



MID CHESHIRE III PIPELINE, CHESHIRE

Archaeological Desk- Based Assessment, Walkover and Topographic Surveys



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SUMMARY

Following proposals by United Utilities for the construction of a new water main to the north of Elworth and Sandbach in Cheshire (NGR SJ 74004 61728 to SJ 76137 60653), the Cheshire County Council Historic Environment Officer recommended the completion of an archaeological desk-based assessment relating to the application area. Oxford Archaeology North (OA North) was subsequently commissioned by United Utilities to undertake this work.

In total, 39 sites of archaeological interest were identified within the study area during the desk-based assessment, of which 18 had been previously recorded in the Cheshire HER. The remaining 21 sites were identified by inspection of aerial photographs (Sites **17-18** and **20-31**) and historic maps (Sites **19** and **32-37**). Fifteen listed buildings and two Scheduled Monuments were identified within the study area. The Scheduled Monuments comprised fragments of Saxon and early medieval sculpture (Site **01**) and a medieval cross base and part of a shaft (Site **02**).

The 39 identified sites comprised one prehistoric site, three Romano-British sites, two early medieval sites, four medieval sites, 18 post-medieval sites, 10 industrial period sites and one modern site. Out of these sites, seven were deemed likely to be affected by works associated with the proposed pipeline. Recommendations were made for a walkover survey, in order to establish the existence of any currently unknown sites and visible features relating to sites that have been identified solely by the analysis of aerial photography and map regression. These specifically included six areas of ridge and furrow (Sites **17-8**, **22**, **26** and **29-30**), two brick fields (Sites **15** and **34**) and a sand pit (Site **37**). The identification of features during the walkover survey then necessitated a programme of topographic survey.

OA North carried out the walkover survey of the off-highway sections of the proposed pipeline route in April 2008. The survey identified 26 additional sites, some of which appear on historic and current maps. These additional sites are pre-dominantly post-medieval industrial features, such as the remains of hollows or quarries possibly associated with clay extraction (Sites **40**, **41**, **43**, **49**, **51**, **58**, **63**, and **64**), spoil heaps (Sites **50**, **61**, **62** and **65**), and a track (Site **60**). Many of the features were contained within the probable site of a brick works (Sites **15** and **19**). Other sites comprised post-medieval agricultural features, such as field boundaries (Sites **52**, **56**, **57**, and **59**), ridge and furrow (Sites **47** and **55**), and ponds (Sites **42** and **48**). The remaining sites comprised areas of disturbed ground that possibly represented the remains of post-medieval buildings (Sites **41**, **45** and **46**), and two features of unknown date: an earthwork (Site **54**), and ditch (Site **44**).

Nineteen sites were thought suitable for topographic survey, although, due to current land use two sites (Sites **45** and **46**) were unable to be accessed. The 17 sites surveyed were **26**, **30**, **40**, **42**, **44**, **49-51**, **54**, **57-64**.

Due to the significant number of archaeological sites present along the proposed route, it is recommended that a permanent presence watching brief is maintained during all ground disturbing activities in areas of previously undisturbed ground.

ACKNOWLEDGEMENTS

Oxford Archaeology North (OA North) would like to thank United Utilities for commissioning the project. Thanks are also due to Robert Edwards at Cheshire Historic Environment Record (CHER) and the staff at Cheshire County Record Office in Chester.

Kathryn Blythe undertook the desk-based assessment, Sean McPhillips undertook the walkover survey and Will Gardner the topographic survey. Mark Tidmarsh produced the drawings. Alison Plummer managed the project and also edited the report.

1. INTRODUCTION

1.1 CIRCUMSTANCES OF THE PROJECT

- 1.1.1 United Utilities proposed the construction of a pipeline to the north of Elworth and Sandbach in Cheshire (Fig 1). The total length of the proposed pipeline is approximately 5km. Following recommendations made by the Cheshire County Council Historic Environment Officer, United Utilities commissioned Oxford Archaeology North (OA North) to undertake an archaeological desk-based assessment, walkover survey, and topographic survey of the proposed development area.
- 1.1.2 The desk-based assessment comprised a search of both published and unpublished records held by the Historic Environment Record (HER) in Cheshire, the County Record Office in Chester, and the archives and library held at OA North. This report sets out the results of the desk-based assessment in the form of a short document, outlining the findings, followed by a statement of the archaeological potential and significance, and an assessment of the impact of the proposed development. The significance criteria detailed in PPG 16 (DoE 1990) was employed during the assessment.
- 1.1.3 Following the completion of the desk-based assessment, a walkover survey and targeted programme of topographic survey were undertaken.

1.2 LOCATION, TOPOGRAPHY AND GEOLOGY

- 1.2.1 The proposed pipeline route is situated to the north of Sandbach (NGR SJ 74004 61728 to SJ 76137 60653), on the eastern edge of the Cheshire Plain (Fig 1). The west end of the proposed pipeline route heads north-west from Elworth, then turns to the north-east, where it is located at approximately 60m OD, and then runs eastwards through fields to the north of Sandbach. The land rises gradually through this area to 75m OD just west of the M6 motorway. At this point the route turns south-westwards into Sandbach, drops slightly in height where it follows the route of a tributary of the River Wheelock and runs along the A534, where it terminates at its junction with the A533 (Ordnance Survey, 1994). The solid geology consists of Triassic mudstones, which is overlain by glacial deposits of sand and gravel (British Geological Survey 2007).

2. METHODOLOGY

2.1 INTRODUCTION

- 2.1.1 The desk-based assessment was carried out in accordance with the relevant IFA and English Heritage guidelines (Institute of Field Archaeologists 1999; English Heritage 2006a).

2.2 DESK-BASED ASSESSMENT

- 2.2.1 A study area that extended 0.25km to each side of the proposed pipeline, to form 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 6*; Fig 2). A general historical and archaeological background of the area was compiled and map regression analysis was undertaken.

- 2.2.2 Several sources of information were consulted as part of the assessment, which have provided a good understanding of the developmental history of the study area. Archive sources that were consulted include:

- ***Cheshire Historic Environment Record (HER), Backford:*** the HER is a list of all known sites of archaeological interest within Cheshire, and also holds copies of aerial photographs dating from the 1940s through to the present day. The HER is the primary source of information for a study of this kind.
- ***Cheshire County Record Office, Chester:*** the record office holds cartographic and documentary sources relating to the study area.
- ***OA North Library:*** 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.

- 2.2.3 Several historic cartographic sources were consulted in order to trace the physical development of the study area:

- Burdett's Map of Cheshire 1777;
- Map of Cheshire by Swire and Hutchings of 1830;
- Tithe map of township of Sandbach of 1841;
- Map of Sandbach, 1842;
- Ordnance Survey first edition map of 1872 (25" : 1 mile);
- Ordnance Survey first edition map of c 1875 (6" : 1 mile);
- Ordnance Survey second edition map of 1898 (25" : 1 mile);
- Ordnance Survey third series map of 1909 (25" : 1 mile);
- Ordnance Survey third edition map of c 1910 (6" : 1 mile);
- Ordnance Survey maps of 1938 (6" : 1 mile); and

- Ordnance Survey maps of 1979 (6" : 1 mile).

2.3 WALKOVER SURVEY

- 2.3.1 Following the desk-based assessment an enhanced Level-1-type (English Heritage 2006b) survey was undertaken to relate the existing landscape to research findings. The study area comprised a one hundred metre wide corridor either side of the pipeline route, traversed in a systematic fashion. Archaeological features identified within the landscape were recorded using the relevant OA North *pro forma*, and the features accurately located using differential GPS survey, which can achieve an accuracy of $\pm 0.25\text{m}$ with respect to the OS national grid. The sites identified during this phase of works are shown in Figure 2.

2.4 TOPOGRAPHIC SURVEY

- 2.4.1 Based on the findings of the walkover survey, an enhanced Level 2 Topographic Survey (*ibid*) was conducted for a total of 17 sites, including locating the sites along the route of the pipeline using Global Positioning System (GPS) techniques. This was conducted with Leica differential GPS equipment, using real-time (RTK) corrections and equipped with mobile SmartNet technology to achieve an accuracy of $\pm 0.01\text{m}$. The digital survey data was transferred, via Leica Geo Office (V.3), as *dxf* drawing files into a CAD system (AutoCAD 2004), and was superimposed onto the embedded digital Ordnance Survey data (Figs 7 to 10). The descriptive records and sketch plans were hand annotated on-site on to pro-forma recording sheets. A photographic record of the sites was maintained in digital colour photography, which has been used to accompany the present report.

2.5 ARCHIVE

- 2.5.1 A full and professional archive has been compiled in accordance with current IFA and English Heritage guidelines (English Heritage 1991). The archive will be deposited in the Country Record Office in Chester, and a copy of the report will be deposited with the Cheshire Historic Environment Service in Backford.

3. ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

3.1 INTRODUCTION

- 3.1.1 The following section presents a summary of the historical and archaeological background of the general area. This is presented by historical period, and has been compiled in order to place the study area into a wider archaeological context.

Period	Date Range
Palaeolithic	30,000 – 10,000 BC
Mesolithic	10,000 – 4,000 BC
Neolithic	4,000– 2,200 BC
Bronze Age	2,200 – 700 BC
Iron Age	700 BC – AD 43
Romano-British	AD 43 – AD 410
Early Medieval	AD 410 – AD 1066
Late Medieval	AD 1066 – AD 1540
Post-medieval	AD 1540 – c 1750
Industrial Period	c AD1750 – 1901
Modern	Post-1901

Table 1: Summary of British archaeological periods and date ranges

3.2 THE PREHISTORIC PERIOD

- 3.2.1 ***The Upper Palaeolithic and Mesolithic periods (c 12,800–4,000 BC):*** human occupation is known from the north of England from 200,000BC, but there is no evidence for the Cheshire area until 12,000BC (Crosby 1996). This evidence consists of a Cresswell point found at Carden Park, approximately 33km to the west-south-west of the study area, and represents activity during the final stages of the Devensian glaciation (Hodgson and Brennand 2006, 23), at a time when the glacial climate of the region was becoming gradually more hospitable. Mesolithic material has also been found at Carden Park dating to around 6800–4300 cal BC (Matthews 2007). The later Mesolithic period is not generally evident elsewhere in the mid Cheshire area.

- 3.2.2 There are no Mesolithic sites from the study area.

- 3.2.3 ***The Neolithic and Bronze Age periods (c 4,000–700 BC):*** the Mesolithic was the latest cultural epoch in Britain during which people employed a subsistence strategy based wholly upon hunting, gathering, and fishing. Following the introduction of farming to the British Isles, from around 4000 BC, the Neolithic period saw a gradual increase in permanent settlement and the beginning of the widespread construction of monumental architecture, although few such structures are known from Cheshire (Hodgson and Brennand 2006, 39). Approximately 14km to the east of the study area are the Bridestones (Scheduled Monument (SM) 13500), located east of Congleton. These are the remains of a chambered tomb - a typical Neolithic communal burial monument (Carrington 1994). A long barrow (SM 13499) is located near Somerford Bridge, 6.5km to the north-east of Sandbach.

- 3.2.4 There are no Neolithic sites from the study area.
- 3.2.5 The beginning of the Bronze Age in Britain, defined mainly by the introduction of the use of copper alloy metals, developed gradually out of the preceding Neolithic during the mid third millennium BC (Parker Pearson 2000, 13). The Bronze Age saw a warming of the climate, which allowed further arable farming at higher altitudes in the upland areas in the east of Cheshire. Approximately 90 burial sites are known in Cheshire, mostly from the sandier soils and well-drained slopes (Crosby 1996, 18). There is one known Bronze Age barrow in the wider area; a bowl barrow near Swettenham located 7km to the north-east of Sandbach.
- 3.2.6 There are no sites from the Bronze Age within the study area. There is, however, one possible find spot of unknown date (Site **06**). This was a discovery of 'prehistoric weapons' allegedly found in the area north-east of Sandbach during the construction of the M6 and then reburied.
- 3.2.7 ***The Iron Age (c 700 BC – AD 43):*** the most obvious traces of Iron Age activity in the region relate to the series of hillforts situated along the Cheshire Sandstone Ridge approximately 25km to the west of the study area. These run from Helsby in the north and continue southwards to Eddisbury, Kelsborrow, Beeston and Maiden Castle (Crosby 1996, 19). Some of these hillforts, such as Beeston and Eddisbury, may have represented social and political centres from which the trade of salt was controlled (Leah *et al* 1997, 90-1).
- 3.2.8 Aside from these prominent defensive sites, the Iron Age would have been a time when farming increased and, consequently, farmsteads would have been established across the landscape. A general lack of pottery and other surviving elements of material culture from both the Iron Age and Romano-British periods in the region has led to great difficulty in identifying settlement sites (Hodgson and Brennand 2006, 51–2; Philpott 2006, 59). Aerial photography has, however, revealed numerous cropmark enclosures in Cheshire (Hodgson and Brennand 2006, 52) and, when similar examples have been excavated, Iron Age and Romano-British occupation has been demonstrated (Hodgson and Brennand 2006, 53; Philpott 2006, 61). A great deal of continuity in rural settlement has been observed between the Iron Age and Romano-British periods in the region (Leah *et al* 1997, 153; Philpott 2006, 73).
- 3.2.9 There are no known Iron Age sites within the study area.

3.3 THE HISTORIC PERIOD

- 3.3.1 ***The Romano-British Period (c AD 43 – AD 410):*** the general character of this region during the Romano-British period, as suggested by the nature of most of the known sites in the area, is one of military and industrial centres being interlinked by roads (Philpott 2006, 59–60; 69). Cheshire was an important area for Roman salt workings, with major sites at Northwich (*Condite*), Middlewich (*Salinae*) and Nantwic, as well as smaller sites close to salt springs, such as Moston to the west of Elworth and Tetton to the north-west (Crosby 1996, 24-5).

- 3.3.2 In this area, there is little evidence for the villa sites found further south in Britain, rather settlements would have taken the form of farmsteads, which would have continued on from the Iron Age settlements (*op cit*, 25). The pollen record indicates a growth in agricultural output for this time, both in land used for grazing and in cereal production (Timberlake and Prag 2005, 17).
- 3.3.3 There are three sites for this period within the study area. Site **12** is King Street, one of the main Roman roads in Cheshire, which in this area links Middlewich to Chesterton. It was first noted by Margary (1957) as a ridge in a field to the west of Elworth. Within the study area it runs in a north-west to south-east direction, approximately on the line of the A533, to the south of the west end of the pipeline, and it is in this area that Sites **13** and **14** are located. Site **13** refers to a section of King Street, which was said in the HER to have been excavated to the rear of Brookfield. A visit to the site recorded in the HER entry noted a slight rise in hedge line by the railway, but no other evidence for the road. Site **14** is the reported finding of a Roman road whilst laying a bowling green in Elworth. It is noted in the HER that the line of the road could be traced by the stones showing on the surface, up and beyond the railway. The road was found about 1 foot (0.3m) below the surface and consisted of a solid bed of gravel about 15 inches (0.37m) thick, and four to five yards wide (4.5m). The road is also located in the east end of the study area, again on the approximate line of the A533. In this area it is crossed by the proposed route of the pipeline.
- 3.3.4 ***The Early Medieval Period (c AD 410 – AD 1066):*** in the early seventh century, the Northumbrian Anglo-Saxon kingdom gained control over Cheshire, which was then subsumed into the Anglo-Saxon kingdom of Mercia around AD 633. Mercian control of Cheshire was then succeeded by the kingdom of Wessex (Crosby 1996, 27–31). Despite Danish raids and a brief period of Danish control in the ninth century, Cheshire was part of one of the Anglo-Saxon kingdoms from the seventh century until the Norman Conquest (*ibid*).
- 3.3.5 Sandbach - meaning ‘sandy valley-stream’ (Higham 1993 169) - is recorded in the Domesday Book, as part of the land held by the Bigot of Loges. Site **04** highlights the Saxon origins of the town both from the Domesday Book entry and from Saxon sculpture found in the town, which points toward Sandbach being a settlement with an important church by the eighth or ninth century. A pair of Saxon crosses (SM 23637) stand in Market Square, to the immediate west of the east end of the pipeline study area. The crosses date to the ninth century and are decorated on all faces with carved figures, animals and vine scrolls. The taller of the two crosses has biblical scenes on it, and it has been suggested that the crosses may commemorate the introduction of Christianity in Mercia by Peada, son of Penda, the King of Mercia in 653. Fragments of a third cross from this area are now in St Mary’s churchyard, along with two fragments of tomb slabs with a shallow-pitched roof shape and with figure and animal carving. There is some thought that the crosses were carved at an important ecclesiastical school of sculpture in, or near Sandbach. (SM 30396; Site **01**).

- 3.3.6 The study area was within the Hundred of Middlewich, with the south-western part of the hundred comprising four parishes: Davenham, Middlewich, Warmingham and Sandbach. It is likely that St Mary's, built on a natural bluff at Sandbach, was the mother-church of these four parishes (Higham, 1993, 166-70). Higham suggests that the iconography on the Sandbach crosses sends out a strong message emphasising the power and authority of the church. This contrasts with the normal monastic context of other pre-Viking sculpture in Cheshire. St Mary's, as the most important church in east Cheshire at this time, may have been directly dependent on the Diocese, with its estate an important residence for the Bishop on route to Chester (*ibid*).
- 3.3.7 ***The Medieval Period (c AD 1066 – AD 1540):*** the Anglo-Saxon period came to an end with the Norman Conquest of 1066. The Normans introduced the feudal system, which saw significant changes to the way land was owned and managed. There was considerable opposition to this and Norman armies marched across the country suppressing uprisings in the years following 1066.
- 3.3.8 The influence and importance of St Mary's Church appears to have diminished by the time of the Norman conquest. In the Domesday book Sandbach is described as a small manor. It seems that the parish had fragmented with a number of communities now paying their tithes to Davenham (*ibid*).
- 3.3.9 The medieval manor was probably located in the area now occupied by 'The Old Hall' (HER 1109/2/1) approximately 150m to the south-east of the Market Square. The manor would have been occupied by Richard de Sandbache (Sheriff of Cheshire in 1230) in the early thirteenth century (Bagshaw 1850).
- 3.3.10 Medieval Sandbach (Site **04**) expanded from the probable Saxon settlement in the area of the Market Square. The medieval character of this part of Sandbach is reflected in the narrow winding street pattern and the density of timber framed buildings. An archaeological investigation in 1981 by the Liverpool University Archaeological Investigation Unit (LUAIU) on the derelict land adjacent to Hawk Street (Site **16**) found three phases of medieval occupation. These included the remains of at least one house, probably half-timbered, which may have been encased or replaced by a later brick structure.
- 3.3.11 A cross-base, with partially surviving shaft, stands in St Mary's churchyard (SM 30395; Site **02**). The difference in quality between the base and the shaft indicates that the two may be of different dates. The shaft is of gritstone and is similar to the Saxon cross fragments found in the area (Site **01**), the shaft is medieval but cannot be dated more specifically than this. The base and shaft are thought to stand in their original position.
- 3.3.12 Clearance of woodland continued throughout this period to make way for increased farming: the 'open field' system of farming was widespread. In addition, the fourteenth century saw a general change in land use from arable to pasture across Cheshire. Marl extraction took place across the landscape from the thirteenth century onwards. Marl was used to fertilise the fields and numerous pits (some of which are now ponds) can be seen across the landscape as a result of this work.

- 3.3.13 The salt workings in Cheshire continued to be very important to the area. A detailed account of the industry is given in the Domesday Survey and, until the seventeenth century salt production was based around the salt springs - around which the towns of Nantwich, Northwich and Middlewich grew and prospered. Nantwich appears to have been the dominant town, in terms of salt production, in Cheshire between the eleventh and seventeenth centuries (Rochester nd, 27). Salt was taken eastwards by saltways, which crossed the hills above Macclesfield and Congleton and headed across the Peak District (Crosby 1996, 57).
- 3.3.14 Sites **38** and **39** are township boundaries: Site **38** towards the west end of the study area between Elton and Bradwall; and Site **39** is the boundary between Bradwall to the north and Sandbach to the south. The date of these boundaries is not known, but they may have been established in the medieval period.
- 3.3.15 ***The Post-Medieval Period (c AD 1540 – 1750)***: Site **06** refers to documentary evidence, which records that on 4th April 1579 a grant was made to Sir John Radcliffe, knight, of Ordsall, for the right to hold a market every Thursday in his manor of Sandbach and two fairs in each year, one to be held on the Thursday and Friday before the Feast of the Nativity of the Virgin Mary (8th September) and the other on the Tuesday and Wednesday in Easter week. An informal market was held prior to this (*op cit*, 49)
- 3.3.16 During the post-medieval period Cheshire became an important centre for the textile industry, with flax and hemp growing, and mills producing linen and canvas (*op cit*, 64). The silk industry took off in the mid-seventeenth century when it was being hand-thrown (twisted to make a weavable thread) in several areas in east Cheshire (*op cit*, 73).
- 3.3.17 The salt industry continued to grow in this period and coal was now used as a fuel in the evaporation process, with the nearest coal pits being located in the Macclesfield area and north of Newcastle-under-Lyme. The intensive salt mining of some areas resulted in subsidence, sometimes on such a large-scale that flashes (saltwater lakes) appeared in the landscape and some of these continue to grow from underground watercourses (Cheshire County Council, 2003). Between Warmingham and Sandbach, to the west of the study area, are the Sandbach flashes, which have now become an important nature reserve (Crosby 1996, 110).
- 3.3.18 Enclosure of the open fields had begun in the fifteenth century and continued through the sixteenth and seventeenth centuries, to provide pasture, which sometimes resulted in the loss of hamlets and manors. The enclosure of land was largely complete by the eighteenth century (Crosby 1996, 64).
- 3.3.19 Foden's in Sandbach, a manufacturer of agricultural machinery, such as threshing machines and traction engines, began in 1850 and branched out into steam lorries from 1897 (*op cit*, 106).
- 3.3.20 ***The Industrial Period (c AD 1750–1901)***: the growth in industrial productivity during the eighteenth and early nineteenth centuries necessitated the creation of turnpike roads, canals and railways.

- 3.3.21 The railway from Manchester to Birmingham passes to the west of Elworth and three sites in the gazetteer are related to this. Site **09** is a cutting north of Elworth, Site **10** is a junction between the Manchester to Birmingham Railway and the Northwich Line and Site **05** is Elworth Station.
- 3.3.22 Evidence that salt production continued in the Sandbach area in this period comes from a Victorian saltworks located to the south of Sandbach, in Wheelock (Chester Archaeological Service 1993).
- 3.3.23 In the 1720s the Italian process of mechanised silk-throwing was adopted by several mills in east Cheshire (Crosby 1996, 97). A silk mill was established at Wheelock in the early nineteenth century by Thomas Bull and Ralph Percival, and Brook Silk Mill (Site **07**) is thought to have been established by 1825 (UMAU 1999; Massey 1982). A mill pool was located to the north of Brook Mill (Site **08**) and a brick embankment was located across the front of the mill for the installation of water wheels. Silk production was also established by the 1860s at the Hill Factory and Town Mill in Sandbach by Ralph Percival's son, Thomas (*ibid*). In the 1860s approximately five hundred people were employed in the silk industry in Sandbach (Massey 1982, 90).
- 3.3.24 Brick making took place across the Cheshire Plain and the area north of Sandbach clearly had suitable clay for this, as a number of brick fields are located within the study area (Sites **15**, **19** and **32-4**). In addition, a field named 'Kiln Field' on the tithe mapping is located within the study area; this probably also relates to a brick works. A sand pit (Site **37**) is also located within the study area and pre-dates brick field Site **34**.
- 3.3.25 **Modern Period (1901 – present):** there is one site for this period within the study area, Site **11**. This was a monitoring post occupied by the Royal Observer Corps. After the Second World War the Corps was assigned to detect nuclear fallout in the event of a nuclear war, to warn the population of the fallout and to monitor the fallout. Underground monitoring posts were constructed for this purpose. On the surface there would be an entrance hatch, ventilator and fixings for survey probes. Underground, there were usually two chambers, one with a chemical toilet and another with the monitoring equipment and bunks. Many of these sites survive as small fenced-off enclosures in semi-rural areas.

3.4 MAP REGRESSION ANALYSIS

- 3.4.1 **Burdett's Map of Cheshire, 1777:** there is not much detail on this mapping, however Sandbach is shown as a settlement with the main roads also depicted. Elworth Hall is marked on this mapping and to the north-west is an area named March Green.
- 3.4.2 **Swire and Hutchings map of 1830:** this mapping is slightly more detailed than Burdett's Map, with Elworth Hall, Marsh Green, The Hole House, Fields Farm and Brick Houses depicted.
- 3.4.3 **Sandbach tithe map 1841:** there was no tithe mapping available for the westernmost part of the study area, to the west of Bradwall Road, which marks

the boundary between the townships of Bradwall and Sandbach (Site **39**). A second township boundary between Elton and Bradwall is located towards the west end of the study area (Site **38**). Townships often have well established and important boundaries that can date back to the Anglo-Saxon period or earlier. The boundaries can be marked by banks, ditches, streams or larger water ways, stones and species-rich hedgerows. Buried archaeological remains can sometimes be associated with them.

- 3.4.4 Numerous pits and ponds are shown across the area both on the historic and current mapping. These have not been given gazetteer numbers due to the frequency with which they appear in the landscape. These pits are often the result of marl extraction, which was used to fertilise fields or possibly clay extraction for bricks. These have, subsequently, become ponds or have been filled in and are evident as shallow, round depressions.
- 3.4.5 One site was added to the gazetteer from the tithe mapping 'Kiln Field' (Site **35**), located to the south-east of Parkhouse Farm. Given the number of brick workings in this area and the location of a farmstead named 'Brick Houses' to the north-east of this field it is assumed that the kiln was for firing bricks.
- 3.4.6 **Sandbach, 1842:** this map is centred on Sandbach and, therefore, some of the northern part of the area is not shown. Elworth Hall and Marsh Green Farm are shown on this map, as is Parkhouse. To the south of Parkhouse a race course is marked. A factory is marked in the vicinity of Site **07** and a pool (Site **08**) is shown to its north.
- 3.4.7 **Ordnance Survey first edition maps of 1872 and 1875 (Figs 3 and 4):** at the time of the first edition mapping Sandbach is a relatively small town, centred on the Market Square. The area which is now Elworth comprises a small settlement named 'Boothlane Head' mostly located on the east side of the railway (Site **09**), south of the study area. To the north-east of this is Elworth Hall, depicted as a building within a large wooded garden, with a pond or lake at its east end. A little way to the west of this is Marsh Green Road, which marks the west end of the proposed pipeline route. Two houses are shown on the north side of Marsh Green Road. North of this are small irregular fields, with Marshgreen Farm to the north-east.
- 3.4.8 To the north-east of Marshgreen Farm, is Holehouse Farm, named Beech Tree Farm on the current mapping. East of this, the landscape is made up of fairly small irregular fields, both to the west and east of the north/south aligned road (Bradwall Road) which heads into Sandbach. To the north of the study area, a smithy is marked on Bradwall Road. To the east of Bradwall Road three brick fields (Site **15**) are marked a short distance to the west of Parkhouse Farm (Site **33**). Each field has structures shown in it. A path links this area with Fields Farm to the north-east, although there are also several buildings depicted on the south side of the road which could be associated with the brick fields. A possible brick pit is shown to the south of Fields Farm (Site **32**), where a rectangular cut can be seen inside a wider hollow.
- 3.4.9 Several areas of hollows are also shown to the west of Parkhouse Farm (Site **33**), including a fairly large north/south linear cut. A sand pit (Site **37**) is

marked to the north-east of Parkhouse Farm. A road runs on an approximate west/east alignment to the south of the brick fields and Parkhouse Farm. To the east of Parkhouse Farm it heads north-eastwards away from the farm, towards a farmstead named 'Brickhouses'. A small track heads southwards from the road for the distance of one field before branching into two and terminating in fields. A stone (Site 36) is marked at the approximate junction of the road with the lane, and is shown as a mile post on later mapping. Old Mill Road, which the pipeline runs parallel with at the east end of the route, has not been built by this time. At the time of this mapping, this eastern part of the pipeline crosses an area of open fields. Towards the east end of the route Dingle Lake, with a sluice at its north end, and Dingle Farm, to the south-west of the lake, are shown on the mapping. To the east of the lake is a strip of woodland, and 'nurseries' are marked to the east of the woodland. The west/east aligned road at which the proposed pipeline route terminates is here named 'Bridge Road', whereas on the current mapping it is named 'High Street'. On the south side of Bridge Road, across Sandbach Bridge, 'The Pool' (Site 08) is marked on the mapping, and at its south end, two sluices are marked between the pool and 'Brook Mill (silk)' (Site 07). Almshouses are marked along Bridge Street, to the east of Sandbach Bridge and 'Newfield Mill (Silk)' is also marked within Sandbach.

- 3.4.10 **Ordnance Survey second edition maps of 1899 (Fig 5):** the settlement of Elworth has spread northwards by the time, with an area of housing shown on the south side of Marsh Green Road. This area, east of the railway, has been divided further, with streets named Eva Street and Oak Street now marked within it. The route of the Roman road (Site 15) is depicted on this map.
- 3.4.11 A brickworks is now shown on the west side of Bradwall Road (Site 19). The site comprises three rectangular buildings and two circular structures, presumably kilns, to the south of them. A hollow is shown to the west of the buildings and three small buildings are also shown in the south-east corner of the same field. The brick fields marked on the first edition (Site 15) have changed by the time of this mapping. One large rectangular building is now shown further north than the buildings on the west side of the fields on the first edition. The western field is now the only one marked as a brick field. Structures that were shown on the first edition have now gone and several new structures are shown on the north side of the road, in their place. A short distance to the east of this is a new house named 'The Meadows'. To the north east of Parkhouse Farm another brickfield is marked (Site 34), approximately in the same area as the sand pit marked on the first edition (Site 37). A small building is also marked on the eastern boundary of this field. A pumping station and waterworks are now shown to the north of Dingle Lake.
- 3.4.12 **Ordnance Survey third series maps of 1909 (Fig 6):** this mapping is very similar to the 1898 mapping and Sandbach has not markedly expanded since the first edition. Oakley Farm is marked on Bradwall Road, towards the southern extent of the study area. The brickfield to the west of Parkhouse Farm (Site 15) is very similar to how it was depicted on the 1898 mapping, with the addition of two small buildings to the south of the rectangular building in the westernmost field. The building and brickfield to the north-east

of Parkhouse Farm (Site **34**) are not shown on this mapping and presumably were out of use by this time. The field boundaries to the north of Site **34** are also not shown on this mapping, so this field is much enlarged. Towards Sandbach, filter beds are marked to the south-east of the waterworks and a 'Coronation Tree' is shown a short distance to the west.

3.4.13 **Ordnance Survey maps of 1938:** Sandbach is still a relatively small settlement by this time. Brook mill (Site **07**), The Pool (Site **08**) and Dingle Lake are still marked on this mapping, as are the water works to the south-east of Offley Wood. Elworth Hall is still marked on the mapping and Elworth is still very much a separate settlement to Sandbach. Site **15** is shown as three brickfields on this mapping.

3.4.14 **Ordnance Survey maps of 1979:** this mapping shows a massive expansion of Sandbach in all direction, including west towards Elworth where a lot of residential developments have been built. The area to the north-east of Dingle Lake towards Parkhouse Farm is still depicted as open fields but to the east of this the M6 is now shown.

3.5 AERIAL PHOTOGRAPHS

3.5.1 Aerial photos (both prints and digitally held collections) were examined at the HER. On the 1940s photos the fields were generally small and roughly square, as they are on the first edition OS mapping. Removal of some field boundaries to enlarge the fields, as can be seen on the current mapping, has mostly taken place in the last fifty years or so. To the east of Sandbach the fields more frequently comprised rectangular strips. Fourteen areas of ridge and furrow (Sites **17-18** and **20-31**) were added to the gazetteer from the 1940s and 1970s digitally-held aerial photos.

3.6 HISTORIC LANDSCAPE CHARACTERISATION (HLC)

3.6.1 The HLC provided by the Cheshire HER, showed the landscape within which the study area is located to be made up of several different types. At the west end of the pipeline route the area to the north of Elworth is described as post-medieval field systems and late post-medieval agricultural improvements. As the route of the pipeline turns eastwards it enters an area of twentieth century agricultural improvements, which continues as far as the township boundary between Bradwall and Sandbach (Site **39**). To the east of Site **39** is an area of medieval townfields, with the brickfield (Site **15**) described as twentieth century field systems. Medieval townfields are a distinctive type of enclosure which may relate to medieval open field arable (Cheshire County Council and English Heritage 2007). East of Bradwall Road is an area of twentieth century field improvements. To the north-west, east and south-east of Parkhouse Farm the fields are described as 'Ancient Field Systems'. 'Ancient fields' refers to areas which are thought to have been enclosed before c 1600 AD (*ibid*). The pipeline then heads south-westwards through late post-medieval agricultural improvements and nineteenth century field systems until it reaches the settlement of Sandbach.

3.7 PREVIOUS ARCHAEOLOGICAL WORK

- 3.7.1 Evidence for medieval occupation was found in excavations carried out in 1981 by LUAIU on land to the rear of the Crown Hotel, to the west of the east end of the study area (HER 1109/0/11; SJ 7588 6088). Boundary ditches for burgage plots, post-holes and pits and a clay-lined oven were all excavated at the site.
- 3.7.2 Recent excavations have taken place in the Market Square (Wardell Armstrong LLP, 2007) in advance of the cobbles in the square being lifted in order to modify the ground level in this area. The present cobbles are thought to be nineteenth century in date. A geophysics survey indicated a number of anomalies across the square, although nothing obviously structural was noted. Subsequent trial trenching has shown a concentration of archaeological features on the east side of the square. Although little dating evidence has been found so far, it is possible that there are deposits of medieval or pre-Conquest material in this area (*ibid*).
- 3.7.3 In 2001 a watching brief (HER Event 3495) was carried out by Cheshire County Council at The Yard on Marsh Green Road (SJ 7396 6165). This was in the vicinity of King Street Roman road; however, no evidence for the road was seen during the watching brief.

4. WALKOVER SURVEY

4.1 INTRODUCTION

- 4.1.1 The walkover survey assessed the survival of above ground remains relating to sites identified during the desk-based assessment, and also served to identify previously unrecorded sites along the proposed pipeline corridor. The off-road sections of pipeline corridor that were walked measured approximately 3km long from the field north of Marsh Green Road in Elworth, to the field west of the M6 (Fig 2). The fields (numbered 1 to 23; Fig 2) containing and adjacent to the pipeline were traversed systematically. Fields along the eastern part of the pipeline were not examined as the proposed route lies within the line of the A534 from the junction with Congleton Road, to the junction with the A533. Ground conditions were in general good for identifying sites throughout the walkover except field 11, which contained a crop. The majority of fields encountered were under pasture, with short- to -medium coverage. The remaining fields comprised either scrub or marshland.

4.2 RESULTS

- 4.2.1 A number of sites identified in the desk-based assessment were outside the 200m corridor for the walkover survey and, as such, were not visited. These sites are described fully in the gazetteer (*Section 6*) and require no further discussion. However, 13 sites thought likely to be impacted upon (**15, 17, 18, 22, 26, 29, 30, 34, 37, 39, 52, 57 and 58**) were visited in order to assess their condition (Fig 27). Few visible remains pertaining to these sites survived and the gazetteer has been revised as appropriate. The walkover survey identified an additional 26 sites of archaeological potential within the study area (Sites **40 to 65**). Of these, all were either partially or entirely within the 200m research corridor.
- 4.2.2 **Industrial features:** most of the features identified pertained to post-medieval or industrial period hollows or clay extraction quarries (Plates 1; Sites **34, 40, 41, 43, 49, 51, 58, 63 and 64**), many of which were contained within 'Brickfields' (Site **15**; Plates 2 and 3). Site **58** represented at least 11 small quarries across a relatively small area, suggesting that the field contained a good source of clay. In addition, Field 20 contained remnants of spoil heaps, banks, and the probable remains of an access track (Sites **57, 59 and 60-62**; Plates 4, 5 and 6), which collectively represent former intensive clay extraction.
- 4.2.3 Further evidence of clay extraction was encountered to the east of Field 20 within Fields 21 and 23 (Sites **34 and 63 to 64**). In addition, hollows and a spoil heap/bank were observed in Field 22 (Site **65**). A series of earthworks (Site **41**) span across the southern part of Field 4, possibly representing foundations associated with the demolished brickworks (Site **19**), as shown on the 1898 Ordnance Survey map. Other sites connected with this industry are a sandpit (Site **37**) located at the junction of Congleton Road and the A534, and

a brick pit (Site **34**), close to the M6, although these were not detected. Their proximity to major roads suggests they were probably filled in during the road construction.

- 4.2.4 **Agricultural features:** most of the archaeological features identified during the walkover were also post-medieval or industrial period in date, although a small number could have earlier origins, including instances of ridge and furrow (Sites **17, 18, 22, 26, 29, 30, 47, and 55**; Plate 8), field boundaries (Sites **52, 56, 57, and 59**; Plate 9), and ponds (Sites **42 and 48**). Many of these features appear on the first edition Ordnance Survey (1873-4), and it is possible that they may pre-date the post-medieval period.
- 4.2.5 **Township boundaries:** one historic township boundary was observed, which also formed a possible medieval parish boundary (Site **39**; Plate 10). This had a parallel alignment to the eastern boundary of Field 1.
- 4.2.6 **Features of unknown function:** these comprised earthworks and ditches. A circular earthen mound (Site **54**; Plate 10), located close to the western boundary within Field 16, may represent disturbance caused by agricultural improvement. Two areas of disturbed ground within Fields 12 and 13 (Sites **46 and 45**; Plate 11), comprising areas of tufted grass and building materials, represent landscape clearance or the possible demolition of a building. A narrow ditch (Site **44**; Plate 12) extending 100m along the hillside in Field 9, could be the partial remains of a drainage channel.

5. TOPOGRAPHIC SURVEY

5.1 RESULTS

- 5.1.1 The walkover survey identified 19 sites suitable for topographical survey, and these are listed below in Table 2. They mainly comprise earthworks of an industrial or agricultural nature, and were surveyed in order to determine their full extent, and to provide a drawn record and to enhance detail of existing sites, or identify new sites. This detail was added to the Gazetteer of Sites below (*Section 6*).

Site No	Site Description
26	North of Congleton Road, Ridge and Furrow
30	West of Parkhouse, Ridge and Furrow
40	East of Brickfields Cottages, possible quarry/hollow
42	West of Brickfields Cottages, hollow/pond
44	North-east of Sarchgreen Farm, ditch
45	West of Marshgreen Farm, possible area of scrub
46	West of Marshgreen Farm, unidentified earthwork
49	Beech Farm, hollow/quarry
50	North of Congleton Road, mound/spoil heap
51	East of Brickfields Cottages, hollow/quarry
54	East of Brickfields Cottages, mound
57	North of Congleton Road, earthwork/bank
58	North of Congleton Road, 11 quarry pits
59	North of Congleton Road, bank
60	North of Congleton Road, possible track
61	North of Congleton Road, spoil heap
62	North of Congleton Road, bank/spoil heap
63	North of Congleton Road, hollow/quarry
64	North of Congleton Road, hollow/quarry

Table 2: Sites identified for Topographic Survey

- 5.1.2 Of the 19 sites identified, two could not be surveyed, Sites **45** and **46**. Both sites, located within horse paddocks, had undergone recent landscaping. The location and extent of all the sites surveyed are shown in Figures 7 to 10.

6. GAZETTEER OF SITES

6.1 INTRODUCTION

6.1.1 There are fifteen Listed Buildings located within the study area, none of which would be impacted on by the proposed pipeline route. The listed buildings have not been added to the gazetteer, but Table 3 below gives a brief description and location for each. The listed buildings are all located in the area to the west of the east end of the pipeline route, approximately in the area of Market Square, which is the oldest part of Sandbach.

HER ref.	Description	Grade	NGR
56216	Nos 53 and 55 High Street. Early nineteenth century.	II	SJ 75927 60711
56215	Nos 49 and 51 High Street. Late seventeenth/early eighteenth century.	II	SJ 75919 60714
56200	Nos 2 to 20 front Street, dated 1861.	II	SJ 76004 60742
56251	No 10 Well Bank. Small seventeenth century 'black and white' cottage.	II	SJ 75974 60892
56228	Nos 2 - 40 The Hill, dated 1865-7.	II	SJ 76310 60615
56213	No 45 High Street. Late sixteenth - early seventeenth century origin.	II	SJ 75895 60728
56201	No 22 Front Street and no 47 Church Street. Seventeenth century 'black and white'.	II	SJ 76058 60712
56224	Nos 40 to 44 High Street. Early nineteenth century.	II	SJ 75903 60748
56217	Nos 57 and 59 High Street. Mid nineteenth century.	II	SJ 75938 60706
56214	No 47 High Street. Early nineteenth century.	II	SJ 75907 60723
56225	Church of St Mary. Fifteenth century Anglican Church, restored in 1847-9.	II*	SJ 75953 60777
56226	Churchyard walls, gateways and railings to the south-east and north of St Mary's Church, c 1850.	II	SJ 75963 60720
56198	Dingle farmhouse. Seventeenth century timber framed building.	II	SJ 76071 60844
56218	Old Hall Hotel. Dated 1656, this is a large 'black and white' timber framed building occupying the site of the ancient mansion of the Sondbachs who were once lords of the manor.	I	SJ 75965 60670
56219	Outbuildings of Old Hall Hotel. Seventeenth century timber framed building.	II	SJ 75945 60645
56227	Sandbach Bridge. Early nineteenth century.	II	SJ 76106 60664

Table 3: Summary of listed buildings within the study area

Site Name	Early medieval sculptural fragments in St Mary's churchyard
Site number	01
NGR	37592 36076
HER no	1109/0/2
Site Type	Monument
Period	Early medieval
Statutory Designation	Scheduled Monument 30396
Source	HER
Description	Three fragments from the shaft of at least one Saxon cross of similar size and date to those in the Market Place (SM 23637 - to the west of the study area), and two pre-Viking fragments of tomb slabs. All formerly built into the cross-base in the Market Place, but removed to the churchyard in 1956. The monument also includes five fragments of Anglo-Saxon sculpture set on a concrete plinth in the churchyard of St Mary's Church. These fragments are an important surviving testimony to a major church foundation at Sandbach during the eight or ninth centuries. The survival of Mercian tomb covers is also important since such covers are rare.
Assessment	The site lies outside of the proposed pipeline route and will not be affected by the works

Site Name	Standing medieval cross, 10m to the south of the nave of St Mary's Church
Site number	02
NGR	37594 36075
HER no	1109/1/2
Site Type	Monument
Period	Medieval
Statutory Designation	Scheduled Monument 30395
Source	HER
Description	Base and part of shaft of a medieval standing cross in the churchyard of St Mary's church. On top is a sundial.
Assessment	The site lies outside of the proposed pipeline route and will not be affected by the works

Site Name	Possible Prehistoric findspot from Sandbach
Site number	03
NGR	37630 36130
HER no	1106
Site Type	Find spot
Period	Prehistoric
Statutory Designation	None
Source	HER
Description	'Weapons' allegedly found in the area north-east of Sandbach. Discovered and reburied during the construction of the M6. Possibly prehistoric, but no definite information
Assessment	The site lies outside of the proposed pipeline route and will not be affected by the works

Site Name	Sandbach - Saxon and Medieval town
Site number	04
NGR	37590 36080
HER no	1109/0/0
Site Type	Place
Period	Early medieval
Statutory Designation	None

Source	HER
Description	In the Domesday Book, Sandbach is recorded as part of the land held by Bigot of Loges. The Saxon crosses and other Saxon fragments suggest a settlement of some importance existed at Sandbach in the Saxon period. The medieval nucleus of the town centres around and to the east of the market square. The medieval character of this core is reflected in the narrow winding street pattern and the density of timber framed buildings. Post-medieval expansion spread to the north around Hightown and Congleton road.
Assessment	The site lies outside of the proposed pipeline route and will not be affected by the works

Site Name	Elworth Railway Station, Manchester - Birmingham Railway
Site number	05
NGR	37390 36180
HER no	2528/1/37
Site Type	Monument
Period	Modern
Statutory Designation	None
Source	HER
Description	Elworth Railway Station, built for the Manchester to Birmingham Railway.
Assessment	The site lies outside of the proposed pipeline route and will not be affected by the works

Site Name	Sandbach - Town Market
Site number	06
NGR	37590 36080
HER no	1109/4
Site Type	Documentary Evidence
Period	Post-medieval
Statutory Designation	None
Source	HER
Description	Documentary evidence records that on 4th April 1579 a grant was made to Sir John Radcliffe, knight, of Ordsall, for the right to hold a market every Thursday in his manor of Sandbach and two fairs in each year, one to be held on the Thursday and Friday before the Feast of the Nativity of the Virgin Mary (8th Sept) and the other on the Tuesday and Wednesday in Easter week.
Assessment	The site lies outside of the proposed pipeline route and will not be affected by the works

Site Name	Brook Mill
Site number	07
NGR	37594 36048
HER no	1109/9/1
Site Type	Monument
Period	Industrial Period
Statutory Designation	None
Source	HER
Description	Now demolished, Brook Mill is one of two silk mills which are shown on the Ordnance Survey First Edition map, 1872. The silk industry was an important economic element of the town during the 19th century.
Assessment	The site lies outside of the proposed pipeline route and will not be affected by the works

Site Name	Brook Mill Pool
Site number	08
NGR	37600 36055
HER no	1109/9/2
Site Type	Monument
Period	Industrial Period
Statutory Designation	None
Source	HER
Description	Large mill pond to the north of Brook Mill. Shown on the first edition Ordnance Survey Map, 1872.
Assessment	The site lies outside of the proposed pipeline route and will not be affected by the works

Site Name	Cutting north of Elworth, Manchester - Birmingham Railway
Site number	09
NGR	37400 36220
HER no	2528/1/35
Site Type	Monument
Period	Industrial Period
Statutory Designation	None
Source	HER
Description	Cutting north of Elworth, built for the Manchester to Birmingham Railway.
Assessment	The site lies outside of the proposed pipeline route and will not be affected by the works

Site Name	Manchester - Birmingham and Northwich Line Junction
Site number	10
NGR	37390 36180
HER no	2528/1/36
Site Type	Monument
Period	Industrial Period
Statutory Designation	None
Source	HER
Description	Junction of the Northwich Line and the Manchester to Birmingham Railway, built for the Manchester to Birmingham Railway.
Assessment	The site lies outside of the proposed pipeline route and will not be affected by the works

Site Name	Royal Observer Corps Monitoring Post at Sandbach
Site number	11
NGR	37638 36208
HER no	4134
Site Type	Monument
Period	Modern
Statutory Designation	None
Source	HER
Description	This was a site occupied by the Royal Observer Corps. The Corps originally monitored aircraft during World War II; however, at the end of the war they were disbanded. In 1947 they were reformed and initially monitored aircraft, with raised 'Orlit posts' being the most characteristic structure. Structures of this period are normally little more than reinforced huts and could be semi-sunken, at ground level or raised. However, as aircraft got faster and Radar got more advanced this side of their job was phased out. Instead, they were assigned to detect nuclear fallout in the

	event of a nuclear war, to warn the population of the fallout, and to monitor the fallout. It was for this purpose that the later underground monitoring posts were constructed. On the surface there would be an entrance hatch, ventilator and fixings for survey probes. Underground, there were usually two chambers, one with a chemical toilet and another with the monitoring equipment and bunks. Many of these sites survive as small fenced off enclosures in semi rural areas.
Assessment	The site lies outside of the proposed pipeline route and will not be affected by the works

Site Name	King Street Roman Road
Site number	12
NGR	37204 36953
HER no	436/1/0
Site Type	Monument
Period	Roman
Statutory Designation	None
Source	HER
Description	King Street Roman Road. Traced from Warrington to Sandbach for 18 miles. Margary road number 70a. First traced by Margary at Elworth to the west of Sandbach (436/1/9) as a ridge in a field almost parallel with and east of the present road. It is uncertain what the actual course was to the south-east, though from its general direction it is probable that the road was designed to reach the Roman settlement at Chesterton, near Newcastle under Lyme, and may have done so by the present road from Sandbach to Rode Heath, near Alsager, which follows high ground and is very direct. North-west from Elworth the road runs through Middlewich, but is covered by canal works and industrial development.
Assessment	The site lies within the proposed pipeline route and may be affected by the works

Site Name	King Street - Middlewich to Chesterton Section
Site number	13
NGR	37381 36174
HER no	436/1/12
Site Type	Monument
Period	Roman
Statutory Designation	None
Source	HER
Description	A section of Roman road was said to have been excavated to the rear of Brookfield. A visit to the site showed slight rise in hedge line by the railway, but no other evidence.
Assessment	The site lies outside of the proposed pipeline route and will not be affected by the works

Site Name	King Street - Middlewich to Chesterton Section
Site number	14
NGR	37399 36155
HER no	436/1/13
Site Type	Monument
Period	Roman
Statutory Designation	None
Source	HER
Description	Reported finding of a Roman Road whilst laying a bowling green in Elworth and that the line could be traced by the stones showing on the surface, up and beyond the railway. Found about one foot (0.3m) below the surface and consisted of a solid bed

Assessment	of gravel about 15 inches (0.37m) thick, and four to five yards wide (4.5m). During the clearance of this site for a new supermarket, no evidence for a road was observed. The site lies outside of the proposed pipeline route and will not be affected by the works
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Site Name	Brickfields, Congleton Road
Site number	15
NGR	37624 36179
HER no	4383
Site Type	Monument
Period	Industrial Period
Statutory Designation	None
Source	HER, Walkover survey (fields 19 and 20)
Description	Three brickfields marked on the Ordnance Survey first edition 25 inch and 6 inch to 1 mile maps. One is also marked on the Second and Third Editions of the Ordnance Survey 6 inch to 1 mile maps and grows to the north. The walkover survey detected no archaeology within Field 19; several sites were detected in fields to the west (Field 20) and east (Field 23).
Assessment	The site lies within the proposed pipeline route and may be affected by the works

Site Name	Hawk Street
Site number	16
NGR	37596 36085
HER no	1109/0/12
Site Type	Monument
Period	Medieval
Statutory Designation	None
Source	HER
Description	Archaeological investigation in 1981 by the Liverpool University Archaeological Investigation Unit on the derelict land adjacent to Hawk Street found three phases of medieval occupation. These included the remains of at least one house, probably half-timbered, which may have been encased or replaced by a later brick structure.
Assessment	The site lies outside of the proposed pipeline route and will not be affected by the works

Site Name	North-east of Marshgreen Farm
Site number	17
NGR	374420 362107
HER no	-
Site Type	Narrow Ridge and Furrow
Period	?Post-medieval
Statutory Designation	None
Source	Aerial Photos, walkover survey (Field 9)
Description	Ridge and Furrow, visible on aerial photos from the 1970s held by the HER. Not detected during walkover
Assessment	The site lies within the proposed pipeline route and may be affected by the works

Site Name	South-east of Beech Tree Farm
Site number	18
NGR	374934 362150
HER no	-
Site Type	Narrow Ridge and Furrow
Period	?Post-medieval

Statutory Designation	None
Source	Aerial Photos, walkover survey (Field 1)
Description	Ridge and Furrow, visible on aerial photos from the 1940s held by the HER. The site was barley visible during the walkover, and has been subject to heavy ploughing, no distinctive ridges surviving.
Assessment	The site lies within the proposed pipeline route and may be affected by the works

Site Name	West of Brickfields Cottages
Site number	19
NGR	375441 362114
HER no	-
Site Type	Monument
Period	Industrial Period
Statutory Designation	None
Source	Map regression
Description	A brick works marked on the c 1898 Ordnance Survey mapping. Cottages built later to the east of the brickworks have been named 'Brickfields Cottages'
Assessment	The site lies outside of the proposed pipeline route and will not be affected by the works

Site Name	West of 'The Smithy'
Site number	20
NGR	375448 362310
HER no	-
Site Type	Narrow Ridge and Furrow
Period	?Post-medieval
Statutory Designation	None
Source	Aerial Photos
Description	Ridge and Furrow, visible on aerial photos from the 1940s held by the HER
Assessment	The site lies outside of the proposed pipeline route and will not be affected by the works

Site Name	East of Brickfields Cottages
Site number	21
NGR	375610 362090
HER no	-
Site Type	Narrow Ridge and Furrow
Period	?Post-medieval
Statutory Designation	None
Source	Aerial Photos
Description	Ridge and Furrow, visible on aerial photos from the 1940s held by the HER. Detected during the walkover, exposing well-preserved ridges measuring 6m crown to crown.
Assessment	The site lies within the proposed pipeline route and may be affected by the works

Site Name	South of Brickfields Cottages
Site number	22
NGR	375532 362000
HER no	-
Site Type	Narrow Ridge and Furrow
Period	?Post-medieval
Statutory Designation	None

Source	Aerial Photos, walkover survey (Field 2)
Description	Ridge and Furrow, visible on aerial photos from the 1940s held by the HER. Site indistinct during walkover, although much of the turfed ground cover was truncated by modern farm vehicle tracks.
Assessment	The site lies within the proposed pipeline route and may be affected by the works

Site Name	West of Motley Bank
Site number	23
NGR	375516 361911
HER no	-
Site Type	Narrow Ridge and Furrow
Period	?Post-medieval
Statutory Designation	None
Source	Aerial Photos
Description	Ridge and Furrow, visible on aerial photos from the 1940s held by the HER.
Assessment	The site lies outside of the proposed pipeline route and will not be affected by the works

Site Name	North of Oakley Farm
Site number	24
NGR	375496 361769
HER no	-
Site Type	Narrow Ridge and Furrow
Period	?Post-medieval
Statutory Designation	None
Source	Aerial Photos
Description	Ridge and Furrow, visible on aerial photos from the 1940s held by the HER.
Assessment	The site lies outside of the proposed pipeline route and will not be affected by the works

Site Name	North of Congleton Road
Site number	25
NGR	376015 361667
HER no	-
Site Type	Narrow Ridge and Furrow
Period	?Post-medieval
Statutory Designation	None
Source	Aerial Photos
Description	Ridge and Furrow, visible on aerial photos from the 1940s held by the HER.
Assessment	The site lies outside of the proposed pipeline route and will not be affected by the works

Site Name	North of Congleton Road
Site number	26
NGR	376054 361834
HER no	-
Site Type	Narrow Ridge and Furrow
Period	?Post-medieval
Statutory Designation	None
Source	Aerial Photos, walkover survey (Field 20), topographic survey
Description	Ridge and Furrow, visible on aerial photos from the 1940s held by the HER. The walkover survey demonstrated that the north/south aligned crop intervention was in a

	state of good preservation being 55m wide (up to Site 56 in Field 17), with crowns 4m apart and furrows <0.3m deep.
Assessment	The site lies within the proposed pipeline route and may be affected by the works

Site Name	South-west of Fields Farm
Site number	27
NGR	376259 362175
HER no	-
Site Type	Narrow Ridge and Furrow
Period	?Post-medieval
Statutory Designation	None
Source	Aerial Photos
Description	Ridge and Furrow, visible on aerial photos from the 1940s held by the HER.
Assessment	The site lies outside of the proposed pipeline route and is unlikely to be affected by the works

Site Name	South of Fields Farm
Site number	28
NGR	376501 362099
HER no	-
Site Type	Narrow Ridge and Furrow
Period	?Post-medieval
Statutory Designation	None
Source	Aerial Photos
Description	Ridge and Furrow, visible on aerial photos from the 1940s held by the HER.
Assessment	The site lies outside of the proposed pipeline route and is unlikely to be affected by the works

Site Name	North of Rushcroft
Site number	29
NGR	376399 361766
HER no	-
Site Type	Narrow Ridge and Furrow
Period	?Post-medieval
Statutory Designation	None
Source	Aerial Photos, walkover survey
Description	Ridge and Furrow, visible on aerial photos from the 1940s held by the HER.
Assessment	The site lies outside of the proposed pipeline route and is unlikely to be affected by the works

Site Name	West of Parkhouse
Site number	30
NGR	376556 361778
HER no	-
Site Type	Narrow Ridge and Furrow
Period	?Post-medieval
Statutory Designation	None
Source	Aerial Photos, walkover survey (Field 23), topographic survey
Description	Ridge and Furrow, visible on aerial photos from the 1940s held by the HER. The site was detected during the walkover survey aligned north/south with a distance of 2m measured between the crowns of each ridge.

Assessment	The site lies to the south of the proposed pipeline route and will not be affected by the works
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Site Name	South-east of Parkhouse
Site number	31
NGR	376779 361578
HER no	-
Site Type	Narrow Ridge and Furrow
Period	?Post-medieval
Statutory Designation	None
Source	Aerial Photos
Description	Ridge and Furrow, visible on aerial photos from the 1970s held by the HER.
Assessment	The site lies outside of the proposed pipeline route and is unlikely to be affected by the works

Site Name	South of Fields Farm
Site number	32
NGR	376450 362050
HER no	-
Site Type	Monument
Period	Industrial Period
Statutory Designation	None
Source	Map regression
Description	A possible brick pit is shown to the south of Fields Farm. A rectangular cut can be seen inside a wider hollow on the 1875 mapping. The hollow is still visible on the Ordnance Survey map of 1910, but the cut has gone.
Assessment	The site lies outside of the proposed pipeline route and is unlikely to be affected by the works

Site Name	West of Parkhouse
Site number	33
NGR	376500 361800
HER no	-
Site Type	Monument
Period	Industrial Period
Statutory Designation	None
Source	Map regression, walkover survey (Field 23)
Description	A rectangular pit is marked on the 1875 Ordnance Survey mapping, but not on the 1910 mapping. Two rectangular brick pits are visible on aerial photos from the 1940s held by the HER. The extensive pit measured approximately 80m long by 40m wide and >2m deep, on a north/south alignment. A further two smaller quarries are located at the eastern end of the each pit measuring 15m in diameter
Assessment	The site lies outside of the proposed pipeline route and is unlikely to be affected by the works

Site Name	North-east of Parkhouse
Site number	34
NGR	376811 361892
HER no	-
Site Type	Monument
Period	Industrial Period
Statutory Designation	None

Source	Map regression, walkover survey (Field 22)
Description	A brick pit and the site of a building north-east of Parkhouse, marked on the 1898 25" to 1 mile mapping, and a small building at the east end of the field. Neither was detected during the walkover survey.
Assessment	The site lies outside of the proposed pipeline route and will not be affected by the works

Site Name	South-east of Parkhouse
Site number	35
NGR	36851 361643
HER no	-
Site Type	Monument
Period	Industrial Period
Statutory Designation	None
Source	Map regression
Description	This field (no 83) is named 'Kiln Field' on the Sandbach tithe mapping of c 1841.
Assessment	The site lies outside of the proposed pipeline route and is unlikely to be affected by the works

Site Name	South-east of Parkhouse
Site number	36
NGR	376686 361680
HER no	-
Site Type	Monument
Period	Industrial Period
Statutory Designation	None
Source	Map regression
Description	'Stone', marked on the first edition OS mapping. Marked as a mile post 'Congleton 6, Sandbach 1' on later mapping.
Assessment	The site lies outside of the proposed pipeline route and is unlikely to be affected by the works

Site Name	North of Parkhouse
Site number	37
NGR	376754 361859
HER no	-
Site Type	Monument
Period	Industrial Period
Statutory Designation	None
Source	Map regression, walkover survey
Description	A sand pit marked on the first edition OS mapping of 1875 and replaced with a brick field (Site 34) by the time of the 1898 mapping. Not observed during the walkover survey.
Assessment	The site lies outside of the proposed pipeline route and is unlikely to be affected by the works

Site Name	Township boundary between Elton and Bradwall
Site number	38
NGR	373876 362109 (north) 373847 361541 (south)
HER no	-
Site Type	Monument
Period	?Medieval
Statutory	

Designation	None
Source	HER
Description	Township boundary between Elton and Bradwall in Sandbach Parish. The portion of the boundary which is within the study area lies in a heavily developed area.
Assessment	The site lies outside of the proposed pipeline route and is will not be affected by the works

Site Name	Township boundary between Bradwall and Sandbach
Site number	39
NGR	375245 362305 (north) 375249 361809 (south)
HER no	-
Site Type	Monument
Period	?Medieval
Statutory Designation	None
Source	Map regression, walkover survey (Field 2)
Description	Township boundary between Bradwall and Sandbach in Sandbach Parish. Irregular north-west/south-east aligned linear ditch with a maximum width of 2m, bordered with a hedge along its western edge
Assessment	The site is crossed by the proposed pipeline route and is likely to be affected by the works

Site Name	East of Brickfields Cottages
Site number	40
NGR	375592 362078
HER no	-
Site Type	
Period	Industrial Period
Statutory Designation	None
Source	Walkover survey (Field 15), topographic survey
Description	Hollow/quarry located at the western end of the field, measures 11m in diameter and 1m deep.
Assessment	The site lies to the north of the proposed pipeline route and is unlikely to be affected by the works

Site Name	West of Brickfields Cottages
Site number	41
NGR	375453 362108 (taken 15m west)
HER no	-
Site Type	
Period	Industrial Period
Statutory Designation	None
Source	Walkover survey (Field 4)
Description	Area of disturbed ground comprising a series of banks and hollows possibly associated with the former brickworks (Site 19).
Assessment	The site lies to the north of the proposed pipeline route and is unlikely to be affected by the works

Site Name	West of Brickfields Cottages
Site number	42
NGR	375263 362041
HER no	-
Site Type	Monument
Period	?Medieval

Statutory Designation	None
Source	Walkover survey (Field 2), topographic survey
Description	Hollow or pond measuring 10m in diameter and <0.25m deep.
Assessment	The site is crossed by the proposed pipeline route and is likely to be affected by the works

Site Name	West of Brickfields Cottages
Site number	43
NGR	375381 362105
HER no	-
Site Type	Monument
Period	Industrial Period
Statutory Designation	None
Source	Walkover survey (Field 4)
Description	Hollow or quarry located along the western field boundary measuring 10m in diameter and <0.35m-0.5m deep. This site could be associated with the former brick works as shown on the 1909 OS map.
Assessment	The site lies to the north of the proposed pipeline route and is unlikely to be affected by the works

Site Name	North-east of Marshgreen Farm
Site number	44
NGR	374453 362153 (north) 374450 362089 (south)
HER no	-
Site Type	Monument
Period	?Post-medieval
Statutory Designation	None
Source	Walkover survey (Field 9), topographic survey
Description	Ditch shown on the lee side of a hill cutting across the centre of the field, aligned north/south, measuring 100m long by 0.5m wide and <0.3m deep.
Assessment	The site is crossed by the proposed pipeline route and is likely to be affected by the works

Site Name	West of Marshgreen Farm
Site number	45
NGR	374022 361928
HER no	-
Site Type	Monument
Period	?Post-medieval
Statutory Designation	None
Source	Walkover survey (Field 13), topographic survey
Description	Disturbed ground comprising a 10m long by 8m wide area of spoil. This site could not be identified for topographic survey (see section 5.1.2); it may have been represented by a patch of scrub
Assessment	The site is crossed by the proposed pipeline route and is likely to be affected by the works

Site Name	West of Marshgreen Farm
Site number	46
NGR	374095 361930
HER no	-
Site Type	Monument

Period	?Post-medieval
Statutory Designation	None
Source	Walkover survey (Field 12), topographic survey
Description	Circular-shaped area of disturbed ground measuring 15m in diameter, possibly representing the remains of a back-filled pit. This site was visited for topographic survey but could not be identified. (see section 5.1.2).
Assessment	The site is outside of the proposed pipeline route and is unlikely to be affected by the works.

Site Name	North-east of Marshgreen Farm
Site number	47
NGR	33 74428 362006 (north) 374442 361977 (south)
HER no	-
Site Type	Monument
Period	?Post-medieval
Statutory Designation	None
Source	Walkover survey (Field 10)
Description	Ridge and furrow aligned north/south located along the southern end of the field for approximately 30m. Approximate distance crown to crown measured 1.5m.
Assessment	The site lies to the south of the proposed pipeline route and is unlikely to be affected by the works.

Site Name	South-west of Beech Farm
Site number	48
NGR	374507 361968
HER no	-
Site Type	Monument
Period	?Post-medieval
Statutory Designation	None
Source	Walkover survey (Field 8), Current Ordnance Survey map
Description	Pond measuring 80m long by 20m wide.
Assessment	The site lies to the south of the proposed pipeline route and is unlikely to be affected by the works.

Site Name	Beech Farm
Site number	49
NGR	374749 362150
HER no	-
Site Type	Monument
Period	Undated
Statutory Designation	None
Source	Walkover survey (Field 6), topographic survey
Description	Hollow or quarry located along the northern side of the field and near to the farm outbuildings. The feature measured 40m long by 30m wide, aligned east/west, and was surviving to a depth of at least 1m.
Assessment	The site lies outside of the proposed pipeline route and will not be affected by the works

Site Name	North of Congleton Road
Site number	50
NGR	33 76167 361847
HER no	-

Site Type	Monument
Period	?Post-medieval
Statutory Designation	None
Source	Walkover survey (Field 20), topographic survey
Description	Mound/spoil heap aligned north/south at the eastern end of the field. Probably associated with the extraction of material from Site 58 and similar in nature to the bank, Site 59 .
Assessment	The site is crossed by the proposed pipeline route and is likely to be affected by the works.

Site Name	East of Brickfields Cottages
Site number	51
NGR	375594 362059
HER no	-
Site Type	Monument
Period	?Post-medieval
Statutory Designation	None
Source	Walkover survey (Field 15), topographic survey
Description	Hollow or quarry located north of Site 40 measuring 10m long by 5m wide and 1m deep.
Assessment	The site lies to the north of the proposed pipeline route and is unlikely to be affected by the works.

Site Name	East of Brickfields Cottages
Site number	52
NGR	375583 362071 (east) 375602 362041 (west)
HER no	-
Site Type	Monument
Period	Post-medieval
Statutory Designation	None
Source	Map regression, walkover survey (Field 15)
Description	Field boundary, shown on the OS from 1874 and 1909, although not on current map. Curvilinear ditch extending east/west across the southern part of the current field. Ditch measures 1.5m wide and <1m deep with a mature tree extant at the eastern end.
Assessment	The site lies to the north of the proposed pipeline route and may be affected by the works.

Site Name	Pond, East of Brickfields Cottages
Site number	53
NGR	375719 362057
HER no	-
Site Type	Pond
Period	?Post-medieval
Statutory Designation	None
Source	Current Ordnance Survey Map
Description	Pond marked on the current Ordnance Survey edition mapping, 1994.
Assessment	The site lies to the north of the proposed pipeline route and is unlikely to be affected by the works.

Site Name	East of Brickfields Cottages
Site number	54
NGR	375719 362057

HER no	-
Site Type	Monument
Period	Undated
Statutory Designation	None
Source	Walkover survey (Field 16), topographic survey
Description	Mound measuring 10m in diameter and <1m high, located along the eastern field boundary of Field 15.
Assessment	The site lies to the north of the proposed pipeline route and is unlikely to be affected by the works.

Site Name	North of Congleton Road
Site number	55
NGR	376040 361971 (north) 375988 361913 (south)
HER no	-
Site Type	Monument
Period	Undated
Statutory Designation	None
Source	Walkover survey (Field 17)
Description	Ridge and furrow aligned north/south although only a single furrow along the western side of the field was detected. Traces of ridges were detected at the northern end with an approximate distance from crown to crown of between 3-4m.
Assessment	The site is crossed by the proposed pipeline route and is likely to be affected by the works.

Site Name	North of Congleton Road
Site number	56
NGR	376062 361962 (north) 376008 361786 (south)
HER no	-
Site Type	Monument
Period	?Post-medieval
Statutory Designation	None
Source	Walkover survey (Field 17), map regression
Description	North/south-aligned field boundary shown on the 1872 and 1875 Ordnance Survey maps, but not on the 1909 edition, although present on the current map (1994). Boundary survives as a ditch with remnants of mature trees surviving along the southern end.
Assessment	The site is crossed by the proposed pipeline route and is likely to be affected by the works.

Site Name	North of Congleton Road
Site number	57 (part of 15)
NGR	376103 361853 (north) 376070 361743 (south)
HER no	-
Site Type	Monument
Period	Industrial Period
Statutory Designation	None
Source	Map regression, walkover survey (Field 20); topographic survey
Description	Earthwork/bank along the eastern side of ridge and furrow (Site 26). Probably associated with a boundary surrounding the western side of an area of quarrying activity in Field 20.
Assessment	The site is crossed by the proposed pipeline route and is likely to be affected by the works.

Site Name	North of Congleton Road
Site number	58
NGR	376130 361868
HER no	-
Site Type	Monument
Period	Industrial Period
Statutory Designation	None
Source	Map regression; walkover survey (Field 20); topographic survey
Description	A series of at least eleven quarry pits of varying sizes (5-10m in diameter) spread across the eastern side of the field. The southern part of the field is named Brickfield on the 1872 Ordnance Survey map. The field was clearly used for the extraction of clay, presumably linked to the production of bricks. It would appear that the production ceased prior to 1909, as Brickfield does not appear on the mapping of the time.
Assessment	The site is crossed by the proposed pipeline route and is likely to be affected by the works.

Site Name	North of Congleton Road
Site number	59 (part of 15)
NGR	376154 361907 (north-west) 376165 361877 (south-east)
HER no	-
Site Type	Monument
Period	?Post-medieval
Statutory Designation	None
Source	Walkover survey (Field 20); topographic survey
Description	Linear bank aligned north-west/south-east bordering the north-eastern side of the field, measuring 20m long.
Assessment	The site is crossed by the proposed pipeline route and is likely to be affected by the works.

Site Name	North of Congleton Road
Site number	60
NGR	376099 361857 (south-west) 376194 361917 (north-east)
HER no	-
Site Type	Monument
Period	?Post-medieval
Statutory Designation	None
Source	Walkover survey (Field 20), topographic survey
Description	Possible track aligned north-east/south-west along the western side of the field, extending for a distance of 60m. Its terminus, to the north, is marked by a spoil heap (Site 62).
Assessment	The site is crossed by the proposed pipeline route and is likely to be affected by the works.

Site Name	North of Congleton Road
Site number	61
NGR	376133 361920
HER no	-
Site Type	Monument
Period	?Post-medieval
Statutory Designation	None
Source	Walkover survey (Field 20); topographic survey

Description	Spoil heap measuring 10m long by 5m wide and 1m high located at the northern limit of the field. Bordered in the east and west by two small pits measuring 2m and 5m in diameter
Assessment	The site lies outside of the proposed pipeline route and will not be affected by the works

Site Name	North of Congleton Road
Site number	62
NGR	376144 361727 (south) 376145 361765 (north)
HER no	-
Site Type	Monument
Period	?Post-medieval
Statutory Designation	None
Source	Walkover survey (Field 20), topographic survey
Description	North/south aligned bank measuring between 40m-50m long and <0.5m high, located at the southern end of the field.
Assessment	The site lies outside of the proposed pipeline route and will not be affected by the works

Site Name	North of Congleton Road
Site number	63
NGR	376344 361892
HER no	-
Site Type	Monument
Period	?Post-medieval
Statutory Designation	None
Source	Walkover survey (Field 21); topographic survey
Description	Hollow/quarry measuring 20m long by 15m wide and 2m deep.
Assessment	The site is crossed by the proposed pipeline route and is likely to be affected by the works.

Site Name	North of Congleton Road
Site number	64
NGR	376344 361892
HER no	-
Site Type	Monument
Period	?Post-medieval
Statutory Designation	None
Source	Walkover survey (Field 21); topographic survey
Description	Hollow/quarry cut into the brow of the hill, along the southern part of the field. It measured 20m in diameter and 1m deep.
Assessment	The site is crossed by the proposed pipeline route and is likely to be affected by the works.

Site Name	North of Congleton Road
Site number	65
NGR	376486 361957 (north) 376483 361908 (south)
HER no	-
Site Type	Monument
Period	?Post-medieval
Statutory Designation	None
Source	Walkover survey (Field 22)

Description	North/south aligned earthen bank measuring 1.5m high. It is lined with young trees and located along the western side of the field boundary for a distance of 30m. The bank possibly represents clearance from the neighbouring field (Site 33).
Assessment	The site is crossed by the proposed pipeline route and is likely to be affected by the works.

7. SIGNIFICANCE OF THE REMAINS

7.1 INTRODUCTION

- 7.1.1 In total, 65 sites were identified within the study area during the desk-based assessment and walkover survey. Eighteen of these sites were recorded in the Cheshire HER, 21 were identified through the map regression (Sites **19** and **32-7**) and inspection of aerial photographs (Sites **17-18** and **20-31**), and the remainder as a result of the walkover survey.
- 7.1.2 There were two Scheduled Monuments within the study area (Sites **01** and **02**) and 15 listed buildings (Table 3), which were not added to the gazetteer. In addition, part of Sandbach is designated as an Area of Archaeological Potential by Congleton Borough Council, and this area around Market Square is also designated as a Conservation Area. These areas fall partially within the eastern end of the study area, but are not crossed by the proposed pipeline route (Fig 2). Sites **01-2**, **04**, **06** and **16** are within these areas.

Period	No of Sites	Site Type
Prehistoric	1	(03) Findspot.
Romano-British	3	(12) King Street and (13) and (14) two areas where the road has possibly been previously identified.
Early Medieval	2	(01) Sculptural fragments (at least one Saxon cross) and (04) the Saxon origins of the town.
Late Medieval	5	(02) Remains of a cross, (16) an excavation where phases of medieval occupation were recorded, two township boundaries (38 and 39), and (42) a hollow/pond
Post-medieval	33	(06) documentary evidence for the market, (17-18 , 20-31 , and 47) areas of ridge and furrow, (59) a bank, (44 , 52 , and 56) field boundaries, (57) an earthwork/bank, (45 and 61) spoil heaps, (51 , 63 , and 64) hollow/quarries, (50) a spoil heap/mound, (62) a bank/spoil heap, (46) possible pit, (65) a bank, (48 and 53) ponds, (60) a track
Industrial Period	16	(07) Brook Mill, (08) a large mill pond, (09) a railway cutting, (10) a railway junction, (36) a mile post, (37) a sand pit, (15) a brickfield, (34) a brick pit and an old building, (19) brickworks, (32 and 33) brick pits, (35) a field named 'Kiln Field' on the tithe, (40) a hollow/quarry, (41) a series of earthworks, (43) a hollow/quarry, (58) a series of quarry pits
Modern	2	(11) Monitoring Post, (05) Elworth Station
Undated	3	(49) a hollow/quarry, (54) a mound, (55) a single ridge and furrow

Table 4: Number of sites by period

7.2 CRITERIA

- 7.2.1 There are a number of different methodologies used to assess the archaeological significance of sites; that to be used here is the 'Secretary of

State's criteria for scheduling ancient monuments' which is included as Annex 4 of PPG 16 (DoE 1990). The sites previously listed (Table 4) were each considered using the criteria, with the results below.

- 7.2.2 **Period:** Sandbach is important as an early medieval town and, therefore, the key sites which provide evidence for this are significant to their period. Within the study area is Site **01**, early medieval sculptural fragments including pieces of a Saxon cross, and Site **02**, a medieval cross. Site **04** refers to the Saxon origins of the town and is effectively a site which draws together this evidence for Saxon occupation to highlight its significance. Site **16** is evidence for medieval occupation from Hawk Street, which is significant as it helps to define the medieval core of the town.
- 7.2.3 Sites **38** and **39** are important as they preserve early township boundaries. Although it is not possible to say what period these boundaries originate from, or what date the boundary markers were set out, they still have a connection to preserving the medieval or post-medieval landscape.
- 7.2.4 Site **11** is an underground monitoring post occupied by the Royal Observer Corps. After the Second World War the corps was assigned to detect nuclear fallout in the event of a nuclear war. This monitoring post is therefore very period specific and is significant as an example of this type of monitoring post.
- 7.2.5 **Rarity:** although this findspot of possible prehistoric weapons (Site **03**) is not well documented and the finds were apparently reburied, this site is significant here as there are no other prehistoric sites within the study area.
- 7.2.6 Site **01**, the Saxon and early medieval sculptural fragments are rare and are significant for this reason. Site **02**, the medieval cross, is also rare.
- 7.2.7 The ridge and furrow, Sites **17-18**, **20-31**, **47** and **55**, is commonplace, the sand pit (Site **37**) is also commonplace.
- 7.2.8 **Documentation:** Site **06** refers to documentary evidence for a market being granted for Sandbach from 1579 onwards. Were the market central to this assessment, then this site could be further explored through examination of the documentary sources for this site.
- 7.2.9 Site **07**, Brook Silk Mill and Site **08** its associated pool could also be researched through both documentary and cartographic sources. It is possible that further documentary research may also enhance our knowledge of the brick fields in the northern area of Sandbach (Sites **15**, **19** and **32-4**).
- 7.2.10 Further research could also be carried out on the monitoring post (Site **11**).
- 7.2.11 **Group Value:** King Street Roman road, Site **12**, has a group value with Sites **13** and **14**, which are specific locations where the road has previously thought to have been detected.
- 7.2.12 An Area of Archaeological Potential has been designated in Sandbach by Congleton Borough Council. This is partially in response to recognising an area containing a high number of cultural heritage sites, so these sites have

effectively already been grouped. The whole area then becomes important as the potential for further sites is raised by the presence of those that are already known. The area is centred around Market Square and St Mary's Church, which are thought to be the earliest parts of the town, and contains Sites **01-02, 04, 06** and **16**.

- 7.2.13 Brook Mill (Site **07**) and the mill pool (Site **08**) form a group. There are other silk mills from Sandbach, which would be included in this group if they were in the study area. Silk production was an important industry for Sandbach in the nineteenth century.
- 7.2.14 The sites relating to brick production can be grouped, Sites **15, 19** and **32-5**, as together they provide evidence for this area to the north of Sandbach as an important local production centre for bricks.
- 7.2.15 The areas of ridge and furrow across the study area can be grouped (Sites **17-18** and **20-31**).
- 7.2.16 The sites relating to the Manchester to Birmingham railway can be grouped (Sites **5, 9** and **10**).
- 7.2.17 **Survival/Condition:** Site **03**, the findspot of possible prehistoric weapons was apparently reburied and, as the site is not well documented, this site is now effectively lost.
- 7.2.18 Sites **07** and **08**, Brook Mill and its associated pool have been built over and are therefore also destroyed, although it is possible that buried remains survive.
- 7.2.19 The survival or condition of Site **11**, the twentieth century monitoring post is not known.
- 7.2.20 Site **12**, King Street is the putative line of a Roman road. Where remains or evidence for this road has been found it has been recorded in the HER (e.g. Sites **13** and **14** in the study area), however the survival or condition of the road is not known in other areas.
- 7.2.21 Site **37**, the sand pit, was replaced by Site **34**, a brickfield so this is unlikely to survive well. The survival of the brickfields (Sites **15, 19** and **32-4**) is not known. The survival of any remains associated with Kiln Field (Site **35**) is also not known. It is not known if there is still a stone mile post located at Site **36**.
- 7.2.22 The ridge and furrow (Sites **17-18** and **20-31**) was evident on aerial photos from the 1940s and 1970s, the condition of these earthworks now is unknown.
- 7.2.23 **Fragility/Vulnerability:** the ridge and furrow (Sites **17-8** and **20-31**) is at risk from ploughing or other farming activities. Site **35**, Kiln Field, could also be at risk from ploughing, as it is not known to what depths any archaeological features survive in this field. The brickfields (Sites **15, 19** and **32-4**) are similarly at risk.

- 7.2.24 **Diversity:** none of the sites is considered to be significant due to its diversity.
- 7.2.25 **Potential:** there is potential for Roman sites along King Street (Site **12**), although no findspots or other associated Roman features are recorded within the study area.
- 7.2.26 There is potential for further evidence of medieval occupation to be found in the area to the west of the eastern end of the study area (within the Sandbach Area of Archaeological Potential).
- 7.2.27 There is potential for archaeological features or artefacts associated with the brick fields (Sites **15**, **19** and **32-4**) and Kiln Field (Site **35**) to be found in these areas.

7.3 SIGNIFICANCE

- 7.3.1 Table 5 shows the sensitivity of the site scaled in accordance with its relative importance, with guideline recommendations for a mitigation strategy.

Importance	Examples of Site Type	Negative Impact
National	Scheduled Monuments (SMs), Grade I, II* and II Listed Buildings	To be avoided
Regional/County	Conservation Areas, Registered Parks and Gardens (Statutory Designated Sites) Sites and Monuments Record/Historic Environment Record	Avoidance recommended
Local/Borough	Sites with a local or borough value or interest for cultural appreciation Sites that are so badly damaged that too little remains to justify inclusion into a higher grade	Avoidance not envisaged
Low Local	Sites with a low local value or interest for cultural appreciation Sites that are so badly damaged that too little remains to justify inclusion into a higher grade	Avoidance not envisaged
Negligible	Sites or features with no significant value or interest	Avoidance unnecessary

Table 5: Criteria used to determine Importance of Sites

- 7.3.2 Three of the sites in the study area that are likely to be affected by the proposed pipeline works have been included in the Historic Environment Record of Cheshire (Sites **12**, **15** and **39**), which suggests a regional or county-level significance. The remaining eight sites which are likely to be affected by the proposed pipeline (Sites **17-8**, **22**, **26**, **29**, **34** and **37**) have been assessed as of low local significance. This is based on the current state of knowledge and the subsequent discovery of additional features or evidence relating to these sites could alter their assessed levels of significance.

8. IMPACT ASSESSMENT

8.1 IMPACT

8.1.1 In its Planning Policy Guidance *Note 16*, the Department of the Environment (Department of the Environment 1990) advises that archaeological remains are a continually diminishing resource and *‘should be seen as finite, and non-renewable resource, in many cases, highly fragile and vulnerable to destruction. Appropriate management is therefore essential to ensure that they survive in good condition. In particular, care must be taken to ensure that archaeological remains are not needlessly or thoughtlessly destroyed’*. It has been the intention of this study to identify the archaeological potential of the study area, and assess the impact of redevelopment, thus allowing the advice of the DoE to be enacted upon. Assessment of impact has been achieved by the following method:

- assessing any potential impact and the significance of the effects arising from redevelopment;
- reviewing the evidence for past impacts that may have affected the archaeological sites; and
- outlining suitable mitigation measures, where possible at this stage, to avoid, reduce or remedy adverse archaeological impacts.

8.1.2 The impact is assessed in terms of the sensitivity or importance of the site to the magnitude of change or potential scale of impact during the future redevelopment scheme. The magnitude, or scale, of an impact is often difficult to define, but will be termed as substantial, moderate slight, or negligible, as shown in Table 6, below.

Scale of Impact	Description
Substantial	Significant change in environmental factors; Complete destruction of the site or feature; Change to the site or feature resulting in a fundamental change in ability to understand and appreciate the resource and its cultural heritage or archaeological value/historical context and setting.
Moderate	Significant change in environmental factors; Change to the site or feature resulting in an appreciable change in ability to understand and appreciate the resource and its cultural heritage or archaeological value/historical context and setting.
Slight	Change to the site or feature resulting in a small change in our ability to understand and appreciate the resource and its cultural heritage or archaeological value/historical context and setting.
Negligible	Negligible change or no material changes to the site or feature. No real change in our ability to understand and appreciate the resource and its cultural heritage or archaeological value/historical context and setting.

Table 6: Criteria used to determine Scale of Impact

- 8.1.3 The interaction of the scale of impact (Table 6) and the importance of the archaeological site (Table 5) produce the impact significance. This may be calculated by using the matrix shown in Table 7, below.

Resource Value (Importance)	Scale of Impact Upon Archaeological Site			
	Substantial	Moderate	Slight	Negligible
National	Major	Major	Intermediate/ Minor	Neutral
Regional/County	Major	Major/ Intermediate	Minor	Neutral
Local/Borough	Intermediate	Intermediate	Minor	Neutral
Local (low)	Intermediate / Minor	Minor	Minor/ Neutral	Neutral
Negligible	Neutral	Neutral	Neutral	Neutral

Table 7: Impact Significance Matrix

- 8.1.4 The extent of any previous disturbance to buried archaeological levels is an important factor in assessing the potential impact of the development scheme. King Street Roman road (Site **12**) follows the approximate route of the A533, and within the study area the road is surrounded by development. The survival of the Roman road below ground is not known in this area, but it is possible that if the Roman road does run through this area, it has been truncated by later roads or buildings. It is therefore unlikely that the Roman road will be affected by the development.
- 8.1.5 The northern part of the study area is much more rural, and sites are most likely to have been impacted on by farming activities, such as deep ploughing. Sites in this area include seven areas of ridge and furrow (Sites **17-18**, **21**, **22**, **26** and **30**), and a brickfield (Site **15**). The impact of such plough damage will depend upon the nature of the site and the scale and duration of ploughing in the particular area. Sites comprising deeply cut ditches or pits, for example, will be more likely to survive as residual features than shallow negative features.

8.2 IMPACT ASSESSMENT

- 8.2.1 Following on from the above considerations, the significance of effects has been determined based on an assumption that there will be earth-moving works associated with the development, and the present condition of the archaeological assets/sites. The results are summarised in Table 8, below, in the absence of mitigation. *The following may require review once detailed design proposals are known.*

Site Number	Nature of Impact	Importance	Scale of Impact	Impact Significance
15	Disturbance of related artefacts or features by groundworks	Regional or county	Slight	Minor
17	Disturbance of features by groundworks	Local	Slight	Minor/Neutral
18	Disturbance of features by groundworks	Local	Slight	Minor/Neutral
21	Disturbance of features by groundworks	Local	Slight	Minor/Neutral
22	Disturbance of features by groundworks	Local	Slight	Minor/Neutral
26	Disturbance of features by groundworks	Local	Slight	Minor/Neutral
39	Disturbance of related artefacts or features by groundworks	Regional or county	Slight	Minor
42	Disturbance of related artefacts or features by groundworks	Local/borough	Slight	Minor
44	Disturbance of related artefacts or features by groundworks	Local	Slight	Minor/Neutral
45	Disturbance of related artefacts or features by groundworks	Local	Slight	Minor/Neutral
50	Disturbance of related artefacts or features by groundworks	Local	Slight	Minor/Neutral
52	Disturbance of related artefacts or features by groundworks	Local	Slight	Minor/Neutral
55	Disturbance of related artefacts or features by groundworks	Local	Slight	Minor/Neutral
56	Disturbance of related artefacts or features by	Local	Slight	Minor/Neutral

Site Number	Nature of Impact	Importance	Scale of Impact	Impact Significance
	groundworks			
57	Disturbance of related artefacts or features by groundworks	Local	Slight	Minor/Neutral
58	Disturbance of related artefacts or features by groundworks	Local	Slight	Minor/Neutral
59	Disturbance of related artefacts or features by groundworks	Local	Slight	Minor/Neutral
60	Disturbance of related artefacts or features by groundworks	Local	Slight	Minor/Neutral
63	Disturbance of related artefacts or features by groundworks	Local	Slight	Minor/Neutral
64	Disturbance of related artefacts or features by groundworks	Local	Slight	Minor/Neutral
65	Disturbance of related artefacts or features by groundworks	Local	Slight	Minor/Neutral

Table 8: Assessment of the impact significance on each site

9. DISCUSSION

9.1 INTRODUCTION

- 9.1.1 In total, 65 sites were identified through the desk-based assessment and subsequent walkover survey. Of the 28 sites identified during the walkover survey, many can be tied into historic maps and aerial photos as examined during the desk-based assessment. Although many sites identified in the desk-based assessment were outside the pipeline corridor it is important to mention some of these in order to place the walkover sites within an historical context. The desk-based assessment established that sites within the study area chiefly involved post-medieval agricultural and industrial features. Four sites of unknown date and function were detected during the walkover, (**44-46**, and **54**).

9.2 ROMANO-BRITISH PERIOD

- 9.2.1 The route of Roman King Street (Site **2**) lies in very close proximity to the route of the pipeline. Further sections of the Roman road (Sites **13** and **14**) are known to lie within the study area.

9.3 MEDIEVAL PERIOD

- 9.3.1 The Saxon origins of Sandbach are well-established. The medieval sculptural fragments proved an insight into the introduction of Christianity into the area. The Bradwall/Sandbach township boundary (Sites **39**), across the central part of the route, possibly dates to the medieval period. In addition, a single hollow (Site **49**) close to Beech Farm possibly represented an example of medieval marl extraction for field fertilisation. The changes of land use from arable to pasture during the fourteenth century is resonant across the current landscape east of Site **39**, suggested by large open field enclosures.

9.4 POST-MEDIEVAL PERIOD

- 9.4.1 **Industrial features:** evidence suggests that clay extraction associated with brick making began during the post-medieval period across the area north of Sandbach. This was demonstrated by a number of possible hollows/quarries and spoil heaps identified during the desk-based assessment (quarries: Sites **46**, **51**, **63**, and **64**; spoil heaps and banks: Sites **45**, **50**, **57**, **59**, **61**, **62**, and **65**), and a track (Site **60**), which terminates at Site **62**. Many of these sites can be tied into historic maps dating to the nineteenth and early twentieth centuries. A mound (Site **54**) close to the fields containing former brick works may represent an associated spoil heap which had been largely flattened during late post-medieval agricultural improvements.
- 9.4.2 **Agricultural features:** it would seem that at least two or three of the field boundaries identified (Sites **44**, **52** and **56**) are a residue of late post-medieval

agricultural improvement, many having been removed during the early twentieth century. Several fragmentary areas of ridge and furrow, which probably date to the post-medieval period, also survive within the development area (Sites **17**, **18**, **22**, **26**, **29**, **30**, **31**, **47** and **55**), while a possible agricultural pond was identified (Site **53**), possibly pre-dating the later post-medieval improvements alluded to above.

9.5 INDUSTRIAL PERIOD

9.5.1 **Industrial features:** the majority of industrial sites across the development area are related to the expansion of the brick industry, which was evident in the later post-medieval period. A ‘brickfield’ was identified at Site **15**, a brickworks at Site **19**, and a ‘Kiln Field’ at Site **35**. All in conjunction with various quarry pits and spoil heaps related to clay extraction (Sites **32**, **33**, **34**, **37**, **40**, **41** and **58**). Completing the industrial landscape are a railway cutting (Site **09**) and a railway junction (Site **10**), both part of the communication and transport network between Manchester and Birmingham.

9.5.2 **Agricultural features:** the majority of agricultural features date to the post-medieval period, and during the Industrial Period much of the landscape became dominated by the brick industry, however, the Brook Silk Mill (Site **07**) and associated mill pond (Site **08**) were also constructed during this later period.

9.6 MODERN PERIOD AND UNDATED FEATURES

9.6.1 **Modern Period:** the two features dating to the modern period, the Monitoring Post (Site **11**) and Elworth Railway Station (Site **05**), relate to events in the recent past. Elworth Station was built for the Manchester to Birmingham Railway during the earlier part of the twentieth century, while the Monitoring Post functioned during World War II, and was finally disbanded in 1947. Neither will be impacted upon by the development route.

9.6.2 **Undated features:** it is most likely that the features identified as ‘undated’ are associated with the main economic activities in the area. Sites **49** and **54** probably relate to the brick-making industry which dominated the landscape in the later post-medieval and industrial periods. Site **55** is likely a remnant of the agricultural landscape and possibly pre-dates the post-medieval period.

10. RECOMMENDATIONS FOR ARCHAEOLOGICAL MITIGATION

10.1 INTRODUCTION

- 10.1.1 In terms of the requirement for further archaeological investigation and mitigation, it is necessary to consider only those sites that will be affected by the proposed development. Current legislation draws a distinction between archaeological remains of national importance and other remains considered being of lesser significance. Those perceived to be of national importance may require preservation *in situ*, whilst those of lesser significance may undergo preservation by record, where high local or regional significance can be demonstrated.

10.2 RECOMMENDATIONS

- 10.2.1 Due to the significant number of archaeological sites along the proposed route of the pipeline it is recommended that a permanent presence watching brief should be maintained during all ground disturbing activities, including groundworks for the easement, access tracks and site compounds. Should the presence of significant remains of archaeological interest be identified that cannot be preserved *in situ*, archaeological excavation would be necessary in order to preserve the sites by record. During the watching brief a section should be put through the township boundary that is crossed by the easement (Site 39).

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12. ILLUSTRATIONS

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Figure 7: Topographical detail of Sites **30**, **62**, **63** and **64**

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Plate 11: Disturbed ground (Site **45**), looking south-west

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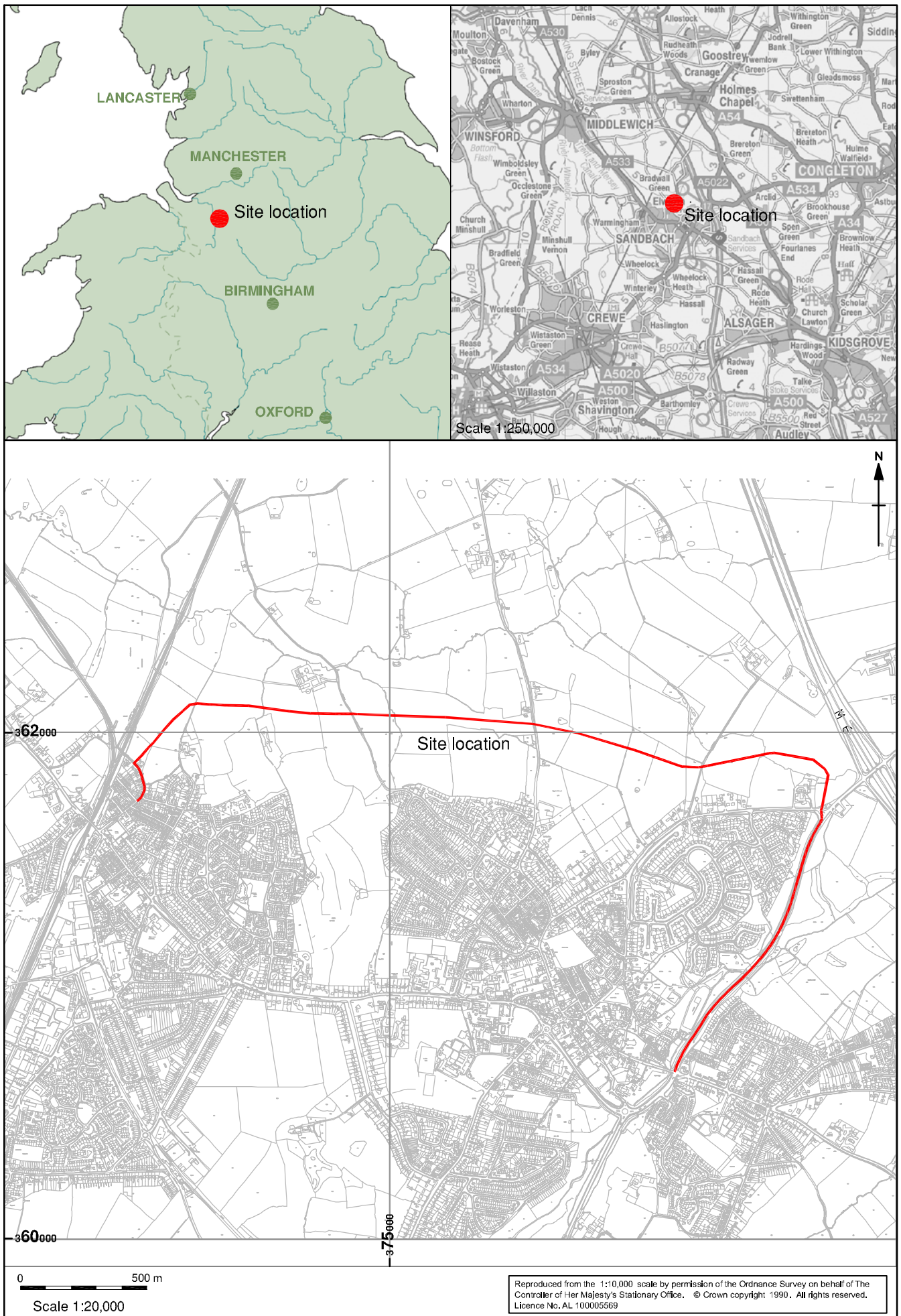


Figure 1: Site Location

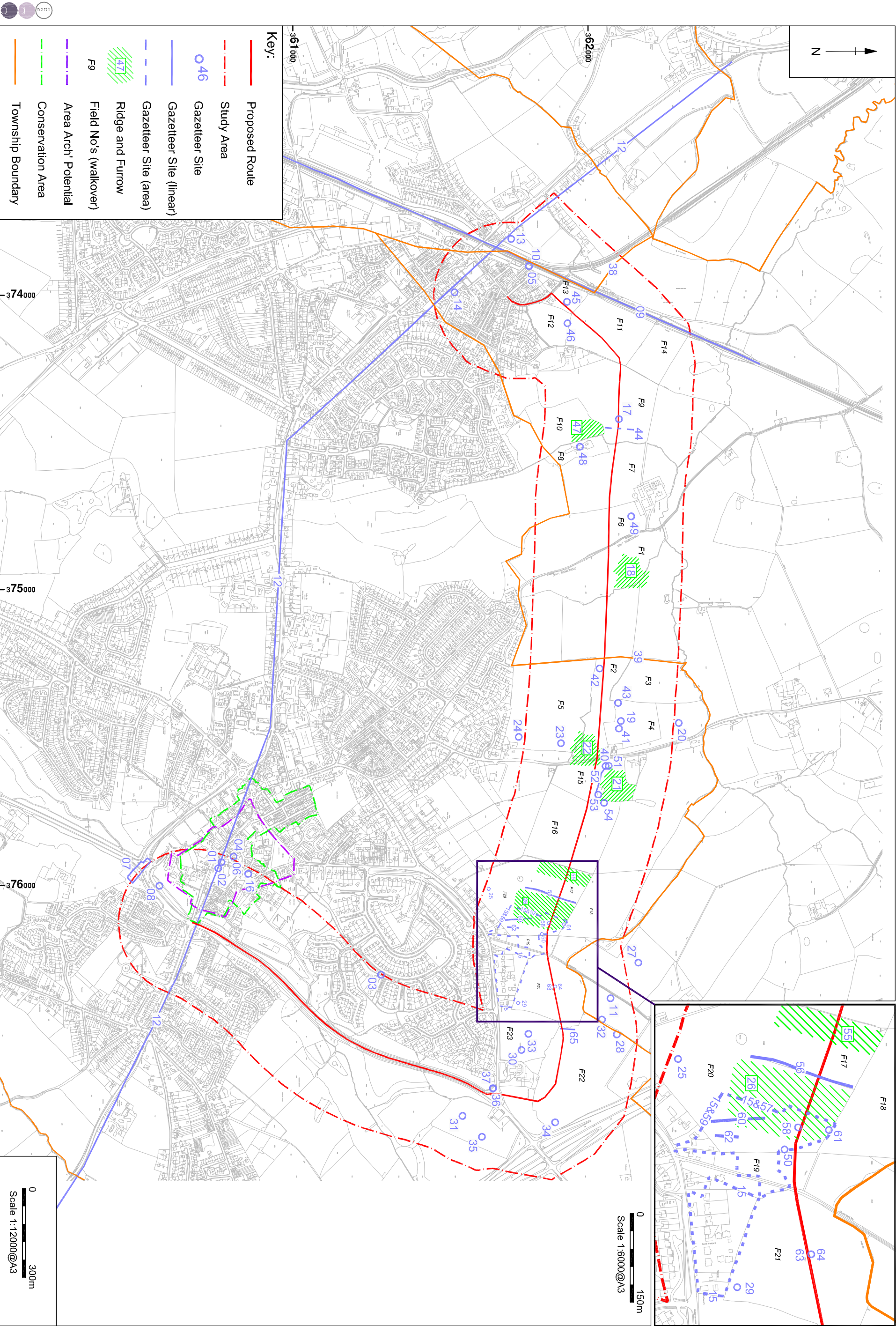
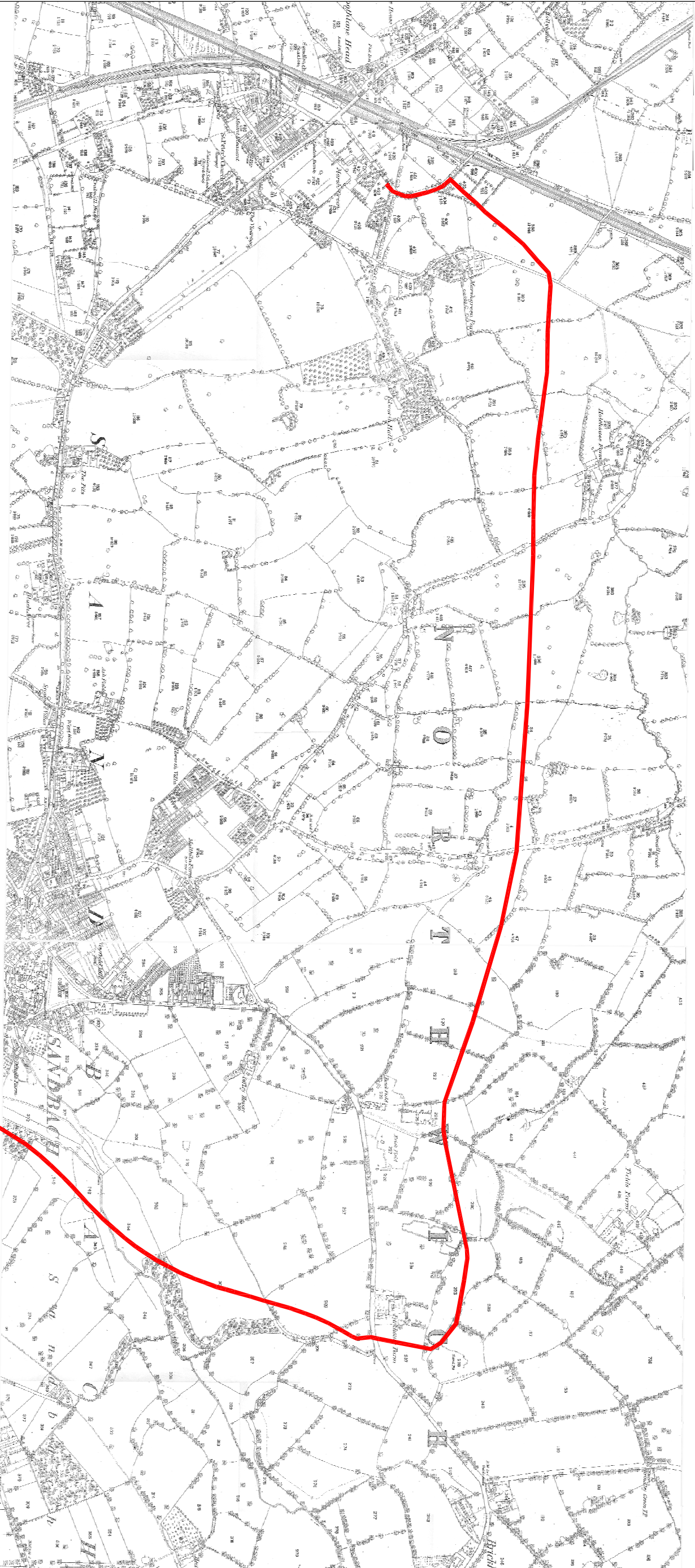
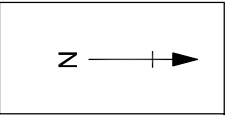


Figure 2: Gazetteer sites plan



Figure 3: Proposed route superimposed upon the Ordnance Survey 6" to 1 mile, 1873-4



Proposed Route

Not to Scale

Figure 4: Proposed route superimposed upon the Ordnance Survey 25" to 1 mile, 1875

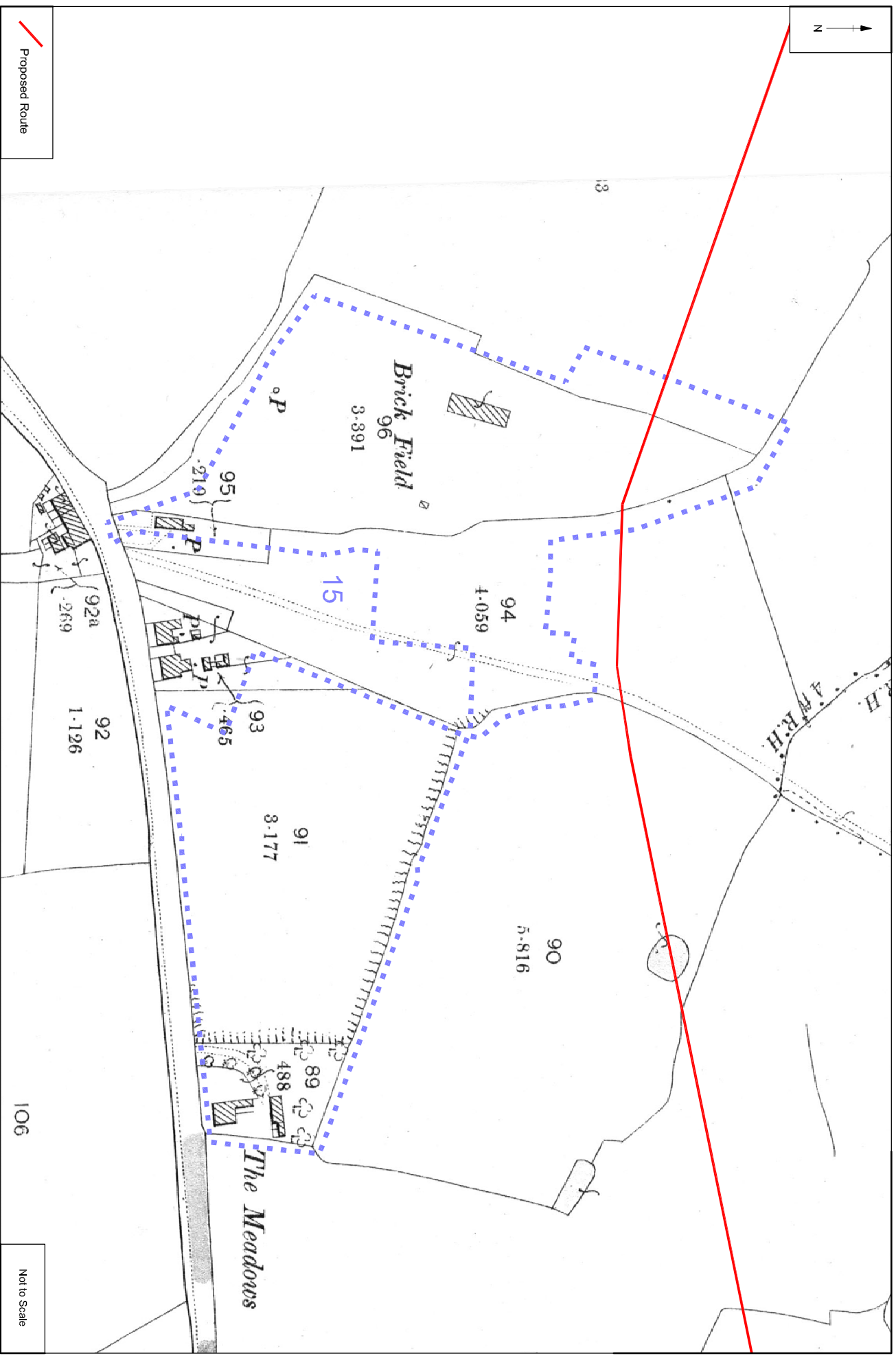


Figure 5: Proposed route superimposed upon the Ordnance Survey 25" to 1 mile, 1899, showing Site 15

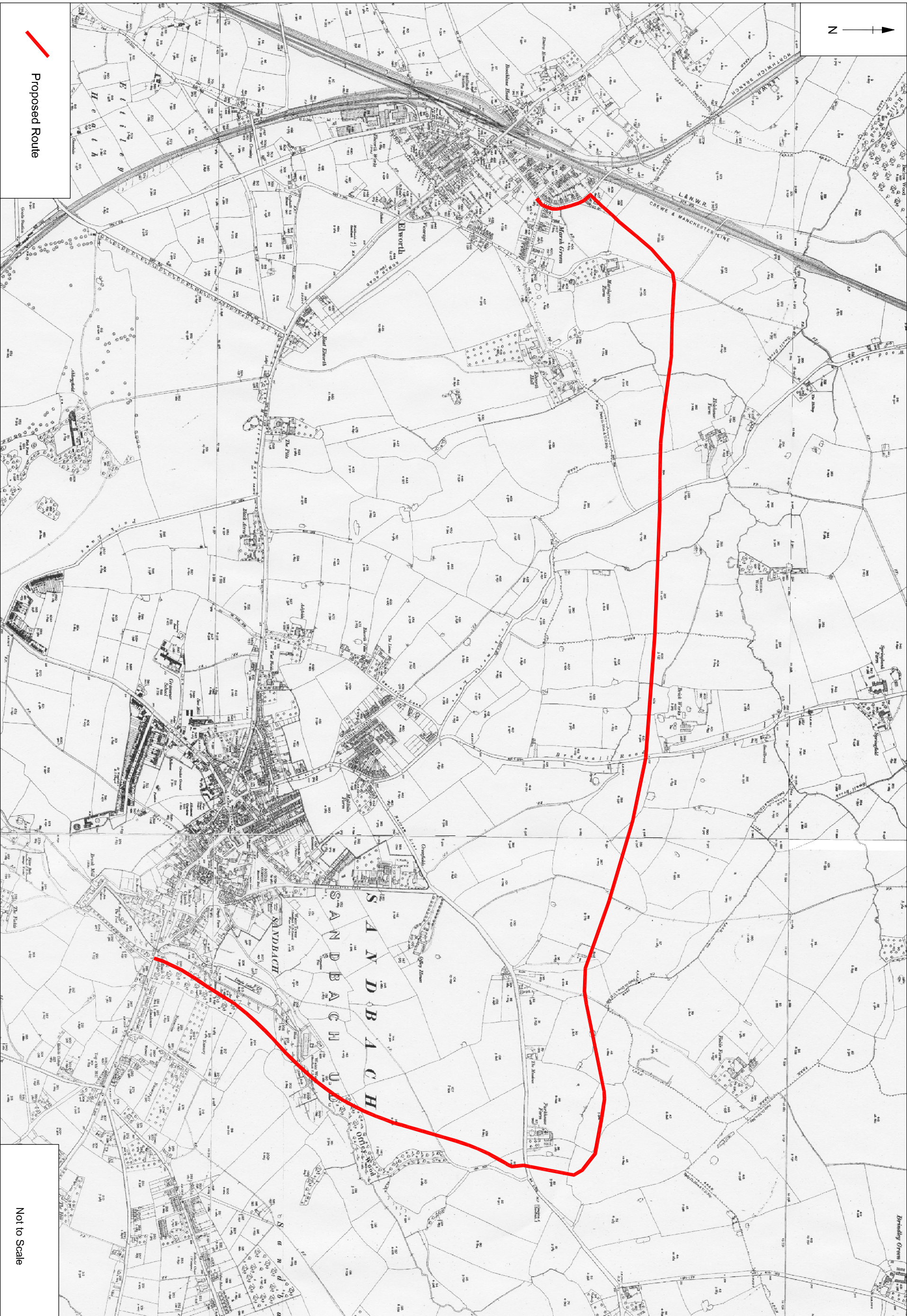


Figure 6: Proposed route superimposed upon the Ordnance Survey 25" to 1 mile, 1909



Figure 7: Topographic detail of Sites **30, 62, 63** and **64**

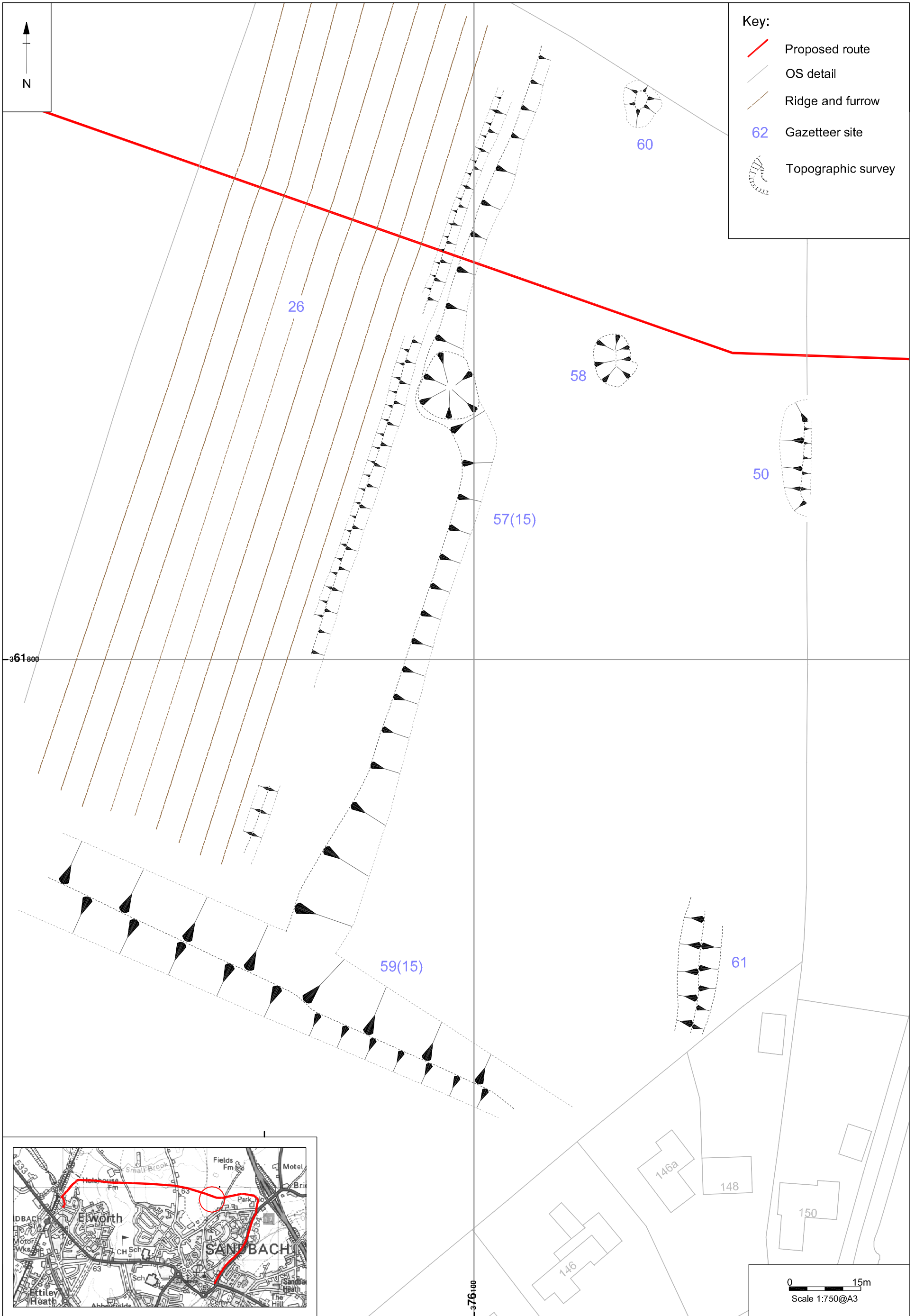


Figure 8: Topographic detail of Sites 26, 50, 57, 58, 59, 60 and 61



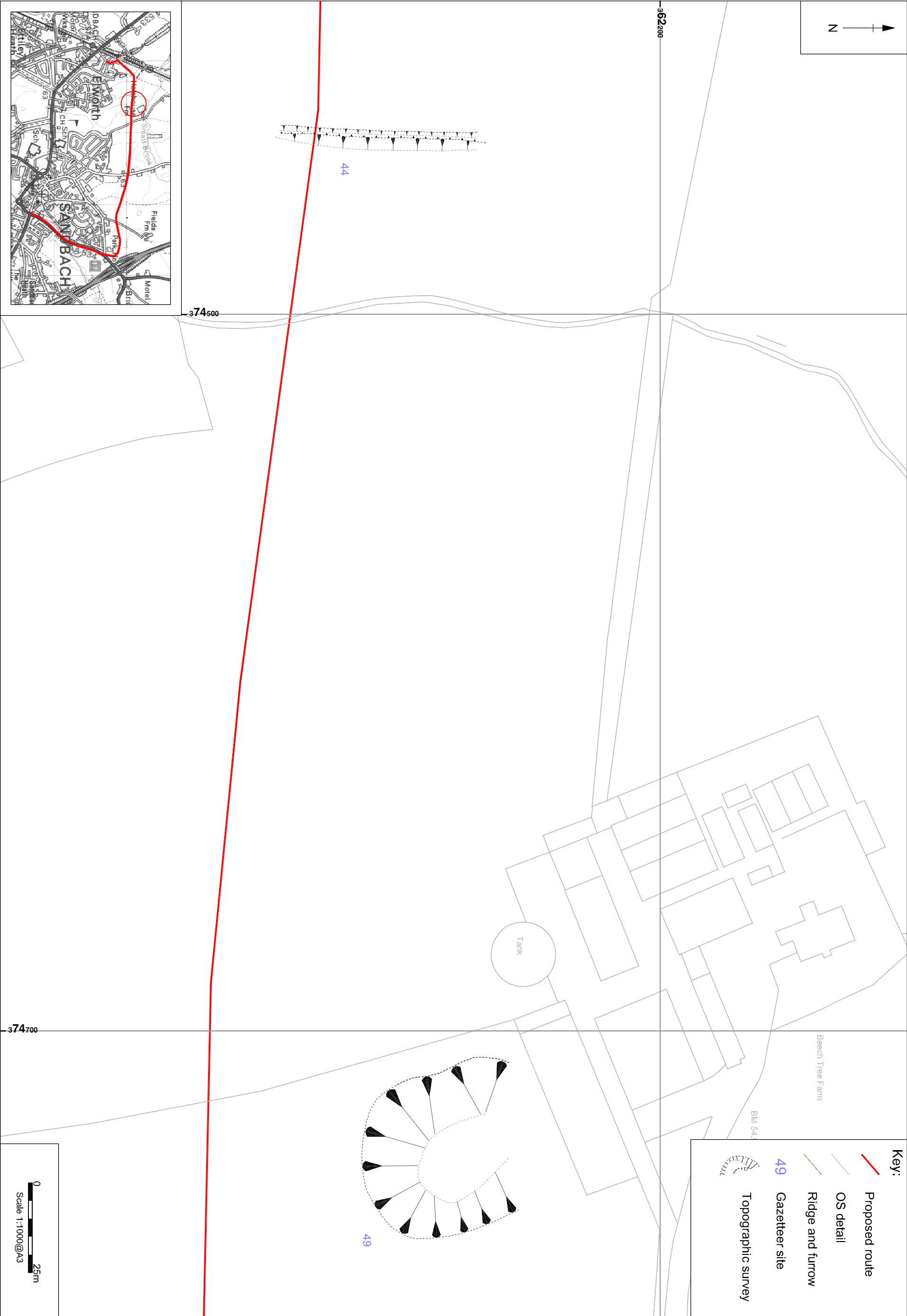


Figure 10: Topographic detail of Sites 44 and 49



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Plate 3: General view of Brickfields (Site **15**) within field 20, looking south-east



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Plate 5: View of a probable spoil heap (Site **63**) along the western part of field 20, looking north-east



Plate 6: Possible remains of a track (Site **61**) within field 20 (Site **15**), looking south



Plate 7: Ridge and furrow (Site **26**), looking south-west



Plate 8: View of field boundary (Site **56**) along the western side of field 20



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Plate 11: Disturbed ground (Site 45), looking south-west



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