

**THE  
NEW**

**A1**

**MOTORWAY  
IN YORKSHIRE**





## Foreword by the Rt Hon John MacGregor OBE MP Secretary of State for Transport

I am delighted to introduce this new brochure. It describes in every day terms how we are upgrading the Yorkshire Section of the A1 to motorway.

A similar effort is being made in other Regions to achieve the goal set out by Cecil Parkinson in 1990. In that announcement he said that the whole of the A1 between M25 and Tyneside would be upgraded to motorway.

Since then we have made excellent progress. Construction of the 13 mile Walshford-Dishforth Section has already begun - less than 3 years since the project was announced. This notable achievement demonstrates the Government's commitment to providing the roads that the country needs. Other sections will be built in sequence.



Although the work is proceeding apace it does not mean that any short cuts are being taken. If you read this brochure you will, I hope, appreciate the skill and care that is being taken both by my Department and our consultants to design a road that, as a nation, we can all be proud of.

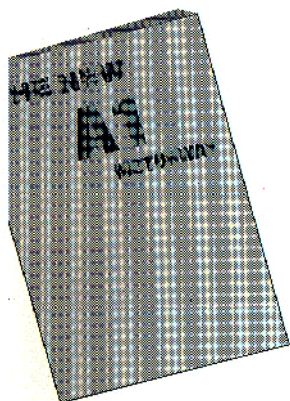
John MacGregor  
June 1993



# Contents

<b>Chapter</b>	<b>Page</b>
<b>1</b> Introduction	<b>3</b>
<b>2</b> History of A1	<b>4</b>
<b>3</b> The need for a Motorway	<b>6</b>
<b>4</b> Organising the Project	<b>8</b>
<b>5</b> Consulting the public	<b>11</b>
<b>6</b> Finding the right schemes	<b>14</b>
<b>7</b> The Economic Case for Improvements	<b>16</b>
<b>8</b> Non - Motorway users	<b>17</b>
<b>9</b> The Environment	<b>18</b>
<b>10</b> Heritage	<b>24</b>
<b>11</b> Design Standards	<b>26</b>
<b>12</b> The Schemes	<b>27</b>
Redhouse - Ferrybridge	28
Ferrybridge - Hook Moor	30
Hook Moor - Bramham	32
Bramham - Wetherby Conversion	33
Wetherby Bypass Upgrading	34
Wetherby - Walshford	35
Walshford - Dishforth	36
Dishforth - Leeming	37
Leeming - Scotch Corner	38
<b>13</b> Conclusion	<b>40</b>



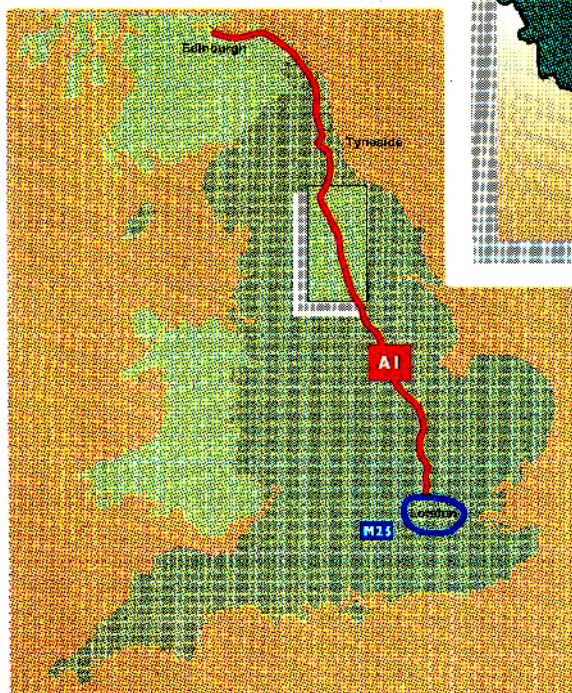
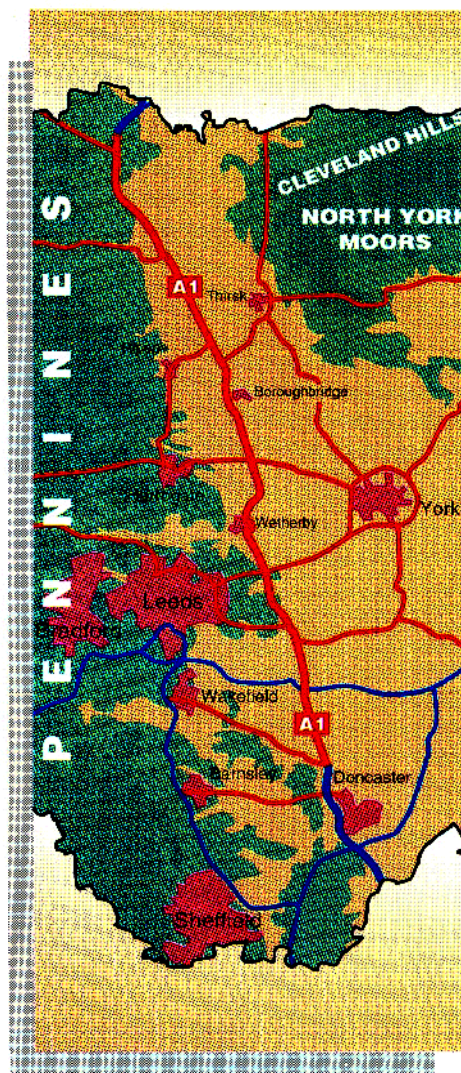


This brochure has been prepared by the Department of Transport and its Consultants.

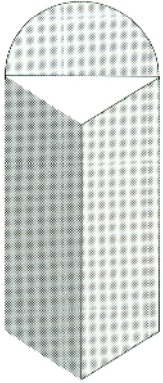
Its purpose is twofold.

Firstly, it is to let people know what is going to happen to the 90 mile long Yorkshire Section of the A1.

Secondly, it is to provide an insight into how the project is being developed and hopefully provide reassurance about the care and professional skills that are being devoted to the task.

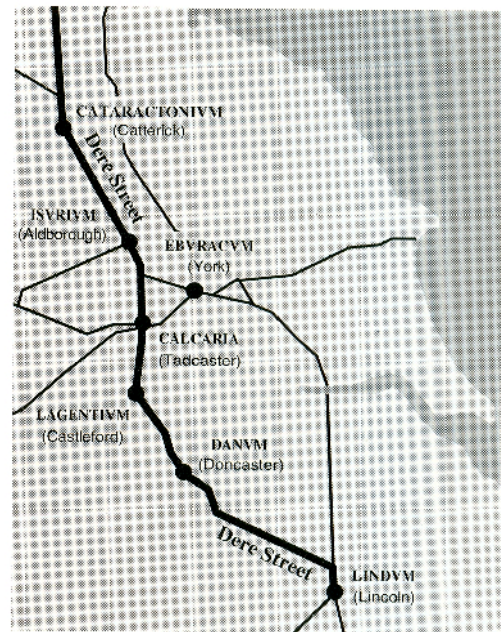




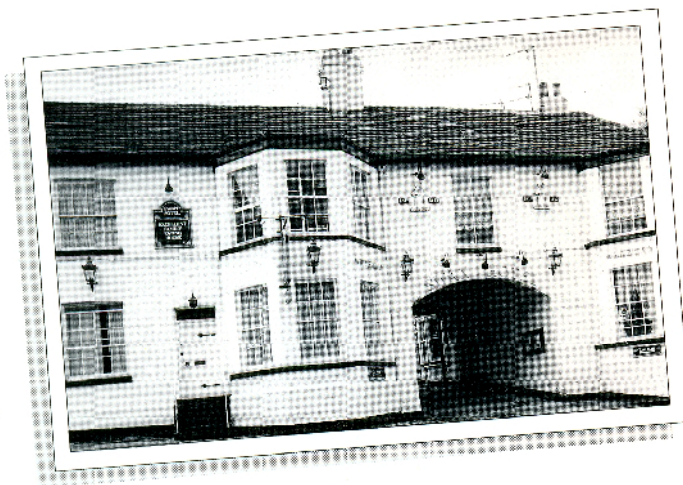


The Romans ruled Yorkshire for nearly 350 years. In 78 AD Governor Agricola started building a network of roads and forts to control the Brigantes tribe. Army surveyors planned the line of the roads; soldiers, slaves and local labour were used to build them. It is unlikely that time was set aside for public consultation and public inquiries!

Dere Street, which became one of the busiest north-south routes in the region, ran from Lindvm (Lincoln) to Danvm (Doncaster) and then north to Scotch Corner via forts at Doncaster, Castleford and Calcaria (Tadcaster). Isvrivm (Aldbrough) and Cataractonivm (near Catterick) were towns built on Dere Street. Each town covered an area of about 30 acres - roughly the same as 30 football pitches.



With the withdrawal of the Romans, Aldbrough fell victim to the Angles then the Scots, the Danes and finally the Normans. Boroughbridge was established when the Normans built a new bridge across the River Ure. It became an important stop on the Ferrybridge/Carlisle stage-coach route and at its peak had 22 inns.



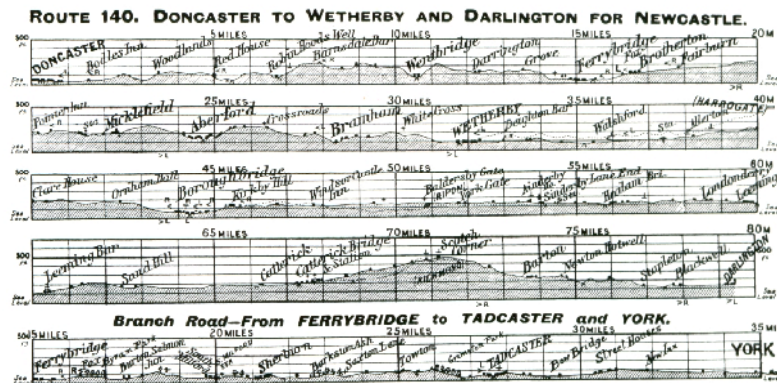
Swan Hotel at Aberford which was a former coaching inn

The road, by then known as the Great North Road, was gradually improved to meet increasing demand from travellers but remained as a single carriageway throughout the great coaching era and for many years after the advent of the motor car.



## 140 DONCASTER TO NEWCASTLE, &C.

**Description.**—Class II. The best main route to the extreme North of England. Although the road has fine surface, it is very hilly as far as Wetherby, with a short 1 in 14 winding descent at Wentbridge, and a sharp turn at Ferrybridge: Notice to keep L. at 16½m. Thereafter for the next 40 miles the road is fairly straight, and though slightly undulating, has fine surface and is one of the best stretches of road in the country. From Boroughbridge to Scotch Corner the road is usually known as Leeming Lane. Thereafter the road is not quite so good, and is more devious.

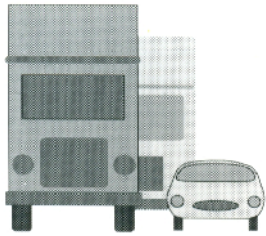


Extract from The 1911  
'Contour' Road Book of  
England

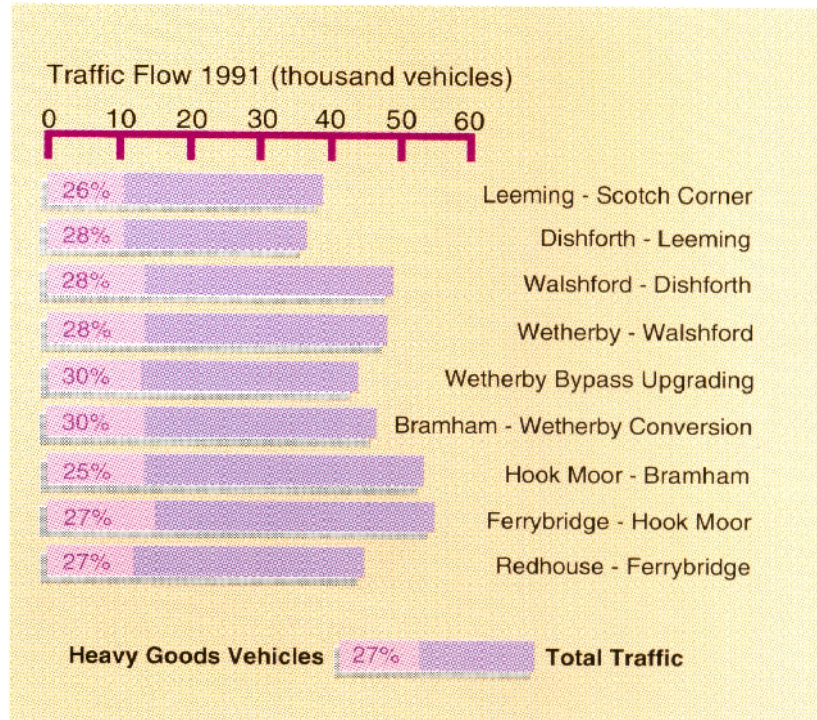
By the 1950's, the demand for travel in Yorkshire had increased to such an extent that towns and villages like Doncaster, Aberford, Bramham, Wetherby, Boroughbridge and Catterick could no longer cope with the traffic. A succession of dual carriageway bypasses were built, the Doncaster Bypass being the first motorway in Yorkshire. As demand for travel continued to increase, the A1 was further improved by removing the roundabouts that caused hold ups.

Today, 75 miles of the A1 between London and Tyneside is already motorway. The newly opened 4 mile long Bramham-Wetherby Section has been built as a 3 lane dual carriageway with hard shoulders. The remainder is 2 lane dual carriageway.





## Traffic



On a typical day the A1 is used by up to 50,000 vehicles, an unusually high proportion of which are heavy goods vehicles (HGV's). On motorways HGVs generally account for about 1 in 6 vehicles; on the A1 every third vehicle is a lorry.



Concentration of heavy goods vehicles north of Wetherby

Half the car journeys on the A1 are made for business purposes.

These figures demonstrate the significance of the A1 to the economy of this country.



## Standards

Drivers can think that the whole of the A1 already is a motorway. Unlike on a motorway however, there are no restrictions on the types of vehicles or people allowed to use the road. Consequently, the A1 potentially can carry a dangerous mix of users - cars and heavy lorries travelling at relatively high speed, together with low speed agricultural vehicles who have to use it to get to and from fields. It can also be used by cyclists as well as pedestrians.



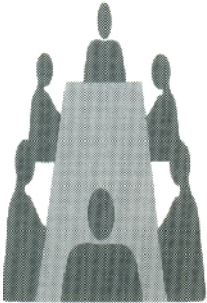
High speed vehicles held up by slow moving agricultural vehicle

We cannot change the road to a motorway by simply adding motorway signs. This is because many slip roads carry 2-way traffic, most sections have no hard shoulders, there are field and local road accesses directly onto the A1. There is, at present, no alternative provision for non-motorway traffic.

## Roadworks

During essential maintenance works, it is impossible to keep 2 lanes of traffic flowing in both directions all the time. During these periods long queues can occur and then it is difficult to prevent traffic diverting onto the local road network causing some congestion and disturbance to the many communities near the A1.





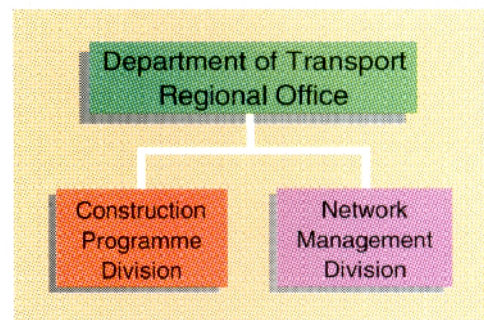
## Department of Transport

The Department of Transport is responsible for building and maintaining trunk roads and motorways in England. The work is carried out from 10 Regional Offices.

Generally each Regional Office has 2 Divisions:

A Construction Programme Division (CPD) who are responsible for the design and construction of all major trunk road and motorway schemes costing more than £5 million.

A Network Management Division who manage trunk road and motorway maintenance, together with the preparation of minor schemes costing up to £5 million.



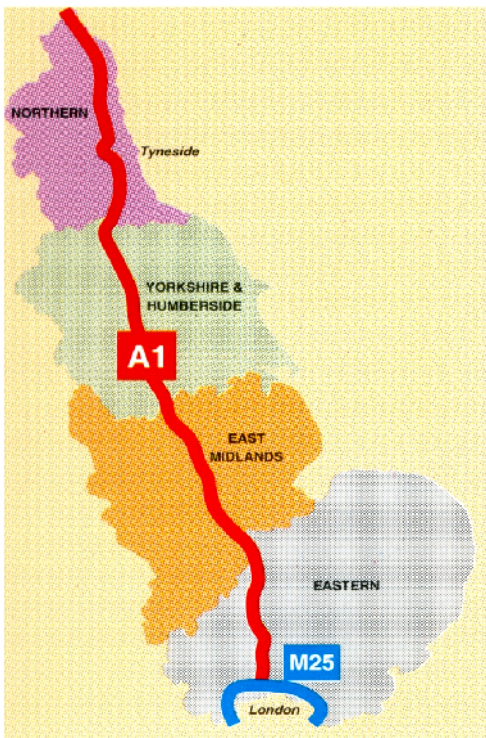
Widening of existing motorways is dealt with by the Specialist Motorway Widening Unit in Coventry.

The Department's Road Programme contains 450 schemes and is being progressed under the direction of the Road Programme Director, Alar Whitfield.

The Director of each CPD reports directly to the Department's Road Programme Administration Division in Coventry. Each month he reports on the progress he has made with his schemes. In addition, he has to work to strict annual budgets, primarily for:

- Design fees
- Construction costs
- Land purchase
- Office running costs (salaries, rent, heating, supplies etc)



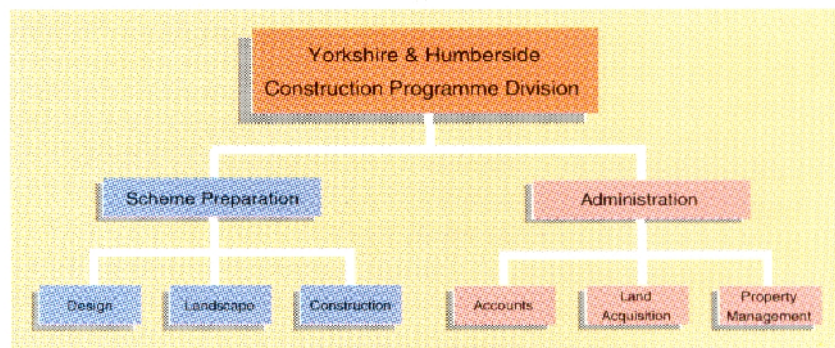


The section of the A1 between M25 and Tyreside passes through 4 Department of Transport Regions. To ensure consistency of approach a steering group, chaired by the Road Programme Director and attended by representatives from each of the 4 Regions, meets regularly to coordinate all aspects of the work. The aim is to ensure uniformity of approach, that information and advice are rapidly disseminated and that problems are discussed and solutions agreed as quickly as is practicable.

## Leeds Office

Upgrading of the A1 in Yorkshire is being handled by the Yorkshire and Humberside Construction Programme Division (YHCPD). The 9 A1 schemes costing £500 million form part of the YHCPD's portfolio of 41 schemes which have a total value of around £1,800 million.

YHCPD has a staff of 85 of which about half are Chartered Civil Engineers.



The Civil Engineers are formed into teams to manage groups of schemes. They are responsible for managing the work of design agents who are commissioned to do the detailed design work and supervise schemes during construction. A team of specialists advise on landscaping and other environmental aspects.

Administration specialists handle the statutory procedures, accounts, land acquisition and property management work. Others, working within the civil engineering teams are responsible for ensuring that the correct statutory procedures are followed.



## Consulting Engineers

We invite firms of consulting engineers, who are performing well on other schemes, to tender for the design of new schemes. Both the quality of their proposals and their fee bid are taken into account in deciding which tender offers the best value for money. Our aim is always to employ a firm which offers to deliver, at an economic price, the standards that the public have a right to expect and that the Department demands.



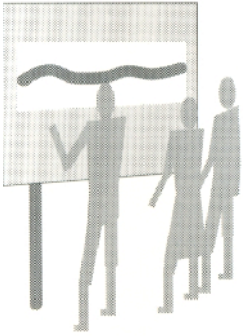
Once appointed, the consultant identifies all the practicable solutions and routes that would solve the problem. Both ourselves and our consultants take every care to ensure that all options are fully evaluated and their relative merits weighed.

Surveys are carried out and there is initial fact finding with Government departments, local authorities and other public bodies. The aim is to find out which routes among perhaps many possibilities seem practicable in terms of planning, cost and effect on the environment.

## Programme

Subject to completion of the statutory procedures and the availability of funds, our aim is to complete the Yorkshire Section of the A1 motorway by around the turn of the century. Clearly it is not reasonable to upgrade the whole length simultaneously. Instead the work will be undertaken in a succession of contracts.

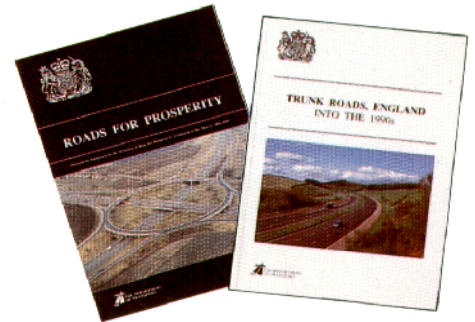




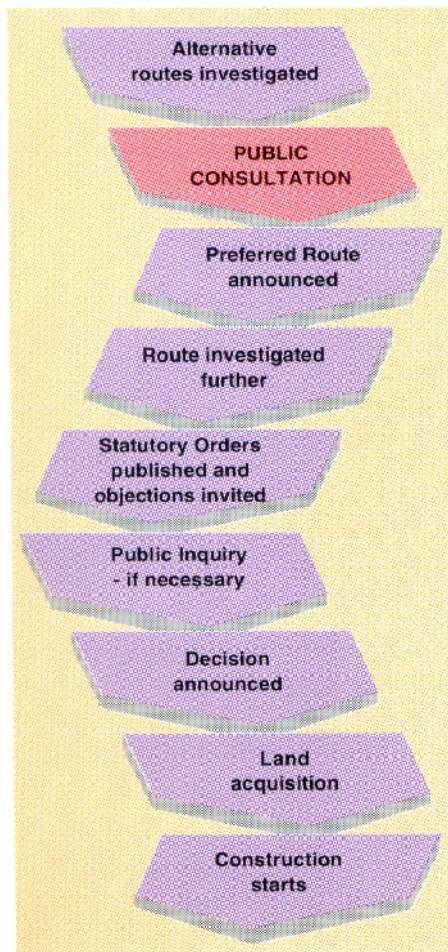
Roads White Paper and Trunk Roads Update

## New Schemes

A trunk road or motorway project begins its life if Ministers are satisfied there is a strong case for a new road. Such additions to the Road Programme are usually announced in Government White Papers (ie policy statements) which are published at intervals of perhaps every 2 or 3 years. Interim announcements can also be made.



The next step is for the Department to prepare a brief which sets out the aims and objectives of the proposed scheme. It will identify constraint and set a programme that the design consultant will be expected to achieve.



## Public Consultation

As soon as all the practicable routes have been identified they are published for public comment.

The public need to be given an opportunity to comment on road proposals. This non-statutory consultation procedure is designed to give local authorities, local and national interest groups, the general public and, in particular, those most closely affected, advance notification of possible routes for a new road. In this way the public are given an opportunity to make their views known at an early stage in the life of a scheme. Public Consultation also gives us the opportunity to take account of public opinion. The form of Public Consultation that is appropriate depends upon the type of scheme that is proposed.

Public Consultation is not a referendum.

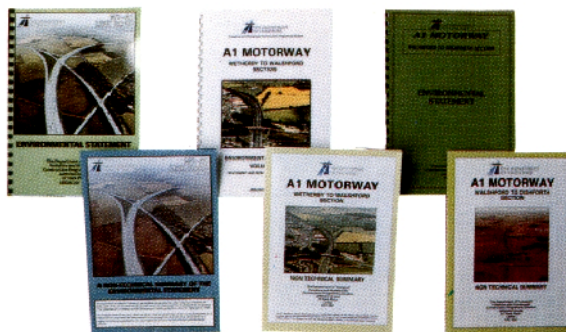


The full Public Consultation process begins with the publication of a brochure, a questionnaire and a public exhibition. The closing date for comments is not less than 6 weeks after the consultation document is issued.



Some schemes are the subject of a modified Public Consultation. These are:-

- schemes where there is only one solution - it would be unfair on the public to seek comments on alternatives that we would not be able to support. This has been the case for 3 of the A1 schemes.
- schemes which, in the opinion of the Minister, are urgently required and do not raise controversial environmental concerns. These are usually minor schemes.



Range of A1 Public Consultation Brochures

In these cases we normally issue a brochure describing the scheme in similar detail to that which would be provided under the full procedure. So, in these cases, there is still an opportunity for the public to comment.

Consultation documents describe any alternative routes together with general information on their costs, broad environmental effects and other relevant factors. At this early stage we are not usually able to provide full details on such things as the effects on individual properties.

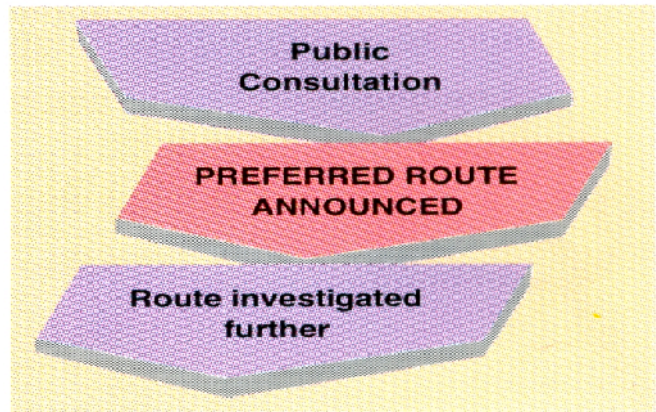
There is usually a questionnaire with the consultation document. On it you can say which of the routes you prefer or dislike and indicate the factors which you consider are important. You can also, if you wish, make your own suggestions about routes or other aspects of the scheme.



## Preferred Route

All comments are taken into account in deciding which route should be announced as the Preferred Route for further development.

Detailed design begins after the Preferred Route has been selected. This will include more detailed surveys of the ground surface and the subsoils.

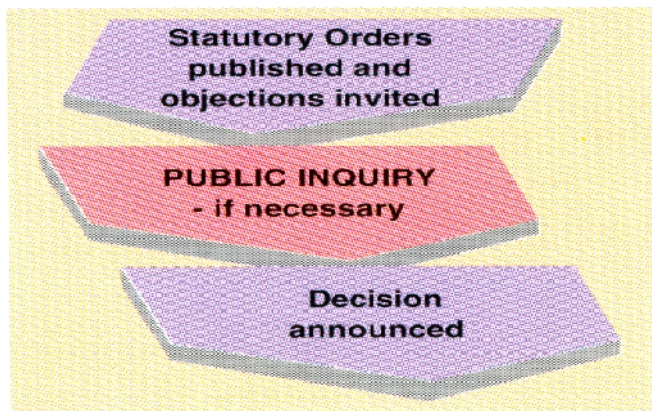


Draft Highway Orders are published when we are content that the layout of the scheme achieves its objectives. An Environmental Statement is published at the same time (see Chapter 9).

A Compulsory Purchase Order is published showing the land that will be needed to build the scheme.

The publication of the draft Orders provides people with the opportunity to support, comment on, or object to, the proposals.

## Public Inquiry

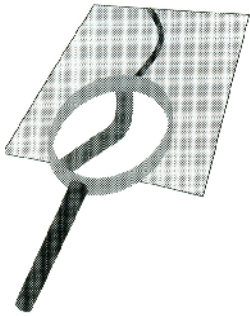


One or more Public Inquiries may be held, depending on the weight and nature of any objections.

After an Inquiry the Secretaries of State for the Environment and Transport jointly consider the Public Inquiry Inspector's report. A Decision Letter follows indicating whether the Secretaries of State agree that the proposals should be accepted, modified, or rejected.

If the Decision Letter is in favour of the proposals then we go on to complete the detailed design and draw up the contract documents. The next step is to invite tenders for constructing the road from approved Contractors.





## Aims

Our aim is to relieve congestion and improve road safety by providing a motorway with junctions only at selected major roads. Separate facilities are needed for non-motorway vehicles and local traffic including pedestrians and cyclists.

## Problems

Upgrading the A1 is a harder job than building a new "green field" motorway. The additional problems include:



Traffic Management during construction of the Bramham-Wetherby Section

- upgrading the road mainly along the existing heavily used highway corridor
- keeping 2 lanes of traffic moving freely in both directions for virtually the whole construction period, thereby removing the likelihood of congestion and the need for traffic to divert onto local roads
- providing an alternative route for non-motorway traffic

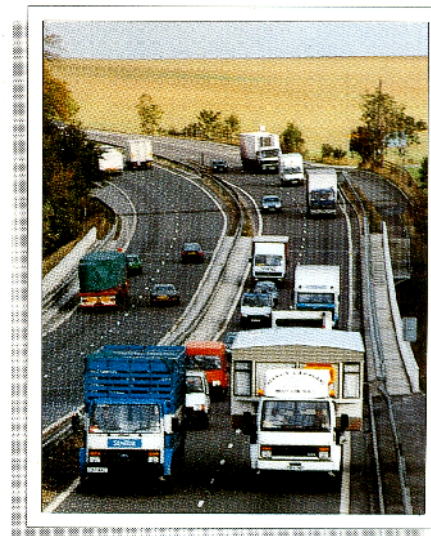
● providing an alternative route for local traffic which uses the A1 to gain access to fields, properties, villages and towns - there are hundreds of accesses onto the present A1 in Yorkshire

## Solutions

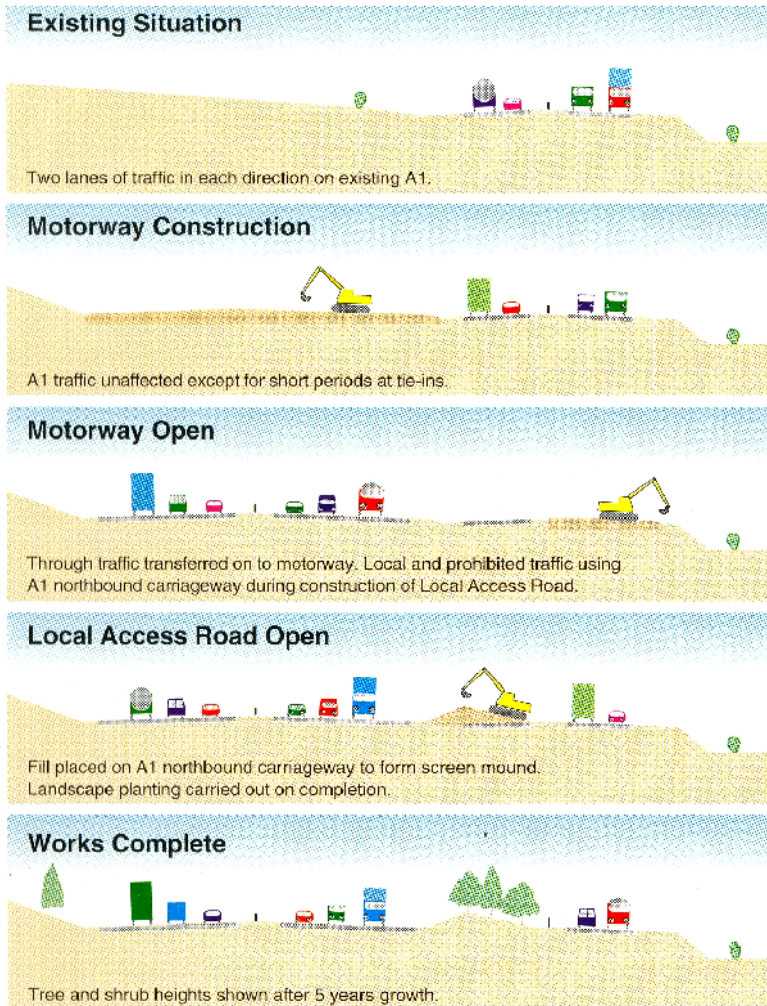
We cannot adopt a universal widening technique throughout. Instead, we are using the system that is best suited to each section of road. Chapter 12 gives details of the 9 upgrading schemes.

Where practicable we are upgrading the A1 along the existing highway corridor. On some sections, notably North of Dishforth, the alignment of the old Roman road permits on-line widening. Off-line sections are needed where the bends on the existing road are too tight to be followed by the new motorway and, in the vicinity of Ferrybridge, where extensive roadside development makes on-line improvement impracticable.

Tight bend on the existing road at Wentbridge







During construction the first priority is to ensure the safety of both the public and the contractors' workers while keeping the traffic flowing.

Together with our consultants and contractors, we now have a lot of experience of keeping traffic moving during on-line improvement schemes. Apart from the obvious traffic delay costs associated with contraflows it is simply not acceptable to cause lengthy traffic hold-ups while the motorway is being built. To do so would cause frustration to motorists - our customers - and delay the delivery of goods that are so important to the competitiveness of industry.

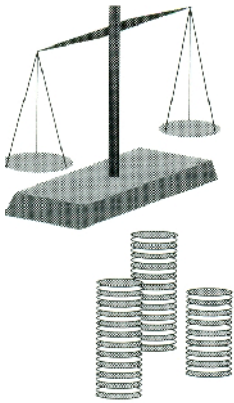
We intend to maintain 2 lanes of traffic in each direction throughout each contract except for the short periods necessary to construct tie-ins and during bridge demolition. Wherever possible we shall carry out such works at night when traffic flows are low.

What can be achieved has been demonstrated on the Bramham-Wetherby Section which has recently been upgraded to a dual 3 lane carriageways with hard shoulders for later conversion to motorway. Off-line sections and those being upgraded by parallel construction can proceed without affecting traffic flow.

Maintaining traffic flow during Construction work on the Bramham-Wetherby Section

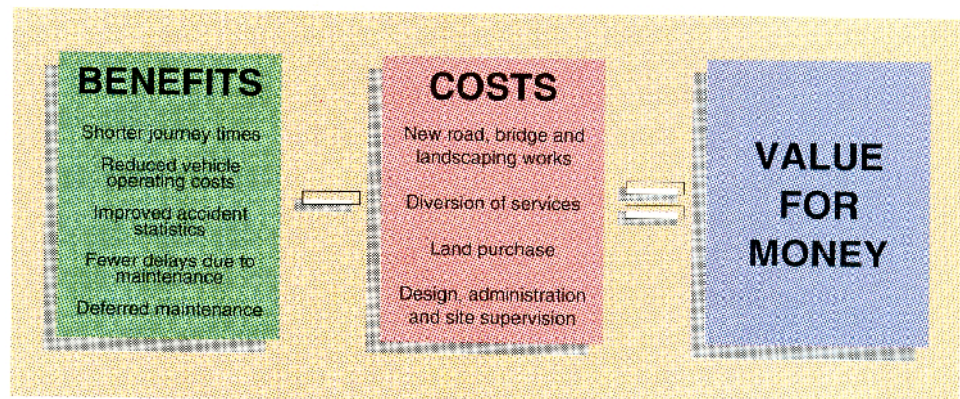






## Value for money

Both the Government and tax payers are concerned to ensure that any public expenditure provides good value for money. We use a method of cost-benefit analysis to compare the cost of designing, building and maintaining a road against the benefits that would be derived by users of the new road. The benefits are the reduction in the accident rate, shorter journey times and lower vehicle operating costs. Schemes with higher benefit to cost ratios provide better value for money.



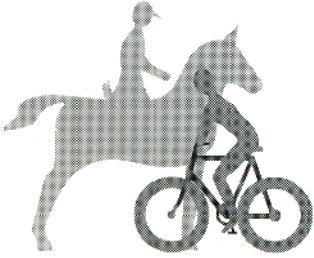
We use a computer program called COBA to calculate the cost-benefit ratio. It is not a once and for all test. It is a decision tool that is used throughout the development of a scheme. It can help:-

- to assess the need for an improvement to a route
- to compare the value for money offered by all schemes in the country and of alternative solutions to a given problem
- Ministers with selection of the Preferred Route for a scheme
- to optimise the design of a scheme

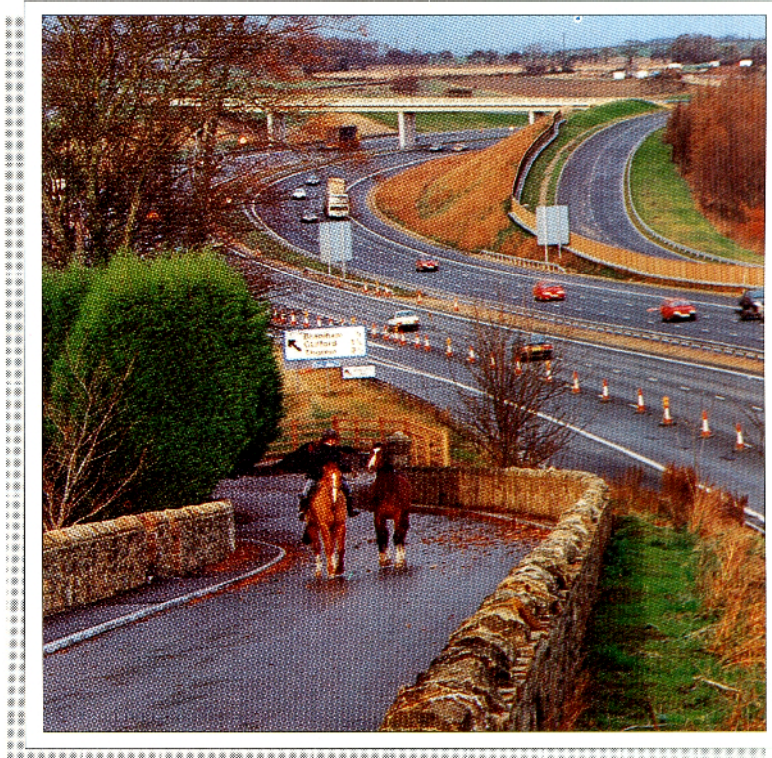
COBA cannot be the final arbiter of the choice for a route. If it was so then new roads would be as straight as Roman roads and without the additional cost of landscaping and other environmental treatments.

All A1 Improvement Schemes show a sound return on the money that will need to be invested in their construction.





A simple upgrading of the A1 to motorway would disadvantage cyclists, pedestrians, horse riders and agricultural vehicles. All these groups are entitled to use the existing road but will be barred from the new motorway.

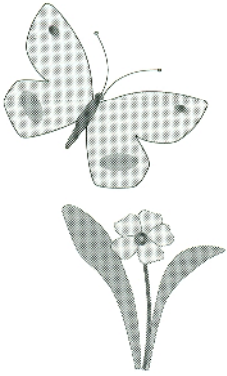


Horse riders alongside the A1 at Bramham

## Local Access Road

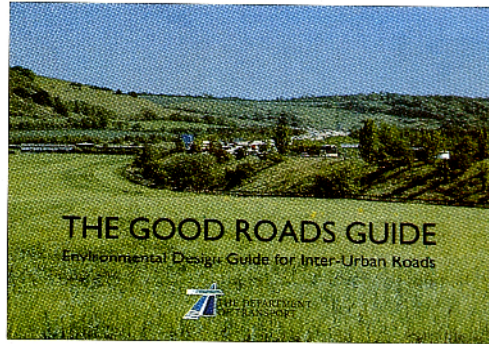
Where necessary we are providing a new local access road, generally parallel to the new motorway. This will provide much safer conditions for both non-motorway and local traffic movements. It will also provide access to the hundreds of connections onto the existing A1 that cannot be linked directly to the new motorway. The local access roads will have access to the motorway at the motorway junctions. We shall maintain the majority of east-west links, via roads, bridleways and footpaths. Alternative routes will be provided where links are lost.





Good Roads Guide

Building new roads is sometimes controversial. New and improved trunk roads often meet environmental needs by reducing congestion; but almost all are highly visible and have an obvious impact on the countryside.



The recent publication of the Good Roads Guide (1) has reaffirmed our commitment to high standards of design and environmental awareness. It is essentially a checklist and source book covering many of the environmental issues that have to be tackled when designing roads that respect the environment.

## Assessment

Whenever new or improved roads are planned, the environmental impact is carefully considered. Environmental assessments are carried out for all schemes in the national trunk road programme and an Environmental Statement, describing the scheme, its expected impact and the mitigation measures we propose, is published for any scheme which is likely to have a significant environmental impact.



Environmental Statements and their accompanying non-technical summaries

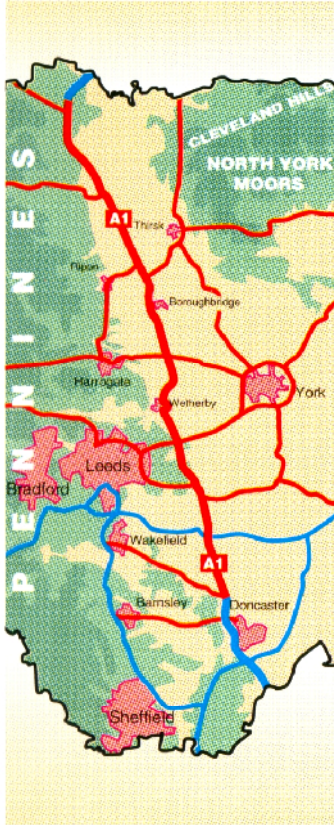
These statements are usually weighty and, in part, technical. In recognition of this we also publish readily readable non-technical summary brochures which describe the schemes and their environmental effects.

(1) Available from Departments of Environment and Transport Sales Unit, Government Building, Block 3, Spur 2, Lyme Grove, Eastcote, HA4 8SE.



Trunk roads and motorways are also subjected to an economic assessment which includes savings in time, accidents and vehicle operating costs. These savings are given monetary values to be assessed against building and maintenance costs.

Economic and environmental assessments are then brought together in the "Appraisal Framework" to ensure that all the effects are considered together in a balanced way.



## Landscape

The Yorkshire section of the A1 lies to the east of the Pennine uplands. To the south flatter low lying land stretches as far as the North Sea. To the north the A1 is sandwiched between the Pennines and the North Yorkshire Moors and Cleveland Hills to the east.

Land use adjacent to the route is predominantly agricultural. The industrial influence of the Yorkshire coalfield and West and South Yorkshire conurbations is evident south of the A64.

The landscape is characterised by large open arable fields, with intermittent blocks of woodland linked by low hedgerows. Views are often extensive, particularly north of Dishforth.



Looking north towards Selby Fork



Specialist environmental consultants work as part of the design teams to ensure that environmental issues are fully considered from an early stage and form an integral part of the design process.

Our aim is to find an alignment which is sympathetic to the local topography, the landscape, local communities and sites of conservation or archaeological importance.

Before deciding on a route we discuss the options with English Nature, the Countryside Commission, the National Rivers Authority and local authorities. We also seek the views of the Landscape Advisory Committee, the Secretary of State's independent advisory body.

The choice of route is made on the basis of all surveys, assessments, reports and consultations after taking into account the economic, engineering and environmental issues.

Sometimes we can overcome a problem by fine tuning the road alignment. This could involve moving the road away from properties or lowering it so that the road is in cutting and hidden from view.

The overall landscape proposals include building earth mounds to screen the road from view, together with tree and shrub planting and the erection of screen fences and walls.



Limekiln Wood, an area of ancient woodland near Catterick

Landscape and environmental specialists continue to provide advice throughout the construction period on issues such as the protection of trees, and construction of balancing ponds.



We shall be planting and maintaining many thousands of trees and shrubs.

The majority of planting will be within the highway boundary. However we are also seeking to introduce additional planting some distance away from the motorway provided agreement can be reached with the land owner and we are satisfied that it would help reduce the impact of the motorway.

Using 2 schemes as a trial, a master plan is being prepared to identify potential planting areas beyond the motorway corridor. This joint initiative with the Countryside Commission and North Yorkshire County Council recognises the importance that is attached to intergrating the motorway into it's surroundings. It is expected to lead to additional areas of planting outside the highway boundary.



'Feathered' tree planted in a prepared pit

## Ecology

Specialist consultants are appointed to provide ecological advice on each scheme.



Cowslip, a small European wild plant of the Primrose Family

The ecologist's interests include the likely effects of the road proposals on all wildlife habitats. These include woodland, hedgerows, grassland, rivers and ponds which provide homes for animals, birds, insects and wild flowers.

We carry out surveys and collect information from local authorities and English Nature (the Government's advisory body on nature conservation).



Thistle Broomrape, a rare and protected species.



We identify Sites of Special Scientific Interest (SSSI's), Ancient Woodland and sites of more local interest.

As design progresses we carry out more detailed surveys. These may include grassland, woodland, bird or badger surveys to identify what is there and how to minimise any impacts the new road is likely to have.



We are carrying out a study at Fairburn Ings with the Royal Society for the Protection of Birds (RSPB) to assess the possible impact of the new road on the flight path of Whooper Swans. In another study we are assessing the 'rain shadow' effect of the new viaduct that will be needed to cross the SSSI at Wentbridge.

Water's edge Fairburn Ings



We make every effort to avoid affecting sites of ecological interest and especially SSSI's. However, this is not always possible and measures to limit the effect are needed.

Balancing ponds are needed to prevent watercourses being flooded when heavy rain is channelled off the road. These provide an opportunity to create new natural habitats for wildlife.

Shallow edges of the balancing pond have created the right conditions for reed beds and wet grasslands





Bird's-foot Trefoil, a member of the pea family. The common name refers to the shape of the leaves



Meadow Brown, the butterfly most commonly seen in the countryside



Sections of road verges will be seeded with colourful wild flowers. Only native species of trees and shrubs will be planted to ensure that they will blend into the landscape. These areas will provide an undisturbed home for a wide variety of birds, insects and butterflies. Several sections of trunk road verges have in themselves been designated as SSSI's.

## Agriculture

For much of its length in Yorkshire, the A1 is bounded by arable farm units. Fields are large and open with intermittent blocks of woodland linked by low hedges.



Skeeby Beck cornfields, north of Brompton-on-Swale

Many farms have, over the years, been able to adapt to the A1 and its increasing traffic. Others have not and are effectively split in two. This can create the unsatisfactory and potentially dangerous situation of slow moving tractors using sections of the busy A1 to gain access to severed fields.

To ensure that agricultural issues are given full consideration we seek advice from agricultural specialist consultants. They collect information on quality of agricultural land and hold discussions with landowners and farmers to help ensure that designs take full account of the agricultural implications.





The word heritage is commonly used to describe something passed on by, or inherited from, an earlier generation. It encompasses all historic features left to us by our ancestors both above, and in many cases, below the surface of the ground.

Remains of a Roman Lady excavated in 1981. The bracelet and necklace are of Whitby Jet, the armband is of shale



Examples include buildings, monuments, structures, roads, commons, field boundaries, woodland and historic parkland.

In common with other major developers we need to be aware of the presence of any historic features. To this end we consult English Heritage, the Government's advisory body on heritage matters, and local authority County Archaeologists early in the design process. The local County Sites and Monuments Record kept by the County Archaeological Offices are particularly useful as they contain up-to-date information on not only where archaeological remains exist but also where they are believed to exist.



Devils Arrows

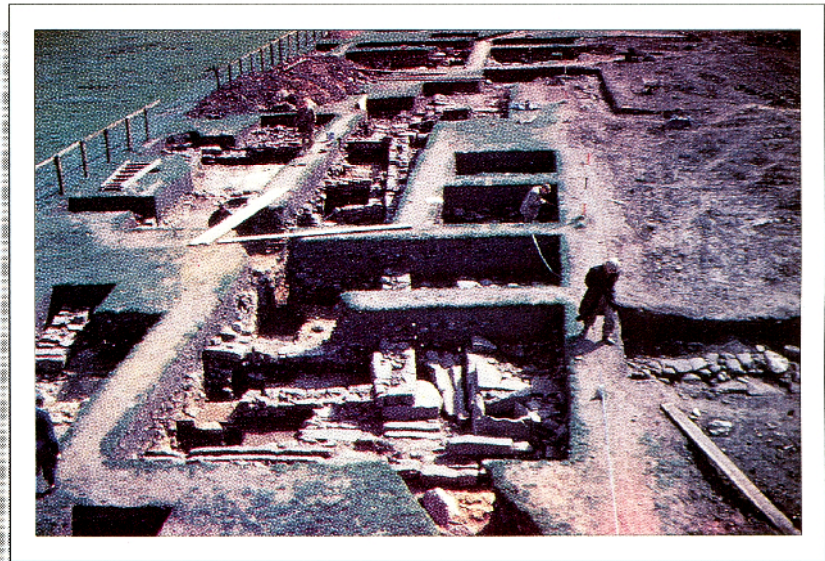
The most significant sites along the A1 corridor in Yorkshire include the henge at Ferrybridge, earthworks near Aberford, the line of the Roman road Dere Street, the Roman town at Cataractonium and the Devils Arrows near Boroughbridge.



It is also important that we identify listed buildings, historic parkland, common land, ancient woodland, parish boundaries and lanes. These are above ground and easily identifiable, but many archaeological remains, often Roman in origin, lie below ground.

The job of finding them is undertaken by experienced archaeologists who are trained to identify and interpret any physical remains. Earth mounds and crop marks, sometimes only visible from the air in a dry summer, can often lead to significant archaeological discoveries.

The findings of the initial survey can lead to the need for a more detailed site survey involving sample trail trenching.

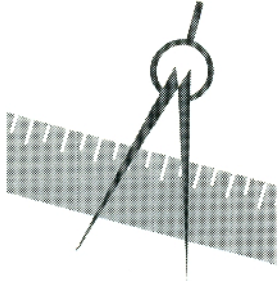


Fourth century shops and houses of Cataractonium excavated in 1959

Wherever possible we need to avoid affecting nationally important sites, such as the Scheduled Ancient Monument of Cataractonium. At sites of lesser importance we take measures to reduce any direct or indirect impact by the road. Other sites just need to be recorded.

Our awareness of the historic environment, its features and their significance, and the likely effects of road construction, ensure that the chosen A1 motorway alignments are as sympathetic to the historic environment as possible.

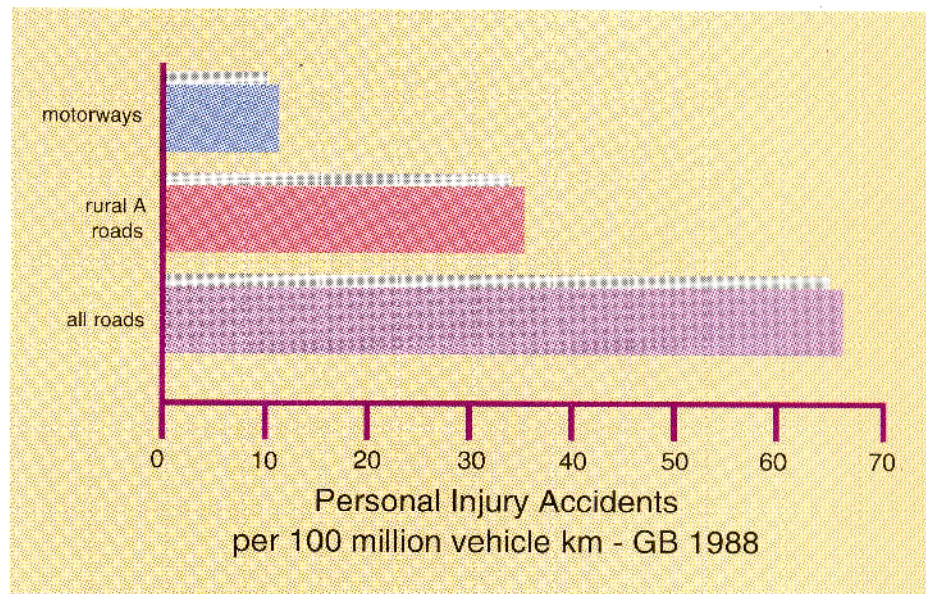




The 9 A1 schemes are all being designed to the latest Departmental standards to ensure that the finished product is safe, long lasting and takes full account of the environment.

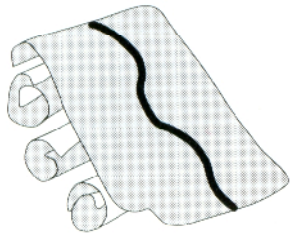
Motorway users expect to find similar conditions on every motorway. Gentle gradients, easy bends, good forward visibility, good pot-hole free road surface, clear signing, emergency telephones and safety fencing.

All this contributes to low accident rates on motorways compared with other roads.



When accidents do occur on motorways they sometimes hit the headlines - especially if a lot of vehicles are involved. Multiple accidents are not caused by the road or by vehicle designers. They happen if some drivers do not keep their side of the deal. It is no good having first class roads and vehicles if motorists drive in a second class way - too fast, too close, too carelessly - or all 3 together!





The following pages provide detailed information about each scheme.





## Redhouse - Ferrybridge

# SOWP

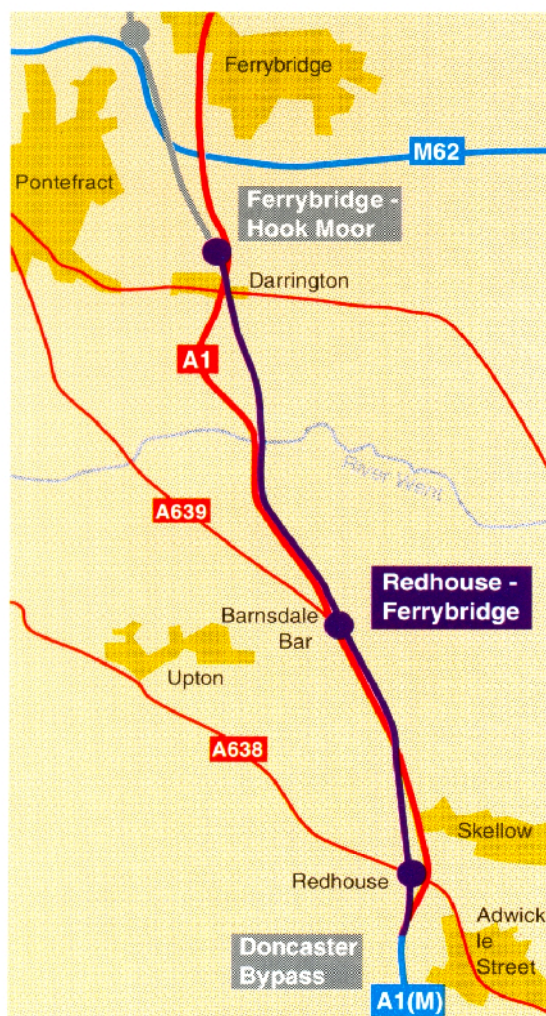
This section is being designed by Sir Owen Williams and Partners. They are being assisted on environmental matters by Anthony Walker and Partners and on traffic matters by the MVA Consultancy.

Detailed studies concluded that there was only one viable route option. This was presented to the public at a modified Public Consultation exercise in January 1992. On the 1 December 1992 the Secretary of State confirmed this as the Preferred Route.



Looking north on the existing road at Skellow

The scheme starts at the northern end of the Doncaster Bypass with an off-line section running to the west of the existing A1 past Skellow.



On-line widening to the east of the A1 then follows through to the crossing of the River Went. North of the river the A1 bends too sharply to be followed by a motorway. The new route therefore diverges eastwards at this point rejoining the existing A1 corridor at Darrington. North of Darrington the route moves off-line to the west to tie into the Ferrybridge to Hook Moor Section.

Full motorway junctions will be provided at Redhouse (A638) and at Barnsdale Bar (A639). A partial interchange, catering for limited traffic movements, is proposed just to the north of Darrington.

Redundant sections of the A1 will be converted into a local access road.



The most significant feature along the route is the River Went Valley. This is an area of high ecological value, designated a Site of Special Scientific Interest in part, with Ancient Woodland on both slopes. (It is of interest to note that folklore has it that this woodland was one of the chief haunts of Robin Hood). The attractive valley is already crossed by the A1, carried on the imposing Wentbridge Viaduct. The new motorway bridge, 250 metres long and 30 metres above the valley floor, will be located on the eastern side of the existing viaduct which will be retained to carry local traffic.



Wentbridge Viaduct

The precise location and form of the new bridge will take account of the views of English Nature, the Landscape Advisory Committee and the Royal Fine Art Commission. The challenge for the consultant is to produce an aesthetically pleasing structure that will have a minimal environmental impact on this sensitive area both during construction and in the long term.

The next important stage in the scheme programme are the publication of draft Orders and Environmental Statement.



# Ferrybridge - Hook Moor

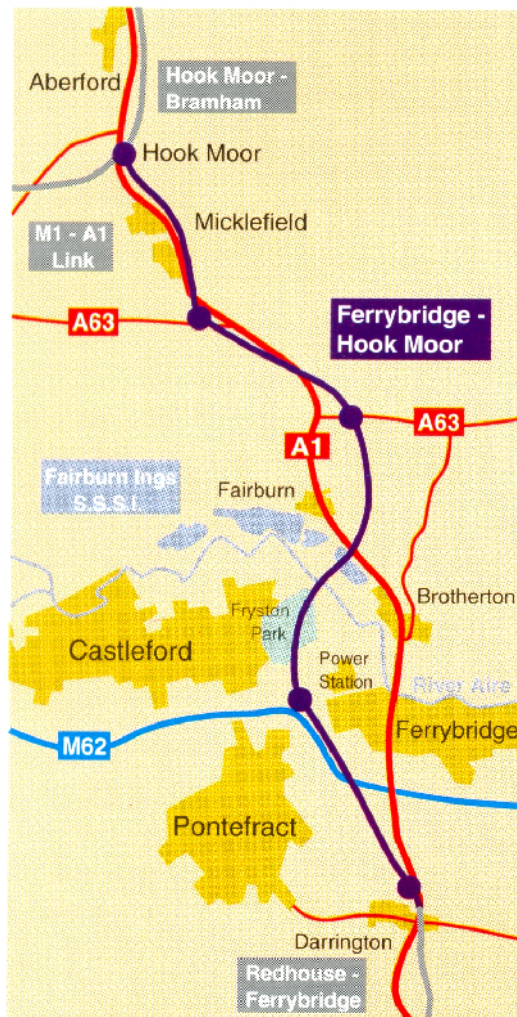
**BULLEN**  
AND PARTNERS  
CONSULTING  
ENGINEERS

This section is being designed by Bullen and Partners. The route of this 10 mile section has been substantially defined by physical constraints, environmental considerations and the need to achieve a safe alignment.

The Preferred Route was announced on 1 December 1992.

The southern section of the route deviates substantially from the existing A1 corridor as improvement 'on line' would cause extensive demolition of property in Ferrybridge.

Tight corridor along the existing A1 north of Ferrybridge



The new motorway follows the line of the M62 before veering off to avoid the neolithic Ferrybridge Henge which is a Scheduled Ancient Monument. Further north the route passes through the eastern side of Fyryton Park, a former deer park, where part of woodland designated as a Site of Scientific Interest will be lost. Substantial landscaping is proposed in this area to mitigate the effects of the new road.

After crossing the navigable River Aire, the route crosses the Brotherton Ings Ash Lagoons which contain a depth of almost 20 metres of ash waste from the Ferrybridge Power Stations. Substantial engineering works may be necessary to stabilise the ash so it can support the motorway.



Routeing the alignment over the ash lagoons and bypassing Fairburn to the east avoids the RSPB Nature Reserve at Fairburn Ings. This reserve is the most important ecological resource in the area and has been designated a Site of Special Scientific Interest.



Fairburn Ings Nature reserve

From Fairburn to Selby Fork the route passes through open agricultural land but will be in cutting to reduce the impact on the landscape.

North of Selby Fork the route rejoins the existing A1 corridor and remains mainly in cutting as far as the Boot and Shoe Junction. Thereafter the route re-crosses the A1 to pass Micklefield to the east of the existing A1.

Two junctions are proposed to link the new motorway to the A63 Trunk Road. A 'free-flow' interchange west of Ferrybridge Power Station will link the new motorway to the M62.

In addition to benefits to the road user, this scheme will benefit the communities of Ferrybridge, Brotherton and Fairburn by taking traffic away from their centres. At Micklefield the road will be some 50 metres further away from the village. Some residents on the western side of Ferrybridge could be adversely affected by the new road but measures such as extensive mounding and planting will minimise the effects.

Great care is being taken in developing the Preferred Route with advice being given by specialists in the fields of ecology, landscape design, archaeology and agriculture as well as civil engineering. Development of all the schemes will also take into account comments and suggestions made during Public Consultation.



# Hook Moor - Bramham

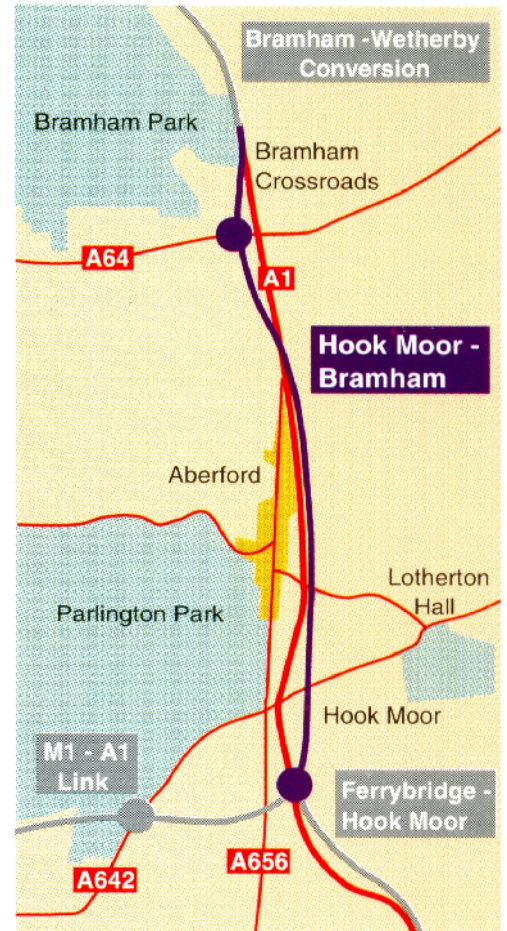


This section is being designed by Pell Frischmann Consultants Ltd.

The Hook Moor - Bramham Section forms part of the proposals for a new motorway link between the M1 and the A1.

The extended M1 and new A1 motorways will meet at Hook Moor. Between Hook Moor and the A64 the new motorway will need to be dual 4 lanes.

The route has been designed to be sympathetic to the environmentally sensitive nature of the area around the historic village of Aberford.



The proposed alignment has been chosen to avoid the Site of Special Scientific Interest at Hook Moor and other archaeological features. Extensive earthworks and planting will mitigate the effects of noise and visual intrusion on Aberford.



Properties adjacent to the Great North Road in the centre of Aberford

The Public Inquiry into this proposal was completed on 25 February 1993.



# Bramham - Wetherby Conversion



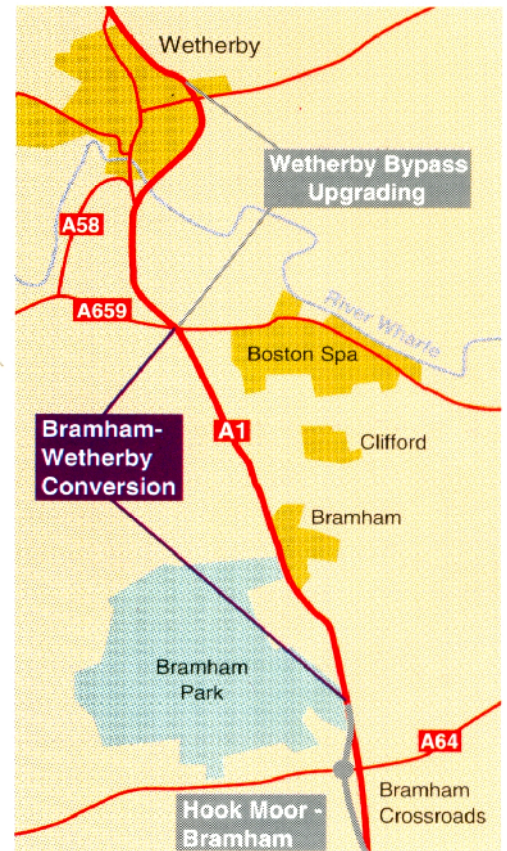
This section is being designed by Carl Bro Kirkpatrick and Partners.

The Bramham to Wetherby Section was added to the road programme in December 1991. Its purpose is to convert the recently built road to motorway.

The newly improved carriageway has already been built to dual 3 lane standards with hard shoulders. However, it cannot become a motorway until the local access road has been built and the junction strategy considered.

The scheme starts just to the north of the A64 Junction near the site of the fierce battle of Bramham Moor fought in 1408 during the War of the Roses. The route passes close to Bowcliffe Hall, with its listed buildings preserved on either side of the A1, then continues northwards passing the picturesque village of Bramham to the east and Bramham Park to the west.

Bramham Park is the site of a magnificent classic style mansion built 1698 - 1710 by Queen Anne's Lord Chamberlain, Baron Bingley. It is superbly set in French style gardens. The park is the venue for the annual Bramham Horse Trails.



The A1 continues northwards passing the villages of Clifford and Boston Spa. Clifford Mill was recorded in the Domesday Survey and later developed as a centre of the flax industry. Boston Spa, as the name implies, is a former Georgian spa with the Pump Room and 18th century houses enhancing the main street.



Bramham Village Square

This section terminates to the north of the junction with the A659 Otley to Tadcaster Road.

Public Consultation will be held towards the end of 1994.

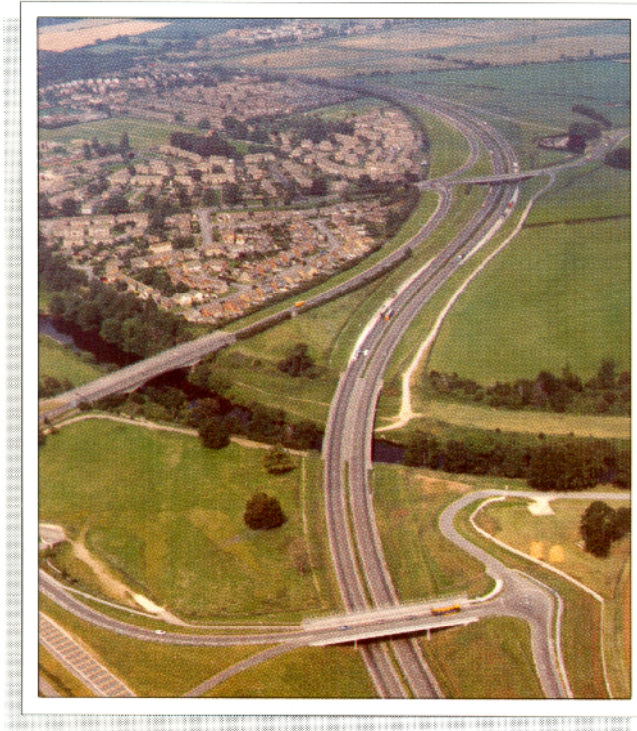


# Wetherby Bypass Upgrading



This section is being designed by Carl Bro Kirkpatrick and Partners.

The Wetherby Bypass scheme was added to the programme in December 1991.



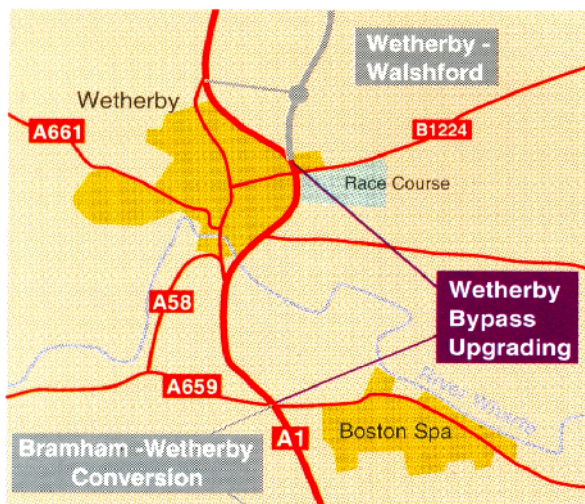
Looking along the line of the existing Wetherby Bypass

Wetherby is an important market town situated on the north bank of the River Wharfe.

There has been a bridge across the Wharfe at Wetherby since 1233. The original 3 arch humpbacked bridge was 11 feet wide.

Wetherby became an important town with the coming of stage coaches in 1658, centering round the Angel and Swan & Talbot hotels where more than 100 horses could be stabled.

For a long time Wetherby has been a stopping point on the Great North Road. At one time North Street was reported to be the narrowest part of the road between London and Edinburgh being only 'three paces' wide.



The A1 passed through Wetherby until 1962 when a dual carriageway bypass was opened. This bypass was improved in 1988 when the Micklethwaite roundabout was removed.

Upgrading this 3 mile section to motorway will use as much of the existing road as possible. The crossing of the River Wharfe valley and the nearness of Wetherby Racecourse will demand the most careful consideration.

Public Consultation will be held towards the end of 1994.



# Wetherby - Walshford



This section is being designed by Pell Frischmann Consultants Ltd.



Traffic negotiating the tight bend on the existing road



The tight bend in the existing road cannot be followed by the new high standard motorway which will be routed to the east. It will start from just south of the existing York Road Bridge and rejoin the A1 north of the existing Moor Lane Bridge at Walshford.

At York Road the existing bridge will be replaced by a new structure offering higher headroom clearance to enable high loads to stay on the A1 rather than travelling through Wetherby as they do at present.

One carriageway of the existing A1 will be converted to a 2-way single carriageway local access road between Wetherby and Walshford.

The other carriageway will be broken out and either returned to agriculture by agreement or landscaped using mounding and/or planting.

An exhibition of the draft Orders was held in January 1993.

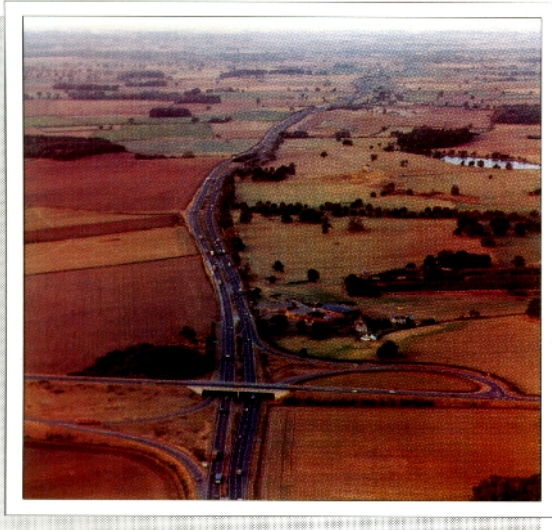


# Walshford - Dishforth

**BULLEN**  
AND PARTNERS  
CONSULTING  
ENGINEERS

This section has been designed by Bullen and Partners.

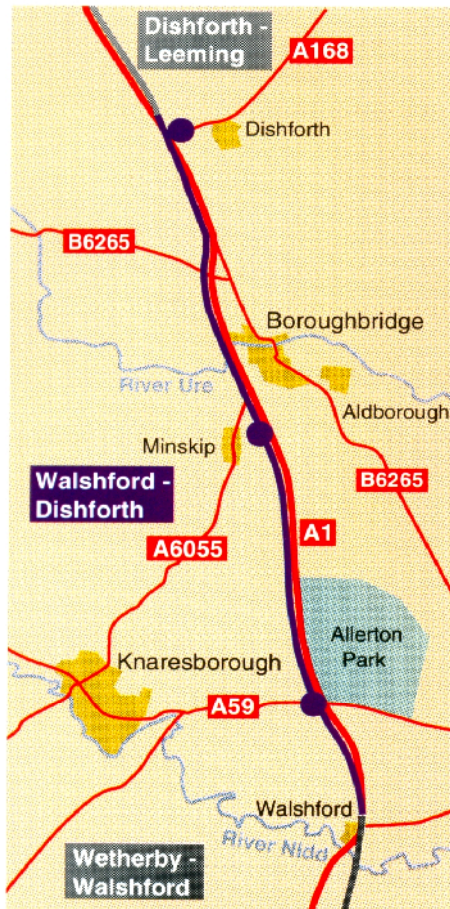
The foreword by the Secretary of State referred to the excellent progress that has been made on this scheme. It is hoped that this first section of the new motorway will be open to traffic in the summer of 1995, only 5 years after the Secretary of State's announcement of the project.



Looking north beyond the A59 junction at Allerton Grange

The existing road intrudes into the gently undulating open countryside with its cuttings, embankments, numerous junctions and sparse vegetation.

A sensitive approach to design has been adopted to improve conditions for all classes of road users whilst reducing the intrusion of the existing A1 and mitigating the effect of the proposed motorway on the overall landscape and environment.



The 13 mile long motorway will be positioned alongside the existing northbound carriageway of the A1. Grade separated junctions will be provided at Allerton Moor, Boroughbridge and Dishforth. These junctions will also connect to a full length 2 lane local access road which will be provided by improving the existing southbound carriageway of the A1. Additional junctions will be provided onto this road to re-establish the east-west links across the motorway.

Extensive landscaping will be used to blend the new motorway and local access road into the surrounding landscape whilst providing visual separation of the two roads. These measures have also acknowledged the needs of the indigenous wildlife and flora of the area. The ecology of the area will benefit from the provision of 40 hectares of new tree and shrub planting. The drainage system for the new motorway has been designed to minimise the effects on the existing watercourses by the construction of balancing ponds which will regulate the discharge and oil interceptors to provide pollution control.



# Dishforth - Leeming



This section is being designed by Pell Frischmann Consultants Ltd.



Looking north along Dere Street from Baldersby Bridge

North of Dishforth the A1 follows the alignment of the Roman road, Dere Street and is inevitably fairly straight. This lends itself to on-line upgrading.

The Preferred Route was announced in 1991, since then design has continued taking account of the many comments received from local people and public bodies.



We are particularly conscious of the need to minimise the impact of the scheme on houses bordering the A1 and to improve conditions if at all possible.

Providing bridges across the motorway will offer the opportunity to re-establish east-west footpath, bridleway and cycle routes which have effectively been severed by the increase in A1 traffic.



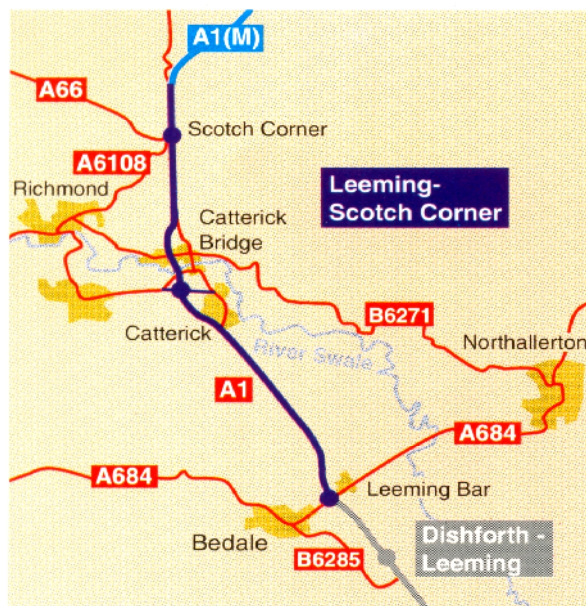
# Leeming - Scotch Corner



This section is being designed by W S Atkins - Northern using their in-house team of specialists in the fields of highway and bridge engineering, traffic and economic planning, landscape architecture, agriculture and the environment, and archaeology. A principal concern in designing the scheme has been to minimise the adverse impact on the environment and local communities whilst providing cost effective improvements to the A1.

Parallel widening techniques will be adopted to maintain existing traffic flow on two lanes in each direction during construction.

On-line improvement has been selected after careful consideration of all alternatives. This has been made possible because this section of existing road is almost straight. Improving and widening the existing road - rather than a totally new 'green-field' alignment - generally requires less land, causes less disruption to communities and reduces the need for demolition of existing properties. However such a method of improvement is not without its own problems.



The existing junctions at Catterick North and Catterick South will be replaced with a single, central junction. This will take traffic out of Catterick Village and Catterick Bridge whilst providing for all local traffic movements.

Great care is being taken to retain existing landscape features where possible and to design new planting and ground modelling to replicate natural features.

The Roman history of the A1 has been mentioned in previous chapters. This particular section of the motorway is one of the most sensitive along the whole route. The existing road generally follows the line of Dere Street both to the south and to the north of the Catterick area. The Catterick Bypass, which was built in the 1950's, unfortunately passed through the buried remains of the former Roman town of Cataractonium, now a Scheduled Ancient Monument (SAM). At this point the existing road is in a cutting up to 8 metres (26 feet) deep and 61 metres (200 feet) wide.



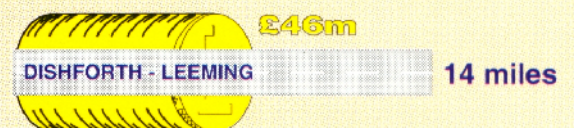
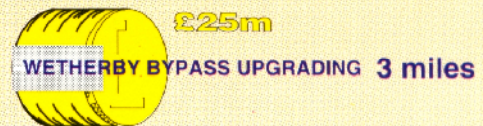
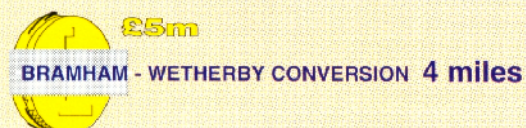
Remains of a Roman house alongside Dere Street near 3ainesse Farm, Catterick



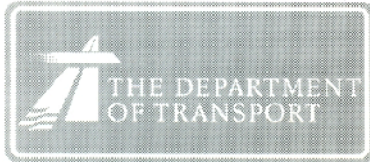
Further widening of the road through this area would have destroyed other parts of this very important SAM. Very careful and detailed investigation of archaeological evidence has been carried out. The knowledge gained is allowing us to provide extensive retaining walls where the motorway passes through Catacractonium to squeeze the motorway through the same gap as defined by the existing cutting.

## Scheme Summary

\*All costs are estimated







We hope that having read this brochure you now have a clearer understanding of how we are going about the task of upgrading the 90 mile long Yorkshire Section of the A1.

If you have any questions or comments please contact the Department of Transport at:-

Yorkshire & Humberside  
Construction Programme Division  
Jefferson House  
27 Park Place  
LEEDS  
LS1 2SZ  
Telephone 0532 541000

## Acknowledgements

The following photographs have been reproduced with permission

Cover	Middle	"The Hulton Deutsch Collection"
Page 21	'Feathered' Tree	Leeds City Council
Page 21	Cowslip	Leeds City Council Conservation Unit
Page 22	Thistle Broomrape	Leeds City Council Conservation Unit
Page 23	Bird's-foot Trefoil	Leeds City Council Conservation Unit
Page 23	Meadow Brown	Leeds City Council Conservation Unit
Page 24	Roman Lady	English Heritage
Page 25	Shops & Houses	English Heritage
Page 39	Roman House	English Heritage