



Padfield to Harrop Edge Reservoir Pipeline, Derbyshire and Greater Manchester

**Archaeological Desk-
based Research,
Walkover and
Topographic
Surveys, Strip and
Record Investigation
and Watching Brief**



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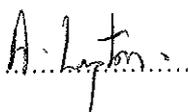
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CONTENTS

SUMMARY	3
ACKNOWLEDGEMENTS	4
1. INTRODUCTION	5
1.1 Circumstances of Project	5
2. METHODOLOGY	6
2.1 Desk-based Research.....	6
2.2 Walkover Survey.....	7
2.3 Topographic Survey	7
2.4 Strip And Record Investigation.....	8
2.5 Watching Brief.....	8
2.6 Archive	8
3. BACKGROUND	10
3.1 Location Topography and Geology.....	10
3.2 Historical and Archaeological Background.....	10
3.3 Map Regression Analysis	14
3.4 Archaeological Interventions	16
4. GAZETTEER OF SITES	18
5. WALKOVER SURVEY	37
5.1 Results	37
6. TOPOGRAPHIC SURVEY	38
6.1 Results	38
7. FIELDWORK RESULTS.....	39
7.1 Strip and Record Investigation.....	39
7.2 Evaluation Trenching	39
7.3 Watching Brief.....	41

8. DISCUSSION.....	42
8.1 Introduction.....	42
8.2 Fieldwork.....	42
9. BIBLIOGRAPHY	43
9.1 Cartographic Sources	43
9.2 Secondary Sources	43
9.3 Websites.....	45
10. ILLUSTRATIONS.....	46
10.1 Figures	46
10.2 Plates.....	46

SUMMARY

Following proposals by United Utilities for the construction of a pipeline from Padfield Reservoir, Derbyshire to Harrop Edge Reservoir, Greater Manchester (NGR SJ 403552 396428 to 398093 396143), the archaeological curator for Greater Manchester and the archaeological curator for Derbyshire recommended the completion of desk-based research relating to the application area. Oxford Archaeology North (OA North) was subsequently commissioned by United Utilities to undertake this work.

In total, 66 sites of archaeological interest were identified as being within the study area (0.25 km either side of the proposed pipeline route) during the desk-based research, of which three are prehistoric (Sites **16**, **23**, and **31**), nine are Roman in date (Sites **01**, **11**, **12**, **20**, **24**, **25**, **26**, **27** and **28**) and three are medieval (Sites **14**, **37** and **46**). The remaining sites are all post-medieval in date except for seven, which are not closely dated (Sites **13**, **15**, **21**, **22**, **47**, **58** and **62**).

In total, 17 of the sites are Listed Buildings, four of which have been included in the Gazetteer as a result of their proximity to the pipeline. There are also two Scheduled Ancient Monuments, the Roman fort of Melandra (Site **25**) and the medieval ringwork at Mouselow (Site **14**) (although this site is just outside the study area occasional finds in the area may be indicative of activity over a more widespread area). Out of the 66 sites, 16 were deemed likely or possible, to be affected by works associated with the proposed pipeline.

Following the results of the desk-based research, a walkover survey was completed on the route of the pipeline which identified a further three sites of potential archaeological importance, one of which was ridge and furrow agricultural remains (Site **59**), the other two undated earthworks (Sites **60** and **61**). The subsequent topographic survey recorded the location, nature and extent of these three sites.

Following the survey, the area to the north of River Etherow and Melandra Roman fort (Site **25**) was subject to a strip and record investigation designed to determine the presence or otherwise of archaeological features. However, it became apparent that the river had changed course considerably over the centuries and, as a result, thick alluvial deposits had built up. This, along with the level of the ground water, meant that strip and record methodology was no longer the best way to assess potential archaeology. As an alternative, evaluation trenches, which would provide a more effective and efficient view of the range of river deposits along this stretch of the easement, were excavated. No archaeological remains were observed in the course of the strip and record or trial trenching.

In addition to the above, an archaeological watching brief was maintained during topsoil stripping activities, as well as the pipe trench excavations, in order to monitor any unexpected archaeological remains. No archaeological remains were observed during the course of the watching brief.

No recommendations are made for further work.

ACKNOWLEDGEMENTS

Oxford Archaeology North (OA North) would like to thank United Utilities for commissioning the project. Thanks are also due to Gill Stroud of Derbyshire Historic Environment Record Office and David Jenkins (Archivist) of Derbyshire County Record Office in Matlock, for his assistance with the desk-based research element of this project. Thanks are also due to Jonathan Peplar (County Archivist), John Benson (Archivist) of Cheshire and Chester Archives and Local Studies Office and also to Norman Redhead and the staff of the Sites and Monuments Record Office, Greater Manchester Archaeological Unit. Thanks are also extended to the staff of Greater Manchester Geological Unit who provided access to the collections of aerial photographs of the study area. Thanks also to David Barrett, curator for Derbyshire, and again to Morgan Est Plc who facilitated the on-site works.

Vicki Bullock undertook the desk-based research. Will Gardner completed the walkover and topographic surveys. Becky Wegiel and Tim Christian carried out the strip and record fieldwork and Ged Callaghan completed the watching brief. Vicki Bullock and Becky Wegiel compiled the report. Sean McPhillips identified the finds. Mark Tidmarsh produced the drawings and Alison Plummer managed the project and also edited the report.

1. INTRODUCTION

1.1 CIRCUMSTANCES OF PROJECT

- 1.1.1 United Utilities have proposed the construction of a pipeline between Padfield reservoir, Derbyshire (NGR 403552 396428) and Harrop Edge reservoir, Greater Manchester (NGR 398093 396143). The total length of the proposed pipeline is approximately 8000m. Following recommendations made by Norman Redhead and David Barrett, curators for Greater Manchester and Derbyshire respectively, United Utilities commissioned Oxford Archaeology North (OA North) to undertake archaeological desk-based research of the proposed route (Fig 1).
- 1.1.2 As a result of the findings of the desk-based research, a walkover survey was completed, followed by a topographic survey. Only one section of the proposed pipeline was considered to be of sufficiently high archaeological potential to warrant action beyond an archaeological watching brief and that was the area north of Melandra Roman fort (Site 25).
- 1.1.3 This report sets out the results of the desk-based research, subsequent surveys, strip and record investigation and archaeological watching brief, outlining the findings and discussing the results.

2. METHODOLOGY

2.1 DESK-BASED RESEARCH

- 2.1.1 A study area extending 0.25km either side of the proposed pipeline, forming a corridor 0.5km wide, was examined in order to gain an understanding of the historical and archaeological background of the area and to assess the potential impact of the development on sites of archaeological significance. The sites identified within this study area are presented in the site Gazetteer (*Section 4*, Figs 2a and 2b). A general historical and archaeological background of the area was compiled and a map regression analysis undertaken.
- 2.1.2 **Greater Manchester Archaeological Unit Historic Environment Record Office (HER), Manchester:** the HER is a list of all known sites of archaeological interest within the Greater Manchester area and is a source of primary information for a study of this kind.
- 2.1.3 **Historic Environment Record Office (HER), Matlock, Derbyshire:** the HER is a list of all known sites of archaeological interest within Derbyshire.
- 2.1.4 **County Record Office (CRO), Matlock, Derbyshire:** the record office holds cartographic and documentary sources, both primary and secondary, relating to the study area.
- 2.1.5 **County Record Office (CRO), Cheshire and Chester Archives and Local Studies Service, Chester, Cheshire:** the record office holds cartographic and documentary sources, both primary and secondary and those pertinent to the study area, part of which was formerly within the historic county of Cheshire, were consulted.
- 2.1.6 **Greater Manchester Geological Unit, Manchester:** analysis was undertaken of the aerial photography of the area, comprising black and white verticals and colour verticals held by the Greater Manchester Geological Unit.
- 2.1.7 **National Monuments Record Office, Swindon:** although the website was consulted, the information reiterated entries in the County Sites and Monuments Records and has not been included in the report.
- 2.1.8 **Access to Archives (A2A):** the website was consulted in order to gather potential sources of information held at the record offices in Matlock, Derbyshire and the Cheshire and Chester Archives and Local Studies Office, Chester.
- 2.1.9 **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.

2.1.10 Several historic cartographic sources were consulted in order to trace the historical development of the study area:

- Burdett's Map of Cheshire 1770s;
- Bryants Map of Cheshire 1831;
- Plan of the Township of Mottram in Longendale and the County of Chester, 1847
- Plan of Titheable Land in the Township of Hadfield in the Parish of Glossop, County of Derby, 1852
- Ordnance Survey First Edition 1872 Cheshire Sheet XI, 3;
- Ordnance Survey Second Edition 1898 Cheshire Sheet XI, 3;
- Ordnance Survey Second Edition 1898 Cheshire Sheet XI, 4;
- Ordnance Survey First Edition 1899 Derbyshire Sheet 11 North east;
- Ordnance Survey Provisional Edition 1933-6 Cheshire Sheet XI, 3;
- Ordnance Survey Third Edition 1910 Cheshire Sheet XI, 3;
- Ordnance survey Third Edition 1910 Cheshire Sheet XI, 4 and 8;
- Ordnance Survey Second Edition 1924 Derbyshire Sheet 11 North East;
- Ordnance Survey Revision of 1936 Cheshire Sheet XI, 3 and 4;
- Ordnance Survey Provisional Edition 1954 6" to 1 mile Cheshire;
- Ordnance Survey Provisional Edition 1954 6" to 1 mile Derbyshire.

2.1.11 Inconsistencies in the Ordnance Survey coverage between the two counties and maps available in the record offices, resulted in a targeted map sequence on the most affected areas.

2.2 WALKOVER SURVEY

2.2.1 Following the rapid desk-based research, a walkover survey 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 located using differential GPS survey, which can achieve an accuracy of +/- 5m with respect to the OS national grid. The sites identified during the walkover survey are shown on Figures 2a and 2b.

2.3 TOPOGRAPHIC SURVEY

2.3.1 A topographic survey was undertaken of those sites (**59, 60, 61**) identified in the walkover as requiring further work to understand their nature and extent. The results are presented as Figures 10 and 11.

2.3.2 The topographic survey was completed using a Differential Global Positioning System (GPS). GPS instrumentation uses electronic distance measurement along radio frequencies to satellites to enable a positional fix in latitude and longitude, which can be converted mathematically to the National Grid. It uses a post-processed system by comparing a roving station with a similar station on a fixed known point in order to achieve high levels of accuracy, which are typically between $\pm 0.25\text{m}$.

2.4 STRIP AND RECORD INVESTIGATION

- 2.4.1 The area to the north of Melandra Roman fort was deemed to have the potential for significant archaeological remains to be present. The area subject to the strip and record investigation was located within the pipeline easement to the north of the River Etherow (Fig 3).
- 2.4.2 Topsoil and subsoil were removed by mechanical excavator fitted with a 2m toothless ditching bucket. River deposits were also removed down to a level just above the water table.
- 2.4.3 The depth of river deposits and the level of the water table resulted in the strip and record not yielding meaningful results and, consequently, five evaluation trenches were located along the remaining two thirds of the easement to assess the remainder of the easement. This approach was intended to ascertain the nature of the river deposits and establish whether any archaeological remains were likely to be observed if the strip and record was continued.
- 2.4.4 Five trenches (Fig 3) were excavated mechanically with a 2m toothless ditching bucket to the level of the natural ground or to the point at which the ground water began to flood the trench. Where feasible, the natural geology was hand cleaned and inspected for potential archaeology.
- 2.4.5 The trenches were recorded using a system derived from the Centre for Archaeology of English Heritage. The archive includes both a photographic record and plans at an appropriate scale. Recording was principally in form of *pro forma* Trench Record sheets for each trench, which noted the orientation, dimensions and descriptions of the topsoil, subsoil, river deposits and natural present in each trench.

2.5 WATCHING BRIEF

- 2.5.1 The topsoil along the whole of the easement was stripped with a mechanical excavator fitted with a 2m toothless ditching bucket. A programme of field observation recorded accurately the location, extent, and character of any surviving archaeological features and/or deposits during the topsoil strip and the excavation of the pipe trench. This work comprised observation during the excavation, the systematic examination of any horizons or deposits exposed during the course of the groundworks, the accurate recording of all archaeological features and horizons on OA North *pro-forma* sheets, and the recovery of any artefacts. A photographic record was also compiled on digital format.

2.6 ARCHIVE

- 2.6.1 A full professional archive has been compiled in accordance with the project design (*Appendix I*), and in accordance with current IFA and English Heritage guidelines (English Heritage 1991). The paper and digital archive will be deposited in the Historic Environment Record Office (HER) in Matlock,

Derbyshire, and the Greater Manchester Archaeological Unit Sites and Monuments Record Office (SMR), Manchester, on completion of the project.

3. BACKGROUND

3.1 LOCATION, TOPOGRAPHY AND GEOLOGY

- 3.1.1 The proposed pipeline is situated between Padfield Reservoir, Derbyshire (NGR 403552 396428) and Harrop Edge Reservoir, Greater Manchester, (NGR 398093 396143) (Fig 1). The proposed route is half in Derbyshire and half in Greater Manchester (formally Cheshire until the formation of Greater Manchester metropolitan county in 1974) and is approximately 8000m long. The study area includes a corridor of 0.25 km either side of the proposed pipeline.
- 3.1.2 Padfield lies just inside the Dark Peak Area (Countryside Commission 1998, 139). The name refers to the underlying geology of Millstone Grit sandstones ('gritstone') which gives the landscape a dark hue, in contrast to the adjoining White Peak. It contains the 'High Peak' with the great mass of Kinder Scout rising to 636m, comprising a wild, open, elevated plateau of broadly rolling terrain and steep slopes, punctuated by gritstone edges and rocky tors. The plateau tops are heavily dissected by drainage channels in the peat (groughs). Several of the broader valleys have been flooded to form reservoirs (*ibid*). At the eastern end of the proposed pipeline route the underlying geological deposits comprise several varieties of Millstone Grit of the Upper Carboniferous period. Much of this comprises Kinderscout Grit with Pule Hill Grit. There are also several north/south geological fault lines in the locality, which include the Tame Fault to the east, the Blackshaw Faults to the west and the Mottram Fault, which defines the northern limit of the Coal Measures Basin at Mottram. The overlying drift geology consists of glacial boulder clays. Recent deposits of alluvium and gravel extend along the valley of the river Etherow. Deposits of peat lie on the upland areas (British Geological Survey 2007).
- 3.1.3 The land rises from the river Etherow at *c* 125m OD towards the north and several, small steep-sided valleys that drain from the north towards the south punctuate the area. To the south of the river, the land rises more gradually to the 170m OD contour by Bottoms Reservoir in the east and the 145m contour at Hadfield. In the west, Mottram straddles the top of a hill at 225m OD. The settlements of Hollingworth, Hadfield and Tintwistle are located in the lower Etherow valley. The land-use is predominantly pasture (RPS Consultants 2001, 4)

3.2 HISTORICAL AND ARCHAEOLOGICAL BACKGROUND

- 3.2.1 In addition to a detailed investigation of the closely defined study area, it is also necessary to present a general archaeological and historical background of the wider locality. This will allow the sites to be considered within the context of the differing systems of land use and resource exploitation that have helped define the human landscapes in this area.

- 3.2.2 **Prehistoric period (c 8000 cal BC - AD 43):** the archaeological importance of the area dates from prehistoric times with Mesolithic remains found beneath the high blanket bog. The earliest known evidence from the Mesolithic period comprises flint scatters found above 300m OD and associated with the weathered upland peat (Hart 1981). Few early prehistoric sites have been identified below 300m OD, probably as a result of agricultural activity. Neolithic and Bronze Age remains occur on the moors to the east of the area and there is extensive evidence of burial activity in the form of barrows, which are clustered on high ground (*ibid*).
- 3.2.3 Within the study area, a Mesolithic site (Site **23**) has been found on the gravel hill overlooking the river Etherow, in close proximity to the Roman fort of Melandra. This was a flint working site of the late Mesolithic period (7000 to 4000 BC) and comprised a quantity of waste comprising flakes and blades of brown flint, white patinated flint and dark chert, which are now held in Buxton museum. There were also four flint cores, one converted into a graver, a batterback microlith and part of a scraper, both of brown flint (Hart 1981). A possible Bronze Age field system lies within the study area (Site **31**), defined by a series of banks and ditches with what appear to be clearance cairns which may indicate a settlement site in proximity. There is also a possible barrow site (Site **16**) based on place-name evidence.
- 3.2.4 **Romano-British period (AD 43 - 410):** the Roman occupation of Derbyshire began in the AD50s with the military advance northward beyond the Trent into the territory of the Brigantes. The Romans established their customary network of forts linked by a road system. The natural communications route offered by the Longdendale valley did not go unnoticed by the Romans and forts were established before AD78 at Little Chester, Derby, Brough-on-Noe and Melandra (to the South of River Etherow, in Derbyshire, on the border with Greater Manchester) (Hart 1981, 83). Across the border into Greater Manchester the general character of the area is again one of military and industrial centres interlinked by roads (Philpott 2006, 59-60; 69).
- 3.2.5 The principal Roman site in this part of the valley is Melandra Roman fort (*Ardotalia*) and the associated *vicus* (civilian settlement; Site **25**; Plates 1 and 2). The fort was occupied from c AD 80 and guarded the Longdendale Pass and the crossing of the river Etherow at Woolley Bridge. There is tentative evidence to suggest that three Roman road alignments should lie in close proximity to the fort (RPS Consultants 2001). Several findspots of Roman artefacts have been found in the area. These include various Celtic and Romano-British, possibly Iron-Age, finds from fields around Little Padfield Farm (Site **01**), including a lead water tank from the site. It is possible there may have been a Romano-British settlement here. A small, Roman black glass bead (Site **11**) was found by the junction of North Road and Cemetery Road, to the north-east of Mouselow Castle. A rectangular raised platform near Mottram Church has been identified as a putative Roman signal platform but is not entered on the Sites and Monuments record (Hart 1984, 90). A Roman Terret (horse fitting) was found at Bettenhill Farm, to the east of Mouselow Castle and in 1841 a stone coffin was found in close proximity to the fort at Melandra along with a coin of Domitian, Emperor of Rome AD 81-96 (Site

20). A group of cremation burials (Site 26) was found close to an excavated area of Roman road about approximately 213m south of the fort. Coarse ware pottery and hearths (Site 28) have been found on the bank of the river Etherow near Woolley, opposite Melandra fort, possibly related to activity along the Melandra-Manchester road. At least one source refers to the presence of Roman remains to the west of the fort. In c 1850 Manchester Coporation constructed a reservoir below the Hague, to the south of the study area, adopting a bend in the river's true course, which was diverted to run along the east side of the reservoir. Robert Hamnett in the late nineteenth century reported that when this reservoir was constructed 'many roman remains were found on the plain' (Hamnett 1899, 18). Some of these finds may be indicative of the road system.

- 3.2.6 **Medieval period (AD 410 - 1540):** historically, the majority of the study area was divided between two Cheshire townships, Mottram-in-Longdendale in the west, and Hollingworth in the east. The eastern extremity of the study area lay in the Derbyshire township of Hadfield. Mottram may have derived from the Anglo-Saxon *mot-aern* meaning "meeting or assembly" (Dodgson 1970, 202; Nevell 1991, 7-8)). Hollingworth may have derived from *holegn* (holly) and *Worp* (enclosure round a homestead) meaning "holly enclosure" (Dodgson 1970, 309) and the Domesday entry records that this land was held by a freeman who held it as a manor (Holly 1962). Hadfield is recorded amongst a group of twelve manors in Londgendale in the Domesday survey of Derbyshire although the lord is not specifically entered (GMAU 1991). Woolley, in close proximity to Sites 27 and 28, includes the Anglo-Saxon *wulf* and *leah* elements and means "Wolf's clearing". Woolley is documented in the late thirteenth century when it appears to have been a feeholding in Hollingworth held by a family named 'de Wolegh' presumably after the place.
- 3.2.7 The feudal organisation of the Normans set the pattern for the Medieval period with manorial centres and field systems based on nucleated villages and possibly dispersed farmsteads, such as Mottram Old Hall (Site 56). Evidence for ridge and furrow that may tentatively be medieval in date has been identified from aerial photographs to the south of Mottram Old Hall (Site 43). Documentary evidence suggests that there were several corn-mills in the area that may have included Woolley Mill and *le Oldemulnetonin* (Site 46), which occurs as a place-name in Mottram Manor in AD 1313. The current structure of St Michaels Church, Mottram (Site 35) is fifteenth century, but the presence of an earlier structure on this site can be inferred from documentary evidence from the fourteenth century (Burke and Nevell 1996, 73). By the seventeenth century the village had spread northwards beyond the church. This is the area where the surviving seventeenth and eighteenth century structures stand, such as No 4 Back Lane and the Old Post Office (*see Listed Buildings Table, Section 4*). In the seventeenth century the main thoroughfare was not Market Street, but Back Lane. Of the outlying farms in Mottram it is possible from wills and parish registers and inventories, to suggest that there were at least six farmsteads in the township: Broadbottom, Brownroad, Carr House (Site 40), Hague (Site 35), Hurstclough and Lower Roe Cross (Burke and Nevell 1996).

- 3.2.8 Hadfield is in the parish of Glossop, Derbyshire. The manor of Hadfield is mentioned along with Glossop in the Domesday Survey as part of Longdendale and held by the king (GMAU 1991, 8). Very little information is available on the medieval history of Hadfield but it may have been under the control of the Abbey of Basingwerk, in Flintshire until the Dissolution, when it was bestowed upon the Earl of Shrewsbury (Kirk 1924-5, 224).
- 3.2.9 Hollingworth was a township in the parish of Mottram-in-Longdendale, within the poor law union of Ashton-under-Lyne and the hundred of Macclesfield. The land, from a period prior to the Conquest, wholly belonged to the family of Hollingworth, until in the late medieval period it was divided into two manors, one of which, with the old Hall or manor-house, continued in Hollingworth family until the nineteenth century. The other manor, with the exception of some large farms which were sold at different periods was, in the nineteenth century the property of Captain Robert de Hollingworth. Until the mid-nineteenth century this was an agricultural district with few inhabitants, but there by the end of the century there were extensive manufactories for cotton-goods, for the printing of calico, and for paper; also a brass and iron foundry (www.british-history.ac.uk).
- 3.2.10 **Post-Medieval (AD 1540 - present)**: in the post-medieval period the area remained initially predominantly rural until increasing industrialisation during the seventeenth and eighteenth centuries. The medieval field system was gradually enclosed and a domestic-based cotton industry began to develop (RPS Consultants 2001). This was followed during the nineteenth and early twentieth centuries by a factory-based industry associated with the production of textiles dominated by cotton spinning, woollen and finishing industries. This industrialisation was accompanied by a rapid growth of population and expansion of both Mottram and Hadfield. Other industries included coal pits (Sites **35** and **39**), stone quarrying, and other extractive sites, including the digging of clay for brick kilns and marl. Other quarries lie to the south of Mottram Old Hall and at Harrop Edge. Hague Carr was one of the earliest seams to be exploited by deep mine technology in Tameside (Nevell 1993, 105). Evidence for this early mining has survived in the form of earthworks, but has been obscured by subsequent ploughing. The site of Carr Farm was also one of the earliest coal seams to be exploited by deep mine technology. Details of the pits are shown on Burdett's map of 1776. The increasing mechanisation of the textile industry led to the demise of domestic weaving and spinning and the area around the river Etherow emerged as a centre of industrial activity. Dinting Vale Printworks (Site **18**), which during the nineteenth century was the largest calico printing works in the world, was founded in this area (www.spinningtheweb.org.uk).
- 3.2.11 Other post-medieval activity included the construction of the Longdendale Water Scheme in the nineteenth century. Several reservoirs were constructed between 1848 and 1877 (GMAU 1991) and formed the largest chain of reservoirs built on any river in the United Kingdom. This scheme was built to supply water to Manchester from the Longdendale valley and comprised a number of reservoirs, including one at Hollingworth and Arnfield which was

connected to Godley Reservoir by the Mottram Tunnel. The tunnel was marked by several air shafts, which can still be seen to the north of Mottram.

- 3.2.12 Another, more unusual, site of post-medieval date recorded in the Sites and Monuments record is that of a World War II air crash site. The exact location of the crash site (Site **30**) is unknown but the approximate location is recorded in the HER and it is possible that some traces of the remains may still be found.

3.3 MAP REGRESSION ANALYSIS

- 3.3.1 The map coverage for the two counties differed greatly and it was not possible to complete a full, consistent map sequence for the entire length of the proposed pipeline easement. Areas where archaeological sites were identified by the desk-based research which were likely to be affected by the pipeline works have been targeted for discussion and illustration and their position shown on the pipeline route (Fig 2).
- 3.3.2 *Township tithe maps 1847-1852*: the tithe coverage for the eastern section of the pipeline route, within the Derbyshire boundary, was scant and although consulted there was not enough coverage to warrant inclusion in this report.
- 3.3.3 The tithe maps for Cheshire (the western part of the study area that was within Cheshire until the creation of the metropolitan county of Greater Manchester in 1974) were studied online (www.e-mapping.cheshire.gov.uk). For the Township of Mottram-in-Longdendale and its corresponding apportionment it showed the study area to have consisted largely of meadows, pasture, arable land and woodland with isolated farmsteads and farmhouses. The land was owned by John Tollemache, including a large proportion of property in Mottram itself. A notable exception is the Railway Station (Site **07**) and embankment owned by the Manchester and Sheffield Railway Company.
- 3.3.4 Carr House Farm (Site **39**) is shown as two roughly rectangular buildings aligned north/south with a possible pond or pit in a field across Carrhouse Lane. The Hague Carr Colliery (site of, Site **35**) is not directly referred to on the map or the corresponding apportionment, but there are several sub-circular features marked in two of the adjacent fields between the Hague and Carr House Farm, close to the county boundary. None of these appear on the subsequent Ordnance Survey maps, and the features may be associated with mining activity. The site of the possible medieval settlement of Lanes Ends (Site **37**) is shown on the tithe map. This is the junction of five routes and on Burdett's eighteenth century map there are several buildings shown. The corresponding plot in the Apportionment is listed as a public house, six cottages and gardens. The development along Roe Cross Lane is also shown and listed as a house and garden.
- 3.3.5 The site of the possible early manorial mill (Site **46**), traces of which survive, is shown on the tithe map and listed as Roe Cross Mill; there is a mill pond in the adjacent field. Both Mainsgrass (Site **51**) and Grange Farm (formerly Jobs (Site **50**) are shown on the map. Jobs is listed in the apportionment as a smithy

and yard. Miniature Castle Farm is shown on the tithe map but is marked as New Bent. Cheetham Fold Farm (Site 55) is not, although a rectangular building is shown. Bates Farm, Silversprings Farm and Paddock Farm (Sites 54, 53 and 52) are all shown on the 1846 map, as are the quarries at Harrop Edge. The fields surrounding the quarries are subdivided on the tithe map and Site 58, the field system, may reflect these former boundaries.

- 3.3.6 **Ordnance Survey First Edition 1872 Cheshire Sheet XI (Fig 4):** the Harrop Edge quarries are shown on this map, along with Paddock Farm (Site 52), Silverspring (Site 53), Winterbottom, Bates (Site 54) and Cheethams (Site 55), Mainsgrass and Jobs (Sites 50 and 51). The parish divisions are marked by dotted lines. Mottram Old Mill (Site 46) is marked as a woollen mill and is in close proximity to an area of ridge and furrow (Site 43) and the site of a possible dam (Site 62) associated with the old mill. Stone debris and earthworks on the north side of the brook may represent the walls of a former structure and some form of water control. The area was largely divided up into small, irregular fields with isolated farmsteads. The route of the pipeline also runs directly through Lane Ends (Site 37).
- 3.3.7 **Ordnance Survey First Edition 1872 Derbyshire (Fig 5):** this map shows Padfield in detail. Little Padfield Farmhouse, which is possibly the site of a Romano-British settlement, (Site 01) is shown. Padfield Brook Cotton Mill (Site 04) is shown. It was constructed in 1793 by Robert Lees and demolished in 1961. An adjacent mill pond is also shown. Padfield cotton mill (Site 05), lies to the north-west, with an adjacent pond and chimney. Mouselow ringwork (Site 14) and the associated findspots (Sites 10, 11, 12 and 15), although outside the study area, are included as they provide an indication of medieval activity in the locality and highlight the possibility for more related finds or earthworks to be found. Hadfield Mill and chimney (Site 06) is shown on the map and directly behind the mill, a corn mill (Site 63) is depicted adjacent to a pond. Hadfield Station Mill (Site 08) is shown adjacent to the railway. Station Mill was built in 1834 by Thomas and Edward Platt, members of a family who had farmed Longdendale for generations. The family owned this cotton mill for 68 years, before selling it in 1923 to E. Wilman & Sons, who changed it to silk noil spinning. The mill closed 1989. Hadfield Mills, was a corn mill from before 1819. In 1874, Thomas Rhodes and Sons converted the mill to the manufacture of cotton. There were 1000 workers there in 1873, it closed in 1932. In 1940 it was reopened by the Hadfield Worsted Mills Ltd for cloth manufacture. The railway running between Padfield and Hadfield was by this time in the hands of the Manchester, Sheffield and Lincolnshire Railway, which in 1897 was renamed the Great Central Railway; much of this line has been dismantled (Quale 2006).
- 3.3.8 **Ordnance Survey Second Edition 1898 Cheshire Sheet XI, 4 (Fig 6):** the 1898 map was the only map available which provided coverage for most of the pipeline route and includes the majority of both the Cheshire and the Derbyshire sections. The area around Padfield remains relatively unchanged. Padfield and Hadfield mills have expanded, along with Station Mill (Site 08), and the railway had been renamed Great Central Railway. A large clay pit is shown in a field to the west of Hadfield Mill. The pipeline follows a south-

west direction towards Brookfield and Dinting Vale. Along this section of the route there is a large Brick Yard (Site 64), with a quarry (Site 66) and a clay pit (Site 65), not listed in the HER. The pipeline crosses the industrial area which at this date included the Dinting Vale Printworks (Site 18). This comprised a complex of long narrow buildings occupying a constricted site in Dinting Vale. Parts of the buildings have been demolished, but some remain in a poor state of repair. The route of the pipeline then turns dramatically northwards towards Brookfield. This was the site of the discovery of a Roman stone coffin and coin at Brookfield Mill (Site 20) in 1841. Melandra Roman fort (Site 25) is shown on this map, with small curvilinear feature immediately to the south of the fort.

- 3.3.9 **Ordnance Survey Second Edition 1898 Cheshire Sheet XI, 3 (Fig 7)**: this map sheet continues over the county boundary towards Mottram-in-Longdendale. Carr House Farm is shown but there is no indication of the colliery (Site 39) and coal mine mentioned in the Cheshire Sites and Monuments record.. Lane Ends (Site 37) is shown and is little changed. The map shows the parish boundaries converging to the south-east of Harrop Edge.
- 3.3.10 **Ordnance Survey Second Edition 1924 Derbyshire Sheet 11 North East (Fig 8)**: this is a detailed map of the eastern section of the pipeline. Both Padfield and Hadfield have expanded and Padfield Brook Mill (Site 04), Padfield Mill (Site 05), Hadfield Mill (Site 06) and Station Mill (Site 08) are all still shown, as is Little Padfield Farm (Site 02), which appears to have extended slightly. ‘Stones’ is marked at the south of Platt Street, near Padfield Brook Mill. Hadfield Mill has also been extended and the corn mill building (Site 63) has been incorporated into the extension cotton mill.
- 3.3.11 **Ordnance Survey Revision of 1936 Cheshire Sheet XI, 3 and 4 (Fig 9)**: this map shows a mainly rural, agricultural landscape. The two notable changes in proximity to the pipeline route are the presence of tennis courts and a show ground on either side of Hyde Road, to the west of Mottram-in-Longdendale. There is no longer an extant building on the site of Mottram Old Mill, as marked on the 1872 edition. The fields to the south-east of Edge Lane are larger and less divided than they were on the 1872 edition. Some traces of earlier field boundaries may therefore be evident on the ground. Jobs (Site 50) is named Grange Farm on this edition and Bents (Site 57) has become the Miniature Castle. The parish boundaries remain unchanged. Cheethams Farm (Site 55) does seem to have expanded by this time, as does Bates Farm (Site 54).

3.4 ARCHAEOLOGICAL INTERVENTIONS

- 3.4.1 There have been several archaeological interventions within and in close proximity to the study area, details of which were provided in the HER records. Melandra Roman fort has been excavated on a number of occasions between 1899 to 2005. The most recent work undertaken at the fort during 1999 was the result of a RCHME and English Heritage Survey of Scheduled Ancient Monuments.

- 3.4.2 The Greater Manchester Archaeological Unit was commissioned by Husband and Co Consulting Engineers to carry out an assessment of the archaeological implications of the proposed A57/A628 Mottram, Hollingworth and Tintwistle Bypass, which comprised the examination of documentary sources and a field survey of the route, restricted to footpaths and roads (GMAU 1991).
- 3.4.3 RPS Consulting, on behalf of the Highways Agency, undertook evaluation trenching as part of the Mottram to Tintwistle Bypass. This work also included geophysical survey in fields around Mainsgrass in an area of a supposed Roman road running between Werneth Low and Castleshaw Roman fort and a possible cropmark complex. The trial trenching also covered an area of the possible medieval mill site near Mottram Old Mill. Further investigations were undertaken immediately to the north of Mottram Moor, where potential archaeological sites included a Roman road, between Melandra and Gallowsclough, cropmark features tentatively representing ridge and furrow and rectilinear features (RPS Consulting 2001). The most significant archaeological resource identified was the Mottram Old Mill site where remains associated with the post-medieval mill survive as earthworks. No evidence for the postulated Roman roads was found, nor was evidence present for the potential features represented by cropmarks on aerial photographs, and targeted by geophysical survey and trial trenching at Mainsgrass, Mottram Old Hall and Mottram Moor Road.
- 3.4.4 Investigations were also undertaken as part of the Glossop Spur Stage 3 Environmental Assessment by Mouchel Parkman in 2005 in areas impacted by the A57(T)/A628(T) Mottram to Tintwistle Bypass. The evaluations took place in areas to the south of Mottram Old Hall and to the north-east of Mainsgrass. The geophysical surveys revealed various linear features in fields adjacent to these locations (Mouchel Parkman 2005).
- 3.4.5 Hyder Consulting (UK) Ltd on behalf of the Highways Agency carried out archaeological trial trenching on a number of areas along the proposed route of the Mottram-Tintwistle Bypass (Hyder Consulting (UK) Ltd 2006).

4. GAZETTEER OF SITES

HER No	Listed Building No.	Site Name	Description
6137 Site 01	484726	Little Padfield Farmhouse	A seventeenth century farmhouse with later alterations, comprising two storeys coursed in stone with a stone slate roof. The mullions have been lost.
6136 Site 02	484727	Padfield Brook Farmhouse, Little Padfield, Glossop	A seventeenth century farmhouse comprising two storeys in coursed stone with a stone slate roof.
6140 Site 03	484725	Top o'th' Hill Farm, Park Road, Padfield	A seventeenth century farmhouse of two storeys in coursed stone with a stone slate roof. The barn has a large carriage entry.
6138	484724	104a Padfield Main, Glossop	Seventeenth century Grade II Listed building. Originally single unit with attached stables. The stable was used as a slaughterhouse at one time.
6139	1/0396/119	Nos 131/133 Padfield Main Road, Padfield	Two adjoining seventeenth century houses.
6135	484678	Nos 78/78a Hadfield Road, Hadfield	Seventeenth century house of two storeys with a stone slate roof.
980.1.0	980.1.0	Crown Pole House	Late eighteenth century Grade II Listed building, originally a house, now incorporating a shop, of watershot dressed stone with a slate roof
840.2.0	840.2.0	Old Post Office Farm (also 50 Market Street)	A Grade II Listed Building. A seventeenth century farmhouse house with NWM 1694 on door lintel.
840.1.0	840.1.0	4, Back Lane	Eighteenth century Grade II Listed Building; a two-storey house with stone slate roof, now a shop.
825.1.1	825.1.1	Dial House	A Grade II Listed Building; two storey house with JG 1747 John Gee on door lintel. Interior retains some timber-framed partition walls.
825.1.0	825.1.0	Dial Cottage	Eighteenth century Grade III Listed building, a house of dressed stone and stone slate roof.
834.1.0	834.1.0	Crown Pole, Market Place	Eighteenth century Grade II Listed Building. Pole erected originally 1760 for the coronation of George III. Bears light pendants, weather-vane and sign posts.

835.1.0	835.1.0	Mottram House, Longdendale	A nineteenth century Grade II Listed House of dressed stone with graduated stone slate roof and rendered rear and stacks. The front of the building incorporated a commemorative stone and village fountain.
836.1.0	836.1.0	Mottram Court House	A Grade II Listed building originally the court house with court room on first floor above what was formerly a carriage house. A drinking fountain in front commemorated installation of drinking water supply installed in 1888. Formerly the site of Angel Inn during seventeenth century.
837.1.0	837.1.0	Mottram Village Stocks	Grade II Listed stocks probably of eighteenth century date. A pair of plain stone posts with grooves for timber foot restraints, which have iron fasteners.
811.1.0	811.1.0	Mottram Congregational Church	Grade II Listed building constructed in 1791, altered in 1836 and 1852. Built as a Methodist meeting house. It is the oldest surviving Methodist chapel in the Manchester area still in use as a place of worship.
988.1.0 Site 57	988.1.0	Miniature Castle and Castle Cottage	Farmhouse and cottage of late eighteenth. Grade II Listed Building with castelated parapet. Engraved stone reading "Longdendale Miniature Castle".

Table 1: Listed Buildings within the study area

Site number 01
Site name Iron Age/Romano-British finds, Little Padfield
NGR SK 033 961
Site type Findspot and Water Tank
Period Roman
HER No 6155
Sources HER
Description Various Celtic and Romano-British finds have come from fields around Little Padfield Farm. A Roman lead water tank from the site is said to be in the British Museum. It is believed that there was a Romano-British settlement on this site. Little Padfield Farm is in the proximity of Castle Hill - Mouselow Hill.
Assessment The full extent of the site is not known and although outside of the proposed easement, associated features might be affected by the works.

Site number 02
Site name Little Padfield Farmhouse
NGR SK 032 961
Site type Farmhouse
Period Post-medieval

HER No 6137
Statutory Designation Listed Building II (Number 484726)
Sources HER
Description Seventeenth century farmhouse with later alterations, comprising two storeys coursed in stone with a stone slate roof. The mullions have been lost.
Assessment The site lies within the proposed development area and will be affected.

Site number 03
Site name **Padfield Brook Farmhouse, Little Padfield, Glossop**
NGR SK 032 0961
Site type Farmhouse
Period Post-medieval
HER No 6136
Statutory Designation Listed Building II (Number 484727)
Sources HER
Description Seventeenth century farmhouse, comprising two storeys in coursed stone with a stone slate roof. Two, three, four and five-light mullioned windows.
Assessment The site lies within the proposed development area and will be affected.

Site number 04
Site name **Padfield Brook Mill (Site of), Padfield**
NGR SK 03247 95959
Site type Cotton Mill and Mill Pond
Period Post-medieval
HER No 6173
Sources HER
Description Padfield Brook Mill was demolished in September 1961 after many years of disuse. It was built in 1793 by Robert Lees and known as Little Mill.
Assessment The full extent of the site is not known and associated features might be affected by the works

Site number 05
Site name **Padfield Mill and Mill Pond (Site of), Padfield**
NGR SK 02991 96091
Site type Cotton Mill and Mill Pond
Period Post-medieval
HER No 6172
Sources OS first, second and third edition maps
Description The first edition Ordnance Survey 25" map shows this as 'Cotton Mill', with an adjacent mill pond and chimney. The second edition of 1898 names the mill as 'Padfield Mill (Cotton)'; as does the 1910 edition. It is clear from modern maps that the buildings have been demolished, the mill pond filled in and the site redeveloped.
Assessment The full extent of the site is not known but lies outside the proposed development area and will not be affected.

Site number 06
Site name **Hadfield Mill, Padfield**
NGR SK 027 961
Site type Cotton Mill (Extant Building)
Period Post-medieval
HER No 6148
Sources HER
Description Rhodes Top Mill was built in around 1780 as a cotton mill on Platt Street, Padfield. It incorporated Braddock's, Clark's and Lower mills into its complex in

1874 and became known as Hadfield Mills. In 1930 floods caused the floor to collapse in the weaving shed.

Assessment The full extent of the site is not known and associated features might be affected by the works

Site number 07
Site name Woodhead Railway (mainly dismantled)
NGR SK 0401 9745
Site type Railway (mainly dismantled)
Period Post-medieval
HER No 3649
Sources HER
Description The Sheffield, Ashton-under-Lyne & Manchester Railway Company's Woodhead line was built during the years 1836-1845. In 1847 the line passed into the hands of the Manchester, Sheffield & Lincolnshire Railway, which in 1897 was renamed the Great Central Railway. Much of the line has been dismantled.

Assessment The full extent of the site is not known and associated features might be affected by the works

Site number 08
Site name Hadfield, Station Mill (Site of)
NGR SK 025 962
Site type Cotton Mill: Demolished
Period Post-medieval
HER No 6147
Sources HER
Description Station Mill was a two storey gritstone mill building.

Assessment The full extent of the site is not known and associated features might be affected by the works

Site number 09
Site name Hadfield Old Hall, Hadfield
NGR SK 0208 9615
Site type Manor house
Period Seventeenth century
HER No 6116
Sources Pevsner, N 1953
Description Hadfield Old Hall is an L-shaped building with 2-5 light mullioned windows. A datestone of 1646 appears on a door lintel.

Assessment The full extent of the site is not known but lies outside the proposed pipeline easement and will not be affected by the works.

Site number 10
Site name Top o'th'Hill Farm, Park Road, Padfield
NGR SK 028 958
Site type Barn, Farmhouse and Stable
Period Post-medieval
HER No 6140
Statutory Designation Listed Building II (Number 484725)
Sources HER
Description Seventeenth century farmhouse comprising two storeys in coursed stone with a stone slate roof. The mullion windows are of two and three lights. The barn has a large carriage entry. A barn is attached to the left with an associated stable, same as the other barn.

Assessment The site lies outside of the proposed pipeline route and is unlikely to be affected by the works.

Site number 11
Site name Roman or Anglo-Saxon Findspot, Padfield
NGR SK 0301 9576
Site type Findspot; Roman/Anglo-Saxon bead
Period Roman to Early Medieval
HER No 6165
Sources HER
Description A small black glass bead (1/2 in diameter) was found in the late 1970s by the junction of North Road and Cemetery Road, to the north-east of Mouselow Castle. It has been provisionally dated to the late Romano-British/early Saxon period.
Assessment The site lies outside of the proposed pipeline route and is unlikely to be affected by the works.

Site number 12
Site name Roman Terret, Mouselow
NGR SK 0303 9560
Site type Findspot
Period Roman
HER No 6166
Sources HER
Description A Roman terret was found at Bettenhill Farm, to the east of Mouselow castle.
Assessment The site lies outside of the proposed pipeline route and is unlikely to be affected by the works.

Site number 13
Site name Spearhead, Mouselow area, Glossop
NGR SK 02 95
Site type Findspot
Period Undated
HER No 6164
Sources HER
Description A 'British spearhead' was unearthed at the turn of the century in a ploughed field, reputed to be the site of a Saxon battle.
Assessment The site lies outside of the proposed pipeline route and is unlikely to be affected by the works.

Site number 14
Site name Mouselow Castle Motte, Glossop
NGR SK 00281 9550
Site type Bailey, Motte, Ringwork and Carved stone
Period Medieval to Post-medieval
HER No 6115
Sources HER
Description Although recorded as a motte, this monument, sometimes known as Mouselow Castle, is in fact a ringwork. It includes an oval earthwork, constructed at the summit of a steep hill, enclosed on all but the south-west side by a ditch and a substantial counterscarp bank. A bailey or outer enclosure may originally have extended to the south-west, but this area is not included in the scheduling as it has been heavily eroded by quarrying. The central earthwork comprises an area measuring c 30m x 20m surrounded by a large bank. The bank stands between 1m and 1.5m above the interior but is measures c 3m and 4m high above the bottom of the surrounding ditch. Low, grass-covered mounds, visible on the north-west and south-east sides of the enclosed area, are interpreted as the sites of buildings. The ditch, which has a V-shaped profile, is c 6m wide and was found, by excavation, originally to have been 2.3m deep. The upcast material from the ditch was used to construct the counterscarp bank. A line of turf found within the latter indicates that it was heightened at some point and that the ditch must therefore have been recut.

This shows there to have been at least two phases to the fortification of the site. The precise function of the ringwork is unknown but it commands wide views over the surrounding moorland and overlooks the confluence of Dinting Vale and the valley of the river Etherow.

Assessment The site lies outside of the proposed pipeline route and is unlikely to be affected by the works.

Site number 15
Site name Carved stones, Mouselow
NGR SK 0281 9550
Site type Carved Stone and Findspot
Period Undated
HER No 6158
Sources HER
Description Towards the end of the nineteenth century there were several reports concerning some curiously carved stones found on Mouselow. They were said to have been taken by a Hadfield minister, the Rev. George Marsden, during the 1840s and incorporated into the gable end of the house he was building for himself. Several years later the Duke of Norfolk, curious about their origin, requested they be given into his keeping. They remained in the possession of the Howard family until they were presented to Glossop Antiquarian Society. The Society no longer exists and the whereabouts of the stones are unknown until an article requesting information was published in the local press in 1984, following which they were identified as being stored in Buxton Museum. They include a stone head, believed to be medieval (probably thirteenth/fourteenth century), a number of carvings which may be Romano-British, possibly from a shrine.

Assessment The site lies outside of the proposed pipeline route and is unlikely to be affected by the works.

Site number 16
Site name Mouselow, Glossop
NGR Not displayed
Site type Barrow?
Period Bronze Age (2350BC to 701BC)
HER No 6167
Sources HER
Description Place-name evidence suggested by Bateman to indicate a possible barrow site. NGR very vague in HER.

Assessment The full extent of the site is not known and associated features might be affected by the works

Site number 17
Site name Dinting Vale Toll House
NGR SK 018 945
Site type Toll House
Period Post-medieval
HER No 6120
Sources HER
Description Glossop Toll House.

Assessment The site lies outside of the proposed pipeline route and is unlikely to be affected by the works.

Site number 18
Site name Dinting Vale Printworks, Dinting Vale, Glossop
NGR SK 015 946
Site type Mill pond, Weir, Dye Works

Period	Post-medieval
HER No	6143
Sources	HER
Description	Long narrow gritstone buildings occupying a constricted site in Dinting Vale. Parts of the buildings are demolished and in parts in poor repair. Formerly the extensive calico printing works of Edmund Potter, established in 1825. Now occupied by small businesses. A company history of Edmund Potter has been written. A weir and mill pond are shown on the 1981 OS map.
Assessment	The site lies outside of the proposed pipeline route and is unlikely to be affected by the works.

Site number	19
Site name	Waterside branch of the Great Central Railway, Dinting
NGR	SK 010 951
Site type	Railway
Period	Post-medieval
HER No	6142
Sources	HER
Description	The line of the former Great Central Railway, Waterside Branch, which served Dinting Vale Printworks and other industrial establishments in the vicinity. The branch diverged from GCR main line at Dinting Goods Station. Crossing gates on the A625 survive.
Assessment	The full extent of the site is not known and associated features might be affected by the works

Site number	20
Site name	Stone Coffin and Roman Coin, Brookfield, Dinting
NGR	SK 011 951
Site type	Coffin and Find
Period	Roman
HER No	6103
Sources	HER
Description	In 1841 Messrs. Shepley, of Brookfield, whilst constructing a mill race found a stone coffin in proximity to the fort at Melandra. Also found was a coin of Domitian, Emperor of Rome AD 81-96.
Assessment	The full extent of the site is not known and associated features might be affected by the works

Site number	21
Site name	Glossop Stone Head
NGR	SK 009 951
Site type	Findspot
Period	Undated
HER No	6107
Sources	HER
Description	Stone with three faces carried on the outer surface, forming a quarter circle. The central face is triangular and shows toolmarks, the side faces have prominent features and are smooth. Possibly from Melandra.
Assessment	The full extent of the site is not known but the site lies outside the proposed pipeline easement and will not be affected by the works

Site number	22
Site name	Stone Head from Melandra Roman Fort
NGR	SK 0094 9508
Site type	Findspot, Celtic Head
Period	Undated

HER No	6159
Sources	Petch, M 1989
Description	Carved stone head unearthed during excavation of Melandra may possibly represent the 'horned god of the Brigantes' but is barely distinguishable.
Assessment	The full extent of the site is not known but associated features could be affected by the works

Site number	23
Site name	Melandra - Mesolithic Flint and Chert Scatter
NGR	SK 009 950
Site type	Flint working site
Period	Late Mesolithic
HER No	6101
Sources	HER
Description	A Mesolithic site has been found on the gravel hill overlooking the river Etherow that was occupied by the Roman fort of Melandra. In Buxton Museum is a quantity of waste from this site comprising flakes and blades of brown flint, white patinated flint and dark chert; also four flint cores of Class A1, one converted into a graver, a batterback microlith and part of a scraper, both of brown flint at the site but no artefacts.
Assessment	The full extent of the site is not known but the site lies outside the proposed pipeline easement and will not be affected by the works

Site number	24
Site name	Putative Roman Road: Melandra to Disley
NGR	SK 0066 9249
Site type	Road
Period	Roman
HER No	420930018
Sources	HER
Description	Doubtful Roman road: Melandra to Disley "Ridgeway" as putative line of road.
Assessment	The full extent of the site is not known and associated features might be affected by the works

Site number	25
Site name	Melandra Castle, Gamesley, Glossop
NGR	SK 0089 9505
Site type	Roman Fort, Bath House, Carved Stone and Pottery Kiln
Period	Roman
HER No	6102
Statutory Designation	Scheduled Ancient Monument (Derbyshire) - 8
Sources	HER
Description	An Agricolan earth-wood fort rebuilt in stone, in part at least, probably under Trajan. The fort has been excavated, on various occasions since 1899, notably in 1906-7, by the Classical Association. Later excavation has taken place in the fort and in the civil settlement. Occupation evidence, mainly pottery, indicates an abandonment in the first half of the second century. Part of a female sandal, in one of the ditches suggests civilians. The name Melandra is attributed to the Rev. John Watson (1772; www.pastscape.org.uk) but the site is identified by Richmond and Crawford as the (Ze)rdotalia (Erdotalia or Ardotalia) of the Ravenna Cosmography; an identification not entirely certain. Further excavations by the DOE took place on the area of the civil settlement adjacent to the Roman fort. An almost complete plan was revealed of the supposed <i>mansio</i> which was partly excavated in 1966. It was constructed of timber and fronted by a road to the west, and backed by a rampart and ditch system of <i>c</i> AD140 was arrived at from pottery evidence. The 1969 season concluded the rescue excavation, and the overall impression of the sizeable defended <i>vicus</i> can now be gained. For a fort that can

never have occupied a key position in the overall strategy of the Northern Military Zone, it is remarkable that it had such a considerable civil population, and so large a *mansio*. A bath-building, of coursed sandstone slabs set in mortar, was discovered outside the north west corner of the fort by the Melandra Field Group in 1973 with an apsidal hot room, a warm room and a cold room. The hypocaust *pilae* were of tile. Much of the masonry had slipped down the hillside. This first phase appears to be Flavian but additions were made early in the second century (in about AD120). A secondary wing of finely-dressed gritstone on a base of sandstone slabs was located to the south of the cold room. It consisted of two rooms, one heated and one unheated. The *pilae* were of squared sandstone blocks and the flues of box tiles. Between AD 120-140 during a third phase of building a possibly heated room, maybe a dressing-room, was added to the east of the secondary wing. This room was 5.6m by 5.0m and was built of sandstone blocks. Between the baths and the fort wall there was a timber-lined drain, about 0.25m wide, which may have diverted surface water around the baths. A circuit road of pebbles, 2.5m wide and 0.2m thick, lay along the outer lip of the fort ditch. The early phase of this road ante-dated the baths. Excavations in 1980 and 1982 continued work on the bath-house. In addition, part of the clay and cobble footings of the Trajanic fort wall were exposed to the east of the North Gate and an area of the vicus examined. Considerable evidence for iron-smelting and lead and glass working came from the vicus. Excavated material suggests the presence of a pottery kiln in or near the civil settlement.

Assessment The full extent of the site is not known and associated features might be affected by the works

Site number 26
Site name Cremation cemetery south of Melandra, Glossop
NGR SK 00855 94775
Site type Cremation cemetery
Period Roman
HER No 6170
Sources Webster, PV 1971
Description In 1967 a group of cremation burials was found close to an excavated area of Roman road about 700ft south of Melandra Roman fort. Work recovered five burials. Four cremations had been deposited in urns placed in shallow pits. A fifth, also in an urn, had been placed inside a wooden box which survived as a stain in the subsoil. The shallowness of the pits into which all five burials had been placed was probably responsible for the damage all had suffered as a result of agricultural activity. Such fragments as survive suggest burial in the later first or earlier second century.

Assessment The site lies outside of the proposed pipeline route and is unlikely to be affected by the works.

Site number 27
Site name Cropmark (possible Roman Road)
NGR SK 0070 9550
Site type Road/Ditch
Period Roman
HER No 8249.1.0
Sources HER
Description Two parallel ditches c 10m apart, running from the top of the Etherow river plain, for a distance of c 350m. These appear to be a routeway, which if projected westwards would run along the Old Coach road to the north of Mottram Old Hall, meeting with the Werneth Low - Castleshaw road at Gallows.

Assessment The site lies outside of the proposed pipeline route and is unlikely to be affected by the works.

Site number 28

Site name Pottery and Hearths
NGR SK 0090 9550
Site type Hearth/Settlement
Period Roman
HER No 8244.1.0
Sources Nevell, M 1992 60, 68, Aiken, J 1795, 480
Description Hearths and courseware pottery reported from the western bank of the river Etherow near Woolley, opposite Melandra Castle. Possibly related to activity by the Manchester-Melandra road.
Assessment The site lies outside of the proposed pipeline route and is unlikely to be affected by the works.

Site number 29
Site name Isolation Hospital (Site of), Carrhouse Lane
NGR SK 00213 95690
Site type Infectious Diseases Hospital
Period Post-medieval
HER No 13632.1.0
Sources HER
Description No visible remains, possibly built on parts of Hospital Farm. Reports by local farmer suggest that building foundations are preserved below ground. The grid reference indicates an approximate position.
Assessment The site lies outside of the proposed pipeline route and is unlikely to be affected by the works.

Site number 30
Site name Aircraft Crash Site, Mottram
NGR SJ 99868 95360
Site type Aircraft Crash Site
Period Post-medieval
HER No 255.1.0
Sources HER
Description Around 3.30pm on Sunday nineteenth July 1942 a Miles Master Mark iii piloted by Jozef Gawkowski (a Polish Air Officer) crashed in a gully behind the cemetery off Church Brow, Mottram. Little remains of the aircraft on the crash site apart from a few fragments of metal and the precise crash location is unknown. Jozef Gawkowski's body was recovered and is buried in the Polish War Cemetery at Newark.
Assessment The full extent of the site is not known and associated features might be affected by the works

Site number 31
Site name Field System, Mottram
NGR SJ 9844 9615
Site type Ditch/Field System
Period Bronze Age
HER No 8231.1.0
Sources Nevell, M 1992
Description An early field system, of possible Bronze Age date defined by a series of banks and ditches, with what appear to be clearance cairns.
Assessment The full extent of the site is not known and associated features might be affected by the works

Site number 32
Site name Spout Green Mill (Site of)
NGR SJ 9900 9620
Site type Industrial Site, Textile Mill
Period Post-medieval
HER No 6332.1.0
Sources HER
Description Mentioned as a cotton spinning mill from c 1887 until 1907-14. The mill was last used as a tannery, possibly in the 1920s. Derelict for many years until its demolition. The site is now covered by a housing estate.
Assessment The site lies outside of the proposed pipeline route and is unlikely to be affected by the works.

Site number 33
Site name Wagstaffe's Factory
NGR SJ 9929 9556
Site type Industrial Site and Textile Mill
Period Post-medieval
HER No 6304.1.0
Sources HER
Description Mentioned as a cotton spinning mill from c 1786 until c 1813. Building comprises two cottages at present, previously used as a Liberal Club.
Assessment The site lies outside of the proposed pipeline route and is unlikely to be affected by the works.

Site number 34
Site name Dry Mill
NGR SJ 9930 9556
Site type Industrial Site, Textile Mill
Period Post-medieval
HER No 6301.1.0
Sources Burke, T and Nevell, MD 1996
Description Mentioned as a cotton spinning mill c 1786-1813. Now converted into cottages. Erected by John Wagstaffe. Stone-built, 2-storey building of 3 x 2 bays with gabled slate roof and chimneys.
Assessment The site lies outside of the proposed pipeline route and is unlikely to be affected by the works.

Site number 35
Site name Hague/Hague Carr Colliery (Site of)
NGR SK 0030 9510
Site type Colliery, Industrial site and Mine
Period Post-medieval
HER No 6284.1.0
Sources HER
Description Now lying under a derelict water reservoir, Hague Carr was one of the earliest sections to be exploited by deep mine technology in Tameside. The six pits here may have been worked by Messrs Garlick & Company. It was sold by William Thornley in 1837, but was first sunk c 1767. Evidence had survived in the form of earthworks, but has been obscured by ploughing.
Assessment The full extent of the site is not known and associated features might be affected by the works

Site number 36
Site name **Victoria/Albert/Roughdale Mill (Site of)**
NGR SJ 9930 9575
Site type Industrial Site and Textile Mill
Period Post-medieval (AD1800 to AD1899)
HER No 5826.1.0
Sources HER
Description Mentioned as a cotton spinning mill from 1852 until c 1869. Site now built upon by council houses and a large rest home.
Assessment The site lies outside of the proposed pipeline route and is unlikely to be affected by the works.

Site number 37
Site name **Lane Ends Settlement**
NGR SJ 9920 9595
Site type Building/Settlement
Period Medieval – Post-medieval
HER No 3506.1.0
Sources HER
Description A small collection of buildings at a junction of five routes, including Old Hall Lane, Stalybridge Old Road and Roe Cross Road.
Assessment The full extent of the site is not known and associated features might be affected by the works

Site number 38
Site name **Flax Lands**
NGR SK 00 95
Site type Field System and Retting Pond
Period Post-medieval
HER No 3469.1.0
Sources HER
Description This field-name appears in the 1846 tithe apportionment and may indicate past agricultural activity.
Assessment The full extent of the site is not known and associated features might be affected by the works

Site number 39
Site name **Carr Farm (Site of)**
NGR SK 0020 9540
Site type Colliery, Industrial Site and Mine
Period Post-medieval
HER No 3468.2.0
Sources HER
Description Site of one of the earliest coal seams to be exploited by deep mine technology in Tameside. Details of the pits are shown on Burdett's Map, 1776. A steam engine is mentioned in relation to mines in the Mottram estate rentals of the 1770s. Evidence of coal workings between Hague and Carr Farms survived but because of ploughing have subsequently been obscured.
Assessment The full extent of the site is not known and associated features might be affected by the works

Site number 40
Site name **Carr House, Mottram**
NGR SK 00 95
Site type House, Settlement and Building
Period Post-medieval

HER No	3468.1.0
Sources	HER
Description	Two structures are shown on this site on the 1882 map. The house is of hammer-dressed stone with stone sills and lintels to the windows. The door has a square-cut stone surround. To the north lies a brick built barn with graduated stone slate roof. The barn sits on a stone plinth. Burdetts Map of Cheshire shows "The Carr" but it is impossible to tell if it is referring to a building or locality. The 1983 map shows two oblong buildings. Uncertain location.
Assessment	The site lies outside of the proposed pipeline route and is unlikely to be affected by the works

Site number	41
Site name	Cottages on the North Side of Old Hall Lane
NGR	SJ 9923 9610
Site type	Settlement
Period	Eighteenth century
HER No	3428.1.0
Sources	HER
Description	A single rectangular structure is shown on the north side of Old Hall Lane on the tithe map. The building is in fact two cottages. The southern cottage has a datestone in the south gable "HHA 1725". It has two storeys and was constructed of squared rubble. It sits under a graduated stone slate roof with ridge back chimneys and a projecting plinth. The south gable has two 3-light recessed timber mullion windows to the first floor with stone and lintels and hoods. The door has a stone lintel and dressed surround and also has a hood. There is a wooden weatherboard and timber decoration to this gable. The east elevation has two 3-light windows on the ground floor again with stone sills and lintels. The northern end of the northern cottage has been extended.
Assessment	The site lies outside of the proposed pipeline route and is unlikely to be affected by the works.

Site number	42
Site name	Structures at Spoutgreen (Site of)
NGR	SJ 9909 9613
Site type	Building and Settlement
Period	Post-medieval
HER No	3427.1.0
Sources	HER
Description	Eight structures are located in the area between the lanes on the 1847 tithe map. All of these structures appear to have been built over.
Assessment	The site lies outside of the proposed pipeline route and is unlikely to be affected by the works.

Site number	43
Site name	Ridge and furrow, Mottram
NGR	SJ 9880 9590
Site type	Field System and Ridge and Furrow
Period	Post-medieval
HER No	3414.1.0
Sources	HER
Description	The ridges do not appear to be very wide, therefore, probably a late date can be ascribed to this feature. Site now redeveloped.
Assessment	The full extent of the site is not known and associated features might be affected by the works

Site number	44
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Site name	Pack Horse Inn
NGR	SJ 9927 9543
Site type	Farmstead, Inn and Barn
Period	Post-medieval
HER No	3406.1.0
Sources	HER
Description	Farmstead pre-1700, now a public house. The present east-facing facade of the two-storey building was rebuilt in 1927 and pre-1927 photographs indicate that the structure was built of coursed rubble, as a double-depth, four-bay farmhouse. A large stone barn lay immediately to the south, divided from the house by a cross-passage. The building has a rendered exterior and mock timber framing to the first floor. The doors and windows on the ground floor have dressed surrounds. The inn was tenanted by Robert Ashworth in 1600 and 1624.
Assessment	The site lies outside of the proposed pipeline route and is unlikely to be affected by the works.

Site number	45
Site name	Mottram Unitary Church
NGR	SJ 9924 9563
Site type	Church
Period	Post-medieval
HER No	815.1.0
Sources	RCHME 1994, Evans, GE 1897
Description	The “Barkerite” congregation from the Christian Brethren moved to a new building 150 yards south-west of the former chapel, opened November 1846. The chapel is stone-built, with a hipped slate roof, two-storeys with a broad street front of six bays. Intended to provide the needs of a Sunday school and is inscribed “Mottram Christian Sunday School for Children of all Denominations Build by Subscription AD 1846”. Building extant but divided into four dwellings.
Assessment	The site lies outside of the proposed pipeline route and is unlikely to be affected by the works.

Site number	46
Site name	Mottram Old Mill
NGR	SJ 9899 9596
Site type	Dam, Industrial Site; Mill; watermill and Weaving Mill
Period	Medieval - Post-medieval
HER No	3412.1.0
Sources	HER
Description	The earliest reference to a mill in Longdendale is a charter dated 1211-15. The Longdendale Survey shows the manorial mill is located on tributary in 1313 suggesting an older mill, abandoned before 1360 since it does not appear in the Longdendale survey. A possibility for this mill is the site of Mottram Old Mill. On the 1847 tithe map the mill is described as a woollen mill and there is a dam to the north-east of the rectangular mill. Stone debris and traces of wall orientations can be identified to show where the mill previously stood. The walls in place survive to c 1.5m high and are constructed of squared rubble.
Assessment	The site lies outside of the proposed pipeline route and is unlikely to be affected by the works

Site number	47
Site name	Structure , Mottram (Site of)
NGR	SJ 9886 9587
Site type	Building, Dam and Industrial Site
Period	Undated
HER No	3411.1.0
Sources	HER

Description Stone debris and earthworks on the north side of the brook may represent the walls of a former structure and also some form of water control, possibly a dam.

Assessment The site lies outside of the proposed pipeline route and is unlikely to be affected by the works

Site number 48
Site name Victoria Place
NGR SJ 9923 9580
Site type House, Settlement
Period Post-medieval
HER No 3409.1.0
Sources HER
Description A group of three, now five, houses. "Victoria Place 1852" inscribed on eastern elevation. A two-storey structure of hammer-dressed stone with an ashlar facade. Stone plinth and quoins. Ridge and gable chimneys and a moulded eaves cornice. East elevation has seven first floor windows all with square-cut stone surround. Four similar windows to the ground floor. Three doors in this elevation all with stone heads and architraves.

Assessment The site lies outside of the proposed pipeline route and is unlikely to be affected by the works

Site number 49
Site name 52 & 54 Market Street
NGR SJ 9931 9555
Site type Settlement
Period Post-medieval
HER No 3407.1.0
Sources HER
Description Two cottages c 1800. Two-storey with a slate roof and ridge chimneys. The west elevation has a door with a small single light to its right on the ground floor with a modern window to the right. The first floor has a four-light flat-faced stone mullion window (only the central mullion survives). East elevation has three windows all with stone sills and lintels. No. 54 has a modern porch. The north gable has a blocked window to the first floor.

Assessment The site lies outside of the proposed pipeline route and is unlikely to be affected by the works.

Site number 50
Site name Jobs (structure)
NGR SJ 9837 9541
Site type Chimmney; Farm, Farmhouse; Farmstead (Deserted Farmstead); all post-medieval Barn (Modern)
Period Post-medieval and Modern
HER No 3341.1.0
Sources HER
Description A rectangular structure shown at the fork of two lanes on the 1847 map. This now forms part of Grange Farm. The farmhouse is a two-storey building of hammer-dressed watershot stone. It has a graduated stone slate roof with ridge chimneys and stone gutter brackets. There are three windows with stone sills and lintels to first floor, two similar to ground floor. A centrally located door has a square-cut stone surround. A single-storey extension to the south is constructed of rock-faced stone. To the rear of house and to north is a barn constructed of squared rubble with hammer-dressed stone facade. It has a central arched barn door with dressed headers. All openings have stone sills and lintels. There is a winnowing door at rear of barn and a number of vents around the upper floor. There are some brick outbuildings to the north.

Assessment The site lies outside of the proposed pipeline route and is unlikely to be affected by the works.

Site number 51
Site name Mainsgrass
NGR SJ 9841 9558
Site type Building; chimney; Settlement
Period Post-medieval
HER No 3334.1.0
Sources HER
Description A T-shaped structure is shown on the east side of the lane on the 1847 OS map. Present structure is rectangular in plan; it has an outshut to rear. Two-storeys of hammer-dressed stone with a slate roof and ridge and gable chimneys. The windows are modern mullion.
Assessment The full extent of the site is not known and associated features might be affected by the works

Site number 52
Site name Paddock Farm
NGR SJ 9832 9600
Site type Building
Period Post-medieval; chimney/Fireplace: modern
HER No 3329.1.0
Sources HER
Description Single rectangular structure shown on the 1847 map. The whole field shows evidence of ridge and furrow sections.
Assessment The site lies outside of the proposed pipeline route and is unlikely to be affected by the works.

Site number 53
Site name Silverspring (Farm)
NGR SJ 9831 9592
Site type Building
Period Chimney/Fireplace; Farm, Farmhouse; Farmstead (Deserted Farmhouse) all post-medieval and Cow House (Shippon) Modern
HER No 3325.1.0
Sources HER
Description Three rectangular structures are shown on this site on the 1847 tithe map. On the western side of the site is a shippon constructed of squared rubble with a graduated stone slate roof and gable chimneys. Building extant although no longer a farm. Change of use to landscape and market gardeners.
Assessment The site lies outside of the proposed pipeline route and is unlikely to be affected by the works. .

Site number 54
Site name Bates (two structures)
NGR SJ 9817 9581
Site type Building, Settlement
Period Post-medieval
HER No 3324.1.0
Sources HER
Description Two structures are shown on the south side of the lane opposite Harrop Edge Quarry on the 1882 map; these may be structures later described as Bates. This site is now demolished. There appears to be a mixture of stone and some brick debris.
Assessment The site lies outside of the proposed pipeline route and is unlikely to be affected by the works

Site number	55
Site name	Cheetham's (house)
NGR	SJ 9805 9569
Site type	Laithe House, Settlement
Period	Post-medieval
HER No	3323.1.0
Sources	HER
Description	A rectangular structure is shown on the 1847 tithe map. A two-storey structure in a laithe house arrangement that is a building with an attached cow house and crop storage area. Squared rubble with graduated stone slate roof and ridge and gable chimneys. House has modern windows set into recessed stone frames which may originally have had stone mullions. There is a single recessed stairlight in the north elevation. Door in the south elevation has large stone lintel. A lean-to extension to east elevation.
Assessment	The full extent of the site is not known and associated features might be affected by the works

Site number	56
Site name	Mottram Old Hall, Entrance Lodge
NGR	SJ 9907 9628
Site type	House, Settlement
Period	Post-medieval
HER No	2176.1.0
Sources	Burke, T & Nevell, MD 1996
Description	This building, guarding the approach to Mottram Old Hall, was designed in a style suggestive of a classical temple, with a pediment supported on a portico of Ionic columns. It dates from the 1820s, when the hall itself was remodelled in a classical style.
Assessment	The site lies outside of the proposed pipeline route and is unlikely to be affected by the works.

Site number	57
Site name	Miniature Castle and Castle Cottage
NGR	SJ 9813 9542
Site type	Tower, Farm, Farmhouse, Farmstead and Plaque
Period	Post Medieval
HER No	988.1.0
Statutory Designation	Listed Building (II)
Sources	HER
Description	A single rectangular structure on the west side of the lane on the 1882 map was called Bents at this time. Farmhouse and cottage late eighteenth century, with additions, including the facade of mid-nineteenth century. Hammer-dressed stone, coursed rubble with twentieth century clay tile and graduated stone slate roofs. Three bays, 2-storeys apart from a 3-storey tower in Bay 1. Projecting plinth and castellated parapet. Bay 1 has flat-faced three and 2-light mullion and transom windows, projecting corner piers, castellated parapet and band. Windows with stone surrounds to Bay 2, which has a square-cut door surround. Bay 3 has a higher parapet with an engraved stone reading "Longdendale Miniature Castle".
Assessment	The site lies outside of the proposed pipeline route and is unlikely to be affected by the works.

Site number	58
Site name	Field Ditches, Harrop Edge
NGR	SJ 9833 9615
Site type	Boundary, Ditch (defensive), Field System
Period	Undated
HER No	3331.1.0

Sources	HER
Description	Ditches forming an irregular field system. These earthworks can be clearly seen on the ground and suggest former field boundaries.
Assessment	The full extent of the site is not known and associated features might be affected by the works

Site number	59
Site name	Ridge and Furrow, Mottram-in-Longdale
NGR	SJ 99745 95668
Site type	Ridge and Furrow
Period	Post-medieval
HER No	
Sources	Walkover Survey
Description	Area of ridge and furrow comprising relatively narrow ridges, therefore this is likely to be late post-medieval in origin.
Assessment	The site is close to the proposed works and may be directly affected.

Site number	60
Site name	Earthworks
NGR	SK 00739 95367
Site type	Earthworks
Period	Undated
HER No	
Sources	Walkover Survey
Description	Three mounds c 2.5m high with a diameter of c10m. The function of these earthworks is unknown, although they could potentially be building platforms, but are more likely natural in origin.
Assessment	The full extent of the site is not known and associated features might be affected by the works

Site number	61
Site name	Earthworks
NGR	SK 00864 95323
Site type	Earthworks
Period	Undated
HER No	
Sources	Walkover Survey
Description	Earthworks comprising a south-facing linear bank running parallel to the River Etherow, and a small mound to the east of this bank. It is possible that these are natural features associated with the river.
Assessment	The site is within the proposed development route and will be directly affected by works.

Site number	62
Site name	Dam (possible site of)
NGR	SK
Site type	Earthworks
Period	Undated
HER No	
Sources	Ordnance Survey First Edition map, 1872
Description	The site of a possible dam associated with Mottram Old Mill (Site 46)..
Assessment	

Site number	63
Site name	Corn Mill

NGR SK
Site type Mill
Period Post-medieval
HER No
Sources Ordnance Survey First Edition map, Derbyshire, 1872
Description The site of a corn mill adjacent to Hadfield Cotton Mill (Site **06**).
Assessment

Site number **64**
Site name **Brick Yard, Brookfield**
NGR SK
Site type Brick Yard
Period Post-medieval
HER No
Sources Ordnance Survey Second Edition map, 1898
Description A brick yard to the south of Newsaw Lane, north-east of Dinting Vale Print Works. The full extent of the site is not known and associated features might be affected by the works
Assessment

Site number **65**
Site name **Clay pit, Brookfield**
NGR SK
Site type Earthworks
Period Post-medieval
HER No
Sources Ordnance Survey Second Edition map, 1898
Description A clay pit associated with the adjacent brick yard (Site **64**) to the south of Newshaw Lane.
Assessment The site is within the proposed development route but should not be directly affected by works.

Site number **66**
Site name **Gravel pit, Brookfield**
NGR SK
Site type Quarry
Period Undated
HER No
Sources Ordnance Survey Second Edition map, 1898
Description The site of a quarry possibly associated with the brick yard (Site **64**) to the south of Newshaw Lane.
Assessment The full extent of the site is not known and associated features might be affected by the works

5. WALKOVER SURVEY

5.1 RESULTS

- 5.1.1 The walkover survey revealed three previously unknown sites (Sites **59**, **60** and **61**). The first, Site **59**, was agricultural in nature and the second two were of undetermined function.
- 5.1.2 Site **59** (Fig 10) comprised two relatively small areas of ridge and furrow, located to the east of Mottram-in-Longdale. To the north, the first area comprises ridge and furrow remains which are aligned north-east/south-west. The second area, slightly larger in plan, has ridge and furrow aligned east-north-east/west-south-west. The ridges to the north appear slightly wider. This suggests that either the field was divided in two at some point in its use and the two halves farmed independently of each other, or that there are two distinct phases in its use and the direction in which it was ploughed was changed for some reason
- 5.1.3 The other two sites are slightly more difficult to interpret. Site **60** (Fig 11) was located to the north-west of the River Etherow and comprised three mounds *c* 2.5m high with a diameter of *c* 10m. It is possible that these were building platforms, but little more can be inferred without intrusive investigation.
- 5.1.4 Site **61** (Fig 11) was primarily a south-facing bank that towards the eastern end of the field appeared to be a channel or a dip. At this same end there was a circular mound, smaller than those found at Site **60**. The proximity to the river perhaps suggests water-formed features, but it is also relatively close to Melandra Roman Fort (Site **25**), so a Roman date cannot be ruled out without further investigation.

6. TOPOGRAPHIC SURVEY

6.1 RESULTS

- 6.1.1 The three earthwork sites identified by the walkover survey (Sites **59**, **60**, and **61**), were subject to a topographic survey. The results are presented as Figures **10** and **11**. The origin and function of Sites **60** and **61** remains undetermined.

7. FIELDWORK RESULTS

7.1 STRIP AND RECORD INVESTIGATION

- 7.1.1 The strip and record took place in the field immediately to the north of Melandra Roman Fort at the bottom of the hill upon which the fort was located (Fig 3). The River Etherow runs between the fort and the field in which the strip and record was carried out. The easement was stripped for an approximate length of 175m starting at its eastern extent.
- 7.1.2 Topsoil, **1005**, a dark blackish-brown soft sandy-silt, which was 0.15m thick, and subsoil, **1006**, a dark brown soft silty-sand, 0.2m thick, were removed. Below the subsoil was a layer of light brownish-yellow with bands of dark yellowish-brown soft to loose silty-sand (**1007**). This was a deep deposit (0.6m average depth, maximum 1m) which extended entirely across the easement and represents numerous river flooding events. One sherd of stoneware pottery from a vessel originating from H Faulder & Co, Stockport, (a manufacturer of confectionery), found towards the base of this deposit, dates it to the late nineteenth to early twentieth century.
- 7.1.3 Below **1007** was layer **1008** (Plate 3), a dark blackish-blue/light whitish-blue-mid yellow-orange, plastic/soft sandy-silt. It was present in large patches across the easement, measuring up to 0.3m in thickness. A few small abraded fragments of dark brown glazed red earthenware were recovered from the deposit, which dated it to the eighteenth century.
- 7.1.4 The last layer observed was **1009**, a dark orangey-brown with patches of light greyish-blue loose coarse sand. Ground water was present at this level, approximately 1.2m below the ground surface so no further excavation could occur (Plate 4). No archaeological finds were retrieved from this sand.

7.2 EVALUATION TRENCHING

- 7.2.1 **Trench 1**: the trench was aligned north-west/south-east, measured 2m by 11m and was excavated to a maximum depth of 1.4m (Plate 5). The trench was the easternmost excavated, located with the north-west end at the top of a south-facing slope and the south-east end where the ground levelled out (Fig 3). Topsoil **1000**, a dark brownish-grey soft silty-clay, 0.15m thick, was removed, beneath this was subsoil **1001**, which was a dark brown soft sandy-silt, 0.2m thick. The next layer, **1002**, was a mid yellowish-brown loose silty-sand with bands and lenses of dark brown sandy-silt, as well as patches of small rounded pebbles. This deposit measured 0.8m in thickness and represents flooding and silting events over time associated with the river.
- 7.2.2 Layer **1003** was only apparent at the south-east end of the trench and was a mixed mid-orange and dark blue plastic clayey-silt, 0.2m thick. This overlay layer **1004**, which consisted of small rounded water-worn pebbles. At this depth the water table had been reached. Layer **1004** was not the natural

geological ground level, instead probably part of a former course of the river. However, as the sides of the trench were unstable because of the loose nature of layer **1002** and water was flooding the trench, the trench was not excavated further on health and safety grounds. No archaeological remains or artefacts were observed.

- 7.2.3 **Trench 2:** the trench was aligned north-east/south-west, measured 11.5m by 2m and was excavated to a maximum depth of 1.4m (Plate 6). The north-west end of the trench was at the top of the south-facing slope and the south-east where the ground levelled out (Fig 3). Topsoil **1010**, a dark brownish-grey friable silty-clay, 0.15m thick, and subsoil **1011**, a mid-brown friable silty-sand, 0.2m thick, were removed. Layer **1012** was light greyish-brown, alternating thin layers of soft sand and silt, which were the result of flooding events. The maximum depth of this deposit was 0.8m, and it overlay layer **1013**, a mid to dark orangey-brown loose sand with approximately 40% small rounded stones, which probably represented the river bed from a previous course of the river. Ground water began to flood the trench at this level. No archaeological features were observed and no artefacts recovered.
- 7.2.4 **Trench 3:** the trench was aligned north-west/south-east, measured 10.5m by 2m and was excavated to an approximate depth of 1.6m (Plate 7). The north-west end of the trench was at the top of the south-facing slope, the south-east where the land levelled out (Fig 3). The sides of this trench were extremely unstable due to the sandy nature of the deposits precluding entry and all depths recorded are approximate. Topsoil **1014**, a dark brownish-grey friable clayey-silt, 0.15m thick, and subsoil **1015**, a mid brown friable silty-sand, 0.2m thick, were removed. Both deposits increased in depth towards the north-west end of the trench where the land slopes upwards.
- 7.2.5 Beneath subsoil **1015** was layer **1016**, which was 0.8m thick. This comprised light yellow sandy material with bands of dark yellowish-brown loose sand and represents flooding activity. It overlay layer **1017**, which was a dark blue and dark orange silty-sand with 20% small rounded stones and was 0.1m thick. This in turn overlay layer **1018**, a light to mid-yellowish-brown compact coarse sand with 20% small rounded stones, 0.1m thick. The final layer in the trench was **1019**. This was a dark yellowish-brown loose coarse sandy-gravel at which point the water table was reached. No archaeology was observed.
- 7.2.6 **Trench 4:** was aligned north-east/south-west and was located across the top of the south-facing slope (Fig 3). It measured 14m by 2m and was excavated to a maximum depth of 1.7m at the north-east end (Plate 8). Topsoil **1020**, a dark brownish grey friable clay silt, 0.15m thick, and subsoil **1021**, a mid brown friable silty-sand of a maximum depth of 1.2m at the north-east end of the trench were removed. Below subsoil **1021** was layer **1022**, a 1m thick, light brownish-yellow loose coarse-grained sand, which overlay layer **1023**, a mid orangey-brown loose sandy-gravel, which also marked the level of the ground water. No archaeological remains were observed.
- 7.2.7 **Trench 5:** the trench was located at the top of the south-facing slope, entirely on the flat ground to the north (Fig 3). Aligned north-west/south-east, the trench measured 30m by 2m and was excavated to a maximum depth of 1.2m

(Plate 9). Topsoil **1024**, a dark brownish-grey friable clay-silt, 0.15m thick, and subsoil **1025**, a mid brown friable silty-sand, 0.6m thick, were removed. Beneath **1025** was layer **1028**, a mid brownish-orange loose coarse-grained sand, >0.1m thick, which was only present at the south-east end of the trench. This overlay layer **1027**, a mid bluish-grey soft silt, >0.1m thick. These two layers were the northernmost limit of the river deposits observed in all of the other trenches, and were above natural boulder clay layer **1026**, a mid greyish-brown firm silty-clay, which was only observed at the north-west end of Trench 5. No archaeological remains or artefacts were observed.

7.3 WATCHING BRIEF

- 7.3.1 Topsoil, a dark blackish-brown soft sandy-silt, which varied between 0.15m and 0.4m thick, and subsoil, a dark brown soft silty-sand with an average thickness of 0.2m were removed along the length of the easement. These deposits overlay the natural geology which was generally a mottled light brownish-orange and grey clayey-sand. No archaeological features were observed.
- 7.3.2 The watching brief surprisingly did not reveal any archaeology along the route of the pipeline. The sites which were likely to be directly affected by the works covered by the watching brief were **51**, **55**, and **60**, however no remains of any of these were found. Sites **51** and **55** were extant buildings but the easement, so as not to directly affect them, was diverted far enough around the structures to avoid any associated archaeology. Site **60**, comprised a group of circular earthworks, which proved to be natural in origin, attributable to uneven natural geology. Other sites noted in the gazetteer were not directly within the easement and so associated remains were not exposed. There were no other unexpected archaeological remains observed over the length of the easement.

8. DISCUSSION

8.1 INTRODUCTION

8.1.1 Melandra Roman Fort and *vicus* have been subject to many excavations and work in the past starting with J Garstang and R Hamnett in 1899-1900 and more recently Manchester University in the late 1990's. The strip and record in the field to the north of the fort and the river was a potential opportunity to find out more about the fort and its relationship with the river. The proximity of the fort and river meant there was a possibility that the stripping of the pipeline easement would uncover archaeological features, perhaps a river crossing. The walkover survey and subsequent topographic survey showed earthworks in the vicinity, particularly a south-facing bank parallel to the river (Site 61). The easement encompassed the bank on the northernmost boundary.

8.2 FIELDWORK

8.2.1 During the strip and record exercise the topsoil and subsoil were thicker at the top of the south-facing slope suggesting that the bank had been built up as a flood defence system, certainly anecdotal evidence indicates that the river is prone to flooding regularly. The deposit beneath the subsoil comprised shallow bands of sand and silt and appeared to represent numerous flooding events associated with the river. At the base of this deposit one piece of late nineteenth to early twentieth century pottery was recovered, showing that the whole of this deposit was relatively recent. The earlier deposit beneath was also dated by small fragments of eighteenth century dark glazed red earthenware. Below this deposit was yet another layer of sand; however, the level of the water table coincided with this layer so that no further excavation could take place. No archaeological features were observed during the strip and record.

8.2.2 All of the trenches excavated were also devoid of archaeology and corroborated the information concerning the extent and depth of river deposits within the easement. The bank was observed to be built up from subsoil and topsoil all along its length. The natural boulder clay was only apparent at the northernmost boundary of the easement, the rest of the deposits were the same sands, silts and gravel as seen in the strip and record area of the project.

8.2.3 There is a possibility that there was archaeology along this stretch of the river which has been washed away by the flooding. Alternatively, earlier deposits could survive beneath the post-medieval alluvial deposits.

8.2.4 No further sites were identified as a result of the watching brief and no remains were found of a number of the sites originally expected to be affected by the works.

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10. ILLUSTRATIONS

10.1 FIGURES

Figure 1: Site Location

Figure 2a: Plan of Gazetteer Sites (west)

Figure 2b: Plan of Gazetteer Sites (east)

Figure 3: Location of Strip and Record Investigation and Trial Trenches

Figure 4: Selected Gazetteer Sites Superimposed upon an extract from the Ordnance Survey map, 1872

Figure 5: Selected Gazetteer Sites Superimposed upon an extract from the First Edition Ordnance Survey map, 1899

Figure 6a: Ordnance Survey Second Edition 1898, west

Figure 6b: Ordnance Survey Second Edition 1898, east

Figure 7: Selected Gazetteer Sites Superimposed upon an extract from the Ordnance Survey map, 1924

Figure 8: Selected Gazetteer Sites Superimposed upon an extract from the Ordnance Survey map, 1933-36

Figure 9: Topographic Survey of Site 59

Figure 10: Topographic Survey of Sites 60 and 61

10.2 PLATES

Plate 1: Aerial photograph taken in 1948 showing Melandra fort, the river Etherow and surrounding fields.

Plate 2: Aerial photograph showing Melandra Roman fort in detail

Plate 3: Section through post-medieval river deposit, **1007**, with river deposit, **1008**, at the base.

Plate 4: Section showing mixed nature of deposits, the final deposit, **1009**, under the level of the water table

Plate 5: Trench 1, looking north-west

Plate 6: Trench 2, looking north-east

Plate 7: Trench 3, looking north west

Plate 8: Trench 4, looking north-east

Plate 9: Trench 5, looking north-west

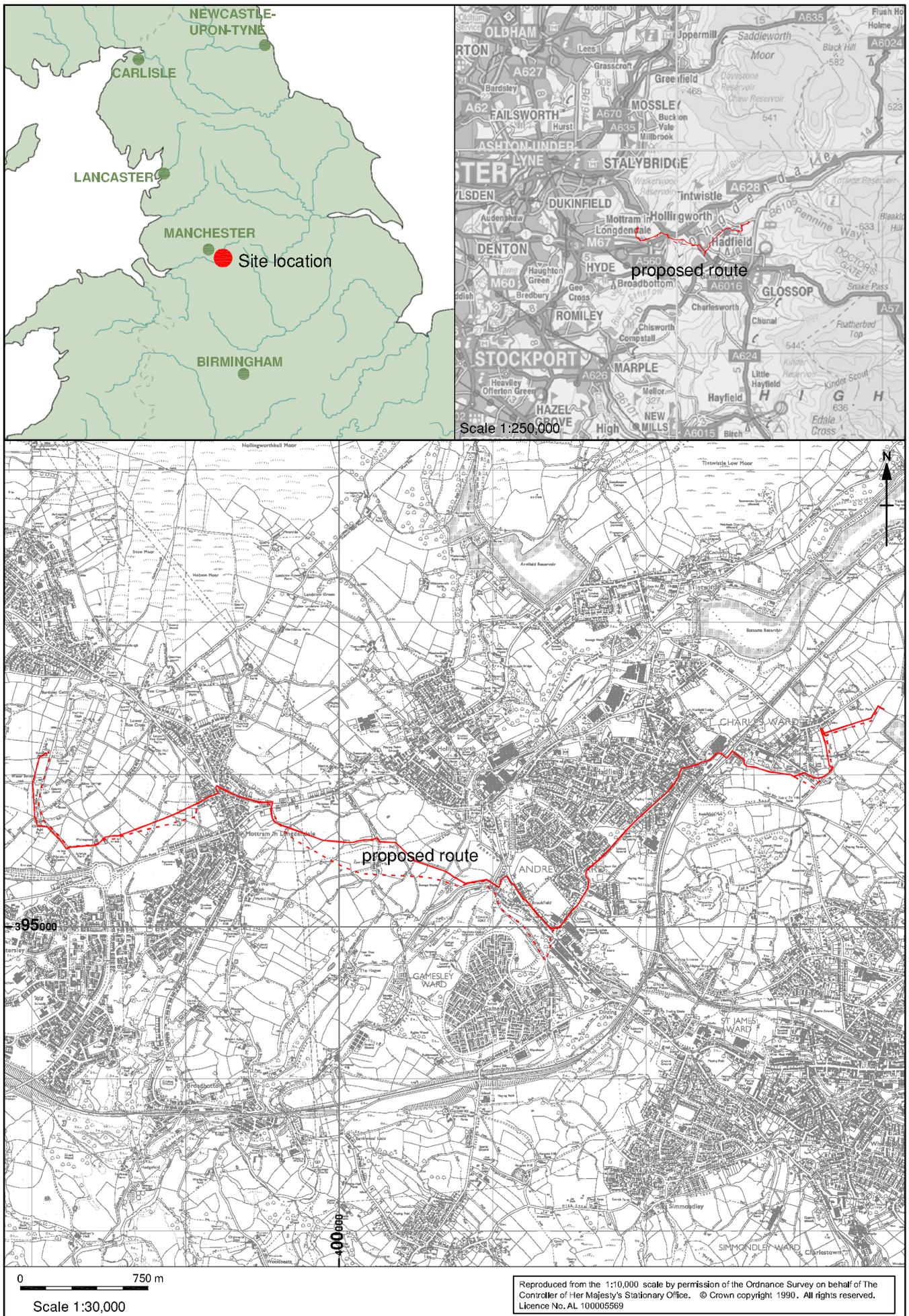


Figure 1: Site Location

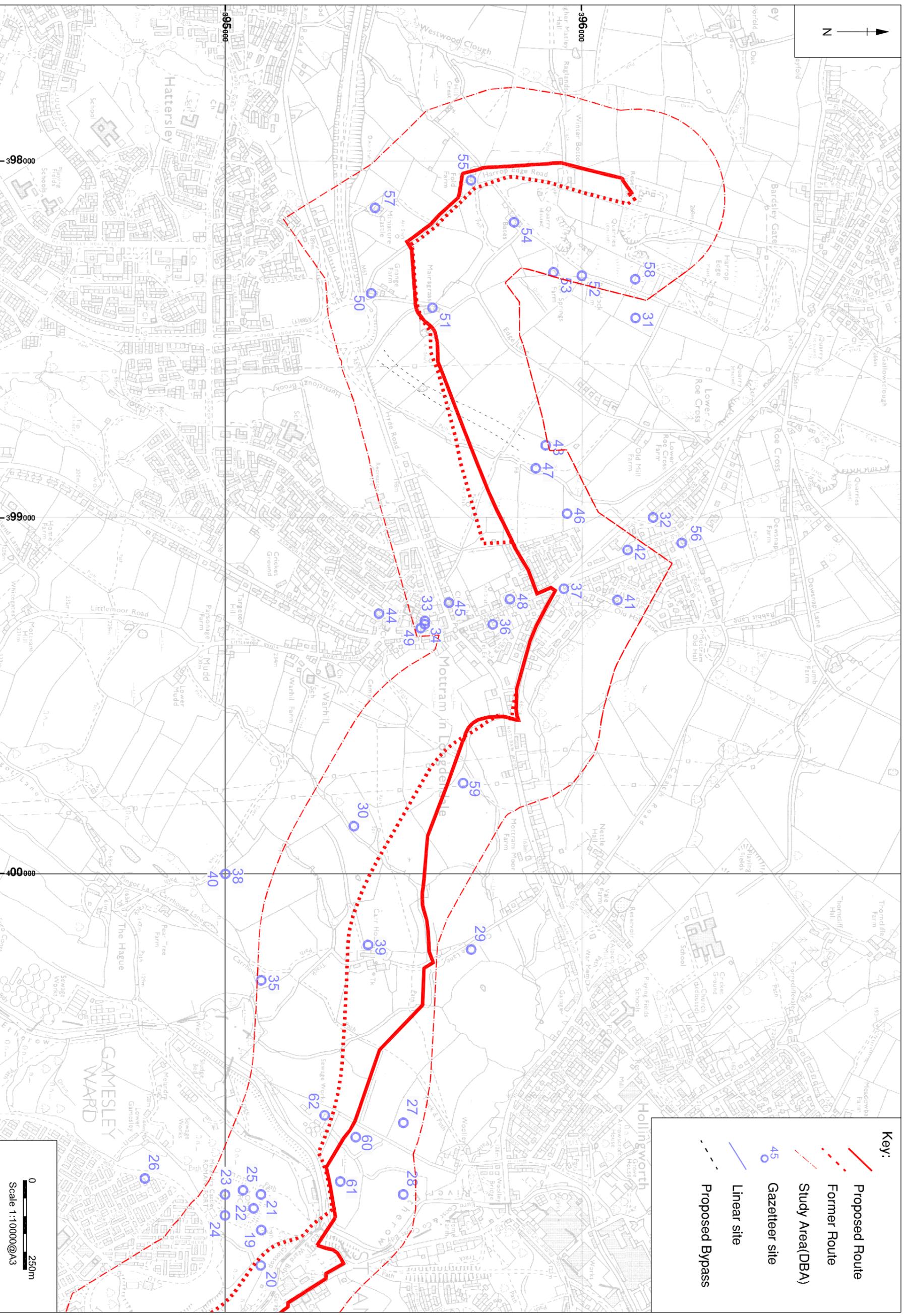


Figure 2a: Gazetteer sites plan (west)

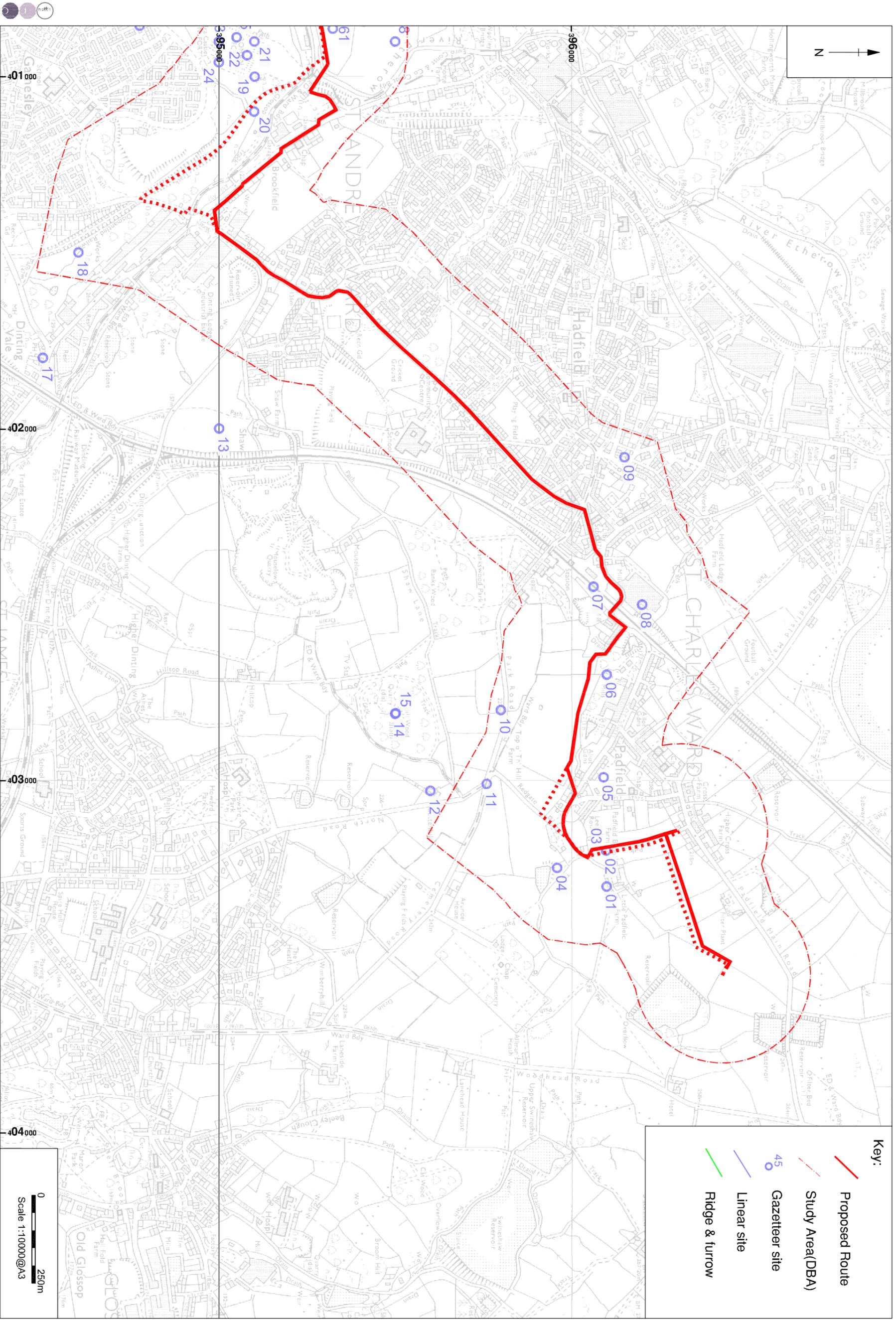


Figure 2b: Gazetteer sites plan (east)

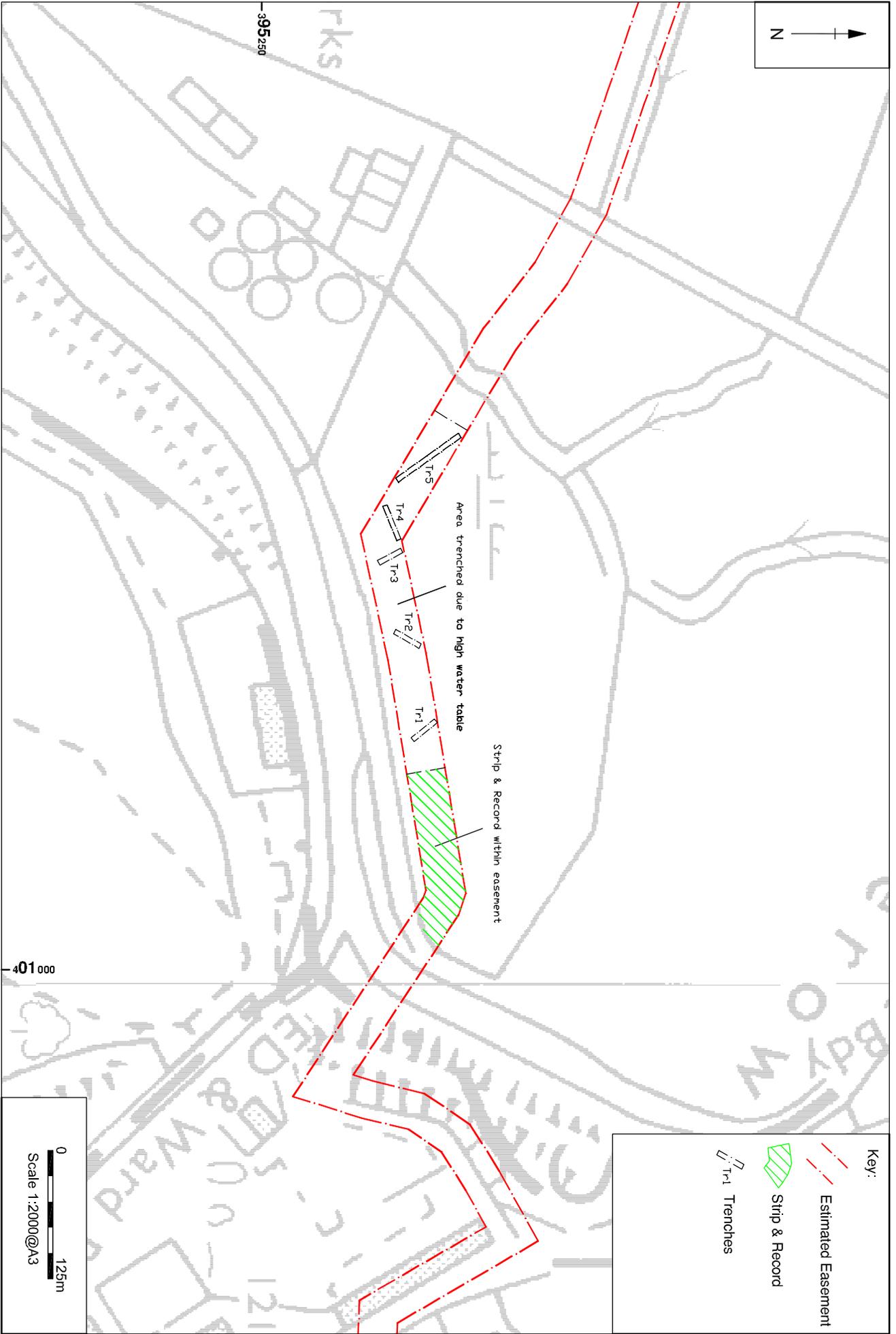


Figure 3: Location plan of strip and record investigation and trial trenches

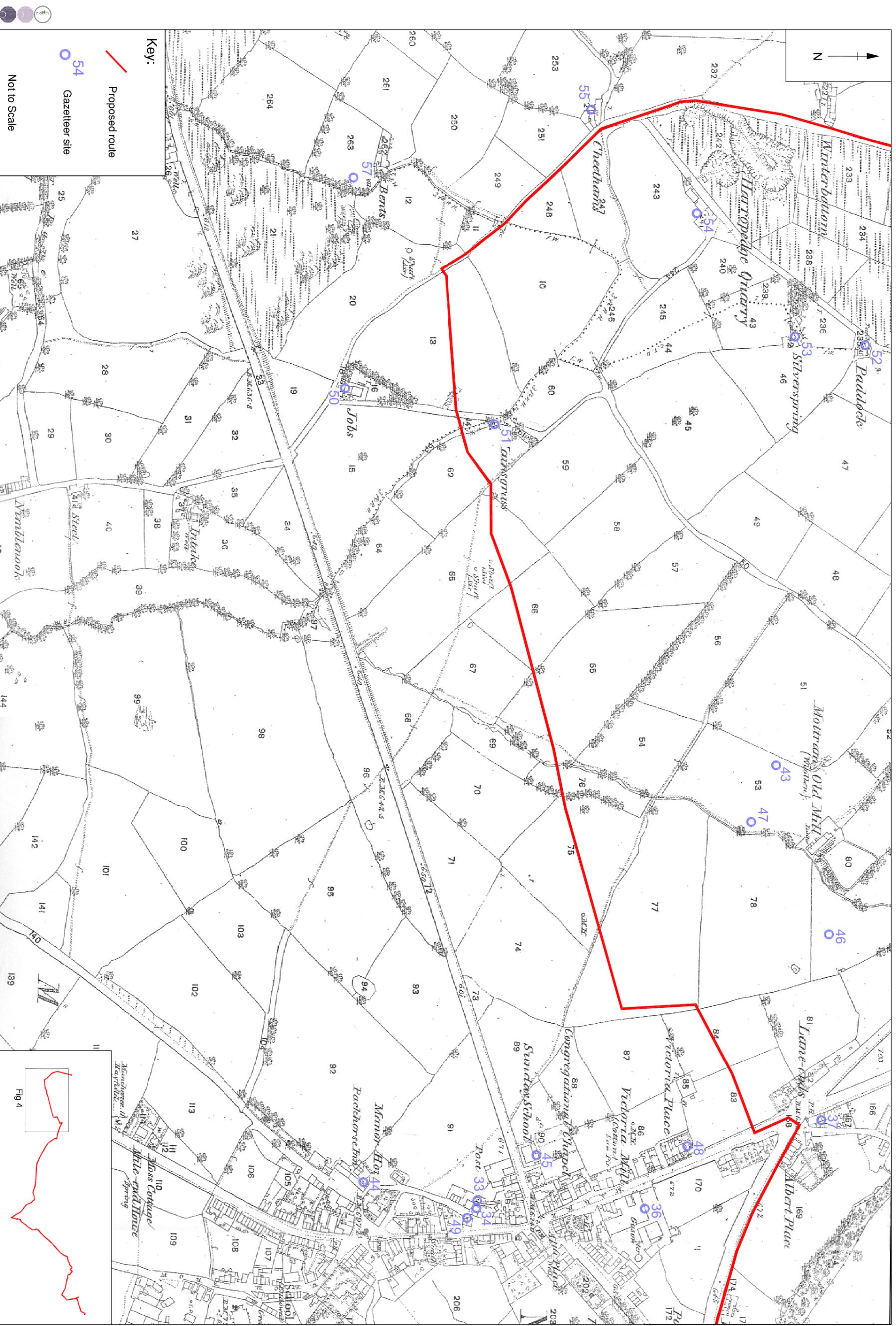


Figure 4: Selected gazetteer sites superimposed upon an extract from the Ordnance Survey map, 1872

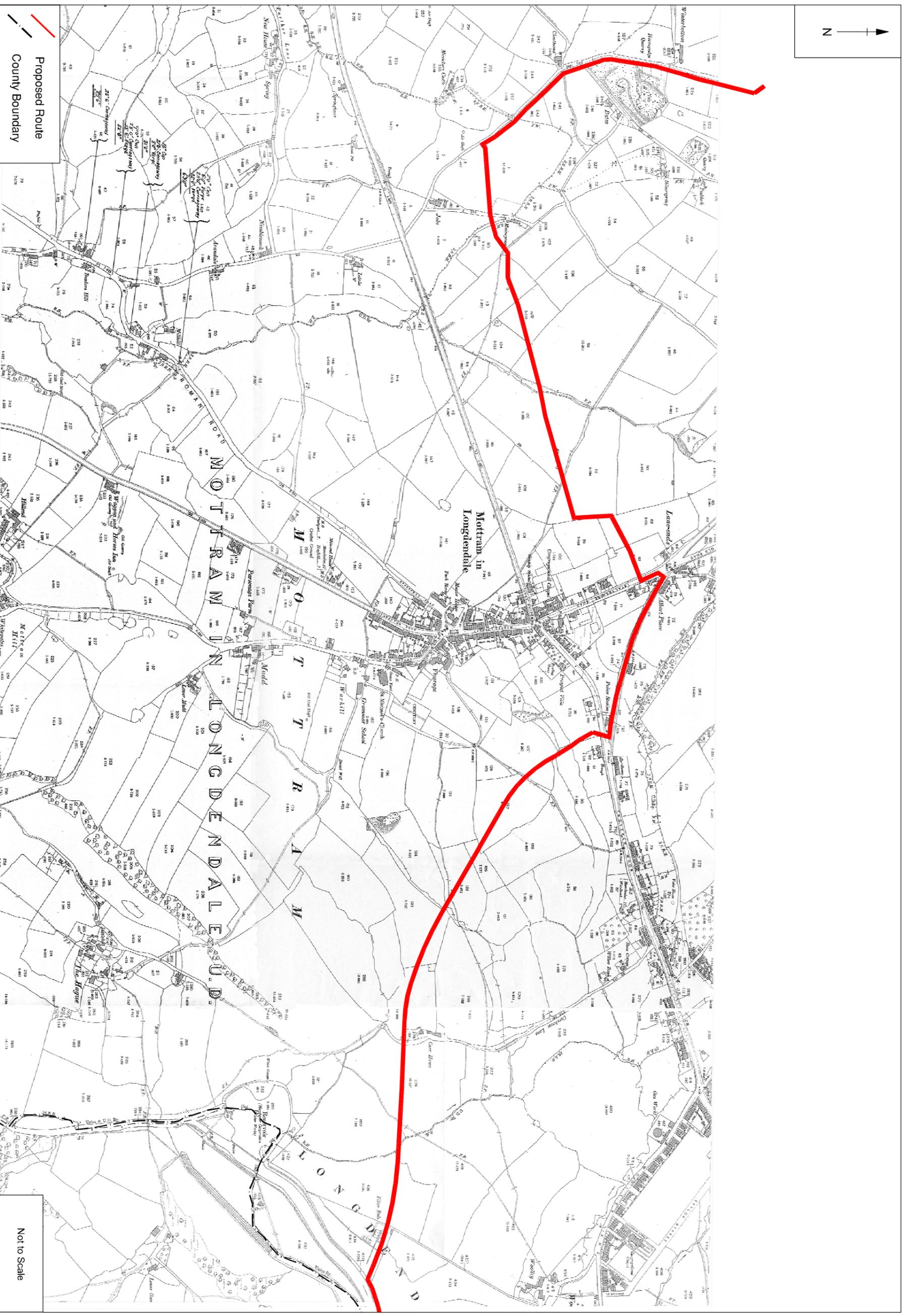


Figure 6a: Ordnance Survey Second Edition map 1898, west

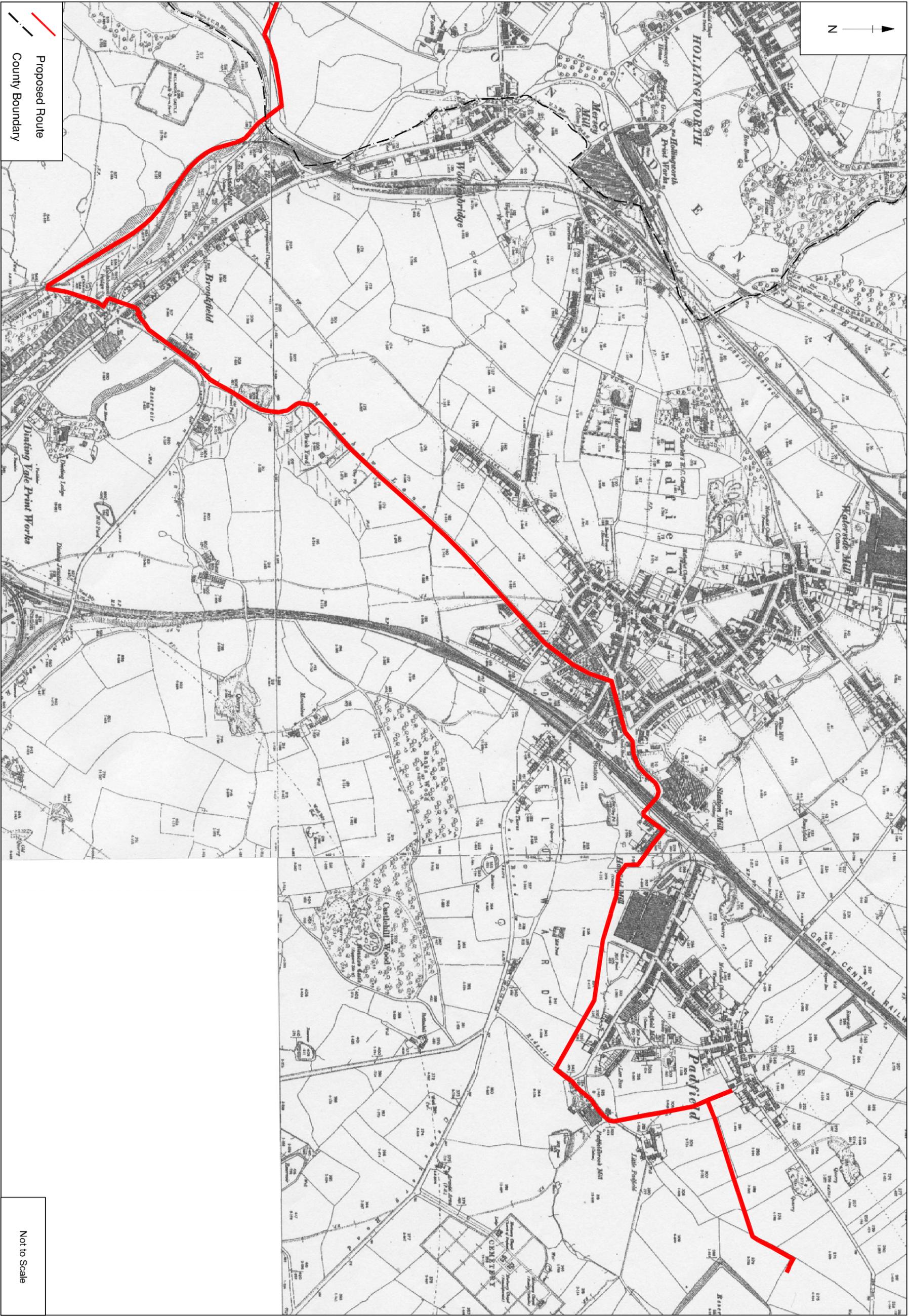


Figure 6b: Ordnance Survey Second Edition 1898, east

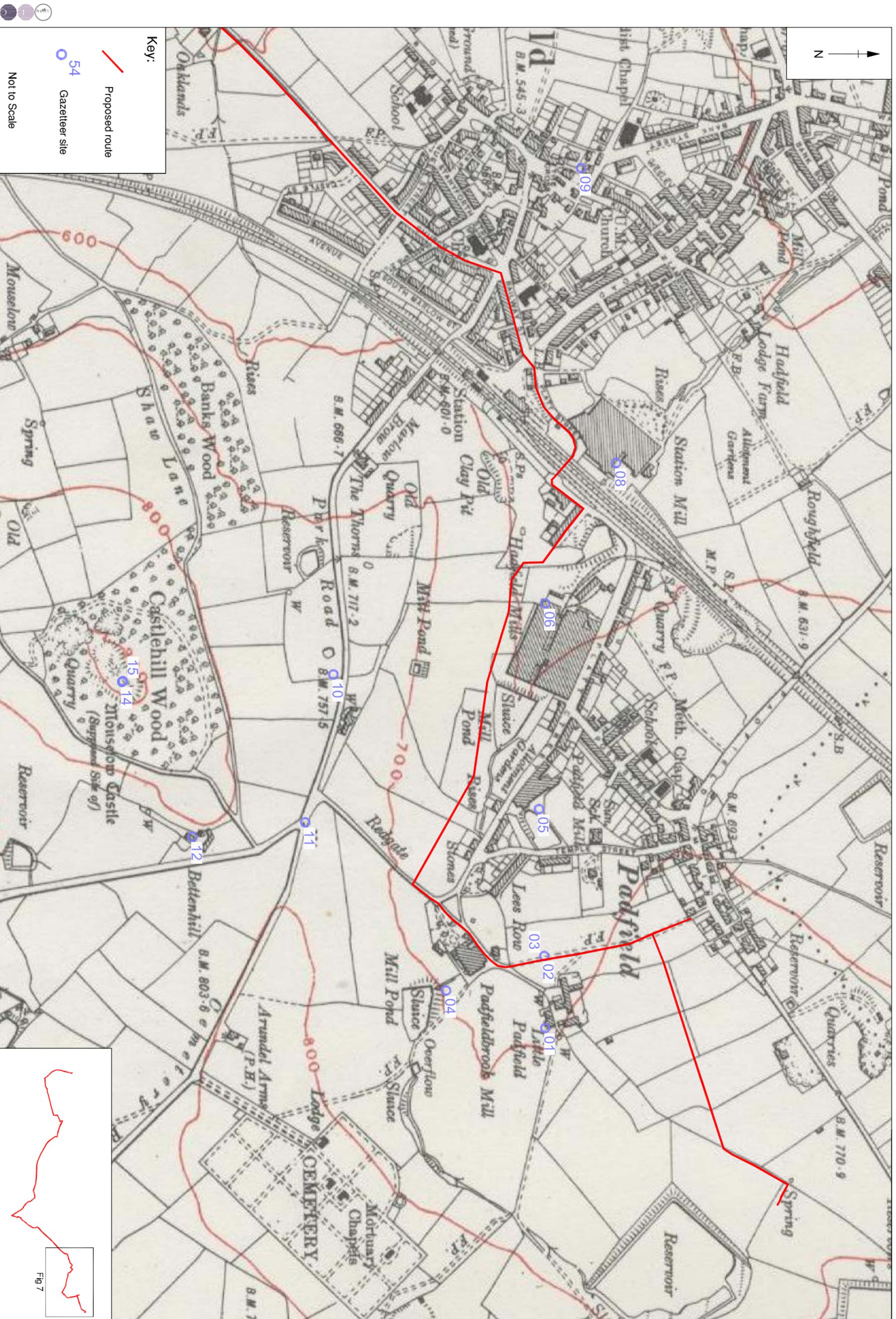


Figure 7: Selected gazetteer sites superimposed upon an extract from the Ordnance Survey map, 1924

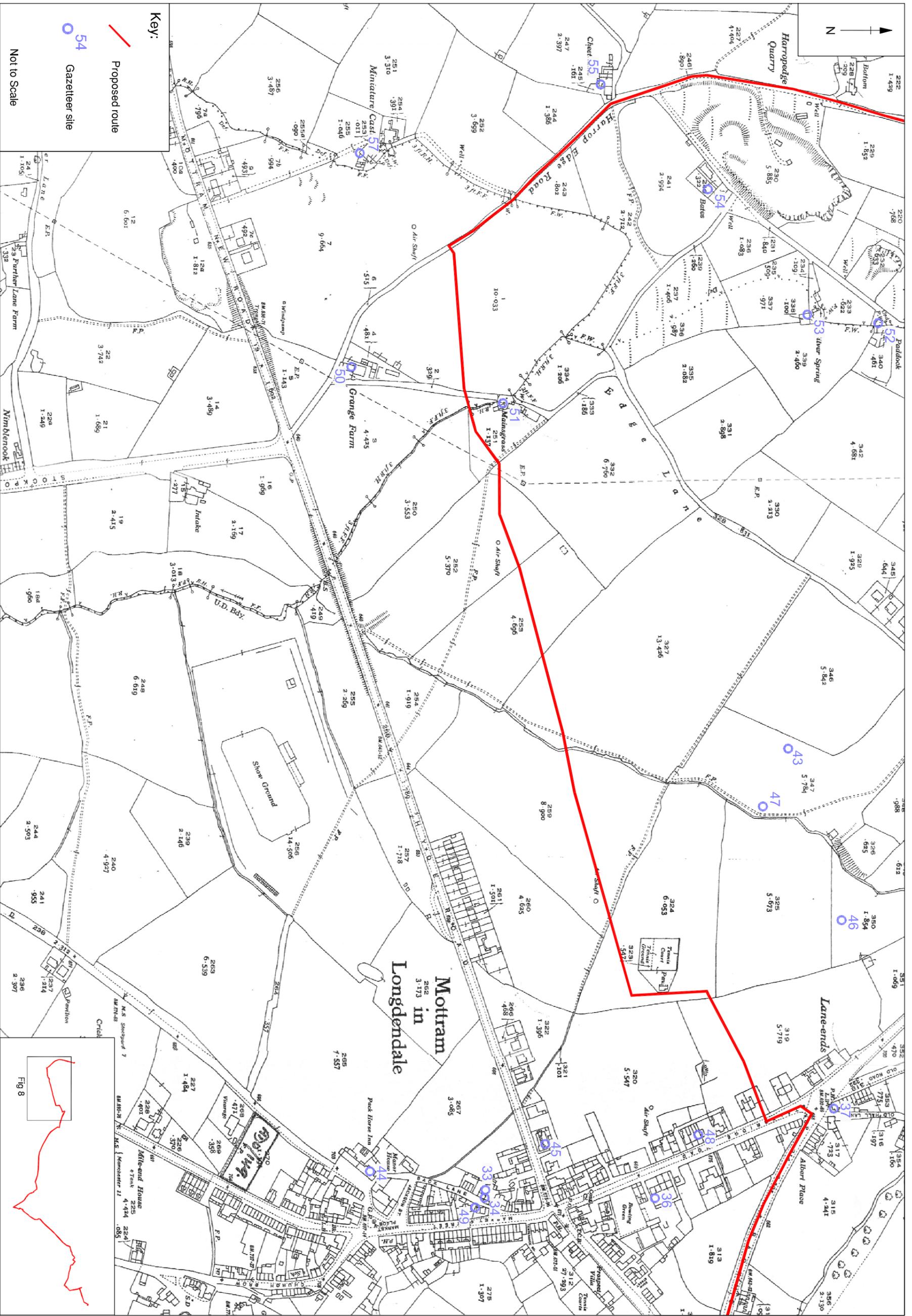


Figure 8: Selected gazetteer sites superimposed upon an extract from the Ordnance Survey map, 1933-36

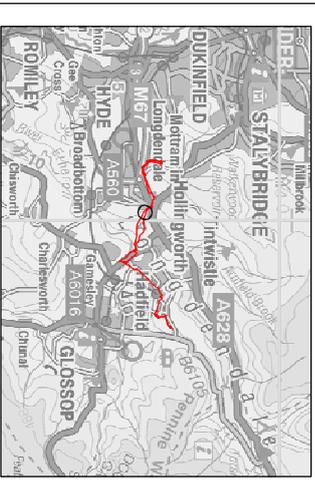


395650

399700

Key:

-  Proposed route
-  OS detail
-  Ridge and furrow
- 59** Gazetteer site
-  Topographic survey



Path

59

0 25m
Scale 1:15000@A4

Figure 9: Topographic detail of site 59

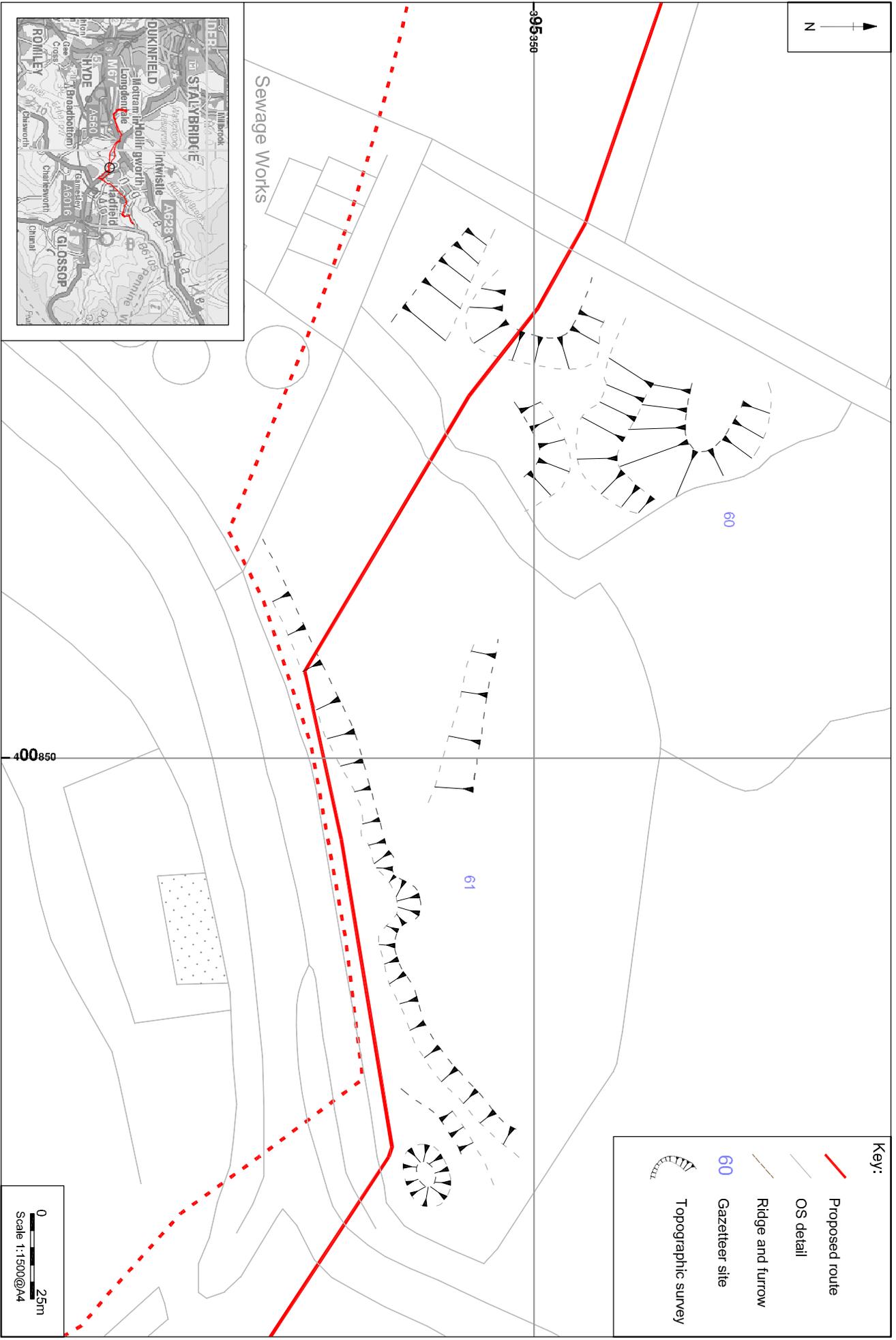


Figure 10: Topographic detail of sites 60 and 61

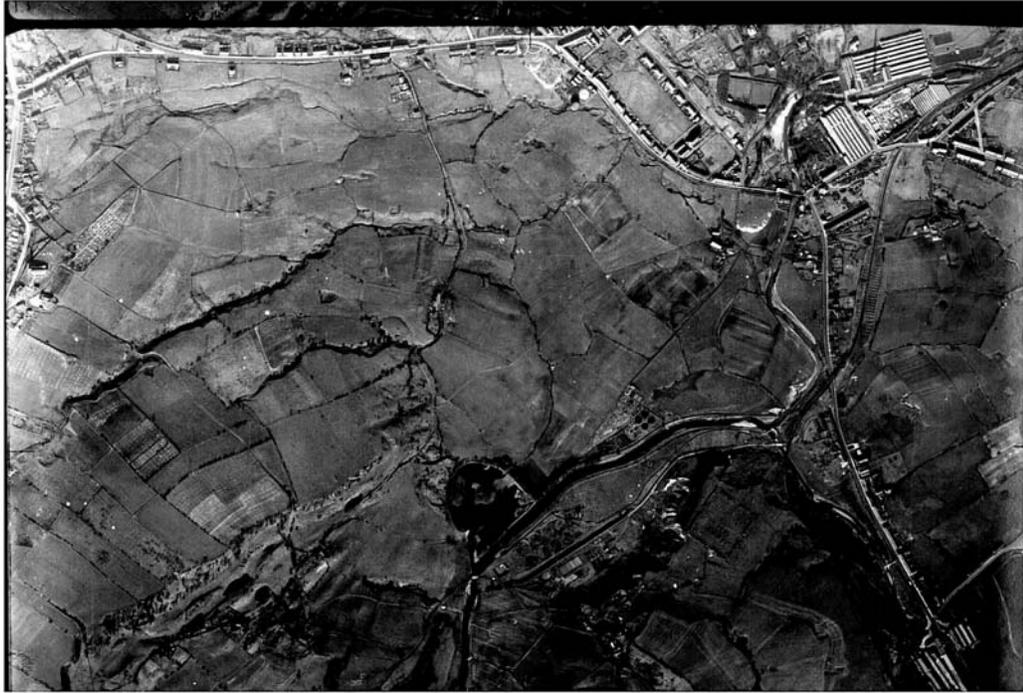


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