that encroaching peat in the moorlands may have obscured early prehistoric sites. Elsewhere in the Pennines the investigation of erosion scars in the peat has uncovered sites previously covered in similar environmental circumstances (Newman and Hodgkinson 1997). It is likely that the Bowland Landscape and its fringes were populated by nomadic hunters from as early as 10,000 BC (Countryside Commission 1992), when much of the area was covered in broadleaved forests. Woodland clearance began in the Neolithic period, around 3,000 BC and this process continued throughout the Bronze Age (Middleton 1996). Evidence for late Neolithic/early Bronze Age activity in the area has been found in the form of sites at Bleasdale Circle and Oak Farm near Chipping, along with remains found in a cave above Whitewell and a possible group of tumuli on Waddington Fell (*ibid*). The evidence for Iron Age activity in the region is sparse, although this is attributed to a lack of research rather than an abandonment of the landscape, as pollen evidence has indicated an increase in activity represented by woodland clearance at this time (MacKay and Tallis 1994, 578).

- 3.2.3 Only a single site of prehistoric date is known within the study area, the site of a barrow of Bronze Age date at Pinder Hill to the west of Waddington (Site 11).
- 3.2.4 **Romano-British Period:** by the end of the Iron Age the Bowland area was probably under the control of the Brigantes, who are thought to have had an important centre at Ingleborough (Newman and Hodgkinson 1997, 20) to the north-west of the study area. The Romans occupied the central Pennines area, including Bowland, in the early AD 70s and a fort was established at Ribchester. The Roman road from Ribchester to Burrow in Lonsdale lay to the west of the study area but there is little direct evidence of Roman activity elsewhere along the route.
- 3.2.5 There are no sites of Romano-British date known within the study area, although they may be present and as yet unidentified.
- 3.2.6 **Early Medieval Period:** there is little evidence for early medieval activity in the region, with the nearest known remains being found at Ribbleshead near Ingleborough, and the Minster site of Whalley. However documentary evidence suggests that the Bowland area passed out of British control and was integrated into the Kingdom of Northumbria in the seventh century AD (Newman and Hodgkinson 1997, 21). The majority of place names in the region, such as Chipping and Waddington in the study area are of Anglo-Saxon origin, and these towns are likely to have been established before the onset of Viking settlement in the late ninth century (*ibid*). Traces of the Viking occupation can be seen in the place-names of the Bowland Region, for example Battersby (*ibid*), and in the origin of upland features such as ‘fell’, ‘moss’, ‘thwaite’ and ‘beck’ (Countryside Commission 1992, 13). The name Bowland itself has Anglo-Saxon origins, as ‘Boelanda’ or ‘the land by the bow’, in the sense of the bend of the River Ribble (Ekwall 1960, 56). The lands at Waddow and Bashall both have early origins although the houses themselves are later. Waddow and nearby Waddington are thought to derive from the Anglo-Saxon ‘Wada’ with Waddington being ‘The Tūn of Wada’s People’ (Ekwall 1960, 490; Smith 1961, 199), although the town is recorded in the Domesday Book as ‘Widitun’ (*ibid*). The town of West Bradford is also recorded in the Domesday Book as ‘Bradeforde’ (*ibid*, 58) and there is known to have been a settlement at Lees (Sites 03-06) since the eleventh century (Newman and Hodgkinson 1997, fig 2). Environmentally there is evidence for further depletion of the woodland cover throughout the Anglo-Saxon period, and cultivation of the heavy clay soils in the lower lying areas took place for the first time (*ibid*). This clearance continued throughout the tenth century.
- 3.2.7 There are no known sites of early medieval date within the study area, although they may be present and as yet unidentified.
- 3.2.8 **Late Medieval:** at the time of the Norman Conquest the Bowland area was divided between the Earldoms of Northumbria and Mercia, with the River Ribble as its boundary. After the Conquest the lands were granted to Roger de Poitou and formed part of the original county of Lancashire. In these lands a wide hunting territory was established that continued until the twelfth century, after which the land was primarily used for cattle and horse rearing. After

Roger de Poitou, the ownership of the land passed to Robert de Lacy in the early twelfth century. It was then decreed that no further hunting should take place on the land without the permission of the de Lacies (Newman and Hodgkinson 1997, 22). As a result, Bowland and Pendle, along with Trawden and Rossendale became a chase rather than a forest; a forest at that time being a specific legal term referring to land reserved for hunting and held by the King (Countryside Commission 1992, 14). In the later medieval period there was a decline in the importance of hunting in the area, and a rise in cattle rearing. It is thought that many of the medieval vaccary, or cattle ranching, sites may be obscured or indeed still occupied by post-medieval farms (Newman and Hodgkinson, 1997, 24).

- 3.2.9 Towns such as Clitheroe were granted charters in the mid-thirteenth century (White 1996, 127). Waddington's moment of fame in the medieval period came when King Henry VI was betrayed and captured at the hall following his defeat at Hexham, in 1465 (Whitaker 1878, 31). A chain, said to have been attached to his spur, was found at Waddington Hall and remains in the Lancashire Record Office (DDWh 9/5 n.d.).
- 3.2.10 There are two sites thought to belong to the medieval period; both are areas of ridge and furrow (Sites **01** and **31**), which can be dated by the form of the ridges, which are considerably more curved and wider than later examples (Higham 2004, 58). Several other areas of ridge and furrow may also be medieval, but are less easy to date (Sites **02**, **08-10**, **15**, **18**, **26** and **30**). Other sites that may be of medieval date include a group associated with the linen industry at Lilands, including a flax pool (Site **06**), potash pits (Site **07** and **16**), and tenter banks (Site **17**). These sites reflect the combination of agriculture and small-scale industry present in the area at the time.
- 3.2.11 **Post- Medieval Period:** the current landscape in the region, of small to medium-scale irregular fields around small villages and hamlets, is largely due to the development of the medieval vaccaries into multi-tenanted nucleated settlements (Newman and Hodgkinson 1997, 26). Post-medieval vernacular stone buildings with stone-flagged or slate roofs make up the core of the settlements and farms. In many cases fields marked with ridge and furrow surround these. The development of small-scale quarrying and mining in this period has left behind disused quarries and lime kilns but the main evidence for industry in this area is seen at Waddington and West Bradford (Plate 1). At Waddington, a fulling mill, dye house and tenter field are known to have existed before the eighteenth century (Rothwell 1990, 29-30) and towards the end of the eighteenth century a tannery and tile works were established (*ibid*). At West Bradford a medieval corn mill was rebuilt a number of times, and once corn milling had ceased by c1840 it was used for bone crushing, bobbin turning and chairmaking (*ibid*). During this period Waddington Hall was little more than a derelict farmhouse, until it was purchased by John Waddington, who restored it in typical Victorian style to an 'ancient seat' (Bridge 2001, 188-193).
- 3.2.12 The majority of sites within the study area are of post-medieval date, and these reflect the increase in population and building, particularly associated with

industrial processes. The sites include a lodge (Site **03**), a building, probably a cottage (Site **04**), gravel pits (Sites **12**, **14**, and **25**), a tannery (Site **13**), a bobbin and chair mill (Site **22**), inns (Sites **23-24**), a vicarage (Site **27**), a hospital (Site **28**), a stile (Site **29**), and a farmhouse and barn (Site **32**).

3.2.13 **Modern Period:** the modern landscape in the region has changed little since the post-medieval period, with the principle settlements being the market town of Clitheroe and the villages of Waddington and West Bradford. The area attracts reasonable numbers of recreational walkers and tourists but the Countryside Commission (1998) identified certain areas of concern in the region. These include the decline in woodland due to a lack of management, and the loss of character caused by the removal of hedgerows, road widening schemes and the dilution of traditional vernacular building styles with modern nondescript housing (*ibid*, 95-6).

3.2.14 No sites belonging to this period were identified within the study area, although some or all of the sites of unknown date (Sites **19-21**) may.

3.3 MAP REGRESSION ANALYSIS

3.3.1 **Jefferys 1771; Yates 1786:** these are the earliest detailed maps of the area, although they do not provide information on specific buildings. The majority of the study area is not shown on Yates' map as it was at that time in Yorkshire, although Waddow Hall is depicted. Jefferys' map (Plate 1) shows the general arrangement of Waddington and the surrounding area, although the arrangement of individual fields is not clearly defined. The hospital (Site **28**) is one of the few named buildings shown.

3.3.2 **DDX 118/149/20 n.d:** although undated, this plan of fields in Waddington is likely to be of eighteenth or early nineteenth century date. It is the earliest plan to depict the arrangement of fields around the village and depicts a number of local sites of interest including Waddington Hall and the road 'to the mill'. Unfortunately, it is not accurate enough to provide any useful information.

3.3.3 **Ordnance Survey 1850:** the first Ordnance Survey 6": 1 Mile sheet is the first detailed and reliably accurate map available, and it shows a number of sites of archaeological interest, the majority of which are recorded in the Lancashire HER. These largely comprise various types of buildings, particularly those with an industrial and/or social function, which demonstrates that despite the rural nature of the area there was still a degree of industrial activity taking place.

3.3.4 **Tithe Map 1851 (PR 3031/4/6):** like the first edition Ordnance Survey this is a very detailed map, but it also gives additional information such as the land owner, occupier, land use and field name. This can reveal evidence for former activity, as well as showing the site of former buildings and so forth. No additional sites of interest were identified in this case, although the generally agricultural nature of the landscape was very evident in the field names and the uses to which they were put.

- 3.3.5 **Ordnance Survey 1886:** there is little obvious change within the study area by this date, although there has been a degree of expansion within the village itself. No additional sites of archaeological interest were identified from this map.
- 3.3.6 **Ordnance Survey 1912-1932:** again nothing of additional archaeological interest is shown on this map, although by this time the hospital has expanded to its current size. The map of 1932 does not include Yorkshire.

3.4 ARCHAEOLOGICAL INTERVENTIONS

- 3.4.1 Four other archaeological projects are known to have previously taken place within the study area. A building investigation was carried in 1999 of Chancery Farm barn (Site **32**; Haigh 1999). This revealed that the structure had been built as a combination threshing barn and cow-house, before being converted into a shippon in the twentieth century (*ibid*).
- 3.4.2 A watching brief and building investigation was undertaken at Waddington Church in 2003 (OA North 2003b). This identified a number of features, particularly burials and a crypt, relating to the later use of the building. Previous to the current project a desk-based assessment was carried out for the Ribble Link Main (OA North 2003a), of which the Waddington to Lowcocks pipeline was originally a part. This identified a total of 55 sites of archaeological interest, two of which relate to sites in the current report (Sites **01-02** and **09**, which correspond to Sites **29-30** in the 2003 report). This was followed by a programme of walkover and topographic survey (OA North 2004), which recorded several features including field boundaries, quarries and tracks and added a further 29 sites to the list of those recorded.

4. WALKOVER SURVEY

4.1 INTRODUCTION

- 4.1.1 The walkover survey aimed to determine both the survival of above ground remains of sites recorded during the desk-based assessment and also identify previously unrecorded sites along the proposed pipeline routes.
- 4.1.2 All fields containing, and adjacent to, the pipeline were walked systematically along the pipeline route and ground conditions were good for identifying sites through walkover. All of the fields encountered were under pasture with short to medium height grass coverage over the vast majority. The topography is generally low lying on the eastern edge of the village of Waddington and it rises gently to the north away from Waddington Brook with the ground undulating; it includes the course of a palaeochannel (Site **05**) and some small rounded outcrops which have been used for quarrying (Site **14**). At the northern end of the route the ground rises more sharply as it follows up the eastern side of the brook near Hospital Wood. A small portion of the pipeline route is masked by taller grass which obscures the end of the field containing Site **08** and also the north-east corner of the field containing Site **15**.

4.2 RESULTS

- 4.2.1 The descriptions of six sites identified through the desk-based assessment were enhanced through the walkover survey. These included three field-systems/ridge and furrow cultivation (Sites **08**, **09** and **18**) located on the east and south-east of the village; the walkover survey revealed that these sites did not have any remaining upstanding ridge and furrow cultivation. However, the field observations did show that numerous field banks and ditches crossed over these areas as field boundaries. In addition, the walkover survey revealed surviving elements of the curving palaeochannel (Site **05**) at the end south of the pipeline, which is evident as an embanked ditch, and also evidence of two gravel pits located on the east side of the village (Site **14**). Despite searching there was no above ground evidence of the post-medieval building named as 'Mercer's' on early mapping (Site **04**).
- 4.2.2 The majority of sites newly identified by the walkover survey were agrarian in nature. Two more areas of field-systems/ridge and furrow were recorded (Sites **15** and **30**), along with another possible field boundary or trackway (Site **21**), which is set within the previously discovered field-system (Site **18**). In essence, many of the fields encircling Waddington would have contained at one time smaller fields with ridge and furrow cultivation, but this is now being intermittently removed. The survey also recorded two small raised platforms (Sites **19** and **20**) set within one of the field-systems (Sites **18**), these are enigmatic and undated but could potentially relate to agricultural structures. The final site recorded was a three-stepped stile (Site **29**), which is located adjacent to Waddington Hospital.

5. GAZETTEER OF SITES

Site number	01
Site name	Near Horse Shoe Wood
NGR	SD 73277 43147
Site type	Ridge and furrow
Period	Medieval
SMR No	3439
Statutory Designation	-
Sources	SMR
Description	A large area of ridge and furrow is visible in the park to the north of Waddow Hall in aerial photographs associated with SMR No. 3439 (which includes various interrelated features). At least two former field boundaries are also visible and the slightly curving form and width of the ridges would suggest a medieval date. It is orientated north-west/south-east.
Assessment	The site lies outside of the proposed development area and is unlikely to be affected

Site number	02
Site name	Near Waddow Lodge
NGR	SD 72930 43278
Site type	Ridge and furrow
Period	Medieval – post-medieval
SMR No	3439
Statutory Designation	-
Sources	SMR
Description	A large area of ridge and furrow is visible to the west of Waddow Lodge in aerial photographs associated with SMR No. 3439 (which includes various interrelated features). A single former field boundary is evident within it, the ridges are wide but straight and orientated north-west/south-east.
Assessment	The site lies outside of the proposed development area and is unlikely to be affected

Site number	03
Site name	Waddow Lodge
NGR	SD 73123 43331
Site type	Lodge
Period	Post-medieval
SMR No	20543
Statutory Designation	-
Sources	SMR; Ordnance Survey 1850
Description	A lodge, presumably for Waddow Hall, is shown on the Ordnance Survey map of 1850.
Assessment	The site lies outside of the proposed development area and is unlikely to be affected

Site number	04
Site name	Near Waddow Lodge
NGR	SD 73186 43443
Site type	Building
Period	Post-medieval
SMR No	3439

Statutory Designation	-
Sources	Ordnance Survey 1850, Walkover Survey
Description	A small building labelled 'Mercer's' with tracks running to the north-west and south is shown on the Ordnance Survey map of 1850. A possible building platform relating to this is visible on the aerial photograph associated with SMR No. 3439. The walkover survey revealed that Waddington Brook was much modified at this location and no obvious surface remains were evident.
Assessment	The site lies close to the proposed development area and may be affected

Site number	05
Site name	Waddington Brook
NGR	SD 73236 43419 - SD 73404 43391
Site type	Palaeochannel
Period	Unknown
SMR No	-
Statutory Designation	-
Sources	HSL UK 1963, Run 16 Frame 8940, Walkover Survey
Description	A probable former course of the Waddington Brook is visible in an aerial photograph from 1963, to the north of the present brook. The walkover survey revealed a large lynchet-type bank and ditch curving through the field at this location, it looks natural in origin and has been used where field banks from surrounding field-systems (Site 09) run up against it.
Assessment	Part of the site is crossed by the proposed development and will be affected

Site number	06
Site name	Lilands
NGR	SD 73700 43500
Site type	Site of flax pool
Period	Post-medieval
SMR No	12898
Statutory Designation	-
Sources	SMR; Higham 1998
Description	The site of a flax pool identified by Mary Higham.
Assessment	The site lies outside of the proposed development area and is unlikely to be affected

Site number	07
Site name	Lilands
NGR	SD 73600 43600
Site type	Potash pit
Period	Post-medieval
SMR No	20321
Statutory Designation	-
Sources	SMR; Higham 1998
Description	A corn and/or fulling mill identified by Mary Higham.
Assessment	The site lies outside of the proposed development area and is unlikely to be affected

Site number	08
Site name	Near Fields Farm
NGR	SD 73253 43562
Site type	Ridge and furrow

Period	Medieval – post-medieval
SMR No	-
Statutory Designation	-
Sources	HSL UK 1963, Run 16 Frame 8940, Walkover Survey
Description	An area of ridge and furrow is visible in an aerial photograph from 1963. It is orientated approximately east/west. No features were visible during the walkover survey however this part of the field was covered in tall grass.
Assessment	Part of the site is crossed by the proposed development area and will be affected

Site number	09
Site name	Fields Farm
NGR	SD 73180 43487
Site type	Ridge and furrow
Period	Medieval – post-medieval
SMR No	3439
Statutory Designation	-
Sources	SMR, Walkover Survey
Description	A small area of ridge and furrow is visible in an aerial photograph. The ridges are orientated approximately north/south and there is a probable boundary along the south side. No ridge and furrow cultivation was observed during the walkover survey and the northern part of the field has been heavily modified in recent years by the side of Fields Farm. There are however numerous small boundary banks measuring approximately 1m wide by up to 0.2m in height and are found crossing to the south of the supposed ridge and furrow and running up to and beyond the palaeochannel (Site 05).
Assessment	Part of the site is crossed by the proposed development area and will be affected

Site number	10
Site name	Near Pinder Hill
NGR	SD 72696 43490
Site type	Ridge and furrow
Period	Medieval – post-medieval
SMR No	-
Statutory Designation	-
Sources	Meridian Airmaps Limited 1968, Run 4768 Frame 123-5
Description	An area of ridge and furrow orientated north-west/south-east is visible in an aerial photograph from 1968.
Assessment	The site lies outside of the proposed development area and is unlikely to be affected

Site number	11
Site name	Pinder Hill
NGR	SD 72730 43590
Site type	Site of barrow
Period	Prehistoric
SMR No	305
Statutory Designation	-
Sources	SMR; Higham 1979
Description	A barrow near the summit of Pinder hill was opened by workmen digging gravel in 1887. They found a large inverted urn of coarse ware, containing bones. Beneath this was found a smaller urn or 'incense cup'. This contained finer bones, two worked flints and a piece of worked bone. The hill is now almost totally

Assessment quarried away and the grave-goods are in Clitheroe museum. It is actually shown within the quarry on Pinder Hill on the current OS mapping (SD 72719 43705).
The site lies outside of the proposed development area and is unlikely to be affected

Site number 12
Site name Pinder Hill
NGR SD 72724 43698
Site type Gravel pits
Period Post-medieval
SMR No 10074
Statutory Designation -
Sources SMR; Ordnance Survey 1850
Description A gravel pit is shown on the Ordnance Survey map of 1850.
Assessment The site lies outside of the proposed development area and is unlikely to be affected

Site number 13
Site name Pinder Hill
NGR SD 72809 43693
Site type Tannery
Period Post-medieval
SMR No 10077
Statutory Designation -
Sources SMR; Ordnance Survey 1850
Description A tannery is shown on the Ordnance Survey map of 1850.
Assessment The site lies outside of the proposed development area and is unlikely to be affected

Site number 14
Site name Waddow Grove
NGR SD 73107 43756
Site type Gravel pits
Period Post-medieval
SMR No 10075
Statutory Designation -
Sources SMR; Ordnance Survey 1850; Walkover Survey
Description Two gravel pits are shown on the Ordnance Survey plan of 1850. They were still visible during the walkover survey. The southernmost pit (SD 73121 43762) is sub-oval and measures approximately 7m in diameter and is cut into the hill by up to 1m deep. There is a small trackway running roughly north/south from the south end for 30m. The northern pit (SD 73107 43781) is figure of eight-shaped and is located at the northern end of an undulating hill. It measures approximately 35m long by 10m wide and is cut into the hill by up to 0.6m deep. It is currently filled with rubble and nettles.
Assessment The site lies close to the proposed development area and may be affected

Site number 15
Site name Near Waddow Grove
NGR SD 73222 43650
Site type Field-system
Period Medieval – post-medieval
SMR No -

Statutory Designation	-
Sources	Walkover Survey
Description	A series of small earthen field banks and possibly ridge and furrow located in the centre of the field. The banks measure up to 1m wide by only 0.1m in height. The ground is hummocky on the eastern end of the field and the north-east corner is fenced in and covered in taller grass.
Assessment	Part of the site is crossed by the proposed development area and will be affected

Site number	16
Site name	Lilands
NGR	SD 73600 43700
Site type	Potash pit
Period	Post-medieval
SMR No	20319
Statutory Designation	-
Sources	SMR; Higham 1998
Description	A potash pit identified by Mary Higham.
Assessment	The site lies outside of the proposed development area and is unlikely to be affected

Site number	17
Site name	Lilands
NGR	SD 73700 43700
Site type	Tenter banks
Period	Post-medieval
SMR No	20317
Statutory Designation	-
Sources	SMR; Higham 1998; HSL UK 1963, Run 16 Frame 8940
Description	Tenter banks identified by Mary Higham. A number of banks, which appear to be former field boundaries are visible in an aerial photograph from 1963.
Assessment	The site lies outside of the proposed development area and is unlikely to be affected

Site number	18
Site name	Waddington
NGR	SD 73103 43891
Site type	Field-system
Period	Medieval – post-medieval
SMR No	-
Statutory Designation	-
Sources	HSL UK 1963, Run 16 Frame 8940; Walkover Survey
Description	A large area of ridge and furrow with associated field boundaries is visible in aerial photographs from 1963. Walkover survey revealed no surviving evidence of ridge and furrow cultivation at this location, however it did show two of the field boundaries shown on the aerial photographs. These demarcate the roughly south-west/north-east and more northerly south-east/north-west boundaries in the field as wide u-shaped ditches. The ditches measure approximately 1m wide at the base by over 3m wide at the top and they are up to 0.5m deep. There is a slight bank upon the north side of the of the southernmost boundary and a large grown-out tree.
Assessment	Part of the site is crossed by the proposed development area and will be affected

Site number	19
Site name	Waddington
NGR	SD 73076 43926
Site type	Platform
Period	Unknown
SMR No	-
Statutory Designation	-
Sources	Walkover Survey
Description	A rectangular platform was identified during the walkover survey and is located just off-centre within the a field-system (Site 18). It measures approximately 11m long roughly north-west/south-east by 10m wide and is banked up on the south side by 0.2m and cut into the slightly sloping ground by 0.2m on the north side.
Assessment	The site is crossed by the proposed development area and will be affected

Site number	20
Site name	Waddington
NGR	SD 73030 43948
Site type	Platform
Period	Unknown
SMR No	-
Statutory Designation	-
Sources	Walkover Survey
Description	A circular platform was identified during the walkover survey and is located within the west side of a field-system (Site 18) adjacent to a relict field boundary (Site 21). It measures approximately 8m in diameter by up to 0.25m in height and is flattened on top.
Assessment	The site lies close to the proposed development area and may be affected

Site number	21
Site name	Waddington
NGR	SD 73027 43854 - SD 73022 43989
Site type	Ditch
Period	Medieval – post-medieval
SMR No	-
Statutory Designation	-
Sources	Walkover Survey
Description	A linear ditch not shown on any mapping of aerial photographs but observed during walkover survey and located within the east side of a field-system (Site 18). It measures approximately 145m long orientated roughly north/south and is 1.5m wide at the base by 3m wide at the top and is up to 0.5m deep. There is a kink to the west at the south end and the feature becomes a raised curved bank which could have originally joined up with a now tarmac track to the west. The feature may be merely a field boundary or possibly a sunken trackway running through the field-system.
Assessment	The site lies close to the proposed development area and may be affected

Site number	22
Site name	Waddington
NGR	SD 72900 43840
Site type	Bobbin and chair mill
Period	Post-medieval
SMR No	2875
Statutory Designation	-

Sources SMR; Ordnance Survey 1850
Description A 'bobbin and chair mill' is shown on the Ordnance Survey map of 1850 to the east of Waddington Brook, just north of Waddington Hall. An assembly rooms is now situated in approximately the same position.
Assessment The site lies outside of the proposed development area and is unlikely to be affected

Site number 23
Site name Sun Inn, Waddington
NGR SD 72890 43886
Site type Inn
Period Post-medieval
SMR No 10072
Statutory Designation -
Sources SMR; Ordnance Survey 1850
Description A public house is shown here on the Ordnance Survey map of 1850.
Assessment The site lies outside of the proposed development area and is unlikely to be affected

Site number 24
Site name Buck Inn, Waddington
NGR SD 72790 43789
Site type Inn
Period Post-medieval
SMR No 10076
Statutory Designation -
Sources SMR; Ordnance Survey 1850
Description A public house is shown here on the Ordnance Survey map of 1850.
Assessment The site lies outside of the proposed development area and is unlikely to be affected

Site number 25
Site name Pinder Hill
NGR SD 72702 43757
Site type Gravel pit
Period Post-medieval
SMR No 10073
Statutory Designation -
Sources SMR; Ordnance Survey 1850
Description A gravel pit is shown on the Ordnance Survey map of 1850.
Assessment The site lies outside of the proposed development area and is unlikely to be affected

Site number 26
Site name Near Bonny Bargate Farm
NGR
Site type Ridge and furrow
Period Medieval – post-medieval
SMR No -
Statutory Designation -
Sources Meridian Airmaps Limited 1968, Run 4768 Frames 123-5

Description A large area of ridge and furrow orientated north-west/south-east is visible in an aerial photograph of 1968.

Assessment The site lies outside of the proposed development area and is unlikely to be affected

Site number 27

Site name Waddington

NGR SD 72600 43960

Site type Vicarage

Period Post-medieval

SMR No 10070

Statutory Designation -

Sources SMR; Ordnance Survey 1850

Description A vicarage is shown on the Ordnance Survey map of 1850.

Assessment The site lies outside of the proposed development area and is unlikely to be affected

Site number 28

Site name Waddington Hospital

NGR SD 72900 44030

Site type Hospital

Period Post-medieval

SMR No 10071

Statutory Designation Parts Listed Grade II, Nos 18175 and 18176

Sources SMR; Langdale 1822; Ordnance Survey 1850; Anon 1979; Bridge 1994

Description Waddington Hospital, founded by Robert Parker in the seventeenth century as a home for poor widows, although Langdale states that it was founded in 1690 as an Alms House. It acquired a number of estates and a board of trustees in approximately 1700. By 1801 there were 16 widows living there, and a number of alterations were made throughout the nineteenth century to cope with increasing numbers of residents, but in 1889 the hospital was condemned as unsanitary. They were completely rebuilt on a much larger scale between 1891-3.

Assessment The site lies close to the proposed development area and may be affected

Site number 29

Site name Near Waddington Hospital

NGR SD 72954 44007

Site type Stile

Period Post-medieval

SMR No -

Statutory Designation -

Sources Walkover Survey

Description A small three stepped stone stile carrying the public footpath and located on the eastern side of Waddington Hospital (Site 28). There are possibly re-used grooved stones on the top of the wall either side of the opening.

Assessment The site is crossed by the proposed development area and is likely to be affected

Site number 30

Site name Near Carter Fold Cottage

NGR SD 72899 44218

Site type Field-system

Period Medieval – post-medieval

SMR No -

Statutory Designation	-
Sources	Walkover Survey
Description	A field-system consisting of ridge and furrow cultivation and relict field boundaries observed during walkover survey. The ridge and furrow is narrow in width and measuring approximately 1.5m between ridges by up to 0.15m in height. The boundaries survive as shallow ditches and banks but the northern and western boundaries have medium/large grown-out trees along them.
Assessment	The site is crossed by the proposed development area and will be affected

Site number	31
Site name	Near King Henry's Grove
NGR	SD 72313 44158
Site type	Ridge and furrow
Period	Medieval
SMR No	-
Statutory Designation	-
Sources	HSL UK 1963. Run 16 Frame 8941
Description	A small area of ridge and furrow is visible in an aerial photograph dating to 1963. It is relatively wide and curved and orientated approximately north/south.
Assessment	The site lies outside of the proposed development area and is unlikely to be affected

Site number	32
Site name	Chancery Farm
NGR	SD 72510 44370
Site type	Farmhouse and barn
Period	Post-medieval
SMR No	19063
Statutory Designation	-
Sources	SMR; Haigh 1999
Description	A two-storey stone barn with a lean-to and a single storey outshut on the west elevation. The north gable has a ground floor doorway, which has been partially blocked to form a window, and there is a first floor loading doorway and three ground floor windows. The south elevation has two ground floor doorways leading into the outshut and no openings into the barn. The barn was fully recorded in 1999 and is described as comprising a former four-bay threshing barn, which may have originally contained animal accommodation in the south end. Later shippens had been constructed on the north and west sides of the building to provide further animal accommodation in the twentieth century.
Assessment	The site lies outside of the proposed development area and is unlikely to be affected

6. SIGNIFICANCE OF THE REMAINS

6.1 INTRODUCTION

6.1.1 In total 32 sites of archaeological interest were identified within the study area. Of these, 18 were already recorded in the Lancashire SMR, six were identified during the walkover survey, and the rest were identified in other sources, particularly aerial photographs. A summary of the sites is presented in Table 1 below.

6.1.2 There are no sites with any form of statutory designation within the study area, although there are several Listed Buildings, which are not included in the gazetteer (see Table 2).

Period	No of sites	Sites
Neolithic	0	-
Bronze Age	1	Site of a barrow (Site 11)
Iron Age/ Romano-British	0	-
Roman	0	-
Medieval	2	Ridge and furrow (Sites 01 and 31)
Medieval – post-medieval	12	Ridge and furrow (Sites 02 , 08-10 , 15 , 18 , 26 and 30), flax pool (Site 06), potash pit (Sites 07 and 16), tenter banks (Site 17)
Post-medieval	13	Lodge (Site 03), building (Site 04), gravel pits (Sites 12 , 14 and 25), tannery (Site 13), bobbin and chair mill (Site 22), inns (Sites 23-24), vicarage (Site 27), hospital (Site 28), stile (Site 29), farmhouse and barn (Site 32)
Unknown	4	Palaeochannel (Site 05), platforms (Sites 19-20), ditch (Site 21)

Table 1: Number of sites by period

6.1.3 There are a large number of Listed Buildings situated within the study area, and while it is considered very unlikely that any of these will be affected by the proposed development, they are listed in Table 2 below.

<i>HER No</i>	<i>Name</i>	<i>NGR</i>	<i>Listing</i>
306	St Helen's Church	72860 43820	II*
307	Waddington Hall	72932 43803	II
3649	Waddington stocks	72870 43853	II

18167	New Hall, Waddington	72790 43750	II
18168	Waddington Hall wall	72912 43786	II
18170	Post Office, Fell Road	72811 43933	II
18171	The Reader's House, Fell Road	72650 44043	II
18172	Glebe House, Fell Road	72630 44010	II
18174	Waddington Bridge	72860 43966	II
18175	Waddington Hospital gateway	72913 43985	II
18176	Waddington Hospital pump	72885 44004	II
18177	Beechthorpe, West Bradford Road	72710 43860	II
18178	Brook House Farmhouse	72965 43710	II
18179	Church of St Helen, sundial	72851 43809	II
18180	Church of St Helen, sundial base	72869 43808	II
18181	Church of St Helen, tomb of Robert Parker	72880 43827	II

Table 2: Listed Buildings within the study area

6.2 CRITERIA

- 6.2.1 There are a number of different methodologies used to assess the archaeological significance of sites; that to be used here is the 'Secretary of State's criteria for scheduling ancient monuments' which is included as Annex 4 of PPG 16 (DoE 1990). The sites considered likely to be affected by the proposed development and previously listed (*Section 5*, above) were each considered using the criteria, with the results below.
- 6.2.2 Only those sites considered likely to be affected by the proposed development are discussed (see Table 3).
- 6.2.3 **Period:** none of the sites identified within the study area are individually of great significance to their period. The hospital (Site **28**) as an unusual site is perhaps the only example. Collectively, the field-systems with ridge and furrow are an important part of the landscape (**08, 09, 15, 18** and **30**). The two platforms (Sites **19-20**) of unknown date and function could prove to be

- significant for their period, if, for example, they represented prehistoric or early medieval sites, but this depends on further exploratory work.
- 6.2.4 **Rarity:** the hospital (Site **28**) is a rare type of site, especially for its age. The palaeochannel (Site **05**) is unusual within the study area rather than rare, and therefore of some significance.
- 6.2.5 **Documentation:** the hospital (Site **28**) has considerable potential for additional documentary research, and any information relating to this building may be of additional significance.
- 6.2.6 **Group Value:** the areas of ridge and furrow (Sites **08, 09, 15, 18** and **30**) have an increased value as a group, and the ditch (Site **21**) associated with Site **18** might also be added to this. If it were demonstrated that the two platforms (Sites **19-20**) were related to each other and their form and age could be confirmed then they too would have an increased significance on account of their group value.
- 6.2.7 **Survival/Condition:** the hospital (Site **28**) in its present form survives in a good condition. The condition of the ridge and furrow cultivation within the field-systems (Sites **08, 09, 15, 18** and **30**) is poor with only upstanding remains recorded during walkover survey at Site **30**. The field systems do however have complexes of upstanding field boundaries which have only partially been recorded in the current phase of investigation. The earthen platforms (Sites **19** and **20**) set within the field-system (Site **18**) are enigmatic but do survive well. In addition, the palaeochannel (Site **05**) is a large upstanding earthwork, the gravel pits (Site **14**) are surviving although partially filled with debris, and the stile (Site **29**) is intact. The only site recorded that is was not observed through walkover survey were the remains of a building (Site **04**), where no surface features were recognised.
- 6.2.8 **Fragility/Vulnerability:** the areas of ridge and furrow (Sites **08, 09, 15, 18** and **30**) are extremely fragile and vulnerable to agricultural activity and other developments; indeed, the only upstanding ridge and furrow cultivation was found at Site **30**. Many of the other earthwork sites (Sites **05, 14** and **19-21**) are probably also fragile as agricultural activity albeit intermittent can be expected within fields adjacent to Waddington village.
- 6.2.9 **Diversity:** the hospital (Site **28**) is extremely diverse and made up of a large number of component parts. The areas of field-systems/ridge and furrow (Sites **08, 09, 15, 18** and **30**) are also relatively diverse. The sites of unknown date and function (Sites **05** and **19-21**) may be very diverse, but this will only be revealed by additional work.
- 6.2.10 **Potential:** the two platforms (Sites **19-20**) have a very high potential for revealing additional information. The palaeochannel (Site **05**) has the potential to reveal significant palaeoenvironmental evidence. The area of the small building (Site **04**), although not visible during the walkover survey, has the potential for below-ground evidence being revealed, while the area around the hospital (Site **28**) could contain large amounts of artefacts, possibly in the form of middens.

6.3 SIGNIFICANCE

- 6.3.1 Although none of the sites might be considered of national or regional significance many of them are of local importance. The hospital (Site **28**) is a building with strong socio-historical connections to Waddington, and has a high potential for the presence of artefacts in its vicinity. The field-system/ridge and furrow (Sites **08, 09, 15, 18** and **30**) form an important part of the local landscape, and demonstrates areas of former agricultural activity. The platforms, ditch and palaeochannel (Sites **05, 19-21**) do not correspond to any features shown on the historic maps and, therefore, have the potential to reveal information about former settlement or activity in the area. The other sites reveal information about the general activities taking place in the area, and form part of the general archaeological and historical landscape.

7. IMPACT AND RECOMMENDATIONS

7.1 IMPACT

7.1.1 Despite the relatively small size of the proposed development area there are a large number of sites of archaeological interest in its vicinity. Many of these form part of former field-systems, which cover large areas, parts of which will be directly affected by the proposed development. In general, there is a bias towards sites of post-medieval date being represented, and this probably reflects the great expansion in building and development that took place at this time. A number of sites of medieval or possible medieval date are also present, however, and this more fully reflects the origins of Waddington as a medieval settlement, as well as perhaps suggesting the potential for further remains of a similar date. The presence of a single prehistoric site (Site 11) might also suggest some potential for even earlier remains, although the extent of this is difficult to estimate.

7.2 RECOMMENDATIONS

7.2.1 In total, thirteen sites of archaeological interest are likely/or could potentially be affected by the proposed development (Sites 04, 05, 08, 09, 14, 15, 19-21 and 28-30). A variety of types of further work is recommended in order to provide appropriate mitigation, based on an assessment of the significance of the sites (see Section 6.2) and the probable scale of the impact. This is summarised in Table 3 below.

Site No	Type	Period	Impact	Recommendations
04	Building	Post-medieval	Unknown	Watching brief
05	Palaeochannel	Unknown	Severe on part	Topographic survey, palaeoenvironmental sampling
08	Ridge and furrow	Medieval – post-medieval	Severe on part	Topographic survey
09	Field-system	Medieval – post-medieval	Severe on part	Topographic survey
14	Gravel pits	Post-medieval	Minimal	Topographic survey
15	Field-system	Medieval – post-medieval	Severe on part	Topographic survey
18	Field boundaries	Medieval – post-medieval	Severe on part	Topographic survey
19	Platform	Unknown	Severe	Topographic survey and evaluation

20	Platform	Unknown	Minimal	Avoid/Topographic survey and watching brief
21	Ditch	Unknown	Minimal	Avoid/Topographic survey and watching brief
28	Hospital	Post-medieval	Minimal	Watching brief
29	Stile	Post-medieval	Severe	Photo survey, Remove and replace
30	Field-system	Medieval – post-medieval	Severe to part	Topographic survey

Table 3: Sites likely to be affected by the proposed development and recommended further work

- 7.2.2 In addition, it is recommended that a permanent presence watching brief be maintained during all off-road sections of the topsoil strip and excavation of the pipeline. This should be maintained for all deposits or levels above the natural drift geology.

8. BIBLIOGRAPHY

8.1 PRIMARY AND CARTOGRAPHIC SOURCES

DDWh 9/5, c1820 *Box Containing Chain and Papers Stating that the Chain was on a Spur of Henry VI Found at Waddington in 1465*, LRO(Preston)

DDX 118/149/20, n.d. *Plan of Fields in Waddington*, LRO(Preston)

Jefferys, T, 1771 *The County of York Surveyed*

Ordnance Survey, 1850 6": *1 Mile*, Yorkshire Sheet **182**, surveyed 1847

Ordnance Survey, 1886a 25": *1 Mile*, Lancashire Sheet **47.6**, revised 1884

Ordnance Survey, 1886b 25": *1 Mile*, Lancashire Sheet **47.10**, revised 1884

Ordnance Survey, 1912 25": *1 Mile*, Lancashire Sheet **47.6**, revised 1910

Ordnance Survey, 1912 25": *1 Mile*, Lancashire Sheet **47.10**, revised 1910

Ordnance Survey, 1932 25": *1 Mile*, Lancashire Sheet **47.10**, revised 1930

PR 3031/4/6, 1851 *Plan of the Titheable Lands in the Township of Waddington and Parish of Milton in the West Riding of the County of York*, LRO(Preston)

Soil Survey of England and Wales, 1983 *Soils of Northern England*, **1**, 1: 250000

Yates, W, 1786 *The County Palatine of Lancaster*

8.2 AERIAL PHOTOGRAPHS

HSL UK, 1963 Run 16, Frame 8940

Meridian Airmaps Limited, 1968 Run 4768, Frames 123-125

8.3 SECONDARY SOURCES

Anon, 1979 *Waddington Hospital Near Clitheroe: Its History and Aims*, 2nd edn, no location

Bridge, M, 1994 *Waddington: Village Life in the Nineteenth Century*, Preston

Bridge, M, 2001 *Waddington: Village Life 1901-1951*, Settle

Countryside Commission, 1992 *The Forest of Bowland Landscape*, Cheltenham

Countryside Commission, 1998 *Countryside Character Volume 2: North West*, Cheltenham

- DoE, 1990 *Planning Policy Guidance Note 16: Archaeology and Planning*, **PPG16**
- Ekwall, E, 1960 *The Concise Oxford Dictionary of English Place Names*, 4th edition, Oxford
- English Heritage, 1991 *Management of Archaeological Projects*, 2nd edn, London
- Freethy, R, 2002 Red or White, It's Still a Beauty, www.thisislancashire.co.uk/lancashire/archive/2002/04/20/LETFEATURES2ZM.html
- Haigh, S, 1999 *Chancery Farm Barn, Fell Road, Waddington, Lancashire: Archaeological Building Recording*, unpubl rep
- Higham, MC, 1979 Bowland – The Historic Archaeological Record, *Lancashire Archaeol Bulletin*, **5:1**, 11-12
- Higham, MC, 1998 The Organisation and Production of Textiles in North-West England in the Medieval Period, Including Woollen Processing, but with Particular Reference to Linen, in E Roberts (ed), *A History of Linen in the North West*, Lancaster, 1-21
- Higham, NJ, 2004 *A Frontier Landscape: The North-West in the Middle Ages*, Macclesfield
- Langdale, T, 1822 *A Topographical Directory of Yorkshire*, 2nd edn, Northallerton
- MacKay, AW, and Tallis, JH, 1994 The Recent Vegetational History of the Forest of Bowland, Lancashire, UK, *New Phytologist* **128**, 571-84
- Middleton, R, 1996 The Neolithic and Bronze Age, in R. Newman (ed) *The Archaeology of Lancashire*, Lancaster, 35-60
- Newman, R, and Hodgkinson, D, 1997 *North West Water's Forest of Bowland Estate Lancashire: Archaeological Survey Report*, unpubl rep
- OA North, 2003a *Ribble Link Main, Bowland Fringe and Pendle Hill, Lancashire: Archaeological Desk-Based Assessment*, unpubl rep
- OA North, 2003b *St Helen's Church, Waddington, Lancashire: Archaeological Watching Brief and Photographic Survey*, unpubl rep
- OA North, 2004 *Ribble Link Main, Bowland Fringe and Pendle Hill, Lancashire: Rapid Identification and Topographic Survey*, unpubl rep
- Rothwell M, 1990 *Industrial Heritage: A guide to the Industrial Archaeology of the Ribble Valley*, Accrington
- Smith, A (ed), 1961 *The Place-Names of the West Riding of Yorkshire*, **6**, English Place-Name Soc **35**, Cambridge

Whitaker, TD, 1878 *The History and Antiquities of the Deanery of Craven in the County of York*, 1, 3rd edition, Leeds

White, A, 1996 Medieval Towns, in R. Newman (ed) *The Archaeology of Lancashire*, Lancaster, 125-138

9. ILLUSTRATIONS

9.1 FIGURES

Figure 1: Location Map

Figure 2: Plan showing gazetteer sites

9.2 PLATES

Plate 1: Part of Jefferys' map of 1771 showing Waddington and the hospital (Site **28**).

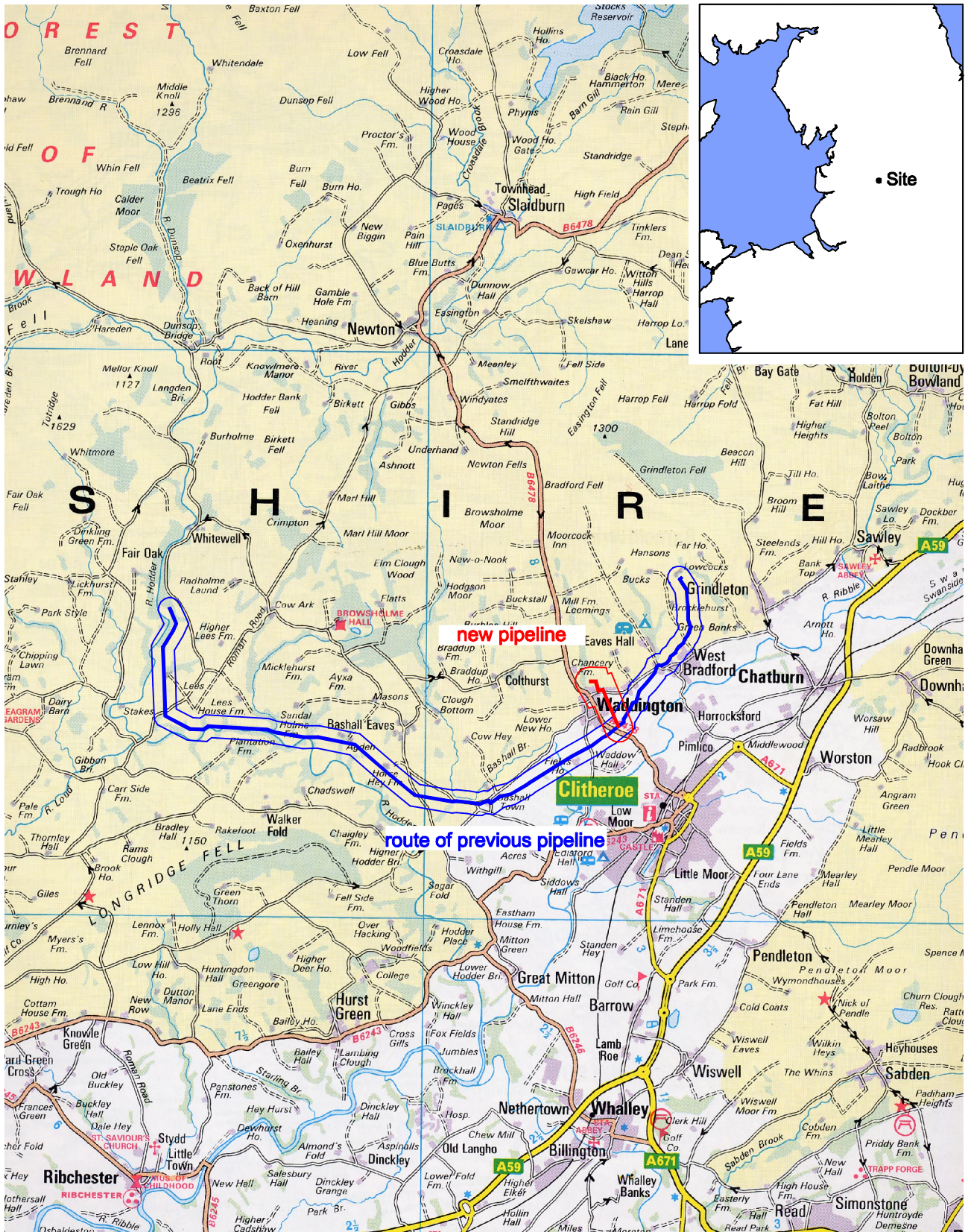
Plate 2: Part of the Ordnance Survey map of 1886 showing Waddington.

Plate 3: Part of the Ordnance Survey map of 1912 showing Waddington.

Plate 4: Boundary ditch within field-system (Site **18**), looking north-west.

Plate 5: Circular platform (Site **21**), looking east.

Plate 6: Earthen banks within field-system (Site **09**), looking north-west.



based upon the Ordnance Survey 1:250000
 with the permission of the controller of HMSO
 © Crown Copyright

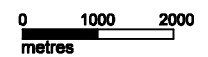
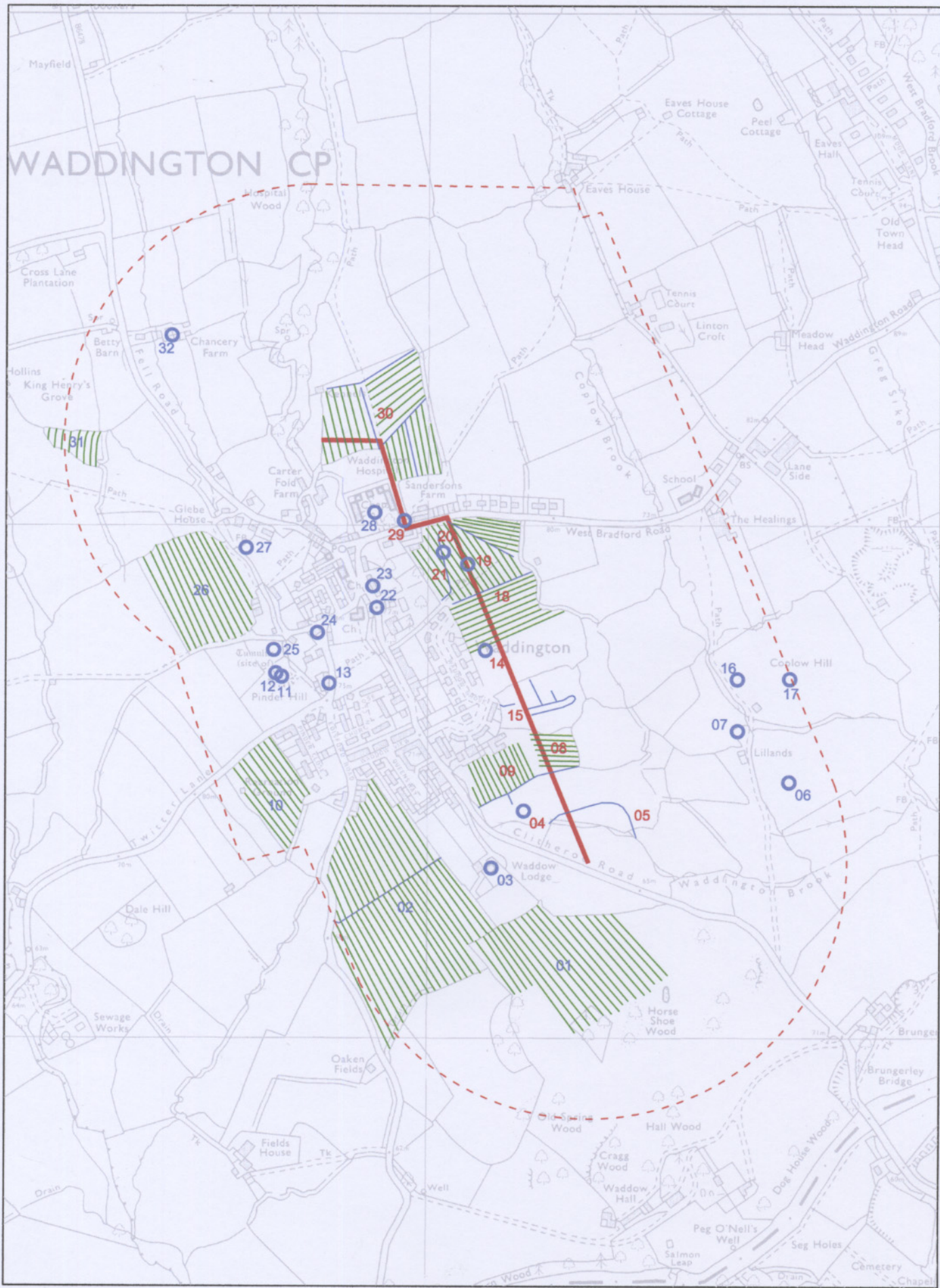


Figure 1: Location Map



Reproduced from the Landranger 1:25,000 scale by permission of the Ordnance Survey on behalf of The Controller of Her Majesty's Stationery Office. © Crown copyright 1990. All rights reserved. Licence No AL 100005580

N

pipeline route

ridge and furrow

gazetteer sites

gazetteer sites affected by pipeline

0 250m

Scale 1:10,000 at A4

Figure 2 : Plan showing gazetteer sites



Plate 1: Part of Jefferys' map of 1771 showing Waddington and the hospital (Site 28).

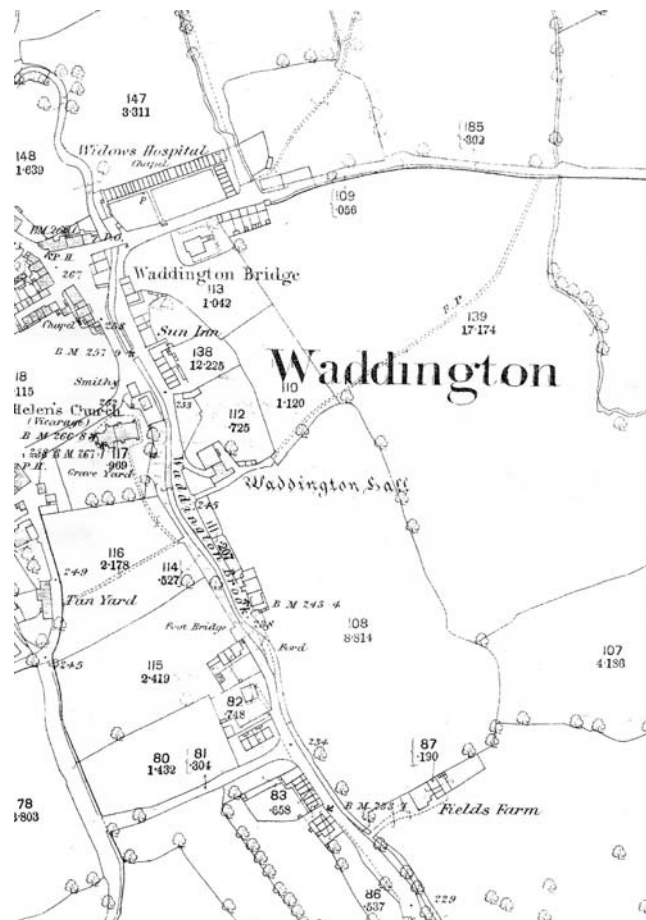


Plate 2: Part of the Ordnance Survey map of 1886 showing Waddington.

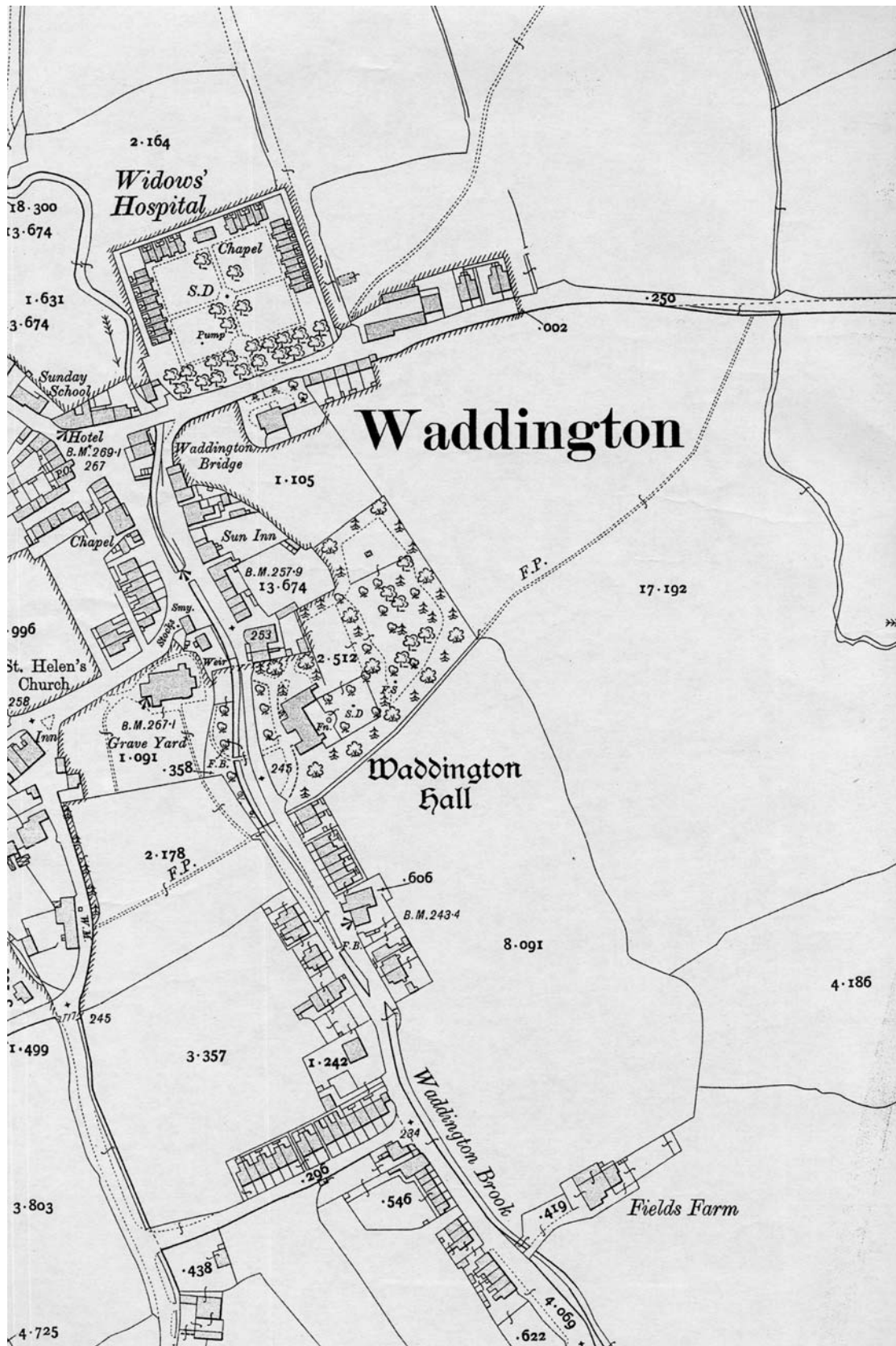


Plate 3: Part of the Ordnance Survey map of 1912 showing Waddington.



Plate 4: Boundary ditch within field-system (Site **18**), looking north-west.



Plate 5: Circular platform (Site **21**), looking east.



Plate 6: Earthen banks within field-system (Site **09**), looking north-west.

APPENDIX 1: PROJECT DESIGN

1 INTRODUCTION

- 1.1 This project design has been compiled for United Utilities (hereafter the client). It presents proposals for the assessment of a proposed new main link at Lowcocks to Waddington, Clitheroe, Lancashire. Section 2 of this document states the objectives of the project, Section 3 deals with OA North's methodology. Section 4 addresses other pertinent issues including details of staff to be involved, and project costs are presented in Section 5.
- 1.2 The Specialist Advisor (Archaeology) at Lancashire County Council (LCC) has recommended that a desk-based assessment and walkover survey are undertaken of the proposed pipeline route as passes in close proximity to Waddington, a village with medieval origins. The Historic Landscape Characterisation puts the village as ancient settlement and the fields around as ancient enclosure. This programme of work will allow a decision to be made as to whether any areas of identified archaeological significance need to be avoided or a programme of archaeological mitigation works undertaken.
- 1.3 OA North has the professional expertise and resources to undertake the project detailed below to a high level of quality and efficiency. OA North is an **Institute of Field Archaeologists (IFA) registered organisation, registration number 17**, and all its members of staff operate subject to the IFA Code of Conduct.

2 OBJECTIVES

- 2.1 The following programme has been designed to provide for accurate recording of any archaeological deposits that will be disturbed by topsoil stripping activities and trench cutting associated with the pipeline. A desk-based assessment will precede a walkover survey to place any findings that are made in to the context of known archaeological sites and/or artefact discovery sites in the immediate
- 2.2 A written report will assess the significance of the data generated by the desk-based assessment and subsequent fieldwork, within a local and regional context.

3 METHOD STATEMENT

3.1 DESK-BASED ASSESSMENT

- 3.1.1 The following will be undertaken as appropriate, depending on the availability of source material. The level of such work will be dictated by the time scale of the project.
- 3.1.2 **Documentary and Cartographic Material:** this work will comprise an assessment and investigation of the existing resource. It will include an appraisal of appropriate sections of County histories, early maps, and such primary documentation (tithe and estate plans etc.) as may be reasonably available. Particular emphasis will be upon the early cartographic evidence, which has the potential to inform the post-medieval occupation and land-use of the area. Any photographic material lodged in the County Sites and Monuments Record (SMR) will also be studied. Published documentary sources will also be examined and assessed. The study will examine place and field name evidence for the site and its environs. This work will involve visits and or correspondence searches of the

following repositories: Lancashire Sites and Monuments Record and the County Record office (Preston).

- 3.1.3 **Map Regression Analysis:** available cartographic sources will be consulted in an attempt to trace the development of the landscape back to the earliest available cartographic source. This will provide information on additional sites not included in the SMR, as well as ascertaining potentially any areas of more recent development.
- 3.1.4 **Aerial Photography:** a brief survey of the extant air photographic cover will be undertaken. The SMR will be consulted for aerial photography.
- 3.1.5 **Physical Environment:** a rapid desk-based compilation of geological (both solid and drift), pedological, topographical and palaeoenvironmental information will be undertaken. It will be based on published geological mapping and any local geological surveys in the possession of the County Council or the Client. This will not only set the archaeological features in context but also serves to provide predictive data, that will increase the efficiency of the field inspection.

3.2 WALKOVER SURVEY

- 3.2.1 **Visual Inspection:** following the desk-based assessment a level I walkover survey (*Appendix 1*) will be undertaken to relate the existing landscape to research findings. This will encompass one-hundred metre corridor along either side of the pipeline, walked in a systematic fashion. Archaeological features identified within the landscape will be recorded using the relevant OA North pro forma, and the features accurately positioned with the use of either a GPS, which can achieve accuracies of $\pm 0.1\text{m}$ with respect to the OS national grid, or by manual survey techniques which will tie in new features to features already shown on the relevant OS map.
- 3.2.2 **Contingency plan:** in the event of significant archaeological features being identified during the desk-based assessment and walkover survey discussions will take place with the Archaeological Officer, as to the extent of further works to be carried out, and in agreement with the Client. All further works would be subject to a variation to this project design. Further stages of work are likely to include a watching brief during topsoil stripping and trench opening activities.

3.3 REPORT/ ARCHIVE

- 3.3.1 **Interim Statement:** in the event that further work is recommended an interim statement will be issued. In this instance or in the event that the client specifically requests an interim statement it should be noted that all illustrations will be copies of field drawings and not completed CAD drawings.
- 3.3.2 **Final Report:** two copies of the final report will be submitted to the client and a further two to LCC Both paper and digital copies will be provided on CD-ROM in pdf format. The report will present the following information:
- (i) **Summary:** a summary statement of the findings;
 - (ii) **Introduction:** the background to the project including location details;

- (iii) **Methodology:** an outline of the methodology of all elements of the programme of work;
 - (iv) **Historical Background:** a brief historical background to the site;
 - (v) **Results:** an account of the past and present land use of the study area;
An account of known sites identified through the study of documentary sources;
Any evidence for the remains of archaeological sites identified by the walkover;
 - (vi) **Discussion:** a discussion of the relative significance of sites within the study area;
A description of the significance of the study area in its local and regional context;
 - (vii) **Impact/Recommendations:** the identification of areas where further development will impact upon the archaeological resource in addition to the impacts of the current development;
 - (viii) **Illustrations:** maps, plans, sections and copies of the site photographic archive;
 - (ix) **Appendices:** a copy of the brief and this project design;
- 3.3.3 Provision will be made for a summary report to be submitted to a suitable regional or national archaeological journal within one year of completion of fieldwork, if relevant results are obtained.
- 3.3.4 **Confidentiality:** all internal reports to the Client are designed as documents for the specific use of the Client, for the particular purpose as defined in the project brief and project design, and should be treated as such. They are not suitable for publication as academic documents or otherwise without amendment or revision.
- 3.3.5 **Archive:** the results of all archaeological work carried out will form the basis for a full archive to professional standards, in accordance with current English Heritage guidelines (*Management of Archaeological Projects*, 2nd edition, 1991). The project archive represents the collation and indexing of all the data and material gathered during the course of the project. This archive will be provided in the English Heritage Centre for Archaeology format and a synthesis will be submitted to the SMR (the index to the archive and a copy of the report). Arrangements for deposition of the full site archive will be made the Lancashire County Record Office.

4 OTHER MATTERS

- 4.1 **Project Monitoring:** whilst the work is undertaken for the Client, the Lancashire Archaeological Officer will be kept fully informed of the work. Any proposed changes to the project design will be agreed with the Archaeological Officer and the Client.

- 4.1.1 **Access:** OA North will consult with the Client regarding access to the site.
- 4.1.2 **Health and Safety:** OA North provides a Health and Safety Statement for all projects and maintains a Unit Safety policy. All site procedures are in accordance with the guidance set out in the Health and Safety Manual compiled by the Standing Conference of Archaeological Unit Managers (1997). A written risk assessment will be undertaken in advance of project commencement and copies will be made available on request to all interested parties.
- 4.1.3 **Work Timetable:** the desk-based element is expected to take approximately four days to complete and the walkover in the region of one day. The report will be completed within approximately eight weeks following completion of the fieldwork.
- 4.1.4 **Staffing:** the project will be under the direct management of **Alison Plummer BSc (Hons)** (OA North Senior Project Manager) to whom all correspondence should be addressed.
- 4.1.5 **Daniel Elsworth MA, PIFA** (OA North Project Supervisor) will undertake the desk-based assessment. Daniel has a great deal of experience in documentary research and in particular for the North West. Present timetabling constraints preclude who will be undertaking the walkover survey, although it is likely that this will be undertaken by an OA North supervisor suitably experienced in this field.
- 4.1.6 **Insurance:** OA North has professional indemnity to a value of £2,000,000, employer's liability cover to a value of £10,000,000 and public liability to a value of £15,000,000. Written details of insurance cover can be provided if required.

APPENDIX 1: LEVEL 1 SURVEY

The survey outlined is based on survey levels defined by the Royal Commission on the Historical Monuments of England (RCHM(E)) and are in accordance with stages of evaluation defined by the Association of County Archaeological Curators (ACAO 1993).

Level 1 Survey (Assessment)

This is a rapid level of survey (Site Inspection in project design) typically undertaken alongside a desk-top study as part of the site assessment (ACAO 1993, 14). It is an initial site inspection, which helps the local planning authority to consider fully the archaeological implications of a planning proposal and also serves as the basis for undertaking and planning further archaeological work on the site.

The Level 1 survey represents the minimum standard of record and is appropriate to exploratory survey aimed at the discovery of previously unrecorded sites. Its aim is to record the existence, location and extent of an archaeological site. The emphasis for the recording is on the written description, which should record type and period and would not normally exceed *c.* 50 words.

The location and extent of the sites is typically shown on 1:2,500 or 1:10,000 OS maps as requested by the client. The extent of a site is only defined for sites greater than 50m in size and smaller sites are shown with a cross.

There are two alternative techniques (Levels 1a and 1b), which provide different accuracy levels and have different applications:

Level 1a

The sites are located by manual distance measurement techniques (eg pacing) with respect to field boundaries and provide an accuracy of +/- 10m (8 figure grid ref.). The loss of accuracy is offset by the slightly reduced costs; however, it is only appropriate for enclosed land, because of the paucity of usable topographic detail.

Level 1b

The sites are located using Global Positioning System (GPS) techniques, which uses electronic distance measurements along radio frequencies to satellites to enable a fix in Latitude and Longitude, which can be converted mathematically to Ordnance Survey National Grid. As long as differential GPS techniques are employed then it is possible to achieve accuracies of better than +/- 1m. There is a slightly increased cost implication by comparison with Level 1a survey, but it can be undertaken in most terrains, even some woodland.