



INDEX DATA	RPS INFORMATION
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Road Number A1	Date 1994
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R3798

# ENVIRONMENTAL STATEMENT

## A1 Motorway Ferrybridge to Hook Moor Section February 1995



# VOLUME 2 CULTURAL HERITAGE

# *A1 Motorway : Ferrybridge to Hook Moor Section*

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**AI(M) Ferrybridge to Hook Moor**

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**PREAMBLE**

## PREAMBLE

### P1 *Main Features of the Scheme*

P1.1 The Highways Agency propose to improve and convert to motorway standard the A1 London-Edinburgh-Thurso Trunk Road. The Ferrybridge to Hook Moor Scheme is one of nine similar projects in Yorkshire which form part of that conversion.

P1.2 The Scheme would provide a dual three lane motorway, approximately 16 kilometres in length. It would tie in to the existing A1 north of Darrington and proceed northwards to a point just south of the proposed M1/A1 Link at Hook Moor.

The scheme would be generally off-line, to avoid the settlements of Ferrybridge, Brotherton and Fairburn. North of the Boot and Shoe Inn the scheme would closely follow the line of the existing A1 through Castle Hills and around Micklefield.

P1.3 The Scheme is illustrated in its regional context by Figure P1.

### P2 *Legal basis for the statement*

P2.1 This Environmental Statement is issued in accordance with EC Directive 85/337 as applied by Section 105A of the Highways Act 1980.

### P3 *Structure of the Environmental Statement*

P3.1 The Environmental Statement is divided into three parts as follows:

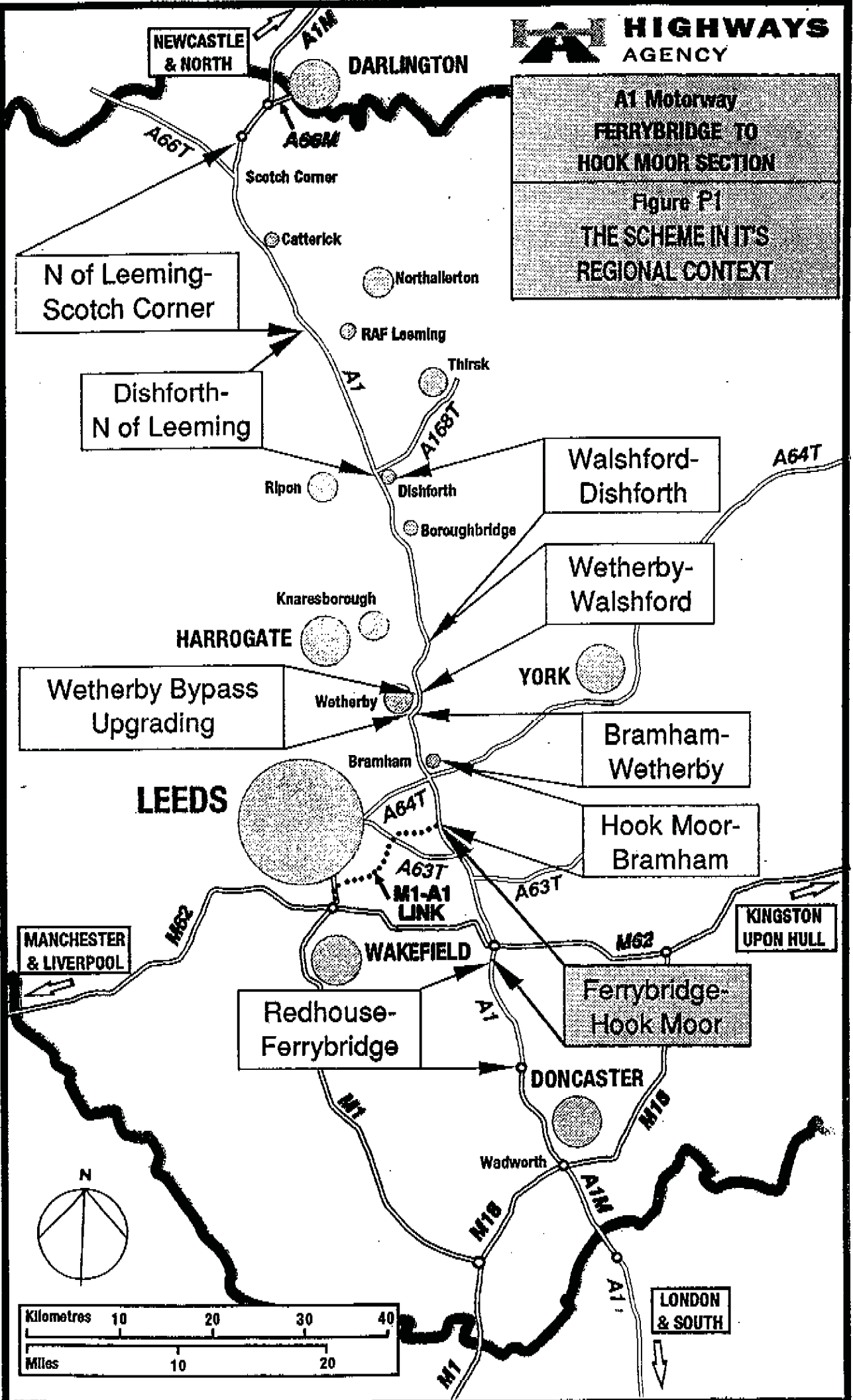
- **Volume 1:** This is a comprehensive document drawing together all the relevant information about the Scheme.
  - **Volume 2:** This comprises separately bound, specialist reports, of which this report is an example, concerned with the assessment of an environmental topic affected by the proposals. The topics covered are as follows:
    - Landscape
    - Agriculture
    - Ecology and Nature Conservation
    - Cultural Heritage
    - Noise
    - Air Quality
  - **Non Technical Summary (NTS)** This summarises in a straight-forward and understandable way the main points addressed in the Environmental Statement as a free standing document on its own.
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P4 *Comments on the Environmental Statement*

- P4.1 Written expression of support for or objection to the Draft Scheme and Orders and the Environmental Statement should be sent to:-

The Highways Agency  
27 Park Place  
Leeds  
LS1 2SZ

- P4.2 Letters should be headed "A1 Motorway Ferrybridge to Hook Moor", and should be received before 19th May 1995.
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**A1 Motorway**  
**FERRYBRIDGE TO**  
**HOOK MOOR SECTION**  
**Figure P1**  
**THE SCHEME IN ITS**  
**REGIONAL CONTEXT**

N of Leeming-  
Scotch Corner

Dishforth-  
N of Leeming

Walshford-  
Dishforth

Wetherby-  
Walshford

Wetherby Bypass  
Upgrading

Bramham-  
Wetherby

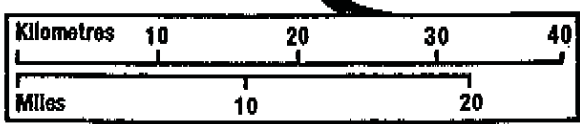
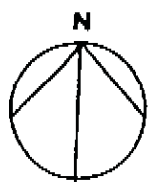
Hook Moor-  
Bramham

MANCHESTER  
& LIVERPOOL

KINGSTON  
UPON HULL

Redhouse-  
Ferrybridge

Ferrybridge-  
Hook Moor



LONDON  
& SOUTH

**AI(M) Ferrybridge to Hook Moor**

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**SUMMARY**



## SUMMARY

The Cultural Heritage implications of the A1 Motorway Improvements, Ferrybridge to Hook Moor Section, have been evaluated to a brief approved by West Yorkshire Archaeology Service and North Yorkshire County Council Archaeological Officers.

The Sites and Monuments Records (SMRs), aerial photographs (APs) Scheduled Monument and Listed Building lists and the Register of Historic Buildings and Parks were used initially to locate areas of known cultural heritage interest, and to assess the potential of areas where there was little or no information. The AP cover for the Magnesian Limestone is very good, and the sensitivity of the soil and geology to APs is also good. Although it is likely that the area of the route where it crosses Magnesian Limestone was exploited by prehistoric (probably iron-age) farmers, the evidence may not survive in areas where nothing is revealed by the APs because of erosion. In other areas early material may be obscured by colluvial deposits in valley bottoms. In the majority of areas surveyed agricultural processes have had some effect upon the results.

The subsequent surveys were targeted on known or potential areas of archaeological significance with the 'blank' areas also further researched to establish the likelihood of any previously unknown potential. Twelve areas were surveyed using detailed magnetometry. In 8 cases the survey supported the interpretation of the archaeological features suggested by the APs, and in 3 cases the survey revealed features not visible on APs but which could be expected from the context. In other cases also there was frequently more detail. The one case of an area with no AP traces was tested and found to have no geophysical survey response either.

A walkover field survey was carried out to check for earthworks and the status of existing sites. No significant new features were located.

Trial trenching was carried out at Fryston Hall to check for evidence of medieval occupation. None was found. Trial trenching was also carried out near Micklefield, and in the area of the Boot and Shoe public house (sites 30, 26), with no significant results.

Magnetic susceptibility surveying was undertaken over the areas of unknown archaeological content. However, the survey results showed an entirely random pattern, providing no evidence for soil variation indicative of archaeology.

The complex of features around the Ferrybridge Henge, defined as the ritual zone, has been confirmed. The area to the north-west of the henge itself remains unclear, as the geophysical survey picked up the same confusing features, probably geological, as the APs show. On the other hand, the area immediately outside the ritual zone of the henge was revealed as more complex than previously thought, with as many as 4 enclosures in 2 areas only 500m apart.

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A1(M) Ferrybridge to Hook Moor

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The 'ritual zone' includes the nationally important scheduled monument of the Ferrybridge Henge, although the scheduled area itself would not be affected by the proposals. The archaeologically sensitive areas outside the henge are not accorded the same status through scheduling but are nonetheless important sites.

Outline recommendations have been agreed for mitigation in the form of "preservation by record" (excavation) on significant sites.

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**A1(M) Ferrybridge to Hook Moor**

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**REPORT**

## 1 INTRODUCTION

1.1 This report has been produced by RPS Clouston on instructions from Bullen Consultants, Consulting Engineers to the Highways Agency (HA) for the A1 Motorway, Ferrybridge to Hook Moor Section. It addresses the existing conditions, the effects of the scheme, and possible mitigation measures as far as it has been possible to ascertain them. Residual impacts are also considered.

1.2 The scope of the study is based on the Department of Transport (DOT) *Design Manual for Roads and Bridges, vol 11 (DMRB)*, issued in 1993. Three stages of archaeological survey are described in the *DMRB*, each corresponding to the progress of the road proposals. They are as follows:

Stage 1 which is the collection of the available information over a wide study area at the Initial Study phase;

Stage 2 which is the checking of the Stage 1 data, a desk-top study, walkover survey if appropriate, and a review of potential impacts related to alternative options, including a view from English Heritage on the study; and

Stage 3 which is the collection of any further data (through the use of field evaluation techniques if necessary) which might be required to establish the impact of the preferred route option and to enable mitigation measures to be proposed.

This report is the result of Stage 3 studies.

1.3 Summary data were collected from a 2km wide Study Area (wider than the proposals corridor), in order that the cultural heritage context could be better understood. Detailed information, however, was collected for the proposal corridor only. The sources of the information have been:

- o the North Yorkshire County Council and West Yorkshire Archaeology Services Sites and Monuments Records (SMRs);
- o existing aerial photographs (APs) held at the National Library of Aerial Photographs and the University of Cambridge Air Photograph Library;
- o early maps;
- o geological maps;
- o published and unpublished documentary material;
- o English Heritage Scheduled Monument (SM) records;
- o DoE Listed Building registers ("Green Backs"); and

o English Heritage Register of Historic Parks and Gardens.

- 1.4 The results of the Stage I study (carried out to the guidelines set out in the superseded DOT *Manual of Environmental Assessment*) are contained in the RPS Clouston August 1990 *Initial Archaeological Appraisal Report*. Recommendations for further (Stage II) survey work were contained in a RPS Clouston report of February 1991. A geophysical survey of specified sites formed part of these recommendations and a detailed brief was prepared in January 1992 and carried out in April 1992. This survey was a detailed magnetometry survey to define ditches, pits, hearths and other magnetic anomalies based upon the previous study of APs and SMR entries.
- 1.5 An extensive magnetic susceptibility survey of "blank" areas was carried out in October 1994 following consultations with the county archaeological officers and English Heritage. This survey attempted to locate areas of enhanced magnetic potential, an affect which can be the result of human occupation or activities.
- 1.6 RPS Clouston carried out a walkover survey in April 1992 to appraise the state of the fields and note any visible earthworks or soil marks. The survey covered the fields on both sides of the proposed route to an average distance of 200m on each side.
- 1.7 Trial trenching at Fryston Hall Farm formed part of the 1991 recommendations and this was carried out by RPS Clouston in July 1993. Trial trenching at Micklefield and the "Boot and Shoe" was carried out in October 1994.
- 1.8 This report considers the policy background, the known archaeology of the Study Area, the effects of the proposed road improvements, proposals for further archaeological work and a view of residual impacts which would remain following any mitigation measures.
- 1.9 Information is based on the latest available version of the drawings for the scheme (Bullens, September 1994).

## 2 NATIONAL POLICIES

### *Scheduled Monuments*

- 2.1 Statutory protection for archaeology is principally enshrined in the *Ancient Monuments and Archaeological Areas Act* of 1979, amended in 1983 by the *National Heritage Act*. Nationally important sites are listed in a Schedule of Monuments (SMs) which is maintained by the Secretary of State for National Heritage. There are currently some 13,000 SMs, but a 10 year Monuments Protection Programme (MPP) is in progress which will lead to a substantial increase - possibly 5 fold - in the number of SMs. The works which require the consent of the Secretary of State are any which would have the effect of demolishing, destroying, damaging, removing, repairing, altering, adding to, flooding or covering up a SM. Proposals which may affect the setting of a SM do not require SM consent but setting may nonetheless be a relevant planning issue.
- 2.2 Proposals which will affect Scheduled Monuments must be approved by the Secretary of State prior to works commencing. English Heritage (The Historic Buildings and Monuments Commission for England) advises the Secretary of State on scheduling and other archaeological and historic building matters. There is one SM in the Study Area (the henge at Ferrybridge), and another nearby whose setting would be enhanced by the proposals (the bridge at Ferrybridge).

### *Listed Buildings*

- 2.3 Buildings of architectural or historic merit may be listed by the Secretary of State for National Heritage under the provisions of the *Planning (Listed Buildings and Conservation Areas) Act* 1990. Listed Buildings (LBs) are protected insofar that proposals which would affect the fabric or setting of a LB require the permission of the local planning authority. There are 30 LBs in this category in the study area.

### *Conservation Areas*

- 2.4 Conservation Areas are designated by local planning authorities with powers under the *Planning (Listed Building and Conservation Areas) Act* 1990. Designation introduces a general control over the demolition of unlisted buildings and provides the basis for policies designed to preserve and enhance all the aspects of character or appearance that define an area's special interest. There is one Conservation Area in the study area, at Ledsham.

*English Heritage*

- 2.5 The Historic Buildings and Monuments Commission for England, known as English Heritage (EH), is the official body incorporated by the *National Heritage Act, 1983*, with responsibility

**"so far as is practicable to secure the preservation of ancient monuments and historic buildings in England".**

- 2.6 English Heritage advises the Secretary of State for National Heritage upon SM consent applications. EH may also be called upon to advise on archaeological matters even if they do not affect SMs, and it monitors the working of the 1979 Act, PPG 16 on Archaeology and Planning and PPG 15 (Planning and the Historic Environment). EH has been consulted on the impact of the present scheme, as recommended in the *DMRB*.
- 2.7 English Heritage published *Roads for Prosperity: The Archaeological Impact* in September 1990, in response to the Government's White Papers *Roads for Prosperity* published in 1989, and *Trunk Roads, England: Into the 1990's*, published in February 1990. Although it has no statutory or mandatory force *Roads for Prosperity: the Archaeological Impact* is a succinct statement of EH thinking in relation to road construction. The study summarises its conclusions on the proposed national road building programme as follows:
- a) these conclusions indicate that the environmental impact must be fully assessed in advance of route selection to allow for the consideration of the possibilities for mitigation of impact and the reduction of possible recording costs; and
  - b) it is, therefore, necessary to give greater weight to the archaeological implications of trunk road development and to integrate fully such considerations into the process of assessment required for all such developments.

The HA has reviewed its approach to archaeology on road schemes since 1990 (see para 2.11 *et seq*).

*DoE Planning Policy Guidance on Archaeology and Planning (PPG 16)*

- 2.8 The *Planning Policy Guidance on Archaeology and Planning (PPG 16)* published by the DoE in November 1990 consolidated advice to planning authorities on the treatment of archaeology in the planning process. Although HA schemes do not come under the auspices of the planning process, the principles and procedures set out in PPG16 are generally adopted in the DOT's own *Design Manual for Roads and Bridges* Vol 11 (Sect 3, Part 2, 1.2; and 6.3). PPG 16 emphasises the importance of archaeology (paras 3-14), outlines the interaction of central government, English

Heritage and local authorities, and identifies development plans as providing the policy framework for the protection, enhancement and preservation of sites of archaeological interest and their settings. The County Sites and Monuments Record (SMR) is identified as the primary source of data, and developers are advised to consult the SMR and county archaeological officer at the earliest opportunity to make an assessment of the archaeological impact and put forward proposals for its mitigation prior to decision making. This may require an evaluation of the site in order to provide sufficient information to enable an informed decision to be made.

- 2.9 There may be a requirement to "preserve by record" (excavate) sites which are not to be preserved *in situ*. These conditions should be fair, reasonable and practicable (DoE Circular 1/85).
- 2.10 The discovery of unsuspected archaeological remains in the course of development is considered to be a matter for informal agreement between the developers and archaeologists and attention is drawn to the British Archaeologists' and Developers' Liaison Group and English Heritage as possible sources of advice.

#### *The Highways Agency*

- 2.11 The Government's policies for trunk roads were set out in *Trunk Roads, England; into the 1990's* published in February 1990, and the DOT's Highways Policy and Environment Division issued *Trunk Roads in England 1994 Review* in March 1994. This emphasises the procedures required to protect the environment (Chapt. 8).
- 2.12 The requirement to carry out an environmental assessment in relation to road schemes and the composition of Environmental Statements published with Draft Orders is contained in the *Highways Act 1980* Section 105A.
- 2.13 In 1993 the DOT revised the guidelines for the treatment of environmental issues in the preparation of new roads and published *The Design Manual for Roads and Bridges*. Volume 11, Section 3 considers the treatment of cultural heritage issues.
- 2.14 The HA are now (since April 1994) responsible for the funding of any necessary archaeological survey and mitigation measures required in connection with its proposals, a role previously undertaken by English Heritage.



### 3 LOCAL POLICY CONTEXT

#### *North Yorkshire County Council*

- 3.1 The most recent approved North Yorkshire County Structure Plan is the *Written Statement* dated 1990. It includes the following relevant policy:-

**Policy E5**      **Development proposals which could result in damage to, or the destruction of, sites of archaeological importance will normally be refused**

- 3.2 The county council archaeology department has been consulted since the initial involvement of RPS Clouston in 1990, and the processes and procedures to be followed have been discussed with the county archaeologist. The briefs for the evaluations reported on here have been agreed with the county and carried out to its satisfaction.

#### *West Yorkshire Archaeology Service*

- 3.3 West Yorkshire Archaeology Service (WYAS) has been consulted from the initial involvement of RPS Clouston in 1990. In November 1991 the Principal Archaeologist, Dr S Wrathmell, outlined the WYAS response to the initial HA (then DOT) proposals in a letter. An extract is set out below:-

#### **A1 MOTORWAY - FERRYBRIDGE TO HOOK MOOR SECTION**

Thank you for the public consultation leaflet on this road proposal. Following your earlier consultation with Chief Planning Officers along the route in January/February this year, I responded to the Chief Planning Officer for Wakefield MDC with regard to the archaeological implications of the proposals. I assume he will have included my comments in his response to you. In summary, they were as follows:

1.      **The proposed route traverses a largely rural area within which there is extensive evidence of archaeological sites in the form of aerial photographic records of cropmarks. There is, in addition, a small amount of other forms of evidence of archaeological sites.**
  
2.      **In order to make a proper assessment of the likely impact on the archaeology, a two-stage evaluation is required (3 and 4 below) and it was envisaged that this evaluation would form a necessary part of an Environmental Impact Statement. I would be grateful if you could let me know whether such a statement has been prepared or when it**

is timetabled to be undertaken.

3. The first part of the necessary evaluation would be a collation and assessment of information already existing in the County Sites and Monuments Record. This would allow identification of areas of archaeological potential which might justifiably require more detailed evaluation in the field.
4. The second part of the evaluation would comprise field survey in order to determine the extent and probable nature of any areas in which detailed investigation might be justifiable ahead of roadworks.
5. Whilst the foregoing points relate in principle to all those parts of the corridor not previously disturbed below modern plough depth, I draw particular attention to one area already known to be of the highest archaeological importance. This lies between c. SE473 237 and SE469 246, immediately south and west of Ferrybridge Power Station. This area contains a Scheduled Ancient Monument and an extensive group of equally important associated monuments. The archaeological implications of development in this area are of such scale, that there is a substantive argument for leaving the remains *in situ* and exploring alternative lines for the road. I am aware however, that other considerations may prevail and I would be grateful for the opportunity of discussing this particular stretch with you in more detail.

I look forward to hearing from you with regard to an Environmental Impact Statement, and also concerning your initial reaction to my comments in the Ferrybridge area.

- 3.4 By November 1991 the first stage study identified in para. 3 of the WYAS letter had been carried out. The second stage field survey mentioned in para. 4 comprised the walkover survey and the detailed geophysical survey carried out in March and April 1992, and the trial trenching carried out in 1993 and 1994. The brief for this Stage 2 work was worked out in collaboration with the West Yorkshire Archaeology Service in January 1992 and approved by them.
- 3.5 Initially, a rapid fieldwalk was recommended for 6km of the route, where the archaeological content was unclear and where ploughed fields would allow it. However, in consultation with the county archaeologists, it was suggested that fieldwalking of this type had not previously proved effective on the local geology.

- 3.6 Therefore, it was suggested, and agreed, that a magnetic susceptibility survey would be undertaken, instead of the rapid fieldwalk. This was undertaken in October 1994.
- 3.7 Additional trial trenching and detailed geophysical surveys were also undertaken in October 1994.

## 4 THE CULTURAL HERITAGE OF THE STUDY AREA

### *Geology and Topography*

- 4.1 The known archaeology is related to the geology and topography of the area for two reasons: firstly, certain soils and relief patterns are more or less attractive to human settlement and exploitation; and secondly, some ground conditions and land uses are more conducive to preserving and revealing traces of human activity than others. So, in general, heavy wet clay areas may not have been cleared of extensive woodland cover until later in the prehistoric period, whereas the lighter soils of the limestone upland may have been cleared and occupied earlier.
- 4.2 As to the visibility and survival of remains, the heavily ploughed limestone areas are likely to have lost most early earthworks, but the same destructive ploughing may reveal soil- and crop-marks, particularly to aerial photographic survey. In addition the ploughsoil may be fieldwalked to collect artefacts. The unploughed pasture often found on heavier clay soils will tend to favour the preservation of earthwork sites, but aerial photography may be less rewarding, and artefact collection more random and restricted in scope. These two factors tend to favour a pattern of known early sites which is weighted towards the lighter, limestone based upland areas or well drained gravel terraces, particularly for the prehistoric periods.
- 4.3 The solid geology of the Study Area is principally the Magnesian Limestone of the Permian, with a drift geology of Glacial Till patches on upland areas and Alluvium in the valley of the River Aire. There are areas of Middle Permian Marl north of Darrington. This geological situation means that for most of the route the conditions both for early occupation, and the visibility of the evidence, are reasonably good, and this is borne out by the results of the initial survey. The absence of crop-mark or soil-mark sites in any particular locality, however, does not necessarily mean that there is no archaeology in such areas, and the variability of season, farming regime and weather conditions at the time of any particular aerial photography flight have been borne in mind in assessing the APs.
- 4.4 The topography will also have had an effect on settlement. For instance, waterlogged valley bottoms and windswept heights are generally only settled if more favourable locations are unavailable, or dangerous. In the Study Area the topography is mainly a gently rolling plateau, with one large river, the Aire, occupying a flood plain in the south. Other than on the pasture of the floodplain the proposals affect mainly arable land. The Glacial Till patches were less tractable to early arable farming, and are likely to have been wooded, or used for pasture in earlier periods, although they are now mainly under plough.

**Archaeological Review**

- 4.5 The following summary is a very brief review of the current archaeological situation in the Study Area. It has been compiled from a study of the counties' SMRs and a brief review of published accounts, in particular the WYAS volumes *West Yorkshire: an Archaeological Survey to AD 1500* (1981) edited by Faulk and Moorhouse. There is no comparable up-to-date survey of North Yorkshire archaeology, but the general situation is assumed to be very similar.
- 4.6 **Palaeolithic (up to c. 8,000 BC).** The glacial history of the area makes it most unlikely that any palaeolithic material survives *in situ* in the Study Area. Upper palaeolithic hunters (c. 11,000 - 8,000 BC) may have moved into the West Yorkshire uplands, but there is no evidence of this from the Study Area.
- 4.7 **Mesolithic (c. 8,000 BC - c. 4,000 BC).** Flints characteristic of the hunter-gatherers of this period have been collected from the highlands to the west of the Study Area. There are some finds in lowland locations from the gravel terrace of the Aire at Thorpe Stapleton, and from Ferry Fryston a former township in the west of the Study Area. There is little known mesolithic evidence on the Magnesian Limestone areas, which may reflect a lack of activity there in this period. Alluvium on the flood plain of the Aire may conceal sites and finds of this period.
- 4.8 **Neolithic (c. 4,000 BC - c. 2,000 BC).** There is a dearth of neolithic material from West Yorkshire generally, with no known burials or pottery from the county. Flint artefacts are, however, known from west of the area, which may be evidence of extensive woodland clearance for farming. The Magnesian Limestone, despite its assumed attractiveness to early arable farmers, has not produced any clear indication of early settlement. A find from near Fairburn is the only neolithic material known from the Study Area. Nonetheless, in the late neolithic/early bronze age the construction of the henge at Ferrybridge suggests that settlement and other activities must have been nearby.
- 4.9 **Bronze Age (c. 2,000 BC - c. 600 BC).** Ritual sites are the best known features of this period. The henge at Ferrybridge continued in use as a major ritual site, and it is apparently surrounded by a "zone" of some kind, possibly ritual, in which a number of barrows were constructed. Recent work north of Ledston (outside the Study Area) has identified possible bronze age ditched enclosures and barrows on the Magnesian Limestone, and bronzes and flints have also been found in the Study Area. The henge monument at Ferrybridge is likely to have been related to nearby settlements, and some of the complex cropmarks to the south and west of the monument within the study area may represent occupation of this period.

- 4.10 **Iron Age (c. 600 BC - AD 71).** The iron age seems to have ushered in a period of intense agricultural activity in the Magnesian Limestone area. Many of the extensive cropmark sites visible on APs are interpreted as evidence of fields, tracks, enclosures and probable small settlements of this date. Outside the Study Area, but on similar terrain, recent excavations near Ledston have revealed a major iron age settlement identified initially from APs. Excavated features included a burial, four-post structures, ditched enclosures and storage pits. Similar activities were probably widespread over the Magnesian Limestone in the iron age. The Ledston excavations also indicated the effect on prehistoric features of subsequent agricultural use, and showed that evidence in some areas - the tops and flanks of hills, for instance - may have been destroyed, and also that material washed into valleys and hollows may obscure earlier evidence. Just to the south of the Study Area, at Castle Hill (Wentbridge, South Yorkshire) is the only known hillfort in the vicinity, one of only four in the West Yorkshire/South Yorkshire area.
- 4.11 **Roman (AD 71 - c. AD 400).** In the early stages of the Roman occupation, the local tribe, the Brigantes, were apparently used by the Romans as a buffer between themselves and the northern tribes. The Roman fort at Castleford (*Lagentium*) may be a testament to this early strategy. There is no evidence to indicate its history, but it probably developed a *vicus* (an associated civilian settlement). No other Roman urban settlements are known in the Study Area, although Pontefract appears to have been a centre of Roman activity. In the countryside the *villa* was the main administrative unit, but only 4 are known from West Yorkshire, none in or near the Study Area. Known native settlements - farmsteads - are hardly more numerous, but there is evidence of a settlement on the edge of the Study Area at Ferry Fryston. Two buildings, ditches, coins and pottery suggest occupation from the early second to late fourth century AD. The Roman road from Castleford to Tadcaster virtually impinges on the A1 at Aberford, to the north of the Study Area and there have been clusters of finds along its length.
- 4.12 **British Post-Roman (c. AD 400 - 617).** West Yorkshire was part of the British (gaelic) kingdom of Elmet, whose borders in the 7th century were near that of modern West and North Yorkshire in the Study Area. To the east was the English (Anglo-Saxon) Kingdom of Deira, to the west was another British kingdom - Craven. The Study Area appears to have been border country, with the Magnesian Limestone ridge forming a defensible boundary between the British and the English. Micklefield is described in contemporary documents as "in-Elmet", implying a need to establish its relationship with a nearby border. Another district within Elmet was called "Loidis", which is preserved in the names Leeds, Ledston and Ledsham. The defensive dykes at Aberford just north of the Study Area are thought to date, in part at least, to this period. There are no finds of the period in West Yorkshire except two coins.
- 4.13 **Early Anglo-Saxon (AD 617-867).** The defeat of the British of Elmet by the English of Deira at Catterick in AD 617 spelled the end of the British kingdom, as gaelic-speaking people were forced west, or, more likely, taken over, by the English-speaking Saxons. The area was disputed between the kingdoms of Northumbria in the north and Mercia to the south, finally being incorporated into Northumbria after

the defeat of King Penda in 654. Place names such as Knottingley (- *inga/ingas* = the place of) and Ledsham (- *ham* = homestead) indicate settlement by Saxons. Burials of this date are known from Pontefract and Ferry Fryston, the latter from a barrow on the site where the power station stands today. Very few artefacts of this date are known from the area, however.

- 4.14 **Pre-Norman Conquest (AD 867-1066).** The history of the area before the Norman conquest is very turbulent with rapidly fluctuating political fortunes. Very little material has been found related to this period, but a fine gold ring belonging to Queen Aethelswith of Mercia was found at Aberford. The Great North Road (the A1) was the principle north-south route, and in AD 948 there was a battle between the armies of Eadred, the Saxon king of Northumbria, and Eric Bloodaxe, the Danish King of York, at Castleford, as Eadred made his way home from campaigning. *Tanshelf* (Pontefract) was apparently a royal estate, and a pagan burial from a sand pit there suggests settlement at least as early as the 7th century. The Fryston place name refers to Frisians from the North German coast. Two spearheads were found at Ferry Fryston, which may have been a settlement of foreign merchants at the head of the navigable river. The Scandinavian settlers seem to have occupied the prime land in an already fully exploited landscape implying a degree of ethnic cleansing.
- 4.15 **Medieval (AD 1066-1500).** The medieval *vill*, or township, ideally contained sufficient woodland, common and pasture to sustain a balanced local economy. The light soils of the Magnesian Limestone would have encouraged a basically agrarian regime, with large fields set out around the hamlets, each field subdivided to provide strips for the inhabitants. The settlement locations in the Study Area do not seem to have moved significantly, with some exceptions since they were recorded in Domesday Book in 1086 and other early medieval documents. The townships along the route are Darrington, Knottingley, Pontefract, Water and Ferry Fryston, Fairburn, South Milford, Newthorpe, Huddleston, Ledsham, Micklegate, Lotherton cum Aberford, and Parlington. Pontefract was a major town with a feudal castle, lying close to the Great North Road. The township of Ferry Fryston had two hamlets - Water Fryston and Ferry Fryston - but Water Fryston appears to have virtually disappeared, possibly as a result of emparking in the post-medieval period and Ferry Fryston hamlet is now part of Castleford. A complete deserted village, Highfield, appears on APs west of Newthorpe in North Yorkshire. Medieval boundaries were often ditches and banks, and documentary references indicate that ditches and banks were frequently created and levelled again, an activity which can leave traces in the archaeological record, particularly on APs. The parish boundary at Highfield is an example of a major ditched boundary feature.
- 4.16 **Post-Medieval (AD 1500 onwards).** In the post-medieval period, the medieval open fields gave way to smaller fields, enclosed by hedges. The commons were enclosed in the 17th and 18th century. These activities set the pattern for the rural landscape until the outset of extensive farming regimes in the 20th century. Another major post-medieval development in the landscape is the establishment of parks. In the Study Area Fryston Park and Pontefract Park were formed, although Fryston has reverted to farmland in the 20th century. Quarrying, a long established industry, became more

extensive. Some new settlements have been built, such as New Micklefield, and many medieval villages have been extended, such as Ledsham. The major routeway through the area remains, in effect, the Great North Road, now the A1.

- 4.17 A study of historic field boundaries has been undertaken for the Study Area in order to examine any correlation which may exist between such boundaries and any earlier features. As no significant correlations have been observed, the data have not been included as part of this report, although the study remains part of the project database.



## 5 THE EFFECTS OF THE PROPOSALS

### *General*

- 5.1 This section describes the known and potential archaeological features which would be, or are likely to be, encountered by the scheme and the potential impacts of the proposals. The data from the SMR, Aerial Photographs, field survey, geophysical survey and trial trenching are combined to produce this assessment. The potential effects described in this section do not take into account agreed mitigation measures, which are described in Section 6.
- 5.2 A methodology for assessing the significance of effects has been proposed by G. Lambrick in *Environmental Assessment and Archaeology* (eds. Ralston and Thomas, 1993). The method attempts to identify the separate elements which go to make an assessment, and to combine them in a single judgement. It has been used in road scheme assessments by several bodies. A modified version of this methodology has been used in this report.
- 5.3 The assessment of the EFFECT of a proposal will depend upon the assessment of the IMPORTANCE of the features and sites affected, and the degree of IMPACT of the proposals. There are occasions when insufficient data is known to make informed judgements and an assessment of RISK is all that can be offered. The definitions of these terms and their categories are set out below.
- 5.4 IMPORTANCE: The assessment of the importance of archaeological sites has been the subject of considerable debate in archaeological circles, and the Monuments Protection Programme (MPP) being undertaken by English Heritage has clarified many of the issues. Guidelines as to the criteria to be taken into account have been published by English Heritage (eg PPG 16 Annex 4), and an amended version for assessment has been published (Darvill 1988). The recommended criteria are:
- 1 Survival - the condition of the monument should be taken into account;
  - 2 Potential - how much information is likely to be forthcoming from the monument;
  - 3 Diversity - the number of components comprising the monument;
  - 4 Amenity value - the value of the monument for public education, appreciation or recreation;
  - 5 Documentation (I) - records of previous work;
  - 6 Documentation (II) - historical material, only applicable to medieval and later monuments;

- 7 Group value (I) - association with other monuments of different types, periods, etc; and
- 8 Group value (II) - association with similar type of monument.

In addition rarity, representativeness, currency and diversity of form are relevant factors.

The assessment of the importance of built structures has been based on the grading accorded to listed buildings.

There is no standard scale of importance used in cultural heritage studies, with various systems in use by different agencies. Scoring methods have been proposed (eg. Darvill 1988, Startin 1993) but a more flexible approach has been adopted in this report. The terms "National", "County" and "Local" have been used in this report but they are the result of judgements by RPS Clouston, and should not be read as implying that they are national, county or local authority categories. The terms are defined as:

- National: the highest status of site eg. SMs, Listed Buildings Grade I and II\*, using the EH criteria to assist in the judgement
- County: the bulk of sites with reasonable evidence of occupation, ritual, industry, etc, Listed Buildings Grade II
- Local: sites with some evidence of human activity, but in a fragmentary or poor state, buildings of local importance
- Unimportant: destroyed, non-antiquities, random stray finds, buildings of no merit
- Uncertain: insufficient evidence available to judge importance.

5.5 IMPACT: as with importance there is no agreed terminology or definition for assessing the degree of impact. It cannot be a simple percentage calculation of the proportion of a feature etc. which would be destroyed, because some parts of a site may be more important than others, or partial destruction may lead to the loss of all significance. Impact on the settings of SMs or Listed Buildings is usually caused by the effect of noise, vibration or visual intrusion. These are judged as less of an impact than physical effects because although they may affect the experience of the feature, they probably do not affect its structure or integrity. The assessment of the degree of impact is clearly as qualitative as judgements of importance. The following terms are used in this report:

- High: loss of all or the majority of significant features, such that the site or building is effectively destroyed or seriously damaged.
- Medium: loss of sufficient part of sites or encroachment on their setting such that their integrity is compromised, or enough damage to buildings?

fabric or ambience to impair their enjoyment, understanding or academic potential.

Low: slight damage or encroachment, such that sites or buildings and their settings are largely retained.

None: no discernable impact.

Unknown: insufficient information regarding the design of the proposal or the extent/location/ or layout of the feature to be able to make a judgement.

5.6 **EFFECT:** the significance of the effect of a proposal is a combination of the previous two judgements. The effect of a high impact on a minor site is obviously different to that of a high impact on a major site. Again there is no standardised terminology to categorise these judgements; this report uses the following:

Maximum: high impact on a national site

Severe: medium to high impact on a national or county site

Moderate: low/medium impact on a national site low/medium impact on a county site, or high/medium impact on a county/local site

Slight: low impact on county/local site to medium/low impact on local site.

Zero: no impact or non-site

5.7 **RISK:** this is an assessment of the likelihood, and the severity, of an effect in situations where either the importance of the site or the degree of impact is unknown. If both are unknown no judgement can be offered, but there may be other evidence which suggests potential risk. Risk refers to the probability that the proposal would cause a significant effect, where significant means sufficient effect to warrant mitigation measures. The following terms are used in this report:

Very Probable: high impact on a site where the importance is uncertain or a national site where the impact is unknown

Probable: medium impact on a site where the importance is uncertain, or a county site where the impact is unknown

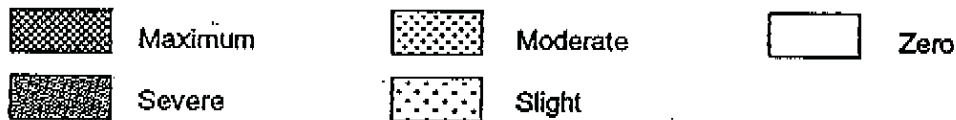
Possible: low/medium impact on a site where the importance is uncertain, or a county/local site where the impact is unknown

Unlikely: low/no impact on an site of uncertain importance, or an unknown impact on a site of local/no importance.

Potential: used when evidence from surrounding areas or similar situations would suggest that features might exist.

5.8 Table 1. Matrix of Effects

		I M P O R T A N C E			R I S K	
		NATIONAL	COUNTY	LOCAL	UNIMPORTANT	UNCERTAIN
I M P A C T	HIGH					V.PROBABLE
	MEDIUM				PROBABLE	
	LOW				POSSIBLE	
	NONE				UNLIKELY	
	UNKNOWN				POTENTIAL	
		V.PROBABLE	PROBABLE	POSSIBLE	UNLIKELY	



*Sites on the Proposed Route*

5.9 This assessment considers the whole proposed route, identifying each area where archaeology is known or could be reasonably expected, commencing at the southern end of the route corridor. The site reference numbers (eg Site 1) are those used in the RPS Clouston *Initial Archaeological Site Assessment* and reference is made, where appropriate, to SMR numbers (eg WY 1234 or NY 1234), AP numbers (eg AP 12345), walkover field survey numbers (eg Fld 1) and Geophysical Survey letters (eg Geo H). The sites are listed in the Appendix. The proposed route is as confirmed by the Consulting Engineers in September 1994.

- 5.10 Site 1 (Fig RPS 2). This is in the area north of Darrington where there is a complex pattern of AP traces. These are more dense towards the west of the route in Millhill Fields outside the proposed corridor and include traces of tracks, enclosures and field boundaries, probably of iron age or Romano-British date. There is an enclosure (WY 1201) to the east of the present A1 and outside the proposed road line, which suggests that similar features may be continuous across the area. Plans to carry out geophysical survey here in 1992 were frustrated by access problems. The AP indications of features which would be affected by the proposed route appear to consist solely of linear features, probably early agricultural boundaries and tracks, but nearby such fields are interspersed with enclosures interpreted as settlements. Such a situation exists immediately to the west, in Millhill Fields, outside the line of the proposed route (WY 999, 1000, 1200). The proposed route near here would be in cutting so any archaeological features in its path would be at risk. On the available evidence any potential archaeology is likely to be extensive agricultural features, so the impact of cutting through them would not be as great as it would be on smaller, more discrete, sites.

Site 1 Prehistoric agricultural features

**Importance:** Local

**Impact:** Low

**Effect:** Slight

- 5.11 Immediately north of Spital Gap (Flds 3, 4, 5) the geology of the route changes from Magnesian Limestone to Middle Permian Marl, which produces a rich, but heavy, fertile soil. There are no features known from APs on this geology, possibly because it is not favourable to soil or crop mark production.
- 5.12 The route where it runs along the east side of the present M62 (Flds 6, 7) would be on Magnesian Limestone, but there are no known features except a fragmentary linear feature on the proposed alignment. To the west of the existing M62 is a ring ditch (WY 992) which appears on APs, but it seems to be an isolated feature, and would not be affected by the proposals.
- 5.13 Site 6 (Fig RPS 3) There is an extensive pattern of sites in the vicinity of the Ferrybridge Henge, south-west of the power station. The area has been divided into inner and outer zones on the basis of the probable functions of the various sites. The inner zone is designated Site 7 and the outer zone is designated Site 6. This outer zone is rich in complex crop marks extending up to 1km to the west of the boundary, but they appear to be similar in character to the traces interpreted as the later prehistoric or Romano-British agricultural landscape which exists along much of the route corridor. The evidence from APs and geophysics has identified two almost certain occupation sites of considerable interest in the outer zone (Figure RPS 7 Site 6B, Site 6C, Figure RPS 3, Geo K and Geo L). There is also a Roman burial (WY 1289) known from just west of the proposed improvements. The proposed route, slip roads and landscaping would encroach on a substantial part of this landscape. Some of the new roads would be on embankment, although this would not necessarily mitigate all impacts [see 7.2]. Individual features in the outer zone which lie in the

path of the proposal are mapped on Figure RPS 7:

Site 6A Linear feature (WY 993)

**Importance:** Local  
**Impact:** Low  
**Effect:** Slight

Site 6B Enclosure and track (WY 1291, Figure RPS 3, Geo K)

**Importance:** County  
**Impact:** High  
**Effect:** Severe

Site 6C Multiple enclosure and tracks (WY 981, Figure RPS 3, Geo L)

**Importance:** County  
**Impact:** High  
**Effect:** Severe

Site 6D Circular and linear features (WY 1295, Figure RPS 3, Geo J (B))

**Importance:** County  
**Impact:** High  
**Effect:** Severe

Site 6E Miscellaneous features (WY 1285 Figure RPS 3, Geo MA)

**Importance:** Uncertain  
**Impact:** High  
**Effect:** Potentially severe

- 5.14 Site 7 (Figs RPS 3 and RPS 7) There is convincing evidence from excavation, APs and geophysics to indicate that a series of pit alignments (WY 994, 1294) and linear features demarcate an inner zone around the henge itself which does not appear to have been encroached upon by field systems, but which contains ring ditches and pits (WY 995, 996, 997, 1300, 1303). The Ferrybridge Henge Scheduled Monument (SM 720) is visible as slight earthworks, recognisable to the trained eye. The proposals would not encroach upon the scheduled area. Its setting is already visually affected by the Ferrybridge power station, the M62, nearby housing and Stranglands Lane. Setting is usually an issue with upstanding monuments or buildings. In this case the monument is hardly visible, and its setting is already impaired, but nonetheless the proposed road would affect the one open view which remains. Part of the landscaping proposal is to enhance the visual effect here, including features which refer to the heritage values of the area.

Site 7A Henge monument (Figure RPS 7, WY 1304)

**Importance:** National  
**Impact:** Low  
**Effect:** Slight

- 5.15 An area up to 300m wide around the henge is marked by ditches and pit alignments (WYAS 994, 1294, 1299). In this inner zone are several ring ditches and pits (WYAS 995, 996, 997, 1297, 1300, 1303). The geophysical surveys carried out by WYAS and Geophysical Surveys of Bradford (Geo M), together with previous excavations by WYAS indicate a complex area of activity, although it is not clear how far north it extends. These sites in the area around the Ferrybridge henge itself are designated Sites 7B - 7D. (See RPS 7 for locations). Although these features are not scheduled they are considered to be of national importance.

Site 7B Linear features and pit alignment (WY 994)

**Importance:** National  
**Impact:** Medium  
**Effect:** Severe

Site 7C Ring ditches and pit alignments (WY 995,996,997,1294,1300)

**Importance:** National  
**Impact:** High  
**Effect:** Maximum

Site 7D Possible extension of pit alignment (WY 1294)

**Importance:** National  
**Impact:** High  
**Effect:** Potentially Maximum

- 5.16 The area to the west and north west of Ferrybridge Power Station (Figure RPS 3, Flds 15, 16, 17, 18) revealed no traces in APs (7522), nor in the walkover survey, although it is less than a kilometre away from the Ferrybridge henge complex. It is on Magnesian Limestone, and was probably utilised in the prehistoric period, but all traces may have been eroded.
- 5.17 Site 9 (Fig RPS 3) Fryston Park, as shown in 19th and early 20th Century maps, was pasture with trees disposed in picturesque groups, including an avenue (now mostly under the power station complex) and a Ha-Ha, - a deep ditch, with one vertical side, designed to keep out livestock without interrupting the view. There was also a ditch and bank around the park, and vestiges of this remain on the south side in the area of the proposed route (Flds 18 and 19). The park is not included on the E.H. Register of Historic Parks and Gardens. In the area of the park itself, which is currently under cereal crop (1992), the APs show the Ha-Ha clearly (AP 6577), as well as traces of ridge and furrow on the west side. The walkover survey and the geophysical survey (Geo G) located the ha-ha, and traces of another linear feature, possibly a former (pre-park) field boundary. There is no evidence of settlement activity at the southern end of the park, although bronze age finds have been made near the western boundary (WY 6518). Landscaping has taken place at the north end and power station coal stocks have buried the eastern part.

Site 9 Park

**Importance:** Local  
**Impact:** Medium  
**Effect:** Slight

- 5.18. Site 43 (Fig RPS 3) Fryston Hall, which was standing in the early 20th century, has been demolished and its site is now occupied by a farmyard (Fld 21). The proposal crosses the Hall site, the northern part of which may also have been the site of the medieval manor house. Trial trenching on the manor site established that there were no surviving traces of medieval date. There may have been a larger medieval settlement associated with the manor and earthworks visible to the north of the Hall site outside the route corridor suggest that the former manorial lands may have been there. The present Water Fryston settlement is situated to the north west of the manor site, and this is the probable location of any earlier settlement. Emparking was sometimes the agency for removing medieval villages and hamlets which, in the lord's view, were inconveniently sited. The area to the north east (Fld 22) is unlikely to be the site of any significant historic settlement as it appears on early maps to have been very low lying (a channel with a levee is shown extending half-way to the Hall from the river). It is now covered with waste from a nearby colliery.

Site 43 Fryston Manor

**Importance:** Unimportant (destroyed)  
**Impact:** High  
**Effect:** Zero

- 5.19 Site 12 (Fig RPS 4) South-East of Fairburn the proposal crosses an area devoid of known features (Flds 24,25), but north of Ferndale Nurseries there is an area of ploughed-out ridge and furrow (Fld 27). There are also traces of linear features, probably agricultural, and a gas pipeline (NYCC 9316).

Site 12 AP linear traces

**Importance:** Unimportant  
**Impact:** Low  
**Effect:** Zero

- 5.20 Site 17 (Fig RPS 4) The route north of Rawfield Lane (Flds 28, 29, 30, 31) crosses no known features, although the area is under an arable farming regime and on Magnesian Limestone, which is favourable to AP survey. A few traces are visible to the west of the line, but none of these extend as far as the proposal area.
- 5.21 North-east of Lumby Nursery there is a figure-of-eight shaped feature which would be affected by the slip road at the junction planned at this point. The identification is uncertain, but it may be the ploughed remains of two ring ditches, or a geological feature. The slip road would be in cutting here which will remove part of the feature.



Site 17 Figure-of-eight feature

**Importance:** Uncertain

**Impact:** High

**Effect:** Very probable

- 5.22 There are no known features on the proposal in Flds 33-37, 55,56, Figure RPS 5) although the area is on Magnesian Limestone and is farmed as arable.

- 5.23 Site 21 (Fig RPS 5) The APs (AP 5049) north of Selby Fork show a continuation of the prehistoric landscape which extends as far as Ledsham to the south west. The walkover survey (Fld 57) revealed no features, but the geophysical surveys confirmed the linear features, which include probable enclosure boundaries. The most recent route alignment was not covered by the original geophysical studies (May 1992), but additional geophysical work was carried out in October 1994 establishing that the features continue.

Site 21 Enclosure and other boundaries

**Importance:** County

**Impact:** High

**Effect:** Severe

- 5.24 Site 22 (Fig RPS 5) The APs (AP 5170) show a continuation of an extensive prehistoric landscape which extends to Ledsham. In Field 59 the APs showed several linear features, although no trace was visible on the walkover survey.

Site 22 Field boundaries

**Importance:** Local

**Impact:** Low

**Effect:** Slight

- 5.25 Site 26 (Fig RPS 5) The APs (AP 5252) show a trackway extending northwards towards the Highfield deserted medieval village site (NY 1090, 1091). No traces were located in the walkover survey, but the geophysical survey (Geo O) revealed linear traces of probable prehistoric origins including an enclosure, part of the general complex of prehistoric activity on the Magnesian Limestone. Trial trenching revealed a number of features, of which at least one was of archaeological origin, and contained a fragment of quernstone.

Site 26 Field boundaries and enclosure

**Importance:** Local

**Impact:** Medium

**Effect:** Slight

- 5.26 Site 27 (Fig RPS 5) The proposal north of the Selby Road junction is close to the east side of the existing A1. It impinges on the woods at Castle Hills. The parish boundary between Ledsham and Micklegate is marked by a ditch and bank through the wood (Site 27) but it is degraded at the western end. The proposed road would

affect this western part of the boundary.

Site 27 Parish boundary

**Importance:** County  
**Impact:** Low  
**Effect:** Moderate

- 5.27 Site 30 (Fig RPS 6) In the area opposite Old Micklefield APs (AP 4439) show an extensive landscape stretching for over a kilometre to the north. Linear traces on APs in fields 49 and 50 were confirmed in the geophysical survey (Geo C(A) and C(B)). Trial trenching revealed a number of features of archaeological origin, but of no clear function.

Site 30 Field boundaries

**Importance:** Local  
**Impact:** Medium  
**Effect:** Slight

- 5.28 Site 34 (Fig RPS 6) APs (AP 3550) to the north-east of the A1 near the northern limit of works show 2 enclosures in a system of linear features (WY 1057). Another group of features is visible to the west of the road (WY 1035). Although none are visible close to the existing road in fields 53 and 54, it was thought prudent to carry out geophysical surveys to check for a continuation of the prehistoric landscape (Geo A and Geo B). Access to Site A, to the west, was not obtained, and the survey of Site B to the east, did not reveal any unequivocal features.

Site 34 Potential enclosure

**Importance:** Uncertain  
**Impact:** Medium  
**Effect:** Possible significance

## 6 PROPOSALS FOR MITIGATION

### *Mitigation Works on Known Sites*

- 6.1 The purpose of the cultural heritage assessment has been to identify impacts and the need for mitigation of any such impacts prior to construction. It is considered that the evaluation has identified the impact of the proposals to a reasonable level of detail. The mitigation of the impacts is discussed below.
- 6.2 With all the cultural heritage issues discussed in this report the range of mitigation options is broadly similar. These are set out in the *DMRB* Vol 11, Section 3, Part 2, Chapter 7, and are:
- i) avoidance by locating the route away from archaeological remains and their settings;
  - ii) reduction of impact by modification to construction methods, for instance protective earthworks carefully constructed so as not to damage remains;
  - iii) archaeological excavation and recording in advance of construction; and
  - iv) a commissioned watching brief on all significant works, in order to identify and record significant archaeology which is revealed during the construction process.

Specific recommendations for the known sites are set out below.

- 6.3 The impact on sites in the area of the Holmfield Junction (Figure RPS 7, sites 6A, 6B, 6C, 6D, 6E, 7B, 7C, 7D), has been assessed, and mitigation measures agreed in principle. The assessment indicates that the potential effects of the proposals would be severe on 6 out of the 8 sites. Mitigation measures to avoid the impact, such as burying under embankments are not an option for these sites, which are affected by the road scheme where it is in cutting or at-grade. This would leave areas of potential interest which would be severed from their context and difficult to study later, when and if the embankments were demolished. The area is therefore considered to require extensive excavation prior to the construction of the road. This would be a two-level exercise, with the areas of known importance excavated intensively, and the remaining area stripped and sampled as appropriate. Trial trenching here would refine this mitigation strategy, and enable a precisely costed mitigation to be proposed. The area involved is complex and extensive and a trenching programme will be devised in consultation with the regulators. It is proposed that the evaluation of this area should be deferred until after a line order is made, but prior to the construction itself.
- 6.4 Mitigation: excavation and recording in advance recommended:-
- Figure RPS 3 Site 9 Fryston Park. No further work.

Figure RPS 3	<u>Site 43</u>	Fryston Hall. No further work.
Figure RPS 4	<u>Site 12</u>	Pipeline, ridge and furrow. No further work.
Figure RPS 4	<u>Site 17</u>	North-east of Lumby Nursery. Figure-of-eight cropmark visible on air photos. Mitigation: Watching brief during construction.
Figure RPS 5	<u>Site 21</u>	Enclosure boundaries confirmed by additional geophysics (October 1994). Excavation in advance is recommended.
Figure RPS 5	<u>Site 26</u>	Possible archaeological features. Mitigation: Watching brief during construction.
Figure RPS 5	<u>Site 27</u>	Parish boundary. Mitigation: Excavation and recording of earthwork in advance of construction.
Figure RPS 6	<u>Site 30</u>	Possible archaeological features. Mitigation: Watching brief during construction.
Figure RPS 6	<u>Site 34</u>	North of Old Micklefield. No evidence (APs, geophysics) for well preserved prehistoric landscape. No further work.

## 7 CONCLUSIONS

- 7.1 Over the whole of the proposed route, sufficient data has been gathered to assess the cultural heritage effects, and to recommend a mitigation strategy. The use of a range of techniques, including trial trenching and geophysics, to enhance the original Sites and Monuments Record data has resulted in the recommended mitigations set out in Section 6.
- 7.2 The issue of the Ferrybridge Henge, and the sites surrounding it, is addressed in Section 6.3. In summary, however, this complex is seen as constituting a special case. A programme of further study would be undertaken in consultation with the regulators, in order to formulate a programme for dealing with the archaeology affected by the proposed scheme.
- 7.3 The resulting information would contribute to the refinement of plans for the landscaping proposals.

*APPENDIX*

*Appendix 1*

*Sites and Monuments Record Data*

AI(M) Ferrybridge to Hook Moor

*Appendix 1: Sites and Monuments Record Data*

SMR Nos. refer to sites indicated on Drawings RPS 2-6.

SMR No	DESCRIPTION	COUNTY
804197	Medieval cross (remains of)	WY
804169	Medieval/Post-medieval barn	WY
805108	St Luke's Church	WY
1200	Cropmarks	WY
1000	Cropmarks	WY
999	Cropmarks	WY
974	?Iron Age cropmark enclosure	WY
1201	D-shaped cropmark enclosure	WY
987	No description (?cropmark)	WY
702600	"St Helens" dedication	WY
988	Double-ditched enclosure	WY
824441	Medieval cross	WY
990	Cropmarks	WY
992	Ring ditch	WY
991	Linear ditches	WY
2086 [SM 75]	Bridge	WY/NY
842850	Late Anglo-Saxon Spearhead	WY
7590	St Andrew's Church, Site of	WY
1304 [SM 720]	Ferrybridge Henge	WY
1303	Ferrybridge Henge environs	WY
994	Ferrybridge Henge environs	WY
995	Ferrybridge Henge environs	WY
996	Ferrybridge Henge environs	WY
997	Ferrybridge Henge environs	WY
1300	Ferrybridge Henge environs	WY



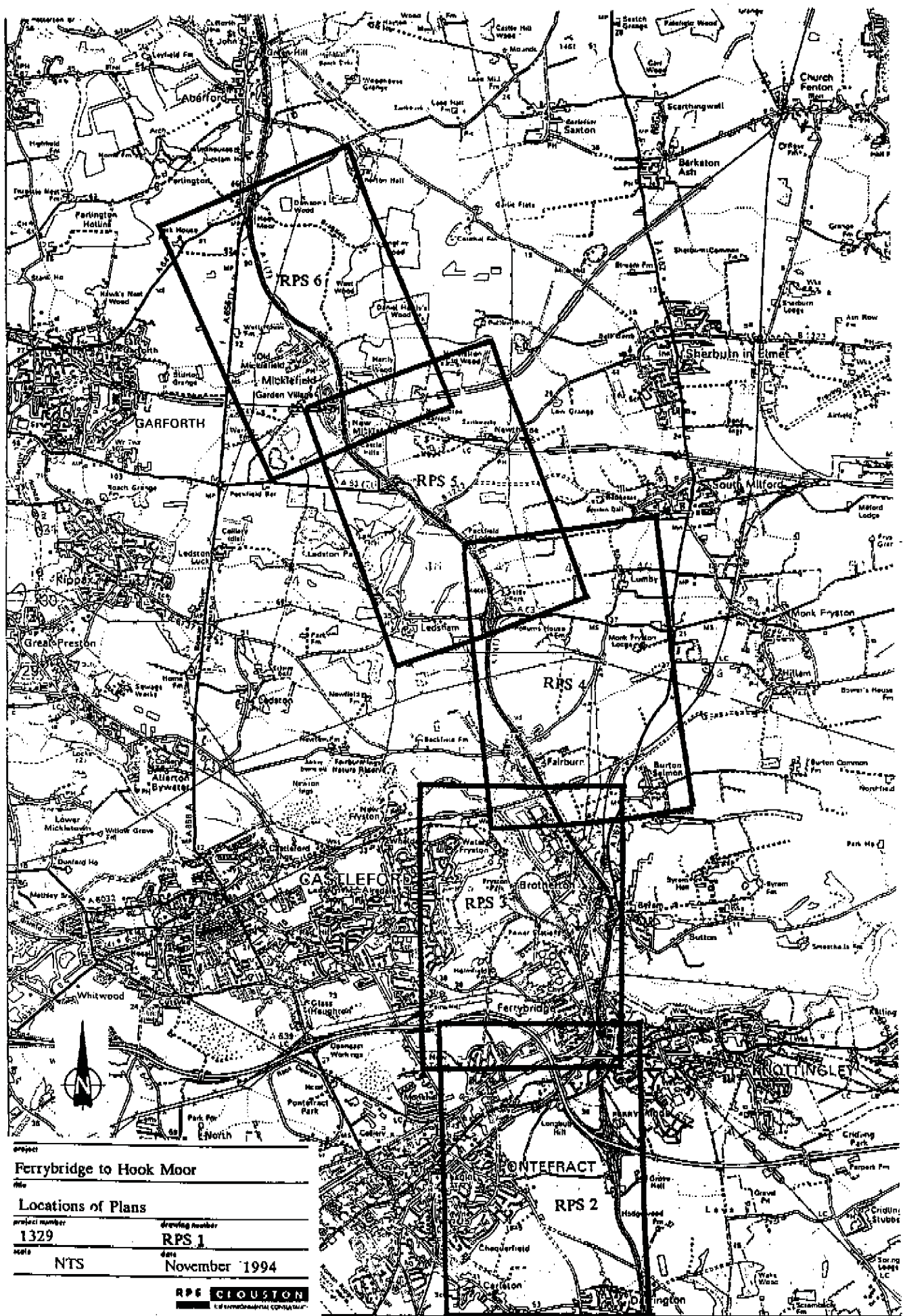
## A1(M) Ferrybridge to Hook Moor

SMR No	DESCRIPTION	COUNTY
1291	Ferrybridge Henge environs	WY
1299	Ferrybridge Henge environs	WY
1294	Ferrybridge Henge environs	WY
1285	Ferrybridge Henge environs	WY
993	Cropmark	WY
980	Cropmarks	WY
6487	Watermill	WY
977	?Cropmark pit alignments, field system	WY
1289	?Roman burial	WY
998	Cropmark features	WY
6577	Cropmark features	WY
982	Park boundary	WY
2615	Medieval manor	WY
983	Cropmarks	WY
6518	Flints	WY
660447	Iron Age/Roman Settlement	WY
9316	Aerial photograph plot	NY
9313	Fragmentary linear ditches	NY
9319	Aerial photograph plot	NY
5039	Aerial photograph plot	NY
986	Aerial photograph plot	NY
984	Cropmarks (?geological)	WY
985	Ridge and furrow, ditches	WY
972	Linear ditches	NY
973	Ridge and furrow, ditches	WY
5985	No description	WY
5982	Cropmarks	WY

## A1(M) Ferrybridge to Hook Moor

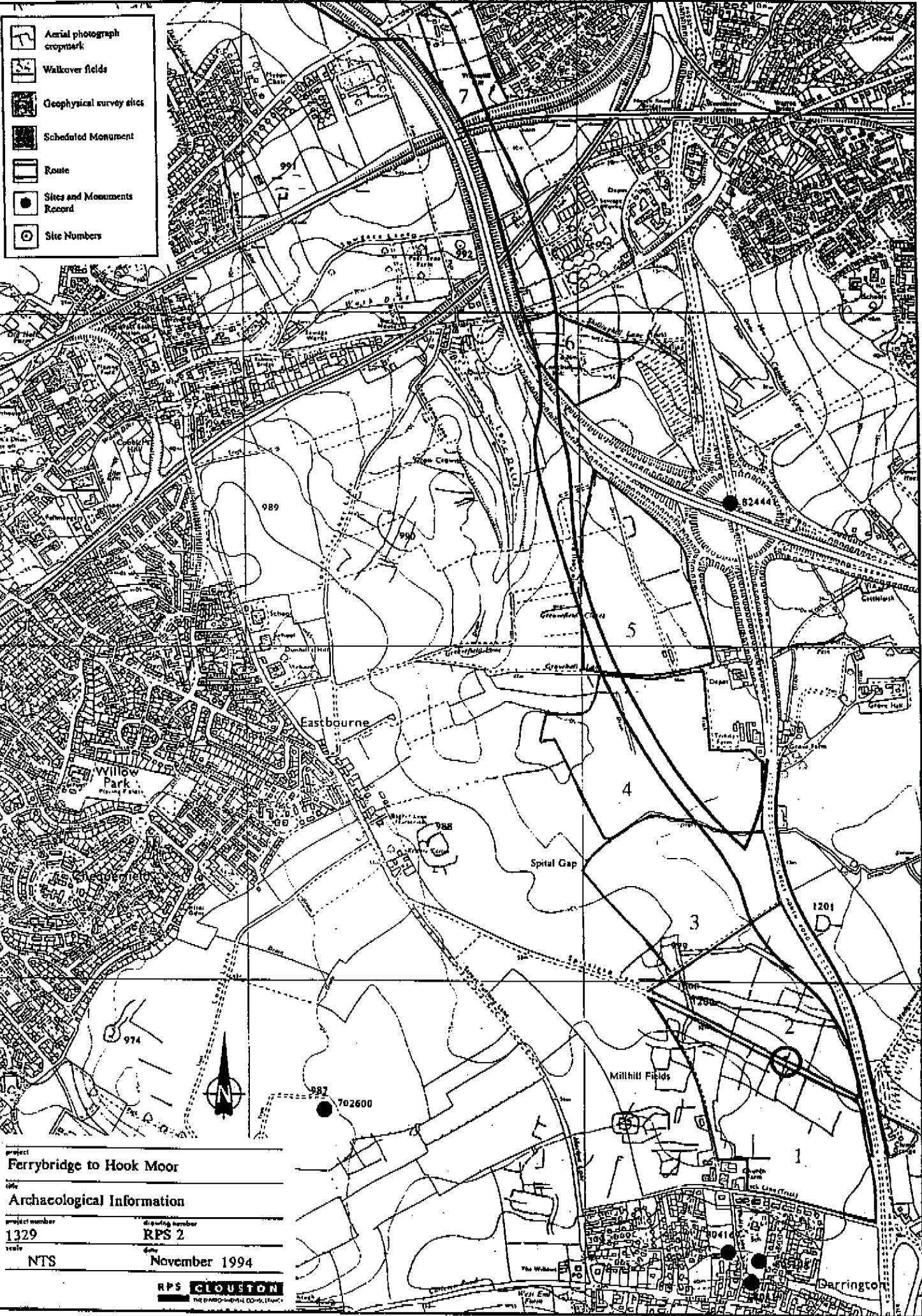
SMR No	DESCRIPTION	COUNTY
1085	Cropmarks	WY
1086	Linear ditches	WY
1087	Linear ditches	WY
1089	Linear ditches	WY
5049	Cropmark	
1090	Highfield Deserted Medieval Village	NY
1091	Highfield Deserted Medieval Village	NY
1071	Indistinct cropmarks	WY
1070	Cropmarks	WY
1072	Cropmark track, enclosure	WY
1073	Linear ditches, lanes, enclosures	WY
1074	Linear ditches, lanes, enclosures	WY
1075	Linear ditches, lanes, enclosures	WY
1076	Linear ditches, lanes, enclosures	WY
1057	Enclosures	NY
1058	Cropmarks	NY
1035	Linear ditches, lanes, enclosures	NY
352265	Roman Road	WY
352583	Roman Road	WY
1059	Cropmarks	WY
1036	Cropmarks	WY
1037	Boundaries, lanes, linear ditches, enclosures	WY
1038	Boundaries, lanes, linear ditches, enclosures	WY
4575	Cropmarks	WY








*PLANS*



project  
**Ferrybridge to Hook Moor**  
 the  
**Locations of Plans**  
 project number: **1329** drawing number: **RPS 1**  
 date: **November 1994**  
 scale: **NTS**

**RPS CIOUSTON**  
 LANDSCAPE ARCHITECTS



-  Aerial photograph cropmark
-  Walkover fields
-  Geophysical survey sites
-  Scheduled Monument
-  Route
-  Sites and Monuments Record
-  Site Numbers

project  
**Ferrybridge to Hook Moor**

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title  
**Archaeological Information**

---

project number  
**1329**








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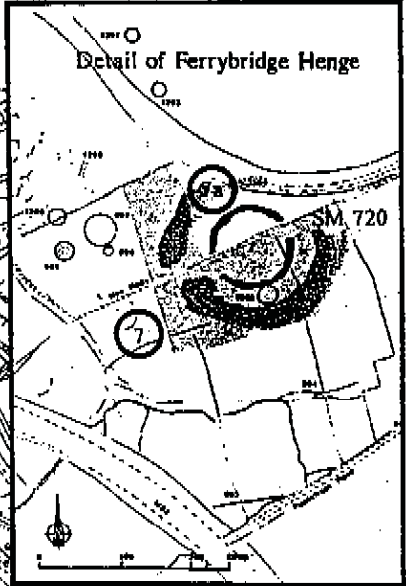
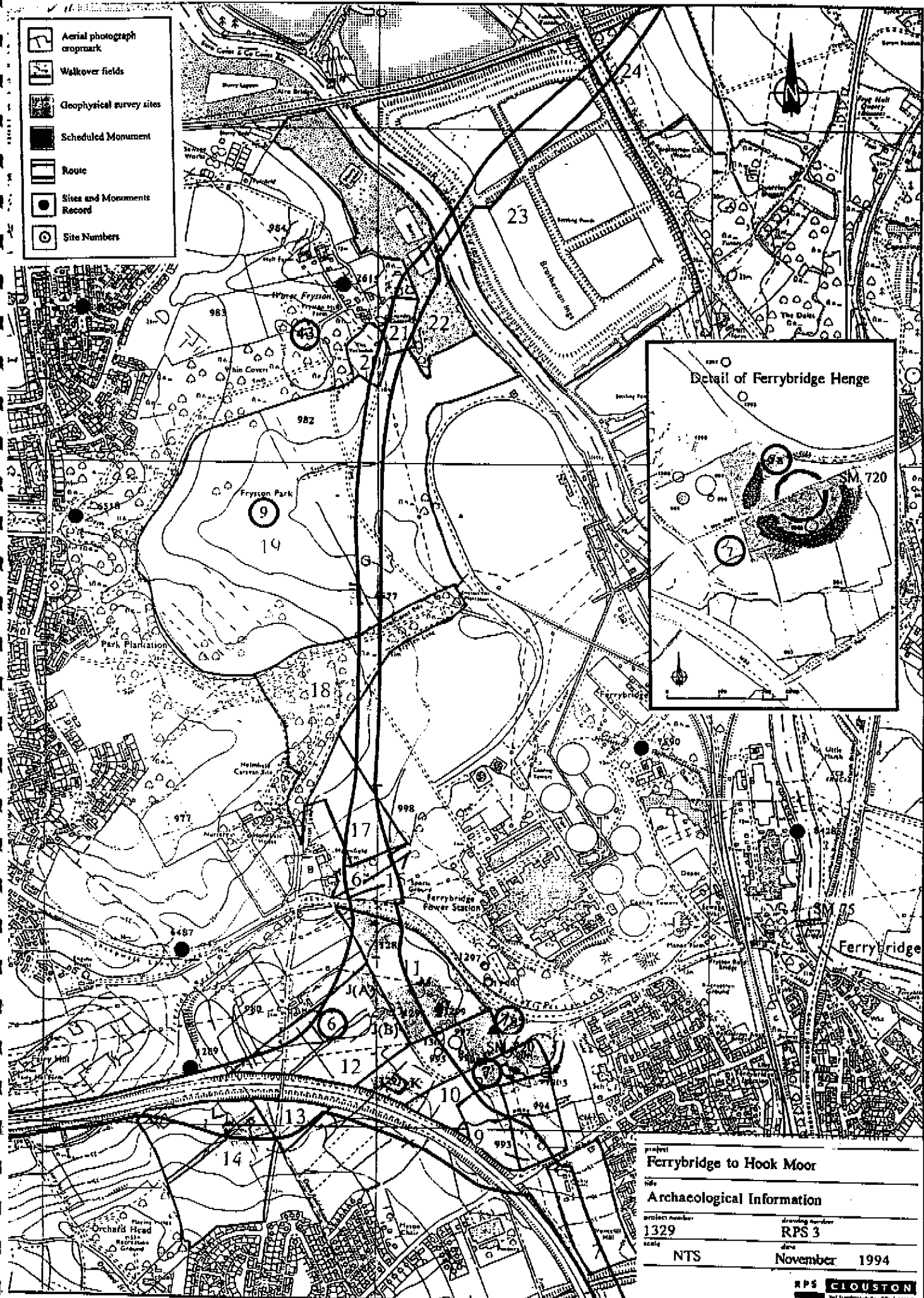
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scale  
**NTS**

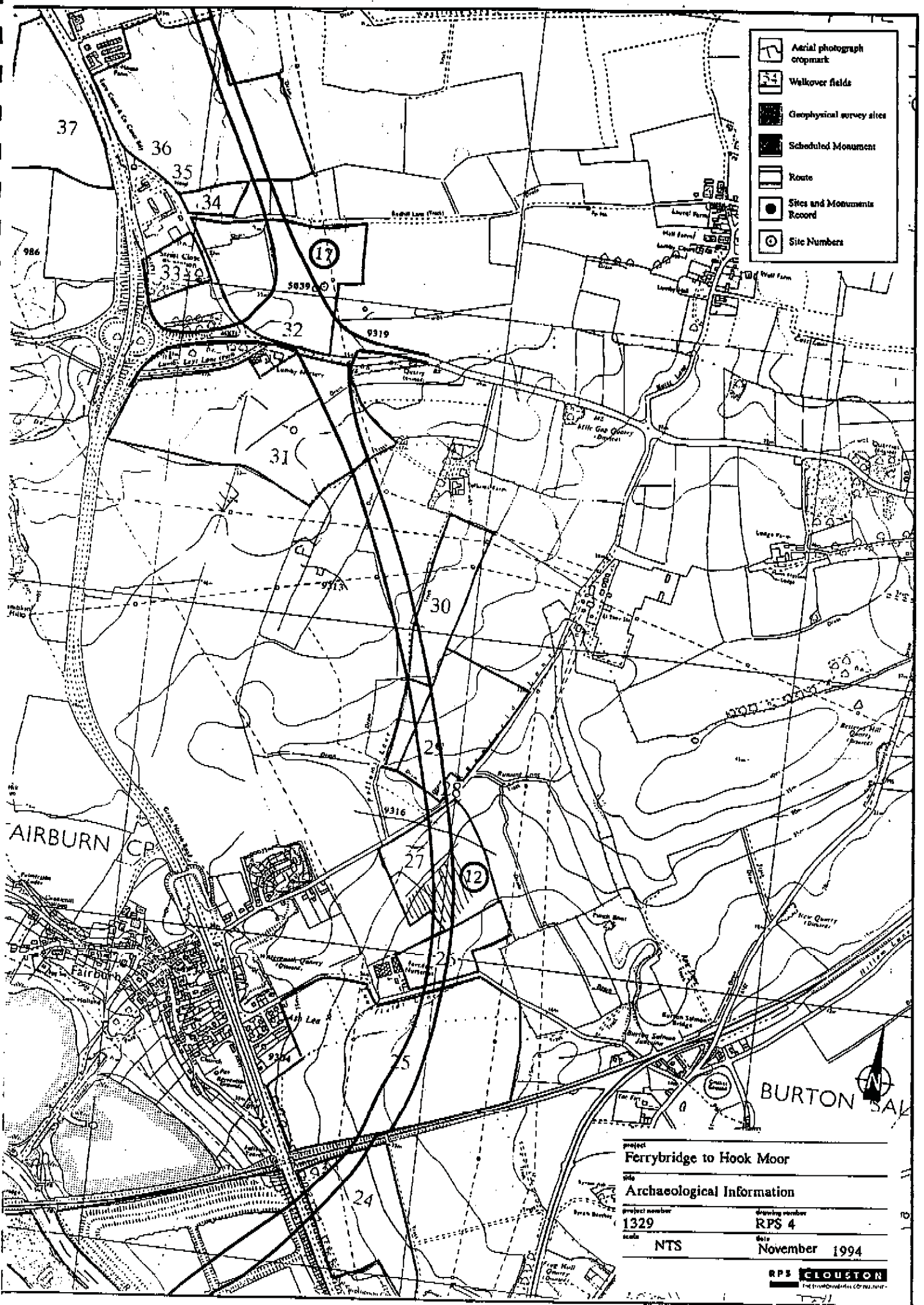
date  
**November 1994**








**RPS CLOUSTON**  
 THE ENVIRONMENTAL CONSULTANTS

-  Aerial photograph cropmark
-  Walkover fields
-  Geophysical survey sites
-  Scheduled Monument
-  Route
-  Sites and Monuments Record
-  Site Numbers

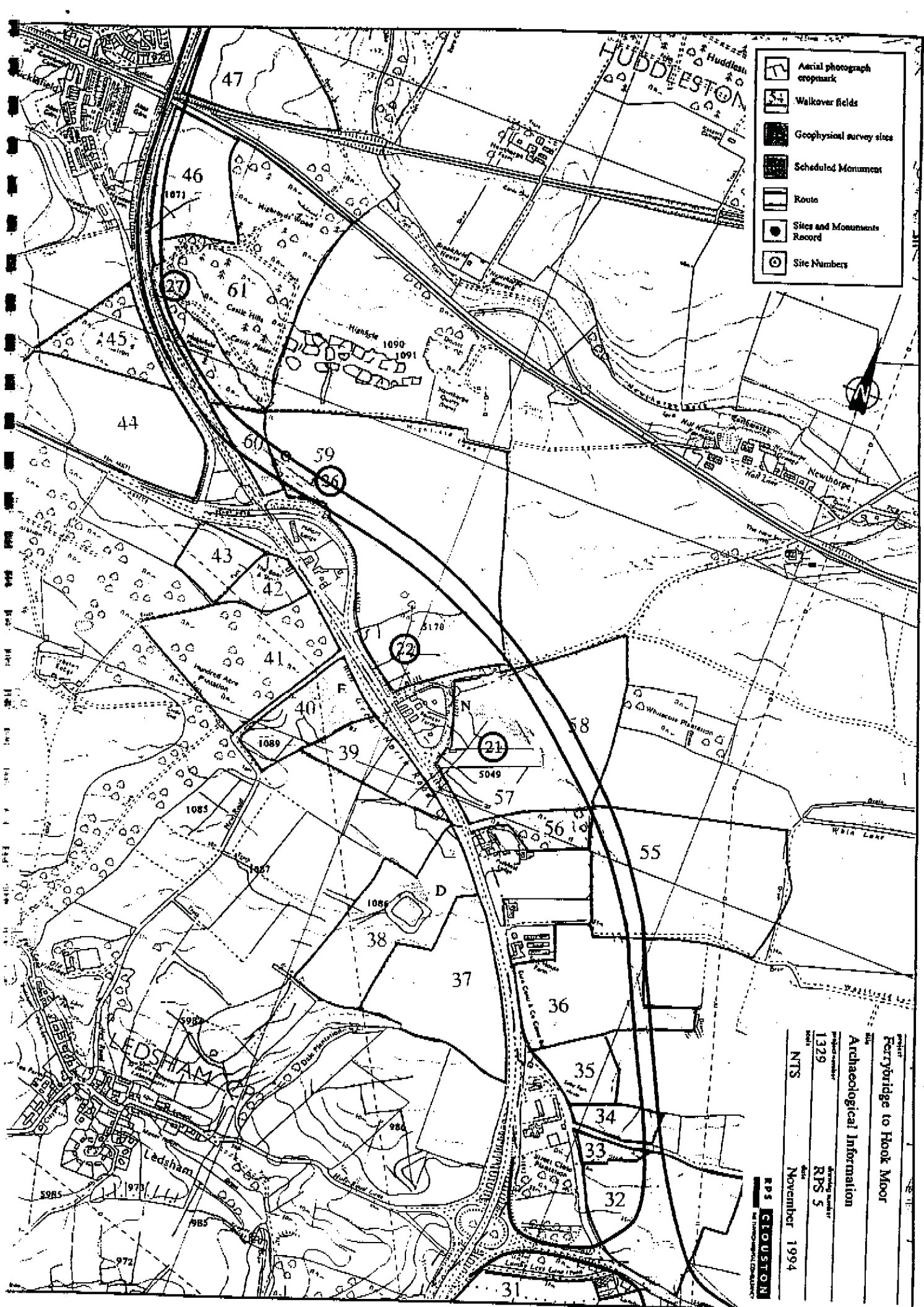


project  
**Ferrybridge to Hook Moor**  
 title  
**Archaeological Information**  
 project number  
**1329**  
 scale  
**NTS**  
 drawing number  
**RPS 3**  
 date  
**November 1994**



-  Aerial photograph cropmark
-  Walkover fields
-  Geophysical survey sites
-  Scheduled Monument
-  Route
-  Sites and Monuments Record
-  Site Numbers

project  
**Ferrybridge to Hook Moor**  
 title  
**Archaeological Information**  
 project number **1329** drawing number **RPS 4**  
 scale **NTS** date **November 1994**



- Aerial photograph cropmark
- Walkover fields
- Geophysical survey sites
- Scheduled Monument
- Route
- Sites and Monuments Record
- Site Numbers



Project:  
 Ferrybridge to Hook Moor

Archaeological Information

Project number:  
 1329

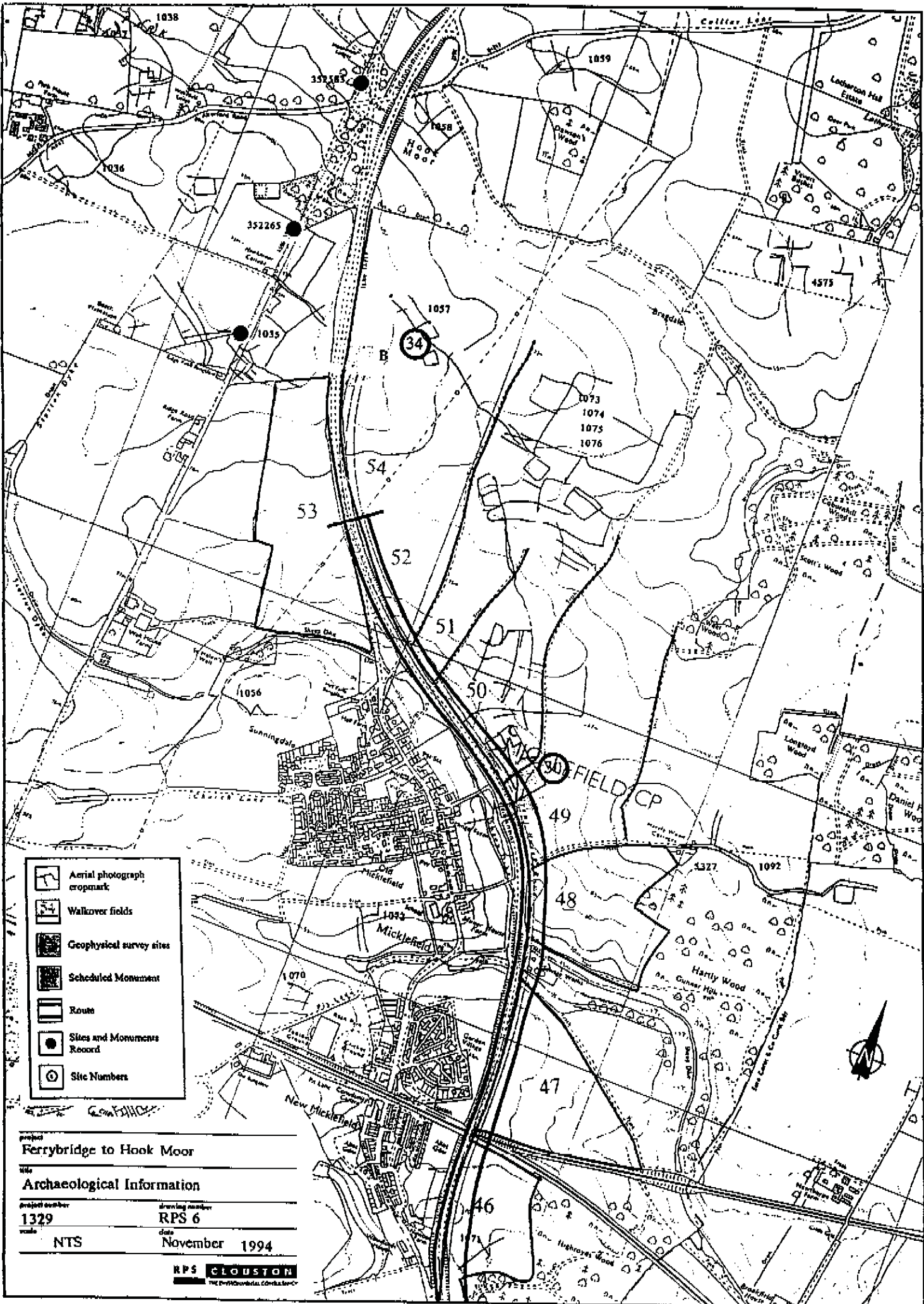
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 RPS 5








Date:  
 November 1994

NTS

RPS CLOUSTON





-  Aerial photograph cropmark
-  Walkover fields
-  Geophysical survey sites
-  Scheduled Monument
-  Route
-  Sites and Monuments Record
-  Site Numbers

project  
**Ferrybridge to Hook Moor**  
 title  
**Archaeological Information**  
 project number **1329** drawing number **RPS 6**  
 scale **NTS** date **November 1994**

**RPS CLOUSTON**  
THE RPS GROUP LTD. COMPANY LIMITED

Project: Ferrybridge to Hook Moor

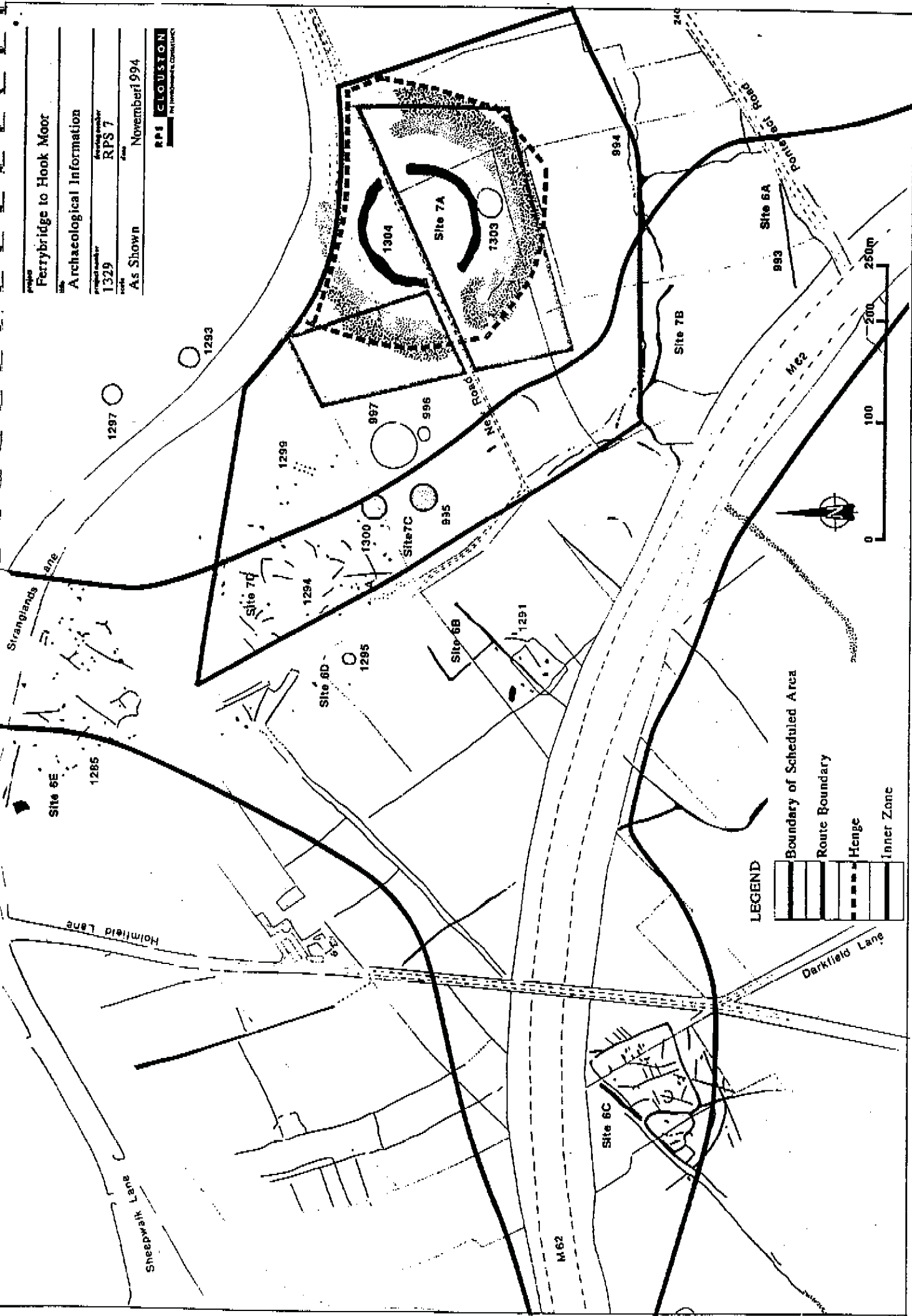
Site: Archaeological Information

Project number: 1329

Reporting number: RPS 7

Date: November 1994

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AN ENVIRONMENTAL CONSULTANCY



LEGEND

- Boundary of Scheduled Area
- Route Boundary
- Henge
- Inner Zone