Network Rail

Trent Valley

West Coast Mainline Upgrade

Staffordshire

Tamworth (Handsacre) to Lichfield

Haul Roads

Archaeological Watching Brief Report

Oxford Archaeology

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NGR SK 1860 0680

ARCHAEOLOGICAL WATCHING BRIEF REPORT

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SUMMARY

From January 2005 to August 2005, Oxford Archaeology (OA) carried out an archaeological watching brief during construction of haul roads associated with the upgrade of the West Coast Main Line between Tamworth (Handsacre) and Lichfield (NGR SK 1860 0680 centred). The work was commissioned by Network Rail in conjunction with archaeological evaluation works on sites of archaeological interest along the route of the railway. Up to 20 lengths of temporary roadway/site access areas were archaeologically monitored during topsoil stripping.

The watching brief revealed natural clay layers below topsoil along the majority of the haul roads. A number of undated shallow ditches represent field boundaries/drainage features - these were only seen in fields away from the line of the railway itself. Areas of 19th century brick and rubble debris and modern features associated with the construction and maintenance of the railway were noted.

1 INTRODUCTION

1.1 Location and scope of work

1.1.1 From January 2005 to August 2005, Oxford Archaeology (OA) carried out an archaeological watching brief along the route of the West Coast Mainline upgrade between Tamworth (Handsacre) and Lichfield (NGR: SK 1860 0680, centred).

1.1.2 The work was commissioned by Network Rail in conjunction with works for upgrading of the rail line between Tamworth and Lichfield (known as Network Rail 'Order 2').

1.1.3 Discussions took place between Ian Wykes, Archaeological Officer for Staffordshire County Council and OA, which led to an agreement that in areas where there was the potential for damage to possible archaeological remains, due to temporary or permanent land-disturbance, archaeological fieldwork would be carried out.

1.1.4 Two stages of work were agreed: a trenched evaluation and in the case of new haul roads, a watching brief. An outline project proposal detailing how OA would implement the evaluation and watching briefs was agreed between all parties (OA 2004). An evaluation report has already been compiled for development sites 22, 24 and 25 (OA 2005).

1.1.5 This report presents the results and observations from the stripping and construction of the haul roads and access sites that were built to facilitate the rail track improvements.

1.2 Geology and topography

1.2.1 The section of track in question runs from Handsacre, north-west of Tamworth, through Lichfield to Armitage (Fig. 1).

Tamworth to Lichfield

1.2.2 This stretch of rail line lies within two distinct topographical and geographical 'zones'. These are the southern uplands of Staffordshire, crossed by the north-western half of this section, and the Tame Valley, which takes up the south-east part. East of Lichfield, the railway runs alongside a gentle, north-east facing, slope. This lies at around 60-70 m OD and is situated at the side of the river Tame. East of Whittington, the railway descends into the bottom of the valley, to around 55m OD, and crosses the River Tame, before entering the town of Tamworth.

1.2.3 Southern Uplands - The geology of the southern upland area is Triassic Keuper sandstone (BGS 1971). Around Hademore, Recent and Pleistocene Glacial Boulder Clay overlie this. Within this zone, there are alluvial deposits. These are associated with three watercourses at Huddlesford, along Fisherwick Brook and both sides of the River Tame.

1.2.4 Tame Valley - The geology at the base of the Tame Valley comprises a Recent and Pleistocene Gravel Terrace (First Terrace) to either side of the River Tame, with alluvium at the very bottom of the valley on the floodplain. At the eastern end of the corridor, to the south-east of Wigginton Hall, the line of the existing railway rises slightly at the foot of the valley slope before entering Tamworth town.

1.2.5 The geology of this area is Triassic Keuper Sandstone, Recent and Pleistocene Glacial Boulder Clay and Triassic Keuper Red Marls with sandy bands.

Lichfield to Armitage

1.2.6 The Trent Valley section of line is located towards the bottom of the western slope of a valley. This valley contains the River Trent to the north-west. The land rises significantly to the west of this area, towards the small settlements of Brook End and Longdon and to the centre of Lichfield.

1.2.7 The geology of the southern end of the study area consists of a small island of first terrace gravels around Streethay. To the north-west of this area, the line passes through an area of Triassic sandstone and a larger area of red marls with sandy bands, as far as Tomhay Wood.

1.2.8 Within this area, two lines of alluvium are present. The north-western third of this section consists almost entirely of older river gravel with a smaller alluvial passage to the south-east of Hanch Hall, and with the north-easterly end surrounded by red marls and a soft sandstone.

1.3 Project background

1.3.1 The background to the project was prepared for the project proposal for the scheme (*West Coast Mainline Upgrade - Trent Valley. Outline Proposal for Phase 1 Works, OA 2004*).

1.4 Acknowledgements

1.4.1 OA extends its thanks to Network Rail and to Alfred McAlpines for providing plans of the haul roads to be monitored (Plans: Drawing No. SK/7291/01 - 1 and 2). OA's Lee Martin and John Tierney undertook the watching brief under the management of Clare King of OA.

2 PROJECT AIMS AND METHODOLOGY

2.1 Aims

2.1.1 To establish the presence or absence, extent, condition, nature, character, quality and date of any of archaeological remains within the proposed development area.

2.1.2 To establish the ecofactual and environmental potential of archaeological deposits and features.

2.1.3 To signal, before the destruction of the material in question, the discovery of a significant archaeological find, for which the resources allocated were not sufficient to support a treatment to a satisfactory and proper standard.

2.1.4 To make available the results of the investigation.

2.2 Methodology

2.2.1 The watching brief was undertaken in accordance with `Standards and Guidance for Archaeological Watching Briefs' (IFA, 1999). The watching brief was maintained during the construction of all new haul roads. Machining was carried out by 360° wheeled or tracked excavators.

2.2.2 A record was made of all areas of the route that were stripped in the course of the construction work. A general photographic record of the work was made using colour slide and black and white print film. Recording followed procedures detailed in the *OA Fieldwork Manual* (ed. D Wilkinson, 1992).

3 RESULTS

3.1 Description of work and deposits

3.1.1 Each length of haul road/access site was allocated a unique number by the construction company e.g. Haul Road 5, 6 etc Access site 2-1, 2-2 etc. These are shown on Fig. 2.

3.1.2 Topsoil and any underlying layers (ploughsoil/natural subsoil) were removed as one by machine onto the natural geology (Plate 1). These layers were assessed by the attending archaeologist prior to the laying of hardcore. Where there were differences to this soil sequence or where features were located, these are detailed below.

Site Access 2.1

3.1.3 At the Fontenaye Road, topsoil was stripped to a depth of 0.2 m -0.3 m. It consisted of a red/brown silt loam with sand and stones. Occasional patches of charcoal were noted.

Site Access 3

3.1.4 Opposite the Fontenaye Road, topsoil was stripped to a depth of 0.2 m -0.3 m. It consisted of a red/brown silt loam with sand and stones. Occasional patches of gravel and charcoal were observed.

Haul Road 5

3.1.5 South of Fisherwick and Comberford. Here topsoil consisted of a red/brown silt loam with sand and stones of depth varying between 0.3-0.5 m in thickness. Below was the natural clay, usually brown/red with patches of yellow clay and some stones. A stream culvert was observed at SK 17952 07767. Stripping went down c. 0.35 m - 0.5 m along the length of the route. At the south edge of the river Tame, a 20 sq. m area of topsoil and river clay/gravel was removed prior to the start of bridge construction works, to a maximum depth of 1.5 m, which included construction of pier-heads as part of the bridge widening. No cut features were observed along the road or within the river edge.

Haul Road 5/Access Site 5.1 (From river Tame to Tollgate Lane)

3.1.6 This was the only length of haul road to cut across open fields (northwards) away from the line of the railway. This stretch of haul road began where the railway crosses the river Tame and extended for a distance of about 1 km to the north. At Tollgate Lane, the access site was stripped through 0.3 m of red/brown silt loam topsoil onto a natural consisting of red sandy clay with gravel.

3.1.7 A total of four shallow ditches were observed along this stretch of road, all cut into the natural clay and sealed by the overlying topsoil and ploughsoil. Ditch 110 was 1 m wide and 0.2 m deep with a shallow `V' profile and 45° sloping sides (Plate 2). It was filled with grey brown loam (109). The ditch was on an east-west alignment and extended across the width of the haul road.

3.1.8 Ditch 112 (Plate 3) was 1.2 m wide and 0.35 m deep with a broad `U'-shaped profile. It was filled with a dark grey/brown silt loam with stones (111). The ditch was on an east-west alignment and extended across the width of the haul road. Ditch 115 (Plate 4) was 0.75 m wide and 0.2 m deep, becoming shallower to the east side. The ditch was on a NE-SW alignment and was filled with brown silt loam (114).

3.1.9 Ditch 119 (Plate 5) was the last of the ditches seen and the closest to the Tollgate Lane site. The ditch was 0.95 m wide and 0.3 m deep with a broad `U'-shaped profile. The fill (118) was a dark grey silt loam with stone inclusions. The ditch ran

on a north-east/south-west alignment. A modern ceramic field drain (124) was also noted aligned east-west across the haul road.

Haul Road 9

3.1.10 North of Whittington. Here topsoil (usually 0.3 m deep) was removed together with up to 0.35 m depth of clay natural along the length of the route. At a gateway on the Burton Road, a Victorian bottle and pottery dump mixed with coke and clinker was found covering an area of 5 sq. m, and set into topsoil to a depth of 0.3 m deep. No cut features were observed along the length of the road.

Haul Road 10

3.1.11 South of Park Lane, up to 0.2 m of red/brown silt loam topsoil was removed together with up to 0.3 m of natural clay at the base of the road. A Victorian or 20th-century pit was seen filled with coke, clinker and slag fragments, presumably a feature associated with either road or rail construction works.

Haul Road 12

3.1.12 Adjacent to the A38, topsoil was between 0.3 m - 0.4 m deep and the haul road was cut into the clay to depths of between 0.1-0.2 m. The area of the haul road was continually waterlogged.

Haul Road 13

3.1.13 The road ran north of Huddlesford Lane. Layers of hardcore and brick were observed during stripping of topsoil in an area between standing buildings. A ceramic field drain was noted within a modern trench.

Haul Road 14

3.1.14 This haul road extended west from the line of the A38. A service culvert was excavated through a modern brick surface - the surface was 0.3 m deep and overlay clay natural. New pipes were installed here. Elsewhere, patches of brick rubble were common near the ground surface.

Haul Roads 15 & 16

3.1.15 Excavated from Watery Lane to Fog Lane. Topsoil was 0.2-0.3 m deep, the haul roads were cut up to 0.4 m into the natural clay. In places natural solution hollows were noted, filled with grey/green silt. A 19th century sunken linear feature was observed filled with brick fragments and charcoal. It was 1.5 m wide, but its function was unknown.

Haul Road 17

3.1.16 Adjacent to Fog Lane, dumps of charcoal up to 0.2 m deep and a large linear ?ditch filled with charcoal and coke/clinker were observed. The ditch was 1 m wide and cut from just below the grass and was clearly modern.

Haul Road 18 & 19

3.1.17 Haul road 18 was excavated adjacent to A515 where three tree holes were noted during topsoil stripping. West of the A515, the topsoil for Haul Road 19 was usually 0.3 m deep over occasional spreads of silty gravel that sealed the natural clay. The route was usually waterlogged.

Haul Road 20

3.1.18 This haul road extended from Shaw Lane to Handsacre. New culverts were excavated through layers of modern brick and concrete - the route was frequently waterlogged. The rubble layers were set at the level of the topsoil that was usually 0.3 m deep. Areas of petrol or diesel contamination were noted along the route. Modern drainage/service ditches running lengthways and across the line of the haul road were noted.

3.2 **Finds**

3.2.1 Victorian and later finds were evaluated on site but otherwise were not retained.

3.3 **Palaeo-environmental remains**

3.3.1 No deposits suitable for environmental sampling were encountered.

4 CONCLUSIONS

4.1.1 The results from the watching brief were limited. Observation of the natural clay usually gave a good indication of the archaeological potential along the line of the new haul roads.

4.1.2 Aside from tree throw holes and probable natural solution hollows, the land adjacent to the line of the railway appears to have been historically fallow.

4.1.3 Where the haul roads were cut away from the line of the railway, a few features were observed. The four ditches observed in the length of haul road 5 from the river Tame to Tollgate Lane Access Site were undated, but are probably field boundary ditches also acting as drainage ditches. The alignment of these features was mimicked by later east-west aligned field drains.

4.1.4 The only other finds of note were spreads of brick rubble and cut features filled with brick and `industrial' debris such as coke and charcoal, all presumably associated with the period when the railway line was constructed.

APPENDICES

APPENDIX 1 ARCHAEOLOGICAL CONTEXT INVENTORY

Context	*Type*	*Depth*	*Width*	*Height*	*Comments*	*Finds*
100	Layer	0.3 m	-	-	Topsoil	
101	Layer	0.25 m	-	-	Ploughsoil	
102	Layer	0.1 m+			Natural clay	
109	Fill	0.2 m	-	-	Fill of 110	
110	Cut	1 m	0.2 m	-	Ditch	
111	Fill	0.35 m	-	-	Fill of 112	
112	Cut	0.35 m	1.2 m	-	Ditch	
114	Fill	0.2 m	-	-	Fill of 115	
115	Cut	0.2 m	0.75 m	-	Ditch	
118	Fill	0.3 m	-	-	Fill of 119	
119	Cut	0.3 m	0.95 m	-	Ditch	
124	Service	0.45 m	0.7 m	-	-	
500	Layer	0.3-0.5 m	-	-	Topsoil	
501	Layer	0.1 m+	-	-	Natural clay	
502	Layer	0.3-0.5 m	-	-	Topsoil	
503	Layer	0.1 m+	-	-	Natural clay	

APPENDIX 2 BIBLIOGRAPHY AND REFERENCES

- IFA, 1999 *Standards and Guidance for Archaeological Watching Briefs*. IFA
- OA 1992 *Fieldwork Manual* (1st Edition, August 1992)
- OA 2004 *West Coast Mainline Upgrade - Trent Valley. Outline Proposal for Phase 1 Works*
- OA 2005 Network Rail, Trent Valley. West Coast Mainline Upgrade. Staffordshire: Tamworth to Lichfield. Sites 22, 24 and 25. Evaluation Report.

APPENDIX 3 SUMMARY OF SITE DETAILS

Site name: Tamworth (Handsacre) to Lichfield, West Coast Mainline Upgrade.
Site code: WCMLH 05
Grid reference: SK 1860 0680 (centred)
Type of watching brief: Observation of machine stripping of haulage roads and access sites.
Date and duration of project: January-August 2005.
Area of site: c. 20 km in length by 30 m wide strips.
Summary of results: The watching brief revealed natural clay layers below topsoil along the majority of the haul roads. A number of undated shallow ditches represent field boundaries/drainage features - these were only seen in fields away from the line of the railway itself. Areas of 19th century brick and rubble debris and modern features associated with the construction and maintenance of the railway were noted.
Location of archive: The archive is currently held at OA, Janus House, Osney Mead, Oxford, OX2 0ES, and will be deposited with The Potteries Museum & Art Gallery, Staffordshire in due course, under the following accession number: 2005 LH.1

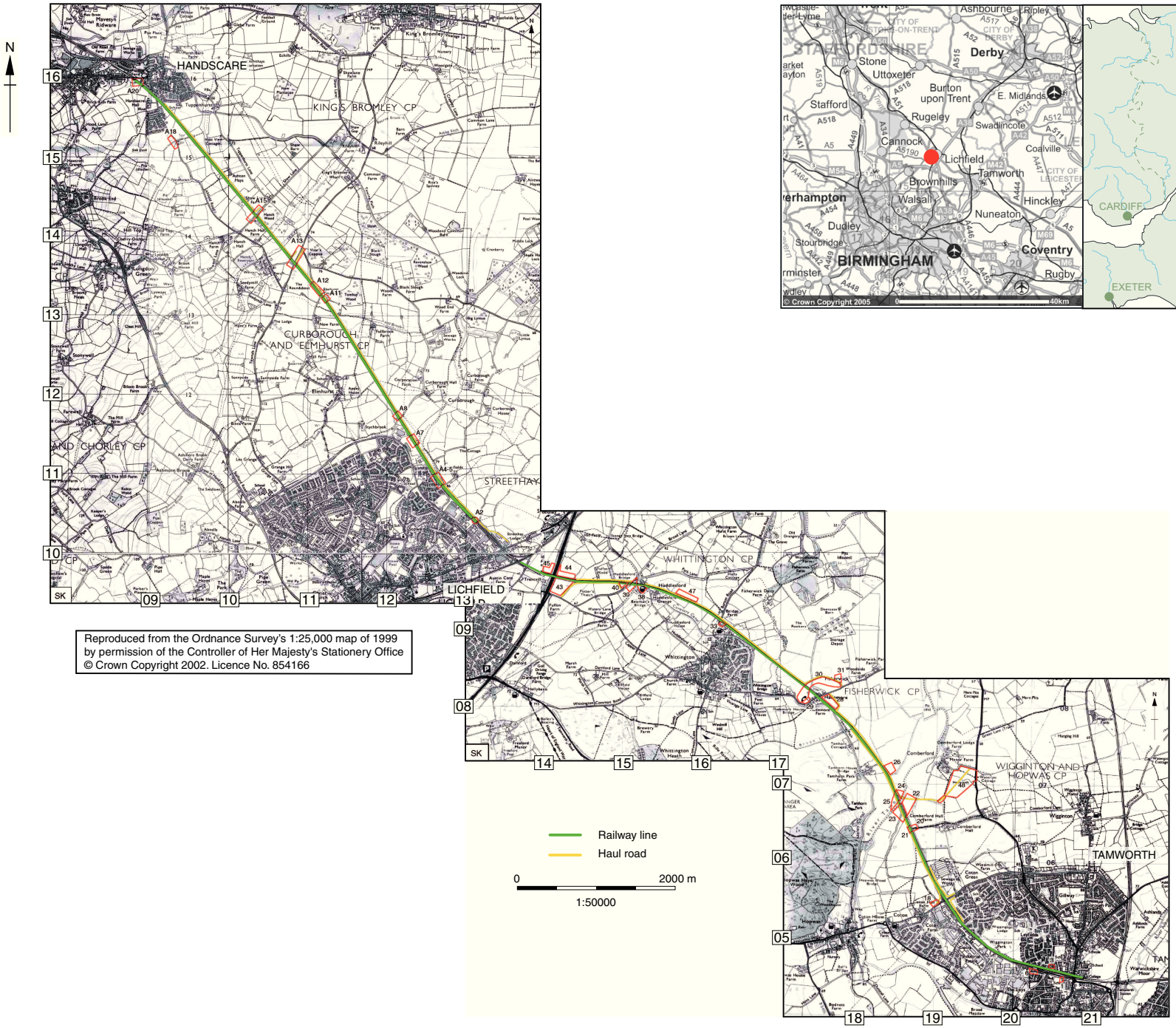
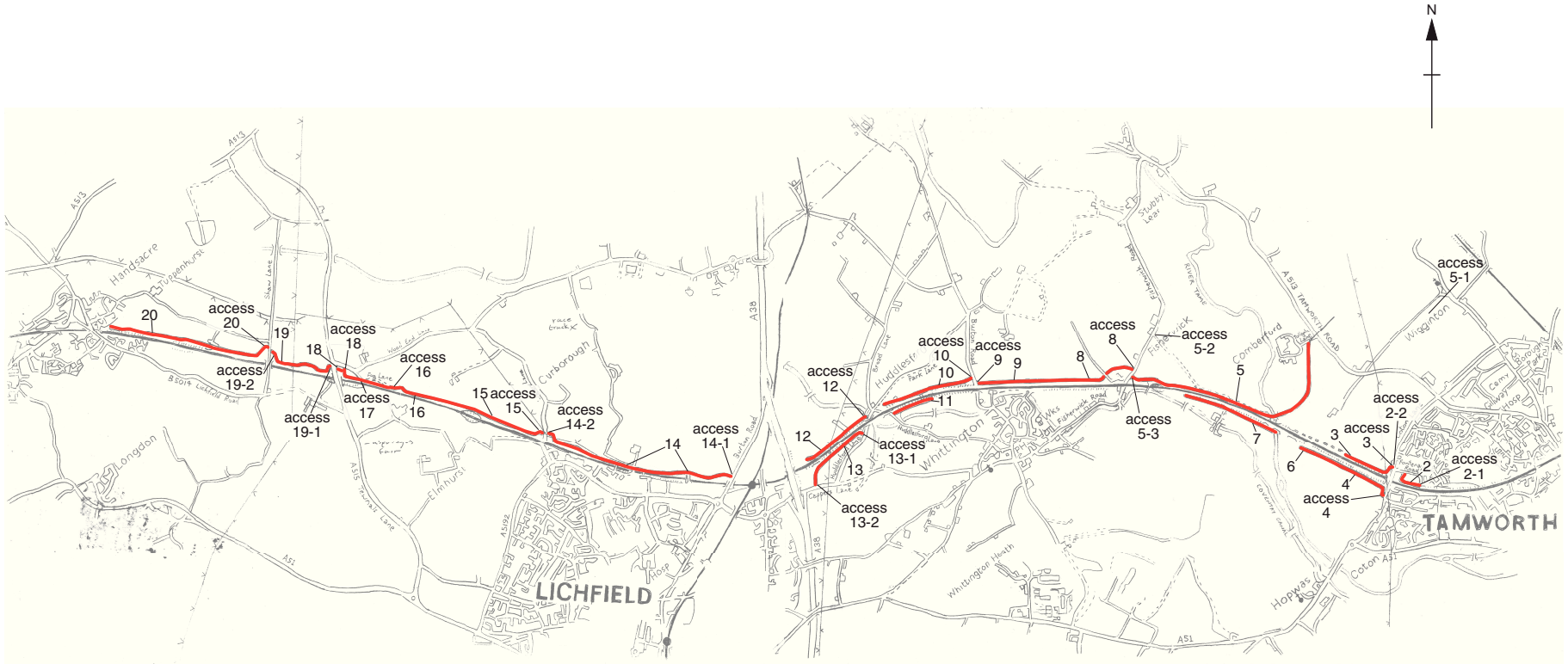


Figure 1: Site Location



Alfred McAlpine Capital projects
Trent Valley 4 Tracking Enabling Works (Greenfield)
Drawing No SK/7291/01
Contractors Site layout plan for the works
16.11.04

Figure 2: Site plan of areas of watchingbrief: haul roads

Plate 1: Topsoil stripping, haul road 5

Plate 2: Ditch 110

Plate 3: Ditch 112

Plate 4: Ditch 115

Plate 5: Ditch 119