A new deal for trunk roads in England: Understanding the new approach

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Foreword

We need to set a more substainable course for our transport policy. On current projections and without policy changes traffic could grow by more than a third over the next 20 years and by more than a half on trunk roads. By 2016, a quarter of the trunk road network would be choked with traffic, the cost to the nation measured in billions of pounds each year. Gains from stricter vehicle emissions standards would be outweighed by increasing traffic volumes leading to more air pollution. It is estimated that the deaths of up to 24,000 vulnerable people are hastened each year by air pollution. Transport is now the fastest growing source of CO2 emissions in the UK, the main cause of climate change.

Simply predicting future levels of traffic and building new roads to accommodate it is no solution. Nor does it make sense to publish long lists of road schemes which never get built. A landmark report by the Standing Advisory Committee on Trunk Road Assessment (SACTRA) in 1994, Trunk roads and the generation of traffic, showed that building new roads can generate extra traffic. Too much money spent on building new roads is also one reason why too little has been spent on maintenance. The last two national surveys show a deterioration in the condition of trunk roads (including motorways). We need a more focused approach.

To do nothing is not an option. Everyone stands to gain from a new approach, motorists included. That is why in our Manifesto we promised to develop an integrated transport policy to fight congestion and pollution and why earlier this month we published our White Paper, *A New Deal for Transport: Better for Everyone*. The White Paper sets out our integrated transport policy. It explains how we will extend choice in transport - to secure the mobility that modern Britain needs in a way that is sustainable. It is our New Deal for Transport - a transport system that is safe, efficient, clean and affordable.

This document fulfils another Manifesto promise; to conduct an overall strategic review of the roads programme against the criteria of accessibility, safety, economy and environmental impact. It is more than a list of schemes. It is a whole new approach. Congestion will be treated as a transport problem open to a number of solutions - there will be no presumption in favour of new road building as an answer. We explain how trunk roads in England must play a full role in an integrated transport policy - there will be separate roads review statements for Scotland and Wales. We have added ’integration’ to the list of criteria. In contrast to previous reviews, we have consulted widely. Around 14,000 responses were received to the consultation document we published last July.

There is a place for road building, but it is no longer the first option. Adequate maintenance of existing roads is our number one priority for investment in trunk roads. More efficient use of existing road space is number two. We want trunk roads which are safer, more reliable and better integrated into the transport system as a whole. We also want to reduce their impact on people and the environment in terms of noise, pollution and physical intrusion. In short, this is our new deal for trunk roads in England.

Executive Summary

A New Deal for Trunk Roads in England reports on the Government's strategic review of the roads programme against criteria of accessibility, safety, economy, environment and integration. It is one of a number of publications which spell out more fully the policies in the transport White *Paper A New Deal for Transport: Better for Everyone*. The White Paper sets out a policy for a transport system which is safe, efficient, clean and fair. The main outputs of the roads review include:

- a new direction for the Highways Agency encapsulated in a new strategic aim and new objectives;
- a core network of nationally important routes;
- new planning arrangements for trunk roads;
- better maintenance and making better use of trunk roads;
- new dedicated budgets for noise and safety improvements; and
- a carefully targeted programme of larger scale improvements.

Public consultation

In contrast to previous reviews, our roads review has been carried out with wide consultation. Around 14,000 responses have been received to the consultation document we published last July. Ministers have held consultation meetings in every region and with MPs from every region in England.

New objectives for the Highways Agency

The Highways Agency is the executive agency responsible for trunk roads (including most motorways) in England on behalf of the Government. We have set a new strategic aim and new objectives for the Highways Agency as a network operator charged with giving:

- a higher priority to better maintenance and making better use of existing roads; and
- greater emphasis to environmental and safety objectives.

To measure progress against these objectives, the Highways Agency is developing a number of economic and environmental performance indicators.

A core network

We have identified a core network of nationally important routes comprising some 60 per cent of the existing trunk roads, which:

- link the main centres of population;
- provide access to major ports, airports and rail terminals;
- provide access to peripheral regions;

- provide key cross-border routes to Scotland and Wales; and
- include Trans-European Networks.

These roads will remain the responsibility of the Highways Agency. We will enter negotiations to transfer responsibility for the other 40 per cent of existing trunk roads to local authorities.

New planning arrangements

Trunk roads must play a full role in our integrated transport policy. They should not be planned in isolation. We will:

- bring transport and land use planning together at regional level;
- plan future improvements to trunk roads at regional level;
- focus on strategic road and rail transport corridors, ensuring that these are planned together in an integrated way;
- provide safer and more accessible interchanges between different forms of transport eg park and ride and freight transfer facilities; and
- consider trunk roads as a part of an overall transport network which includes local roads, railways, inland waterways, ports, airports and public transport interchanges.

New priorities for investment

To support our new objectives for trunk roads policy we have set new priorities for investment. We will:

- improve trunk road maintenance, making it our first priority;
- make better use of the roads we have through network control, traffic management measures and safety improvements; and
- tackle some of the most serious and pressing problems through a carefully targeted programme of improvements.

Better maintenance

Maintenance of the trunk road network has been neglected in recent years and its condition has deteriorated. We have already provided for an increase on trunk road maintenance of Â£100 million to Â£300 million in 1998/99. We will:

- progressively tackle the backlog of maintenance on trunk roads;
- move trunk road maintenance towards a 'whole life costs' basis to minimise long term costs and disruption to the network; and
- develop public-private partnerships to improve trunk road maintenance.

Making better use

Making better use of existing road capacity is a key priority. The Highways Agency is developing a 'toolkit' of techniques for this purpose. Examples include variable speed limits, controlling access to motorways and giving priority to buses and lorries. We will:

- promote the development of innovative traffic management techniques;
- give priority to certain classes of traffic on trunk roads, for example buses and lorries where appropriate in the context of our integrated transport policy;
- integrate the operation of trunk roads with public transport and encourage the transfer of freight from road to rail; and
- ensure that trunk roads are managed in a way that supports more walking and cycling.

Better driver information

We will exploit new technology to improve journey information. The Highways Agency is bringing forward proposals for a public-private partnership to establish Regional Traffic Control Centres, to co-ordinate traffic flows across the network. Key benefits would include:

- improving the reliability of journeys;
- reducing the disruption caused by major incidents;
- providing advice about alternative routes, including public transport; and
- minimising delays due to road works.

Better safety

Trunk roads have a relatively good safety record, but still over 600 people were killed and more than 5,000 seriously injured on trunk roads in 1996. We will:

- establish targets to reduce road casualties further by 2010 as a part of a coherent road safety strategy including trunk roads;
- ensure that our road safety strategy supports the objectives of an integrated transport policy, including more walking and cycling;
- include trunk roads in our review of speed policy, which will include safety and environmental objectives; and
- establish a new budget for trunk road safety measures costing up to Â£5 million each.

Supporting the economy

Traffic congestion costs the nation billions of pounds each year. On present trends and unchanged policies, traffic is forecast to grow by more than a third on all roads over the next 20 years and by more than half on trunk roads. We will:

- tackle traffic congestion through our integrated transport policies which include making better use of existing trunk roads and better maintenance;
- promote walking, cycling, public transport and freight movement by rail and inland waterway;
- give priority to particular types of traffic where appropriate, including lorries and buses;
- tackle some of the most serious immediate problems through a carefully targeted programme of improvements (see page 10); and
- integrate transport with land use planning and economic development at regional level through the regional planning process.

Protecting the environment

Our trunk roads policies aim to support the protection and enhancement of the natural environment. We will:

- operate a strong presumption against major new transport infrastructure which damages environmentally sensitive sites - it will not go ahead unless other options have been explored, the benefits clearly override the environmental disadvantages and all reasonable steps are taken to mitigate the environmental impact;
- manage the trunk road network to support the protection of species and habitats;
- promote the use of recycled construction materials in road building; and
- manage traffic flows to help reduce emissions which contribute to ill health and climate change.

Tackling noise

Noise has become an increasing problem as traffic volumes have increased. We will:

- specify quieter road surfaces in all future contracts for new trunk roads;
- ensure that the most appropriate noise reducing surfaces are used whenever a road needs resurfacing where noise is a particular concern; and
- establish a budget for noise mitigation measures to tackle some of the most serious and pressing problems on existing trunk roads.

Charging for road use

New legislation would be needed to introduce tolling on trunk roads and there would be practical difficulties in introducing widespread tolling in the shorter term. We will:

- develop smaller scale, pilot charging schemes, designed to take account of the local transport network;
- consider for each scheme how best a proportion of the revenue generated may be used to provide benefits which might otherwise be unaffordable, including environmental benefits; and
- continue technical trials of electronic systems, carry out further research on their possible effects (including diversion) and look at the options for introducing charging selectively.

A new approach to appraisal

To help us make investment decisions we have developed a new approach to appraisal. It enables:

- assessment of scheme proposals against criteria of accessibility, safety, economy, environment and integration; and
- comparison of the advantages and disadvantages of different options for solving transport problems, including traffic management and public transport alternatives.

In view of our strong presumption against damage to environmentally sensitive sites, we have developed the new approach to appraisal in consultation with English Nature, English Heritage, the Environment Agency and the Countryside Commission.

A targeted programme of improvements

We inherited a Â£6 billion road building programme of around 150 schemes from the previous government, scaled down from over 500 in 1990. Decisions on 14 schemes were made in the accelerated review last July. Our carefully targeted programme will include 37 schemes, costing Â£1.4 billion which we intend to start within the next seven years subject to the completion of statutory processes. The schemes are in three main categories:

- safety and healthier communities (21 schemes);
- regeneration and integration (8 schemes);
- supporting jobs and prosperity (7 schemes).

The programme also includes one exceptional environmental scheme at Stonehenge.

Finding solutions

Many of the most pressing problems will be addressed in our targeted programme of improvements but some serious problems will remain. We aim to find long term solutions, which include better planning, better traffic management and better public transport. We will:

- work with regional planning conferences to commission transport corridor and area studies to address the most pressing outstanding problems; and
- aim to incorporate the solutions identified into updates of Regional Planning Guidance.

In addition, there are 7 schemes which were not sufficiently advanced to be considered for the targeted programme which address serious and pressing problems for which there may be no realistic alternative solution. These will be progressed through their preparatory stages and statutory processes so that if they pass assessment under the new approach to appraisal they can be taken forward.

36 schemes will be withdrawn from the programme.

Making a difference

As a part of our trunk roads review we have made a qualitative and quantitative assessment of our policies and programme. We believe the targeted programme of improvements and the policies we have set out represent a sustainable way forward which balances limited environmental costs against the social, economic and environmental benefits of the policies and the programme as a whole.

Chapter 1
A New Deal for Trunk Roads in England

1.1 A new deal for transport

Our White Paper, *A New Deal for Transport: Better for Everyone*, has set out our integrated transport policy. We will extend choice in transport to secure mobility in a way that supports sustainable development. We seek a transport system that is safe, efficient, clean and fair.

We want a system that meets the needs of people and business at an affordable cost and produces better places in which to live and work. We want to cut congestion, improve our towns and cities and encourage vitality and diversity locally including in rural areas, thus helping to reduce the need to travel and avoiding the urban sprawl that has lengthened journeys and threatened precious countryside.

This document, *A New Deal for Trunk Roads in England*, reports the results of our Roads Review on which we consulted last year. It explains how trunk roads in England - those roads which the Highways Agency manages on behalf of Secretary of State for the Environment, Transport and the Regions - will contribute to delivering our policy.

1.2 The Legacy

Congestion harms our environment and economy

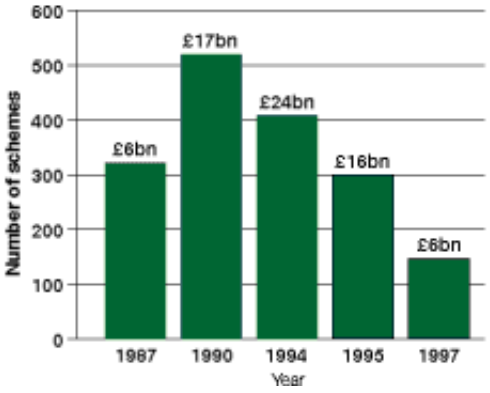
As a trading nation we need efficient transport links with our international markets and a transport system at home that functions effectively. Increasingly, however, transport is threatening the quality of our environment and the world that our children will inherit. Cars have brought flexibility and widened horizons but the way we are using them has a price - for the economy, for our health, and for the environment. Transport policies dominated by the short term have reduced choice for public transport passengers, motorists, pedestrians and cyclists alike.

While estimates vary, the costs of traffic congestion to the nation are certainly substantial, amounting to billions of pounds each year. Too many people (about 46,500 in 1997) are killed or seriously injured on our roads. In the UK, road transport is the fastest growing source of CO2 emissions, the main contributor to climate change, which is, in turn, the greatest global environmental threat facing the world. A quarter of

the UK's total carbon dioxide emissions in 1995 came from transport - and over four fifths of the transport share came from road vehicles. Road transport also adds substantially to the local air pollution that is damaging our health and hastens the death of thousands of vulnerable people each year.

In 1990 the previous Government published an expanded trunk road building programme - but then cut it back in three subsequent reviews (see graph below). It is essential that we form a coherent transport strategy now to meet the challenge of continuing traffic growth, and that we conduct reviews in a way which is both open and consultative. There were cuts in the maintenance programme too, and the last two national surveys show a deterioration in the condition of our trunk roads (including motorways).

Historical size of the trunk road programme



The cost figures shown in the bar chart are those announced at the time uprated for inflation and expressed in 1997 prices. The figure for 1990 proved to be a significant underestimate.

On present trends and unchanged policies, traffic is forecast to grow by more than a third on all roads over the next 20 years and by more than half on trunk roads. Few would suggest that this level of traffic growth could or should be accommodated by new road building. In 1994, the Standing Advisory Committee on Trunk Road Assessment (SACTRA) [1] published a report showing that building new roads can generate more traffic. Simply predicting future traffic levels and building new roads to accommodate traffic growth is not a solution.

There are already parts of our trunk road network suffering from serious traffic congestion. Maps on pages 16 and 17 illustrate the extent of the problem. Based on the 1997 National Road Traffic Forecasts they show that, with the existing network and no change in policies, the proportion of the trunk road network with serious congestion (coloured red and yellow) would increase from 14 per cent in 1996 to 26 per cent in 2016. If we express this in terms of road travel, the proportion of trunk road traffic using these stressed sections would increase from 26 per cent in 1996 to 46 per cent by 2016.

On the same basis, journey times are forecast to increase considerably - on urban motorways by 70 per cent in peak hours by 2016. The impact of this amount of traffic growth and traffic congestion on people, our environment and the economy would be substantial and negative. It is to address these problems that we have developed a new approach.

1.3 Making a difference through an integrated transport policy

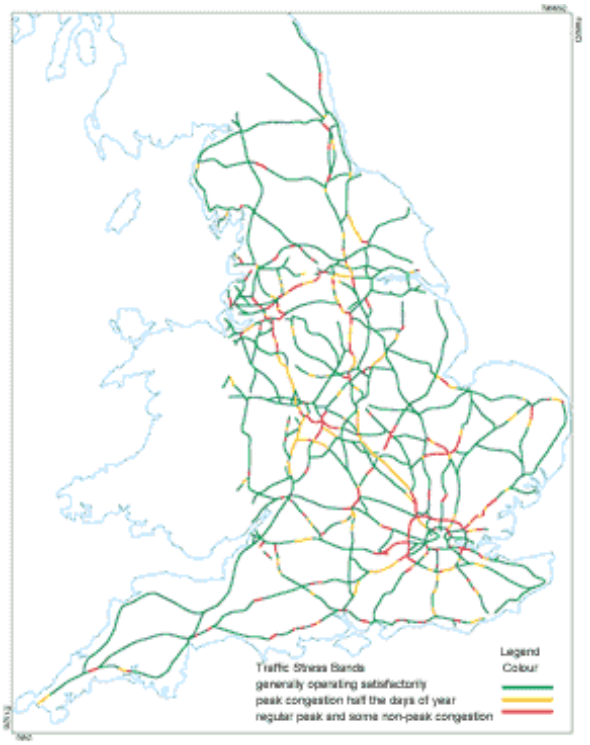
The way forward is through an integrated transport policy. By this we mean integration:

- **within and between different types of transport** - so that each contributes its full potential and people can move easily between them;
- **with the environment** - so that our transport choices support a better environment;
- **with land use planning** - at national, regional and local level, so that transport and planning work together to support more sustainable travel choices and reduce the need to travel; and
- **with our policies for education, health and wealth creation** - so that transport helps to create a fairer, more inclusive society.

Trunk roads are a vital part of our nation's strategic transport infrastructure alongside railways, inland waterways, ports and airports. They must play a full part in an integrated transport policy which enables people to depend on cars less and ensures that more freight is carried by water and rail. We must make better use of trunk roads as part of integrated transport networks.

Motorway and Trunk Road Stress Levels in 1996

Projected Motorway and Trunk Road stress Levels in 2016



1.4 Our Manifesto commitment - the criteria for the Roads Review

As foreshadowed in the Manifesto, our Roads Review has been guided by five criteria:

- integration - ensuring that all decisions are taken in the context of integrated transport policy;
- safety - to improve road safety for all road users;
- economy - supporting sustainable economic activity in appropriate locations and getting good value for money;
- environmental impact - protecting the built and natural environment; and
- accessibility - improving access to everyday facilities for those without a car and reducing community severance.

1.5 The public consultation on the Roads Review

In contrast to previous reviews of the trunk road programme, our Roads Review has been informed by comprehensive public consultation. In July last year we issued the consultation document What role for Trunk Roads in England? We received about 14,000 responses. Although many of these concerned largely local and regional issues, some 600 made points about the direction in which policy should move (*see Annex A*). Policy issues for roads were also raised in responses to our separate consultation on integrated transport policy.

Ministers attended conferences in each region on the integrated transport strategy. The Government Offices for the Regions also convened consultative seminars and meetings with representatives of local authorities, business, environmental and other interested organisations to consider the role of the trunk road network in their areas. Helene Hayman, the Minister for Roads, held 12 regionally based meetings with Members of Parliament to which every English MP was invited.

There was clear support for measures to make better use of the roads we already have; for measures to manage demand; and for better public transport. There was a recognition that some new road building was needed, especially of bypasses to relieve congested towns and villages, widening of existing roads to remove bottlenecks and action to tackle accident blackspots. The creation of completely new routes received little support. We have taken account of these views in drawing up our proposals.

1.6 New Priorities for Investment

We are re-focusing our approach to trunk road investment to provide a coherent programme for improving the service offered by those roads. This will complement improvements to inter-urban travel by public transport in a way which supports our policy on sustainable development. We will:

- improve trunk road maintenance, making it our first priority;
- make better use of the roads we have already by investing in network control and traffic management measures and in safety improvements; and
- tackle some of the most serious immediate problems through a carefully targeted programme of improvement schemes where they support our integrated transport policy.

Good Maintenance

For too long too little money has been directed at a proper programme of maintenance in time to avoid major problems. This has been a false economy and has sometimes led to the need for emergency repairs which might have been avoided. Keeping our roads in good and safe condition is of the utmost importance. We are therefore progressively restoring maintenance funding to a level which avoids the need for more costly and disruptive maintenance later and we are developing a forward looking strategy which ensures that road renewal is carried out at the right time to obtain best value for money and minimise disruption.

There is a backlog of maintenance work on trunk road bridges. The funds available have been used to ensure that safety levels are maintained. Substantial progress is now being made with the bridge assessment and strengthening programme.

Better use of the Network

We must make the best use we can of all the transport infrastructure and services we have. But measures to make better use of the roads will often produce a sustainable solution only if they are accompanied by other measures, such as better train or bus services. The Highways Agency has developed a range of techniques to help solve transport problems. These include ways of integrating the road network, both trunk and local, with other forms of transport by providing safer and easier interchanges; by giving clear and up to date information to help people choose the best route and form of transport; and by managing traffic on trunk roads, including giving priority to lorries or buses where this is safe and effective.

The targeted programme of improvements

There is no longer any need for a large scale road building programme although there is a case for improving some existing roads. We have scaled back the previous Government's programme to a much better targeted and smaller programme - and one which can be delivered in a realistic time frame.

Our targeted programme of improvements consists largely of bypasses which will relieve towns and villages blighted by heavy through traffic and schemes to ensure that the core network (*see chapter 2*) functions effectively in support of the economy and regeneration. It includes a small number of schemes to widen motorways and other major trunk roads at particularly highly stressed points but these are only being taken forward where they support an integrated and sustainable strategy that will involve traffic management measures to ensure that we do not need to add yet further lanes in future years.

1.7 A new direction for the Highways Agency

To bring these policies into effect, we have set a new direction for the Highways Agency, the executive agency of the Department of the Environment, Transport and the Regions which manages and maintains trunk roads in England and prepares schemes to improve them. This is encapsulated in a new strategic aim and objectives which are set out in the box below. The Highways Agency is developing a number of economic and environmental performance indicators to chart progress against the objectives set.

HIGHWAYS AGENCY'S STRATEGIC AIM AND OBJECTIVES

Strategic Aim

To contribute to sustainable development by maintaining, operating and improving the trunk road network in support of the Government's integrated transport and land use planning policies.

Key Objectives

To give priority to the maintenance of trunk roads and bridges with the broad objective of minimising whole life costs;

- to develop its role as network operator by implementing traffic management, network control and other measures aimed at making best use of the existing infrastructure and facilitating integration with other transport modes;
- to take action to reduce congestion and increase the reliability of journey times;
- to carry out the Government's targeted programme of investment in trunk road improvements;
- to minimise the impact of the trunk road network on both the natural and built environment;
- to improve safety for all road users and contribute to the Government's new safety strategy and targets for 2010;
- to work in partnership with road users, transport providers and operators, local authorities and others affected by its operations, to promote choice and information for travellers, monitoring and publishing information about the performance and reliability of the network; and
- to be a good employer, managing the Agency's business efficiently and effectively, seeking continuous improvement

In pursuing these objectives the Highways Agency will work in partnership with local highway authorities to share information and expertise on the management, maintenance and improvement of roads.

[1] Trunk Roads and the Generation of Traffic, HMSO 1994

Chapter 2
Trunk Roads in an Integrated Transport System

2.1 An integrated network

Trunk roads are an integral part of our transport system. They cannot and should not be managed and developed in isolation. We will manage the trunk road network, and encourage local authorities to manage local roads, as part of a series of transport networks - including roads, railways, inland waterways, airports, ports - that have good connections between them. We will also ensure that trunk road planning is co-ordinated with land use planning through the Regional Planning Guidance (RPG) system. For example, poor coordination of planning decisions can lead to greater car use and road congestion, and new road schemes can lead to pressure for further development and land take.

2.2 A strategic network for England

Some trunk roads are of national importance; others are of regional or local significance. Trunk roads range from motorways carrying up to 200,000 vehicles a day to relatively minor roads linking small towns and villages. In the White Paper we identified a "core" network of nationally important routes (see map below). These account for some 60 per cent of the current trunk road network.

Factors taken into account in identifying these core routes include:

- linking the main centres of population;
- access to major ports, airports and rail terminals;
- access to peripheral regions;
- providing key cross-border routes to Scotland and Wales; and
- classification as part of the Trans-European Road Network.

The Highways Agency will continue to be responsible for core routes on behalf of the Secretary of State. But strategically important improvements to both the traffic management and infrastructure of the core network will in future be planned through the RPG system. The fact that a route has been identified as part of the core network does not mean that it must be improved to any particular standard. It is essentially a matter of ensuring that each route is planned in an integrated context at an appropriate level.

The management of the core routes must be carefully coordinated with the parallel rail routes within the same transport corridors. The Highways Agency will work with rail operators to make interchanges easier, for example by improving access to park and ride and freight transfer facilities.

Regional Planning Guidance and Trunk Road Planning

Earlier this year we consulted on a package of proposals to reform RPG. A key part of this proposal is for RPG to include a regional transport strategy based on the promotion of sustainable forms of transport. Government Offices for the Regions and the Highways Agency will contribute to this work, which will include trunk road issues. This work will be informed by studies designed to ensure that solutions to transport problems are developed in a manner consistent with our integrated transport policy (see box below).

Trunk Road Network

Regional Planning Guidance and Trunk Road Guidance

- To develop an effective integrated transport policy at the regional level, decisions about trunk road planning should be set in the context of the transport network as a whole.
- The definition of long-term regional priorities for transport improvement and management in Regional Planning Guidance must flow from an appraisal of the realistic options available and from an understanding of the role of transport in sustainable regional development.
- We will look to conferences of local authorities to work with their regional partners to consider the objectives and, in broad terms, the priorities for managing and improving trunk roads which are key

to delivering the regional strategy.

- Our investment strategy for trunk roads will be consistent with the priorities set out in Regional Planning Guidance

2.3 Trunk Roads not on the Core Network

Our clear aim is to get decisions taken at the level at which the relevant factors are best understood. If a road which is now a trunk road does not have significance outside a local highway authority's area, decisions about improvements to that road ought to be taken by the local highway authority.

We shall consult local highway authorities about transferring to them ("de-trunking") roads not on the core network so that their management and improvement can be fully integrated with land use planning and the new local transport plans.

The statutory procedures for de-trunking are complex and time consuming. They involve negotiation and agreement with individual highway authorities. Occasionally Parliamentary procedures are needed. To get the benefits of integrated, local decision-taking as soon as possible, we will seek to agree a system for "virtual de-trunking". Under these arrangements the Highways Agency will continue to maintain and manage the routes pending formal de-trunking and will deal with the improvement schemes which are listed in the new targeted programme of improvements. Beyond this, they will only promote further improvements where they are warranted on safety grounds. All other improvements will be considered by the local authorities as part of their local transport plans. If they consider that such improvements deserve priority and if the local transport plan is approved, and if funding is made available, the work will be carried out by the Highways Agency. The funds allocated to local transport will reflect this approach.

This new approach will mean that the benefits of integrated local decision making can be achieved quickly on about 40 per cent of the present trunk road network. It will ensure that funds are used to produce the best possible transport system in local areas. It will minimise the distortions which result from priorities for trunk and local roads being determined separately.

Many of the non-core routes are of regional significance. Regional planning conferences will need to consider the strategic traffic management and improvement of these routes in preparing their draft RPG. This should help to ensure that local highway authorities take due account of the regional role of these routes.

2.4 L ondon's Roads

The Government's White Paper on modernising the governance of London (A Mayor and Assembly for London), published in March 1998, confirmed that, when it is set up in 2000, the new Greater London Authority (GLA) will be responsible for a strategic road network in London. This network will consist of all trunk roads within Greater London and the short stretches of motorway (A40(M), M41 and A102(M)) which are not directly connected to the national motorway network, together with certain other important roads which are currently the responsibility of the London Boroughs. However, the GLA will not take over responsibility for the M1, M4, M11 and M25 because these would be more efficiently managed as part of the national network. The Boroughs will continue to have responsibility for local roads.

2.5 Improving access to everyday facilities

Cycling: better for health, better for the environment

The ease with which people can get to work, shops and other services is an important part of our daily life. Trends over recent years indicate that people have been making longer and longer journeys, principally by private car, to reach these facilities. There is a conflict between lifestyles built around more frequent longer journeys made quickly and conveniently by car, and people's desire for less pollution, less noise and less congestion. We can improve matters in two main ways: by providing facilities closer to hand and within reach of each other, to allow several purposes to be met in each trip, for example by locating shops and leisure facilities in town and suburban centres; and by enabling journeys to be made by modes other than the car such as public transport, cycling and walking. These measures can also encourage a sense of community and promote social inclusion, by enabling people who cannot travel longer distances or by car to participate in a wider range of activities.

To improve accessibility, in particular by public transport, bicycle and on foot, it is important to adopt an integrated approach to transport and land-use planning. For example, when assessing a proposed road scheme, we can look at whether it will encourage more car use or facilitate other forms of travel or consider what pressures for further development it is likely to generate and whether any such development is likely to increase the use of cars. Equally, when making local development plans or assessing planning applications, careful decisions on location and types of development can ensure that important facilities can be reached by a high proportion of people without the need to use a car, and agreements with developers can secure provision of bus stopping facilities, cycle racks and good footpaths and pedestrian areas.

2.6 Improving conditions for pedestrians and cyclists

For pedestrians and those who do not have access to a car the amount of traffic on our busiest roads can make journeys on foot or cycle slower, less pleasant and more hazardous. It inhibits people from crossing the roads, or from cycling along or walking beside them. In the past the provision of proper facilities, especially for crossing the road, for pedestrians and cyclists on trunk roads has often been considered only

after the needs of motorists have been accommodated. The integrated transport policy now recognises that that is not the right approach. Cycling and walking are being put very much more to the forefront in our planning along with the need to provide proper facilities for good and efficient public transport. We will not succeed in encouraging people to leave their cars and use alternative forms of transport if they cannot cross roads and use some of the most important routes safely and conveniently.

2.7 Making it easier to switch away from the private car

Facilities for transfer between private and public transport need to be well planned and to provide for all forms of transport, including cycling and walking. The Highways Agency, the local authorities and the bus and train operators all have a role and need to work in partnership to deliver better services.

Park and ride schemes can be coupled with other measures to reduce car travel and provide better public transport. Priority can be given to cars entering and leaving park and ride sites.

There are a number of options for helping bus services to operate more reliably. In some places where a new stretch of road has been built part of the extra space could be re-allocated for dedicated bus lanes. In others, priority can be given at junctions to buses, for example by using "smart" traffic lights which recognise an approaching bus and change in its favour.

2.8 Helping people with mobility difficulties

An inclusive society is one of our over-riding objectives. Increasingly public transport - buses, coaches, trains and taxis - will become fully accessible to disabled people under regulations to be introduced under the Disability Discrimination Act. But the mobility needs of disabled people go beyond ensuring that public transport is fully accessible. We must also ensure that their needs are fully reflected in all of our transport policies, including those affecting our trunk roads. This should not be a question of introducing

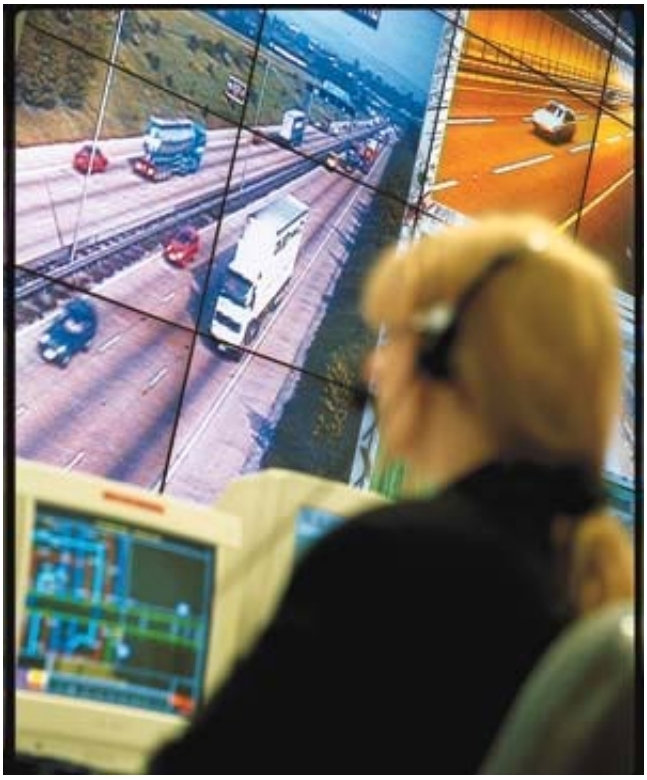
token measures for disabled people, but rather one of ensuring that any measures which are introduced do not undermine the independent mobility of disabled people.

2.9 Promoting Integration

The Highways Agency, in collaboration with the local authorities, will seek to promote integration, and encourage the use of forms of transport other than the car, by:

- providing safer and more accessible interchanges between different forms of transport;
- providing information using the latest technology to inform drivers about travel choice, for example through Regional Traffic Control Centres (*see Chapter 7*) and signing;
- encouraging the use of other forms of transport, where appropriate, through publicity; for example providing information on train services where there are major roadworks;
- providing priority measures to assist public transport such as bus lanes;
- providing special facilities for those not using a car, such as cyclists, pedestrians and equestrians;
- seeking to provide easy access to rail freight terminals and ports as well as providing lorry only lanes where this is safe and effective;
- providing road travel information through the Highways Agency's Website (http://www.highways.gov.uk), with links to other transport operators and encouraging travellers to consider options other than the car. The Agency's Information Line will be similarly outward looking;
- developing partnerships with operators and with the local authorities to improve travel co-ordination.

Further discussion of the scope for making better use of the trunk road network in these and other ways is in Chapter 7. technology to monitor traffic flow



New technology - providing a better service to drivers

Chapter 3 Protecting the Environment

3.1 Giving More Weight To The Environment

One of the major aims of the Roads Review has been to find ways of reducing the adverse impact of trunk roads on the environment.

The way we maintain, manage, plan and, where necessary, improve our trunk roads must play its full part in safeguarding and enhancing the built and natural environment. Our policies for making better use of the existing network and of reducing the need to travel by car through the planning system (*see chapter 2*) will help to protect the environment.

Our policy on the environmental impact of trunk roads has three main strands:

- reducing the direct impact of trunk road traffic on the built and natural environments through which it passes;
- giving greater weight to the local environment, including sensitive sites, in our appraisal of trunk road investment proposals;
- reducing greenhouse gas emissions and pollutants from trunk road traffic.

The Highways Agency will develop a series of performance indicators (*see 1.7)* to track the environmental impact of trunk roads, for example, the proportion of recycled materials used (*see 3.6*).

3.2 Reducing the impact of existing roads

The Highways Agency has made great efforts in recent years to manage its estate in a sustainable way. Road verges can be rich areas for wildlife and amount to a considerable area of land with great potential for habitat enhancement and creation. The Highways Agency's "soft estate" extends to some 30,000 hectares of which approximately half is planted and half is grassland.

Blossoms beside M5 in Somerset

3.3 Minimising the impact of trunk road improvements

The way a road fits into the landscape is determined by a choice of alignment that follows the contours of the land with carefully constructed earthworks that blend the road with the natural landform. The planting of trees, shrubs and wildflowers of native origin further aids integration with the surrounding countryside.

The sections of the Design Manual for Roads and Bridges dealing with environmental assessment and good design practice will be reviewed in consultation with the statutory advisory bodies and other interested parties to ensure that it remains up to date.

3.4 A strong presumption against harming sensitive sites

Because of the potential environmental impacts of major construction projects, alternatives will be thoroughly investigated first. Major infrastructure projects will only be taken forward when, after rigorous appraisal against our new criteria, they emerge as the best or only way of achieving our objectives at an acceptable cost.

The new approach to appraisal (*see Annex B*) for transport projects has been developed to ensure that our appraisal of investment decisions in the trunk road network takes account of sustainable development principles and that environmental, economic and social factors are properly examined and evaluated in a clear and consistent way.

Where a major infrastructure improvement is proposed the environmental impacts will be taken into account from the very earliest stages of planning and design. Indeed, minimising the environmental impact will be a key design objective. An environmental appraisal will consider all significant impacts including those on air quality, noise, levels of emissions, land, wildlife, the countryside and the built

environment as well as on people. All projects likely to have a significant effect on the environment are subject to a formal environmental impact assessment in accordance with EU legislation.

There will be a strong presumption against new or expanded transport infrastructure which would adversely affect environmentally sensitive areas or sites such as Sites of Special Scientific Interest, National Parks, Areas of Outstanding Natural Beauty or National Nature Reserves. There will however be a few cases in which overriding public interest will allow development to proceed which will have an adverse impact on nationally or internationally designated sites.

Such proposals which would have a significant effect on a sensitive site or important species, habitat or landscape should not go ahead unless it is clear that the net benefits in terms of the other objectives (including other environmental benefits) clearly override the environmental disbenefits; that there is no other, better option; and that all reasonable steps have been taken to mitigate the impact. Particular consideration should be given to species or habitats given international protection, for example, under the EC Birds and Habitats Directive. Each case will be determined on its merits, taking account of the following questions:

- how important is the area/site, including its international importance or significance for UK biodiversity?
- how serious is the likely impact?
- are there alternatives which avoid the impact (including not going ahead with the scheme)?
- would the alternatives serve the purpose and at reasonable cost?
- if not, are mitigation or compensatory measures feasible? Are they likely to be successful? Are the costs reasonable in the circumstances?

The feasibility, desirability and cost of providing mitigation or compensatory measures will be a factor: some areas, sites, habitats or species may be irreplaceable and that will have a particular weight in the assessment. These principles will be applied to all forms of transport development which affect sensitive areas or significant aspects of our cultural heritage, such as listed sites or buildings.

3.5 Reducing greenhouse gas emissions

We are consulting this summer on options to meet the UK's legally binding target for reducing greenhouse gas emissions and move towards our domestic aim of reducing carbon dioxide emissions to 20 per cent below 1990 levels by 2010. The Government's White Paper, A New Deal for Transport, sets out a package of measures at international, national and local level to address the forecast growth in emissions.

The new deal for trunk roads will make a valuable contribution to this overall policy. Building new roads will no longer be the answer to the forecast growth in traffic. Instead our integrated transport policy will encourage the use of more sustainable forms of transport and help reduce the need to travel. The new deal will lead to better connections with other forms of transport, clearer information about the best route to take, give priority to public transport, cyclists, pedestrians and high occupancy vehicles and allow for better management of traffic speeds.

Making better use of the existing network in this way will help to reduce congestion and improve traffic flows resulting in reduced emissions. Where it is necessary to build a bypass to improve conditions for local communities or widen a road at a particularly stressed point, traffic management measures will be taken to ensure the environmental benefits of the scheme are not lost and encourage greater use of public transport, cycling and walking.

3.6 Reducing the need for quarrying stone

We estimate that the targeted programme of improvements will consume six million tonnes of aggregate. This would be spread over several years. In 1997, 218 million tonnes of aggregate were used in the UK. Not all aggregate needs to be quarried and we expect the proportion of recycled and secondary aggregates used in the future to increase. Furthermore, recent research has led to the introduction of materials which are capable of providing a longer maintenance free life to road surfaces. The Highways Agency will develop a performance indicator to cover the proportion of recycled material it uses.

Chapter 4 Safer for All

4.1 Improving safety on all roads

One of the main objectives of Government investment in the trunk road network is to improve safety for all road users in a way which is consistent with our integrated transport policy.

Good progress has been made towards the target set in 1987 to reduce road traffic casualties by a third by the year 2000 compared to the annual average for 1981-85. Road deaths in 1997 were down by 36 per cent to 3,599 and serious casualties by 42 per cent to 42,967. However, the number of slight casualties increased by 16 per cent to 280,978. The total number of casualties has remained roughly steady, rising by only 2 per cent to 327,544.

Road safety can only be achieved by all those concerned working together. After considering responses to consultations with local authorities, the police and road safety organisations we have concluded that there should be a new national target for reducing road casualties by the year 2010. Work is now in hand to establish robust targets and incorporate them into a coherent road safety strategy, which reflects our integrated transport policies. We aim to publish the new strategy and targets, including the contribution to be made by trunk roads, later this year.

We also propose to carry out a review of speed policy covering all classes of roads, including motorways and trunk roads. A key task of the review will be to develop a policy that takes account of the contribution reduced speeds can make to environmental and social objectives as well as to road safety.

4.2 The safety record on trunk roads

Motorways are our safest roads. In 1996 they had an accident rate per vehicle mile less than a quarter of the average for all roads. Reflecting this the trunk road contribution to the year 2000 target for reducing casualties was set at 12 per cent. This target has already been met for fatal and serious casualties although, reflecting the picture nationally, the overall number of casualties has remained constant.

Nevertheless, there are no grounds for complacency about the safety of our motorways and other trunk roads on which 627 people were killed and 5,090 seriously injured in 1996. Car and lorry occupants accounted for 80 per cent of casualties, motorcyclists 8 per cent and pedestrians, cyclists and bus occupants the remainder. Part of the explanation for lower accident rates on trunk roads is that vulnerable road users such as pedestrians and cyclists cannot use motorways and tend to avoid other high speed trunk roads.

4.3 Safety problems and solutions

The behaviour of road users is the prime cause of many road accidents, but the layout of roads and the inherent design of vehicles can be a contributory cause. In some cases engineering solutions can help to overcome the problems and to influence driver behaviour. Sometimes physical separation of cyclists and pedestrians from the mainstream of traffic by providing the right facilities can help to encourage these forms of transport as well as improving safety.

The Highways Agency can help to address these problems by assisting with enforcement measures; providing information and guidance to drivers; and developing engineering solutions. Enforcement measures include the use of speed cameras on targeted stretches of the network. Guidance can be offered to drivers by Regional Traffic Control Centres (*see chapter 7*) using variable message signals, or permanent road signs. These messages can cover short term traffic problems or contain more general advice to motorists reinforcing local or national road safety campaigns. On the engineering side, experience has shown that relatively low cost solutions can be highly cost-effective in some cases, for example painting white lines on the road to create a "ghost island" to protect turning traffic. Minor physical alterations to the layout can improve the safety of a junction. Imposition of lower speed limits and traffic calming measures can help to improve safety where a trunk road passes through a built up area. These and other techniques principally aimed at improving safety are among the Toolkit measures developed by the Highways Agency for making better use of the existing trunk road network.

Traffic calming - A49 at Craven Arms

Not all problems will be amenable to such solutions. In other cases it may be necessary to consider larger scale infrastructure improvements. These include building flyovers or underpasses at busy junctions to separate turning and through traffic; provision of climbing lanes for slow moving vehicles on steep gradients; dualling of single carriageway roads to separate opposing traffic flows; and removal of traffic from built up areas by the provision of bypasses. Some of these solutions could adversely effect the local environment. They will not be undertaken unless a thorough assessment of all aspects of the scheme using the new approach to appraisal (*see Annex B*) demonstrates that there are overall benefits in proceeding.

4.4 A new strategy for trunk road safety

We will ensure that plans for improving the safety of trunk roads are consistent with our wider national road safety and integrated transport objectives. This means developing a strategy which takes account of the need to encourage walking and cycling, to protect the environment and to reduce the community severance caused by trunk roads which pass through the centre of towns and villages. Many safety schemes could also bring benefits to the environment and local communities and, whether they are low cost measures or larger scale improvements, will be designed to minimise any adverse impacts.

Timely and effective routine and structural maintenance, based on periodic monitoring of the condition of the trunk roads, will continue to play a key role in ensuring the safety of the network eg by minimising the risk of skidding.

4.5 A budget for trunk road safety

The Highways Agency continuously monitors the safety record of the network. As discussed in section 4.3, many problems can be addressed with relatively small scale measures. To ensure that the appropriate priority is given to such measures and there is no undue delay in implementing them, we will establish a dedicated safety budget. This will increase to Â£50 million in the year 2001/2002. This is to be spent on measures with a cost of up to Â£5m each which are justified predominantly by the need to deal with safety problems. This money will be used to reduce risk and to minimise the number of deaths and personal injuries after assessment of the cost-effectiveness of individual schemes by the Highways Agency.

Chapter 5 Supporting the Economy

5.1 How trunk roads can contribute to economic performance

A New Deal for Transport: Better for Everyone stresses the importance of good transport for the efficiency and vitality of our economy and the development of our regions. It is a critical element in our success as a major trading nation and as a tourist destination.

The White Paper emphasises policies to promote public transport and other alternatives to the private car and to maximise the use of forms of transport other than road for freight. At present road transport is the dominant mode within Britain, accounting for 94 per cent of passenger transport (in passenger kilometres) and 65 per cent of freight (in tonne kilometres). The present network of trunk roads, although only 4 per cent of the English road network, are particularly important in this respect, carrying 33 per cent of motor traffic, including 57 per cent of goods vehicle traffic. For the foreseeable future the road network will continue to provide the core of our transport system. We will ensure that the network is maintained, operated and improved so that it functions satisfactorily.

Investment in roads supports the economy by reducing journey times and improving reliability. This can result in lower business costs and allow firms to adopt more efficient patterns of production. Better roads can improve people's access to jobs and to many other activities. When appraising trunk road investment these benefits to the economy are measured mainly through the time savings and improvements in reliability made possible by the project or policy proposed.

The Standing Advisory Committee on Trunk Road Assessment (SACTRA) is currently considering whether this adequately reflects the full economic impact. Its *interim* report [2] suggested that in certain circumstances there may be economic impacts which are additional to those listed above which could be either positive or negative. SACTRA is now continuing its investigations and expects to publish its final report towards the end of the year.

- Our four priorities in relation to economic performance will be:
- to tackle congestion on the trunk road network with a package of measures designed to maximise benefits to the economy and the environment;
- to improve the planning of trunk road maintenance so as to reduce the disruption to traffic flow;
- to improve journey time reliability - we will develop performance indicators to measure progress; and

- to give priority, where appropriate on the network, to public transport and heavy goods vehicle traffic.

5.2 Helping areas needing regeneration

As well as supporting the national economy as a whole, transport provision is important to local economies, not least because it can influence business in deciding where to invest. We have therefore considered how best trunk road investment can support the Government's regeneration and social inclusion objectives.

The detailed effect of roads on regeneration is not easy to understand and the Government accepts SACTRA's interim finding that there is no simple, unambiguous link between transport provision and local regeneration. Improvements are needed to the methods used in local and regional economic impact studies so that the contribution of transport investment to regeneration can be assessed better in the future. In the meantime, we have been cautious in assessing the additional regeneration benefits of our investment programme.

Twenty one of the schemes in the targeted programme of improvements will provide improved links to regeneration priority areas. While these improvements alone will not necessarily improve the economy of these areas, when supported by other initiatives, targeted investment can produce results. Indeed, eight of the schemes in the targeted programme of improvements will help ensure that a major development goes ahead in a regeneration priority area.

In the future we expect to develop a better understanding of the regeneration impacts of transport investment through the RPG system. Regional bodies - with their greater knowledge of regional regeneration needs - will play a central role in planning for the transport needs of their areas. In particular, the new Regional Development Agencies will seek to identify development opportunities, bearing in mind the infrastructure needed to support them.

5.3 Assessing the problem of congestion

Worsening congestion is a major threat to the satisfactory functioning of the network. Delays and unpredictable journey times impose costs on road users and, in particular, on business and industry. While estimates vary, the costs of traffic congestion to the nation are substantial, amounting to billions of pounds each year.

We have already drawn attention (*see section 1.2*) to the existing stress on the trunk road network and how it might change in the future. We will continue to monitor stress on the network and use the information to help establish our future priorities.

5.4 Relieving congestion without building new roads

Building new roads is no longer the first option for dealing with congestion. Our first priority will be to use other options such as:

- traffic management tools including controlled motorways, access control and re-routing to improve journey reliability. Such measures need to be planned in close consultation with local authorities;
- improving the flow of traffic by changes to road layout and minor works e.g. road markings at roundabouts, innovative junction layouts, priority lanes and other measures for buses and high occupancy vehicles;
- providing information to assist travellers to make informed choices about forms of transport, route and time of travel.
- in the longer term, road user charging (*see section 7.3*) to encourage those who do not need to travel at peak times or by busy routes to adjust their travel patterns or switch to alternative means.

M4 Heathrow Spur Bus Lane

Making better use of local roads: vehicles carrying more than one person benefit from this priority lane in Leeds

Chapter 6 Making Life Better for Communities

6.1 Improving the environment of towns and villages

Market Harborough before and after construction of a bypass

With the trunk road network substantially complete a key priority is to reduce the environmental impact of traffic on existing roads. The Highways Agency has developed a range of measures to do this.

The controlled motorway pilot project on the M25 has shown how reductions in accidents, vehicle emissions and road noise can be achieved by managing vehicle speeds on motorways and busy trunk roads.

On other roads traffic calming schemes using signing, altered road layouts, landscape features and coloured surfacing have brought environmental benefits to local communities by reducing speeds and improving safety. We will use these techniques more widely in consultation with local residents. This should help to improve the quality of life in some of our worst affected towns and villages.

In some cases, the volume of traffic passing through a town or village is such that the only way of improving the environment significantly is to remove the traffic by building a bypass. This will often have the effect of transferring local emissions from areas where large numbers of people are exposed to areas where far fewer people live. Bypasses, however, will only be considered if other options have been shown not to offer sufficient benefits. Where bypasses are built they will be designed to minimise the impact on the surrounding countryside. Complementary traffic management measures will be taken in the town or village bypassed to ensure that the environmental and safety benefits are not lost. We will work with local authorities to ensure that steps are also taken to encourage greater use of public transport, cycling and walking in bypassed towns and villages.

6.2 Community severance

Many towns and villages in England have trunk roads passing through their centre. These roads carry both local and through traffic and provide strategic links to other parts of the country. These links are vital to the local economy. But these main roads are often the hub around which the community’s shops, post office, banks and other communal facilities are based. And main roads sometimes form a physical barrier between local communities and these essential facilities. The noise, pollution and danger associated with heavy traffic can discourage local people from visiting these centres and even from visiting each other. In many cases it means that people go elsewhere - and further - to shop or use their cars for journeys they might otherwise make on foot. This includes children being driven, rather than walking, to school.

We will examine the options for reducing the physical barrier presented by the trunk road and traffic. We will look to new types of footbridges, underpasses and crossings to help local people to get about more easily. For example, we will consider larger pedestrian crossings than usual with surface textures which are better for pedestrians to reduce the perception that there is a barrier.

6.3 Tackling traffic noise

Excessive noise from traffic is an important issue for many people. We are taking action on a number of fronts.

All proposals to build new roads or improve existing ones significantly are carefully assessed to establish potential noise impacts. Noise maps are drawn up for each proposal showing the noise levels at nearby properties both with and without the scheme. Average noise levels are calculated from forecasts of traffic flow and speed on all roads in the area.

A large proportion of traffic noise comes from the interaction between tyres and road surfaces and considerable efforts are being made to reduce this. However, it is of paramount importance that both roads and tyres are designed to disperse water and provide good grip. Unfortunately, better grip in wet conditions tends to mean more noise. The European Commission has recently tabled a draft Directive placing a limit on noise emitted by tyres fitted to new vehicles. The UK's position during EU discussions of this proposal will be to insist on a parallel requirement for tyre grip to ensure road safety.

The noise arising from the newest quieter surfaces, compared to the more traditional ones, is about the same as if the amount of traffic had been halved. We are continuing to develop these surfaces to improve their noise reduction properties and extend their useful life. In doing so, we are taking particular care to ensure that sufficient grip is maintained between road and tyre. In future, whenever a road needs to be resurfaced, we shall ensure that the most appropriate noise reducing surfaces are used for those areas where noise is a particular concern.

There will still be situations where new roads are to be built or existing roads improved and we recognise the concern over traffic noise in taking forward such proposals. We have decided that from now on, quieter road surfaces will be specified in future contracts as a matter of course. This will be in addition to other measures such as earth mounds and acoustic fencing which will also be considered.

Speed is also an important factor in the level of noise traffic produces. We will consider the relationship between road traffic speed, emissions, noise and safety as part of the review of speed policy (see Chapter 4).

The European Commission has proposed a Framework Directive on environmental noise to harmonise methods of identifying excessive noise exposures so that Member States can establish targets and action plans on a comparable basis. A large part of this effort is aimed at reducing the impact of noise from transport, particularly from roads. We are taking an active part in this work.

6.4 A budget for noise mitigation on existing roads

There are a number of cases where local residents are particularly concerned about noise from existing roads and where re-surfacing cannot be justified on normal maintenance grounds. In these cases, alternative measures such as noise barriers might be appropriate. Up to now the policy has been only to consider cases on roads built before 1969 and to apply extremely rigorous criteria with the result that very few cases have qualified for relief. These criteria were tightened by the previous Government. We propose to establish revised criteria and a ring-fenced annual budget. These should enable the Highways Agency over a reasonable period of time to deal with some of the most serious and pressing cases. We shall make a separate announcement about this in due course.

6.5 Improving local air quality

Road transport is a significant contributor to emmissions of air pollutants such as particulates, oxides of nitrogen and carbon monoxide, particularly in busy urban areas and near to heavily used trunk roads. As local authorities review and assess air quality as part of their new local air quality management responsibilities, the Highways Agency will assist by providing traffic flow information and any available data on local air pollution. It will also help to develop action plans to improve air quality where necessary. Action plans will identify a range of measures to achieve the Government's air quality objectives by 2005. These could include traffic reduction and management measures as well as extra controls on industrial, commercial and domestic emissions. These will need to be developed with local transport plans.

There may be circumstances where a road scheme goes ahead which is likely to cause the Government's air quality objectives to be breached, or to worsen a breach that would have occurred without the road scheme. In such cases, the local authority will need to produce an action plan in exactly the same way as for any other area of breach, although particularly close cooperation with the Highways Agency is likely to be needed. However, the majority of the schemes in the targeted programme of improvements have been assessed as improving air quality for local residents.

Chapter 7 The Re-focused Investment Programme

7.1 New Priorities for Investment

Previous chapters have set out our objectives for trunk roads policy. We want trunk roads which are better integrated into the transport system, safer, more reliable and have less impact on people and the environment in terms of noise, air pollution and physical intrusion. We have set a new strategic aim and new objectives for the Highways Agency to help us achieve our goals (*see Section 1.7*). Our investment strategy must support these objectives.

We want to avoid making short term savings at the expense of more costly repairs in the longer term. Proper maintenance is vital if roads are to be reliable and safe.

To support our objectives, we have set new priorities for investment. We will:

- improve trunk road maintenance, making it our first priority;
- make better use of the roads we have through network control, traffic management measures and minor improvements;
- tackle some of the most serious immediate problems through a carefully targeted programme of improvements.

We have only accepted new schemes where there are serious existing problems, where other options have been explored and where the new schemes support our integrated transport policy. Through a rigorous process of assessment our intention has been to identify a medium term programme to which we can make a firm commitment subject to the completion of statutory processes. We are keen to avoid the waste involved in a stop-start approach with millions being spent developing schemes which are then abandoned. Continuity is important to enable businesses to plan effectively and to assist local communities to develop in the light of better transport and land use planning.

A new approach to appraisal

To help us to make investment decisions we have developed a new approach to appraisal. This is designed to help assess the implications of investment proposals against our five criteria of accessibility, safety, economy, environment and integration. In the Roads Review it has helped us to take decisions about which trunk road schemes should proceed and in the longer term it should enable different options for solving the same transport problem to be compared, including traffic management and public transport alternatives. Where quantitative information is available, for example estimated time savings, it is included, but qualitative information, for example, impact on landscape, is also considered. In view of our strong presumption against damage to environmentally sensitive sites and landscapes, we have developed the new approach to appraisal in consultation with English Nature, English Heritage, the Environment Agency and the Countryside Commission and sought their views on individual schemes. For each scheme, an appraisal summary table sets out all the key information against each of the criteria. Further details of the new approach to appraisal are found in Annex B. The same principles should apply to all trunk road investment projects although the approach may need to be simplified in the case of smaller projects.

We will develop the new approach to appraisal further so that it can be applied to all forms of transport and be used in multi-modal corridor and area studies. We will also seek to make the approach even more objective. The Commission for Integrated Transport will be invited to assist in this.

7.2 Maintaining the network - a major national asset

The trunk road network is a major national asset. If this asset is to give the country the best return, it needs to be maintained prudently. Maintenance is therefore our first priority. It includes a multitude of tasks, including:

- major repairs such as resurfacing and reconstructing roads and strengthening bridges;
- minor repairs to surfaces and renewing white lines and road signs;
- routine regular activities such as cleaning signs and drains, changing light bulbs, grass cutting and clearing snow and ice.

Our fundamental principle is that roads should be maintained on a minimum whole life cost basis. This means carrying out maintenance in the way that minimises the costs over time to Government taking into account the disruption to traffic. In particular, we will not make short term cost savings if these can only be achieved at the expense of much higher future costs. This does not just include major maintenance. Timely routine maintenance - including even weed and drain clearance - can prevent more substantial and costly works being needed. Proper maintenance is also essential if roads are to operate safely.

In past years maintenance has not been given the priority it deserves. We will deal with this:

- by restoring provision for routine maintenance to a level which eliminates the risk of more costly and disruptive works;
- by ensuring that major repairs are carried out in good time to ensure long term value for money; and
- by completing the bridge assessment and strengthening programme and beginning to address the backlog of bridge maintenance, including preventive maintenance.

The Highways Agency estimates that, if it is to carry out roads renewal in good time, it needs at least Â£300m per annum (1998/9 prices) for capital maintenance works simply to ensure that the condition of our roads does not get worse. The Government is committed to providing at least this level of funding.

Efficient procurement of maintenance

The Highways Agency has been at the forefront of improvements in the procurement of maintenance works, in developing private finance for capital works and in developing "super-agency" areas. By April 1999, the phased introduction of new agents for the management of the trunk road network will be complete. This reduces the number of agents from over 90 to 24. The new arrangements will ensure that routine activities and minor works will be carried out more efficiently and effectively. In addition 5 per cent of the trunk road network is now covered by the maintenance obligations of the first eight design, build, finance and operate (DBFO) projects, bringing more efficient and effective maintenance to these parts of the network.

In line with our Manifesto commitment we are exploring public-private partnerships to improve road maintenance. In particular the prospect for Maintain Finance and Operate (MFO) contracts (long term contracts for capital maintenance works and for continuing routine maintenance of a part of the network) seem a promising development of the DBFO concept. We will develop these arrangements as part of our programme to get the best value for money from road maintenance. In addition, longer term conventionally funded maintenance contracts are also being considered.

7.3 Making better use of existing trunk roads

New roads are expensive. They can also impose substantial environmental costs. It therefore makes sense to ask whether problems can be solved by making better use of the existing network before consideration is given to adding additional infrastructure - either by widening roads or building new ones.

We use the term "making better use" to mean any action on the trunk road network, short of significant additions to the infrastructure, which delivers our objectives. It is not just about tackling the problems caused by congestion.

It is important that measures to make better use of existing roads should not be seen in isolation. Often the best solution to a transport problem will be a package which includes measures to make better use of the existing road space as well as other proposals such as improved train or bus services. But in some cases such measures may not produce sustainable solutions unless they are accompanied by an increase in road space. For example, a bus lane may only be feasible if an extra lane is provided because allocating one of the existing lanes to buses would cause unacceptable congestion to other users, leading to diversion on to less suitable local roads. However, such increases in road space will only be considered after other options have been rigorously examined.

On the other hand, measures to make better use of existing roads can offer some immediate relief from the worst effects of growing congestion whilst other, longer term elements of the integrated transport strategy are put in place and begin to take effect.

Techniques to make better use of our roads have been developed largely in the context of trunk roads, but they can also be used on local roads and the Highways Agency will work with local highway authorities to promote the use of these techniques. When using these measures on the trunk roads, the Highways Agency will also work with local highway authorities and local communities whose roads may be affected by changes in traffic patterns.

The Highways Agency's toolkit

The Highways Agency has drawn together a number of techniques to make better use of the network into a toolkit for use both within and outside the Agency to share, develop and trial ideas for solving transport problems.

Together with bringing forward local environmental and safety improvements, we have asked the Agency to focus on developing its toolkit to:

- integrate the trunk road network with other roads and other forms of transport by providing:
-
    - safer and more accessible interchanges;
    - clear, comprehensive and up to date information using the latest technology (both network control and in-car) to assist the choice of route and form of transport;
    - priority measures to assist public transport and vulnerable users;
- manage traffic demand on the network, including giving priority to buses, coaches and lorries where appropriate;
- increase the efficiency of network operation.

These measures and their consequences will be appraised using the new approach to appraisal.

Driver information and network control

Consistent with our Manifesto commitment, we will exploit new technology to provide better information to drivers and to co-ordinate traffic flows across the network.

Network control techniques can:

- warn drivers of queues ahead, and help the police to manage traffic after accidents;
- smooth flows to minimise 'stop-start' conditions;
- tell drivers about congestion and indicate suitable alternative routes, so helping to balance traffic across the network.

M25 Chigwell Traffic Control Centre

M25 Chigwell Traffic Control Centre

For example, automatic incident detection systems and closed circuit television have been successful in reducing road accidents on high-speed roads. Control offices can be warned quickly when congestion builds up as a result of an incident and warning signs set to alert drivers to queues ahead.

Similarly, automatic traffic monitoring systems and computerised traffic models can provide improved information to network operators, allowing them to predict journey times for road users. This information can be used to encourage more efficient use of the road network, reducing congestion and its associated pollution, improving road safety and helping to integrate the road network with the overall transport system.

Traffic management and driver information systems are already operating in the Midlands and South East of England and have demonstrated that strategic re-routing of traffic using variable message road signs can help to reduce congestion, particularly when there are major incidents. These systems have been welcomed by the police, highway authorities and road users.

To enable these facilities to be extended and their benefits spread over a wider network, we announced in the White Paper that we have asked the Highways Agency to work up proposals for Regional Traffic Control Centres (RTCCs) in England. The aim of RTCCs would be to:

- improve reliability on the network;
- reduce the disruption caused by major incidents;
- provide advice to drivers about acceptable alternative routes to minimise the effect of congestion and incidents;
- minimise delays due to road works; and
- influence decisions taken before setting off about route, time and form of transport by providing reliable and accurate information.

The key services we would expect our RTCCs to provide are:

- traffic monitoring and modelling;
- strategic traffic control;
- traffic and travel information;
- assistance to the emergency services; and
- network performance monitoring and management information.

We envisage RTCCs being procured under a public/private partnership arrangement which will ensure that the complementary skills of both sectors can be utilised fully on the project. We hope to invite expressions of interest from the private sector later this year.

7.4 A targeted programme of improvements

We inherited in 1997 a trunk road programme of 147 schemes. We took decisions on 14 of these last July in our accelerated review. We excluded from the main review schemes not funded from the main programme (eg developer funded schemes and small safety schemes) as well as schemes which could not start within five years. In addition, there was strong support for two schemes which had been dropped in previous roads reviews but which it was thought could be started within about five years. We considered these too and that led us to a list of 67 schemes requiring early decision. We treated these 67 schemes as 67 transport problems requiring a solution - but not necessarily a road solution.

We then asked the following questions:

- **What priority does the problem deserve within an integrated transport strategy?** This involved probing the nature of the underlying problem and what our objective might be in addressing it.
- **What alternative options or packages of measures were there?** Where it appeared that another solution, including smaller scale road improvements, might be a more appropriate response we have concluded that the problem should be remitted for further study beyond the Roads Review.
- **How does the proposed solution perform against the five criteria?** Each scheme was assessed using the new approach to appraisal.

It also became clear that the underlying problems were far from homogeneous. They ranged from acute congestion on major core routes to localised safety problems and environmental damage to towns and villages. Reflecting this our programme has three main categories:

- safety and healthier communities;
- supporting jobs and prosperity; and
- regeneration and integration with other modes.

In carrying out the review we first sifted out problems which did not merit priority or which might be better addressed by another means. We then weeded out those which did not perform well against the five criteria. Finally, we selected the best performing schemes having regard to the available resources. The net result is the targeted programme of improvements listed in Annex C. Part C lists the schemes in the targeted programme region by region.

Stonehenge

There is one further scheme in our targeted programme. The A303 alongside Stonehenge presents particular problems. It is a bottleneck on one of the key routes to the South West. It also intrudes into the setting of one of our most precious ancient monuments. A conventional upgrading to dual carriageway so close to Stonehenge would be unthinkable. Off-line options would involve new roads in the World Heritage site. We have therefore concluded that the only acceptable option would be to construct a dual carriageway in a 2km cut and cover tunnel to hide it from the stones. This would be too expensive to warrant priority within our targeted programme of improvements if it were to be assessed solely in terms of the transport benefits and funded entirely from the Roads Vote. However, looked at under our new approach to appraisal, the heritage and environmental benefits of returning Stonehenge to something like its original setting can be seen alongside the transport benefits. This has led us to conclude that the scheme should be taken forward on the understanding that at least a third of the costs will be funded from heritage sources. The scheme will also open up the possibility of closing that part of the A344 which runs alongside the monument and separates it from its ancient landscape.

7.5 Finding new solutions

Whilst our targeted programme of improvements will address the most pressing problems we face on the trunk road network, many serious problems will remain. We are anxious that appropriate solutions consistent with our integrated transport strategy are developed as soon as possible. As explained in Chapter 2 we will work with the regional planning conferences to develop our future strategy. Proposals for further trunk road improvements will be subject to our new approach to appraisal. Route management strategies will be used where appropriate to co-ordinate and prioritise improvements to the core network.

As discussed in section 2.3, we propose to enter into discussions with local highway authorities about transferring to them routes which do not form part of the core network. Problems on these routes will be for the relevant local highway authority to consider in developing their Local Transport Plans.

As explained in section 2.2, core routes will remain the responsibility of the Secretary of State and be managed by the Highways Agency. Strategically important improvements will in future be planned through the Regional Planning Guidance (RPG) system to ensure integration across all forms of transport and with land use planning. We will be commissioning a number of studies of the most urgent transport problems. The results of these will feed into either the current round of RPG or a partial update of RPG for those regions in which the current review of RPG is too far advanced. A list of the proposed studies arising out of problems on the trunk road network is at Annex D. Part C lists these studies by region. Some studies will be road based, aimed at addressing particular localised problems on the trunk road network, others will be more wide ranging studies of transport problems across all modes of transport within certain key corridors and areas. We will be consulting regional planning conferences on the proposed programme of studies and their scope.

Schemes not taken forward in the targeted programme of improvements will be dropped and route protection lifted where it is clear that they are either not an appropriate solution to the underlying problem or there is no prospect of the scheme being taken forward in the foreseeable future. Schemes not in the targeted programme of improvements on routes proposed for transfer to local highway authorities will be withdrawn from the programme. It will be for those authorities to decide whether they are taken forward as part of their local transport plans. Where it is not clear whether the scheme should form part of an integrated solution to the underlying problem, that scheme will be put on hold with route protection continuing in force. Finally, there are a few schemes which address pressing problems for which there would appear to be no other feasible solution but which were not sufficiently far advanced to be considered for the targeted programme of improvements. These will be progressed through their preparatory stages so that, if they are eventually endorsed, they can be taken forward without delay.

7.6 Procurement Strategy

In recent years a much greater range of funding options has become available. Different options are suitable for different needs.

Until the 1990s most trunk road schemes were procured through a conventional re-measurement contract. That form of contract often led to significant cost overruns for which the Department was criticised. Current practice involves bidders preparing Design and Build proposals for new projects. This means that the contractor takes responsibility for both design and construction. It offers incentives for efficient design and encourages swift solutions to problems emerging during construction. There will continue to be a major role for conventional funding under Design and Build arrangements.

Private finance to fund new investment and recover the costs directly from users has been used in a few cases. Examples include the Queen Elizabeth II Bridge on the M25, the Second Severn Crossing and the Birmingham Northern Relief Road. In the future there are likely to be relatively few opportunities for funding major infrastructure in this way. Any such opportunities will be considered on their merits.

Another development in the Private Finance Initiative field has been the introduction of Design, Build, Finance and Operate (DBFO) contracts. They do not include charging road users. Payment is made by the Government. These contracts involve the private sector in some new construction and the maintenance and management of the associated network over 30 years. They allow more scope for the private sector to assume risks and to innovate. There are now eight DBFO contracts which cover some 5 per cent of the existing trunk road network. The A13 Thames Gateway DBFO project will be the next to proceed. It was approved under the accelerated review conducted in summer 1997 and will provide a vital transport link to assist regeneration of East London. The financial incentives to the contractor will focus on efficient management of the road to offer a good service to buses and lorries rather than encouraging car commuting, with scope for additional payments to reward a good safety record. This could be applied to future DBFO projects.

The National Audit Office (NAO) has conducted a value for money study of the first four DBFO contracts. These projects differ in size, complexity and the ratio of new construction and maintenance. They were deliberately selected with different characteristics to test the Value for Money offered. The NAO concluded that, while not all the projects selected were likely to generate savings individually, the overall outcome was likely to be a net saving of around Â£100m. These and the four subsequent projects have provided indications of what project characteristics are likely to offer value for money. These will be

applied to the selection of future DBFO projects.

We shall select projects on merit, taking account of the resource implications for the future investment programme and will ensure that PFI is used to deliver our priorities for the road network.

In line with Government's commitment to freedom of information, all DETR contracts put to tender in future will be as open as possible. Where there is information which must remain commercially confidential, contracts will be drafted in such a way that this does not prevent the release of other contract information. We will want to put time limits on commercial confidentiality, so that when the release of sensitive material is no longer potentially damaging either to the Government or to the contractor, that too will be available to the public.

7.7 Control of Developments near Trunk Roads

Previously, the formation of new accesses to trunk roads has been generally discouraged in order to allow the free-flow of traffic on those roads. In support of integrated transport objectives, the Highways Agency will apply a graduated policy on new connections to trunk roads.

Access will be most severely restricted in the case of motorways. It will be limited to junctions with other roads, service areas, maintenance compounds and other major transport infrastructure facilities such as airports. Similar restrictions will govern new accesses on other high standard roads of key strategic importance on the core network. Elsewhere, there will be a less restrictive approach to connections, subject to consultation with the local authorities concerned. In due course RPG and local transport plans will provide the framework for decisions about new accesses on the less strategically important routes.

A less restrictive policy will be of particular value in urban areas where there are brownfield sites that we would wish to see developed in support of our policies for sustainable development. Where brownfield sites could be connected to the trunk road network we will expect proposals for development to support the use of public transport, cycling and walking.

These principles apply to the formation of new accesses to trunk roads but will apply equally to cases where it is proposed that extra traffic caused by new development will reach the trunk road network by way of existing accesses.

The Highways Agency will take an active role in encouraging local planning authorities to consider public transport alternatives to access to new developments by car. However, local authority powers under Section 106 of the Town and Country Planning Act 1990, rather than planning conditions directed by the Agency, should be the principal means of securing alternative transport provision.

The Highways Agency will retain the right, on behalf of the Secretary of State, to attach conditions to or to direct refusal of planning applications on any trunk road where the proposals raise significant concerns for road safety.

Where access is permitted from a development to a trunk road - whether by way of an existing access or a newly constructed one - the Highways Agency will seek an assessment of the traffic impact of the development. This will take account of both development-related and "background" traffic and also of any existing or future public transport access. If the assessed traffic flows are estimated to exceed the capacity of the trunk road concerned within 15 years of the development opening, the Agency will attach

conditions to the planning permission specifying highway improvements required to accommodate this traffic.

The works specified for the point where development-related traffic first accesses the trunk road will be sufficient to accommodate all traffic 15 years after the development opens. Where further highway improvements are required upstream or downstream of this point, these will be to a standard capable of ensuring that conditions on the trunk road are no worse at any time during the fifteen year assessment period than if the development had not taken place. In addition to securing whatever highway works are required under these arrangements, developers will normally be required to pay a commuted sum for their future maintenance.

These arrangements will come into effect immediately. For the longer term, the Government intends to investigate the possibility of replacing them with a system of connection charges. These could offer significant benefits by being structured in such as way as to support wider policies in the planning, transport and other fields.

7.8 Blight and compensation

A more focused investment programme will reduce the extent of blight on property. Schemes which are to proceed will inevitably continue to cause blight, both on property directly affected and more generally. Where schemes are to be remitted for further studies, any extant orders will be retained and the existing line of the scheme will be protected and any land owned by the Highways Agency retained until a final decision has been taken. The normal processes for dealing with blight will continue to operate for these schemes.

The final report of the Interdepartmental Working Group on Blight (IDWGB) [3] recommended that, to alleviate blight, a number of changes to the existing law on compulsory purchase and compensation should be considered. The Group's recommendations include a proposal that existing arrangements might be replaced by a new scheme which offers a guarantee of future value for property which is required for a scheme or which would later attract compensation. This, the Group believes, should encourage the continued operation of the local property market in circumstances under which it might otherwise falter. The Group also recommended that a Code of Practice on the Dissemination of Information during the various stages of major infrastructure development should be adopted.

The IDWGB report has been the subject of extensive consultation and, although its recommendations were broadly endorsed, it has become clear that a more far-reaching review of the law relating to compulsory purchase and compensation is required. DETR Ministers have therefore instituted such a review, with the ultimate goal of devising a system of compulsory purchase and compensation which is quick, efficient and fairer all round. Notwithstanding the complexity of the issues under review, an interim report will be prepared for the end of the year.

7.9 Highways agency and Empty homes

We are committed to making better use of the properties acquired because of trunk road schemes. We have asked the Highways Agency to reduce the overall number of empty homes and to manage this housing stock effectively in both the short and longer term. We are concerned to make good use of this housing, both to address housing needs and because of the financial costs of holding empty property. The

Highways Agency aims to dispose of surplus homes as quickly as possible, or bring them back into use in the short term by renting. Local housing authorities are involved as early as possible in developing plans for the disposal of properties which include disposal to existing tenants and housing associations.

[3] Interdepartmental Working Group on Blight, Final Report, DETR, December 1997

Chapter 8 Making A Difference

8.1 A Sustainable Way Forward

In line with our overall policy of sustainable development we have been keenly aware that the effects of the whole *New Deal For Trunk Roads* needs to be looked at in the round. By looking strategically at transport problems we have produced a set of policies which ensure that a better performing trunk road network will play its full part in our overall integrated transport policy, delivering clear benefits against each of the five Roads Review criteria.

8.2 Environmental Impact

By re-focusing our investment programme and making better use of the existing network we have ensured that we only need to provide extra road space in a relatively small number of cases. This has obvious advantages for the natural environment, but even where new road schemes are proposed we have been careful to assess and minimise the impacts of these schemes. To ensure that our assessments have been fair our statutory environmental advisers have been brought into the process to provide specialist advice.

Noise and Local Air Quality

To help reduce the impact of traffic noise on those living close to the existing network we have decided that all future maintenance contracts where noise is a particular concern will specify quieter road surfaces; and that there will be a ring fenced annual budget to deal with noise problems on roads which meet certain criteria.

In contrast to previous roads programmes we have not focused narrowly on the economic benefits of new schemes. We have looked closely at the potential of certain schemes to improve the environment of our towns and villages.

New schemes can reduce noise in two main ways - by taking traffic away from the centre of towns and villages and by replacing older roads with quieter ones.

The 37 schemes in the targeted programme of improvements will have the net result of over 3,600 properties having a significantly quieter environment.

The impact of roads on local air quality is complex and dependent upon the level of traffic on the road and local climatic conditions. Bypasses can improve people’s air quality overall by taking traffic away from the centres of towns and villages. On-line improvements can improve air quality in some cases by relieving congestion and avoiding stop-start driving conditions.

The 37 schemes in the targeted programme of improvements will have the net result of 3,070 properties experiencing better air quality than would be the case without these schemes.

Greenhouse Gases

The schemes in the targeted programme of improvements will add the equivalent of 16 days predicted traffic growth to the total traffic on the network. This would represent a tiny increase (about 0.03 per cent) in the total road transport emissions of CO2. To ensure that these increases are sustainable the Government's White Paper, *A New Deal For Transport*, sets out a package of measures at international, national and local level to off-set any small increases and reverse the overall trend.

Sensitive Sites

As Chapter 3 explains there will now be a strong presumption against new or expanded transport infrastructure which would adversely affect environmentally sensitive areas or sites.

Landscape

Roads can be visually intrusive if not sensitively designed. The Highways Agency has an extensive planting programme with more than 14,000 hectares already planted. Great care is taken to use appropriate native species such as oak, ash and hawthorn.

The Countryside Commission suggest that one of the 37 schemes in the targeted programme of improvements would have a serious effect on the surrounding landscape. In this case the latest landscaping and horticultural techniques will be used to help the scheme fit better into its surroundings and make it less intrusive in the landscape.

Use of Aggregates

The 37 schemes might use six million tonnes of aggregates. As a comparison this represents three per cent of the UK total consumption for last year, but would be spread over several years. The Highways Agency has recently revised its design guidance to allow more use to be made of recycled aggregates.

Biodiversity

New and existing roads can have serious implications for wildlife and nature conservation if care is not taken over route planning, preventive measures and the provision of mitigation or compensatory habitats.

The Highways Agency already takes great care to protect wildlife along our trunk roads with the provision of crossing points and the planting of native species. The Agency is also committed to playing a full role in implementing the Government's Biodiversity Action Plans. We will be revising the Design Manual for Roads and Bridges in consultation with interested parties to ensure that this guidance remains up to date.

English Nature suggest that three schemes in the targeted programme of improvements will have a serious adverse effect on important biodiversity sites. In those cases every care will be taken to minimise these impacts with sensitive design and the provision of compensatory habitats.

Heritage

The construction of new roads can have a serious effect on ancient monuments and archaeological sites. However, by taking traffic away from conservation areas and listed buildings, bypasses can enhance the heritage features of an area.

English Heritage suggest that two schemes in the targeted programme of improvements would seriously affect heritage sites. Five schemes would provide substantial benefits for heritage.

Water

Water which runs off the side of roads can affect local water quality and great care is taken to ensure that adequate engineering measures are put in place to prevent this.

The Environment Agency using a different approach from the other statutory bodies suggest that at most two schemes in the targeted programme of improvements could pose a serious risk to the water environment without adequate mitigation. The Highways Agency will include the necessary mitigation to reduce the risk identified in these assessments. The Highways Agency and the Environment Agency are now working on joint guidance and research to ensure that the statutory requirements for water quality are fully met.

8.3 Safety

The Government is committed to improving safety on our roads. We are introducing a new road safety strategy with accident reduction targets, a major review of speed policy and changing the number of hours which drivers can spend on the road.

We estimate that the schemes in the targeted programme of improvements will save around 500 lives and 5,300 serious injuries over the first 30 years. And we are establishing a dedicated fund for safety based road projects (*see 4.5*).

8.4 Economy

There will be substantial real benefits for the economy from our new policies.

By making trunk road maintenance our first priority we will save money in the long term by managing the timing and spread of the work programme more efficiently and by avoiding the need for "emergency" repairs.

Investing in network control, introducing traffic management measures and providing minor improvements will improve the performance of the network as a whole. Our aim is to increase reliability by reducing congestion and helping to create the conditions for more predictable journey times.

Journey Times and Vehicle Operating Costs

The large number of individual time savings achieved by making targeted improvements to the network will lower the cost of journeys and add up to big benefits for the economy. We estimate that the value to the economy of these improvements will be Â£2.6 billion at 1997 prices over the 30 years after opening.

Cost

Making better use of the roads we have already will help us reduce the need for expensive new infrastructure. The total cost of the 37 schemes in the targeted programme of improvements is estimated to be about Â£1.4 billion. Although we cannot estimate precisely all the benefits of these schemes it is still vital to ensure value for money. On average the 37 schemes in the programme will deliver three times more in quantifiable benefits than they will cost to build.

Reliability

Current levels of congestion, which are predicted to get worse if nothing is done, are clearly unacceptable. The stress level of a road shows how close to its maximum capacity the road is operating. 13 of the schemes in the targeted programme will help substantially to relieve the congestion on roads with very high stress levels.

Regeneration

21 of the schemes in the programme will provide improved links to regeneration priority areas. While improving transport links alone will not necessarily improve the economy of these areas it seems clear that when supported by other initiatives targeted transport investment can produce results. Indeed, eight of the schemes in the programme will help ensure that a major development in an area in need of regeneration goes ahead.

8.5 A ccessibility

Previous approaches to transport policy have encouraged mobility for some at the expense of accessibility for others. The targeted programme of improvements helps to increase accessibility by improving the operating conditions for public transport and by reducing severance in bypassed communities. 20 of the schemes in the programme will significantly improve accessibility encouraging greater use of public transport, cycling and walking.

The Regional Picture

Introduction

This part of the report sets out the results of the trunk road review region by region. It describes:

- pressures on the network and main problems identified in *consultation* last Autumn;
- schemes included in the targeted programme of improvements and the reasons;
- examples of smaller scale measures - mainly aimed at improving safety;

- improvements required as a result of proposed developments that will proceed subject to agreement with the developers concerned;
- the scope of studies into problems not addressed in the targeted programme of improvements.

The results of studies will help the regional planning conferences to develop strategic transport plans and priorities for investment to be included in Regional Planning Guidance as explained in Chapter 2.

Schemes put on hold pending the outcome of studies and/or consideration by the regional planning conferences are listed here as are schemes to be withdrawn from the programme.

Also listed are trunk roads not on the core network which it is proposed to transfer to local highway authorities so that their management and improvement can be fully integrated with land use planning and local transport plans.

North East Region

Transport System

The North East consists of the two predominantly rural counties of Northumberland and Durham and the industrial conurbations centred on the river estuaries of the Tyne, Wear and Tees. It is a region of great contrasts. The western area is formed by the hills and forests of the North Pennines and Border Hills, whilst its eastern boundary is the North Sea. Between these two lie agricultural lowlands, market towns such as Alnwick and Morpeth, the former coalfield settlements of Durham and South East Northumberland and the main centres of population and economic activity centred around Newcastle, Sunderland and Middlesbrough.

The region's trunk road network is relatively straightforward. The A1/A1(M) and the A19 form the north-south routes to the east of the Pennines connecting England and Scotland, whilst the A69 and A66 provide key links to Cumbria and the North West, Western Scotland and Ireland via Stranraer. The remainder of the network largely provides alternative north-south routes or important links across conurbations. The electrified East Coast Main Line provides fast regular rail services via Newcastle, Durham and Darlington to London and Edinburgh, whilst the Tyne Valley line provides the only rail connection with the west via Carlisle. Teesside and Sunderland have rail connections to the East Coast Main Line and a coastal railway provides local access. The Tyneside conurbation is served by the Tyne and Wear Metro system. Newcastle International Airport is the largest of the region's airports, although Teesside is expanding rapidly. Teesport is the UK's second largest port in terms of tonnage whilst the Port of Tyne has expanding car export and ferry operations. Both have rail freight facilities. The region has

other ports at Blyth, Sunderland and Seaham.

Pressure points on North East Region's Trunk Roads

Following publication of the consultation documents *What role for trunk roads in England*? and *Developing an Integrated Transport Policy*, the Government Office for the North East together with the North of England Assembly of Local Authorities established a Regional Transport Forum and jointly ran five themed seminars looking at all aspects of transport in the region. The region's trunk roads were a key element in the discussions at the transport corridors seminar, and also at the region's integrated transport seminar. Representatives from a wide range of organisations debated the issues at length. In addition 23 written representations were received in response to the consultation documents. The main points and areas for action identified as a result of the regional consultation were:

- The extent of the trunk road network was felt to be "about right".
- Need to offset the region's peripherality by better transport links, particularly in terms of providing a motorway connection to the south.
- Need to address safety and the inefficient operation of single carriageway trunk roads, in particular the A1 north of Morpeth, the A66 and the A69.
- Dealing with congestion on main routes, particularly on the A1 through the Tyneside conurbation (including the Gateshead Western Bypass) and on the A19, to the north of the Tyne Tunnel should be a high priority.
- Need to cater for local traffic movements which currently interfere with the safe and efficient operation of the trunk roads as strategic long distance routes.
- The removal of trunk road traffic from towns and villages to improve safety and the environment is supported.
- Need to cater for new developments and to avoid prejudicing the economic development of the region.
- Freight transport by road was seen as continuing to be the most efficient choice for the majority of movements, although there was widespread support for initiatives which encourage more freight by rail and inland waterways.

Targeted Programme of Improvements

A1 Willowburn to Denwick Improvement - This scheme will be taken forward in order to improve safety on this section of single carriageway trunk road.

Scheme Associated with Development

The following development driven scheme will be taken forward subject to agreement with the developer:

- **A19 Wolviston Second Samsung Access**

Proposed

Subject to consultation with the regional planning conference it is proposed to undertake the studies detailed below. The outcome of these studies will inform consideration of transport infrastructure requirements in preparing Regional Planning Guidance, including the need for improvements to the trunk road network.

Tyneside Area Study - Study of capacity problems on the A1 and A19 in Tyneside, covering in particular congestion on the Gateshead Western Bypass, dualling of the Tyne Tunnel, development pressures, safety and the scope for modal shift.

A66 Safety Study - A study to investigate the poor safety record on this route between Scotch Corner and Penrith and to identify options.

In addition, the **A1 Gateshead to Edinburgh** pilot Route Management Strategy being undertaken by the Highways Agency will continue.

Smaller Scale Measures

The Highways Agency has identified a number of possible local network management dualling schemes on the A1 and the A66 which address safety concerns. Planning has commenced on Felton to Lanehead and Ellingham to Newstead on the A1. Preferred Route announcements have just been made on Scotch Corner to Melsonby and Greta Bridge to Dyson Lane on the A66. Consideration is being given to further schemes on both roads which can be justified on safety grounds.

The Agency will continue the highly successful toolkit initiatives to introduce low cost safety measures on the A1 and the A66. Seven are planned for the A1 this year and four on the A66 between Penrith and Scotch Corner. The possibility of using toolkit measures to address the problems on the Gateshead and Newcastle Western Bypasses and to give better overtaking opportunities on the A1 between Morpeth and Felton will be investigated.

Other Decisions

The following scheme is to be studied as part of the Tyneside Area Study and will be considered by the regional planning conference:

- **A1 Gateshead Western Bypass**

Proposals for Detrunking

Routes within the North East proposed for detrunking are:

- **A167**
- **A696/A68 between Newcastle International Airport and the Scottish Border**

North West Region

Transport System

The region includes the conurbations of Greater Manchester and Merseyside, the shire counties of Cheshire, Cumbria and Lancashire and the unitary authorities of Warrington, Halton, Blackpool and Blackburn. The Mersey Belt stretching between Merseyside and the Pennines is very urban in character and there is a second urban but less densely populated belt along the Ribble and Colne Valleys stretching from Blackburn to Colne. The remainder of the region is generally of a rural nature with the main centres of population and economic activity in the county towns of Chester, Carlisle and Preston and other larger towns.

The region is relatively well served by its trunk road network with a high proportion being of motorway standard including some of the oldest and most heavily trafficked motorways in the country. However, the economic development of towns and businesses in West Cumbria is considered to be disadvantaged by its poor transport links being on the periphery of the region. The north-south transport spine of the West Coast Main Line railway and the M6 and their feeders runs from Crewe in the south through Warrington, Wigan, Preston and Lancaster to Carlisle in the north and provides the main access to southern England, Scotland and Europe. The east-west transport spine of the trans-Pennine rail routes and the M56 and M62 runs from Merseyside, Chester and North Wales through the Manchester conurbation to cross the Pennines in the east and provides the main access route from Wales, Merseyside and the Irish ports to Yorkshire and the Humber ports. The region's main ports and airports are at Liverpool and Manchester.

Pressure Points on North West Region Roads

Following publication of *What role for trunk roads in England*? a consultation seminar was held involving delegates representing a wide range of regional interests including local authorities, Passenger Transport Authorities, road hauliers, public transport providers, business, environmental and voluntary groups, National Parks and operators of the region's airports and ports. In addition, over 1,000 written representations were received. The main points and areas for action identified as a result of the regional consultation were:

- Highest priority should be given to the east-west and north-south corridors containing the M6, M56/M62, associated rail routes and access to Manchester and Liverpool Airports and Merseyside and the west coast ports
- High priority should be given to those schemes that will aid the economic regeneration of the region and combat perceived 'peripherality'

- Support for improvement to the A66 and A590 linking the M6 with Barrow, Workington, Whitehaven and other towns on the west coast of Cumbria
- General support for local bypasses on environmental, safety and, in some cases, regeneration grounds
- Concern about congestion on the M53
- Need for a further crossing of the Mersey to improve access to Liverpool Airport and assist in regeneration of the south of the city.
- Opposition to the proposed widening of the M60 J5-8 (previously M63 J6-9) and A556(M) M6 to M56 improvement by those affected by the schemes.

Targeted Programme of Improvements

It was announced in July 1997 that the final section of the Manchester Outer Ring Road (M60) would go ahead and this is under construction. The following further schemes have now been included in the targeted programme of improvements:

A66 Stainburn and Great Clifton Bypass - Will provide a safer and healthier environment for the two settlements and improve access to communities on the west coast of Cumbria.

A500 Basford/Hough/Shavington Bypass - Will provide a safer and healthier environment for the villages and better access from the M6 to an important European rail freight terminal and other business developments south of Crewe.

M60 J5-8 Widening - Will keep through traffic flowing on the core route around Manchester in support of jobs and prosperity, minimise diversion to unsuitable local roads and improve access to Manchester Airport and Trafford Park industrial and commercial areas.

In addition, preparation work will continue to progress the following schemes enabling them to be taken forward without delay, subject to full appraisal the views of the regional planning conference:

- **A57/A628 Mottram - Tintwistle Bypass**
- **A66 Temple Sowerby Bypass and Improvement at Winderwath**

Schemes Associated with Development

The following development driven schemes will be taken forward subject to agreements with the developers concerned:

- **M62 New Junction 8 and J8-9 Widening**
- **M56 J6 and Airport Access Improvement**

Proposed Studies

Subject to consultation with the regional planning conference it is proposed to undertake the studies detailed below. The outcome of these studies will inform consideration of transport infrastructure requirements in preparing Regional Planning Guidance, including the need for improvements to the trunk road network.

West Midlands to North West Conurbation - Study of M6 capacity problems and possible solutions, including scope for modal shift.

South East Manchester - This study will assess the transport problems in the South East quadrant of Greater Manchester and consider multi-modal solutions.

Deeside Park Junctions - A study will be undertaken of the three at-grade junctions on the A550 between the M56 and the Welsh Border in order to identify means of keeping traffic flowing on this part of the core network.

A66 Safety Study - A study to investigate the poor safety record on this route between Scotch Corner and Penrith and to identify options.

In addition, the following studies are underway:

Trans-Pennine Strategic Environmental Assessment Study - This study, being led by a consortium of local authorities with support from business and Government, is considering sustainable multi-modal transport options in the trans-Pennine Corridor.

M60 Junctions 12-18 - A multi-modal model is being developed jointly by the Highways Agency and Greater Manchester Authorities to assess the transport pressures in this corridor and identify solutions to keep traffic flowing on this heavily overloaded part of the core network.

Yorkshire and the Humber Region

Transport System

Yorkshire and the Humber region has a well developed trunk road network. The major north-south routes are the M1, which terminates at Leeds, and the A1(M)/A1 which traverses the length of the region. The major east-west route is the M62 which, together with the A63/A1033 on the north bank of the Humber and the M180/A180 on the south bank, provides the main trans-Pennine link and the principal access to the Humber ports. The A1/M1 Link Road, currently under construction, will provide a key addition to the regional motorway network which will significantly improve links between the A1 north of Leeds and both the M62 and the M1. The East Coast Main Line and the Midland Main Line railways provide the principal north-south routes in the region, with a number of trans-Pennine routes providing key east-west links. Suburban rail services, particularly in the metropolitan areas of South and West Yorkshire, have an increasingly important role to play in addressing problems posed by traffic growth on the most heavily congested sections of the motorway network in the region. The Humber ports provide good links to

Europe and act as an important competitive advantage to the region. Leeds/Bradford is the region's main airport.

Pressure Points on Yorkshire and the Humber Region's Trunk Roads

Following publication of *What role for trunk roads in England*? a seminar involving representatives from local authorities, the business community, transport operators, academic institutions and environmental groups was held to consider problems on the region's trunk road network and priorities for action. In addition over 4,800 written representations were received on regional issues and schemes.

- The main areas for action identified as a result of the regional consultation were:
- Maintenance of the strategic role of the core motorway network in South and West Yorkshire, in particular the M62 and the M1;
- Upgrading the A1 to motorway standard, particularly key bottlenecks in the south of the region, in order to address a variety of safety, environmental and congestion problems;
- Improvement of the routes to the Humber ports, particularly to the port of Hull;
- Removal of through traffic from towns and villages where this was creating serious environmental problems;
- Facilitating economic regeneration through the removal of key bottlenecks;
- Upgrading of the network to address key safety problems.

Targeted Programme of Improvements

A1(M) Ferrybridge - Hook Moor

A1(M) Wetherby - Walshford - These two schemes will provide large safety benefits and remove through traffic from this old section of the A1.

A63 Selby Bypass - Will provide a safer and healthier environment in the town and relieve congestion.

A650 Bingley Relief Road - Will provide a safer and healthier environment and assist redevelopment within Bingley and facilitate public transport improvements.

A1033 Hedon Road, Hull Improvement - Will relieve congestion on main access route to the port of Hull and support jobs and prosperity.

In addition, preparation work will continue to progress the following scheme, which will create better access to a major regeneration site and improve road safety, enabling it to be taken forward without delay, subject to full appraisal and the views of the regional planning conference:

- **A63 Melton Grade Separated Junction**

West Midlands Region

Transport System

The West Midlands region includes the major West Midlands metropolitan area and the smaller North Staffordshire conurbation. In the remainder of the region there are a number of smaller towns, the former new or expanded towns of Telford, Redditch, Droitwich and Tamworth, and extensive rural areas particularly in the west of the region.

The West Midlands lies at the centre of the motorway network, with the M6 providing a crucial link between the North West and Scotland and the South East; the M5 linking to the South West; the M40 providing an increasingly important alternative route to the South and South East; and the M42, M69 and A38 linking the West Midlands to the East Midlands and North East. There are also important spur roads to North and South Wales and the A49 is an important north-south route for Wales and the western part of the West Midlands. Several of these corridors also include major public transport arteries, especially the West Coast Main Line and other rail lines to Bristol and Sheffield and the North East. There are a number of local rail services radiating through and from the West Midlands conurbation and a new light rail line between Wolverhampton and Birmingham will open shortly. The western part of the region is less well-served by rail connections, but the routes to Wales are important for business and leisure purposes. The new international rail freight terminal at Hams Hall east of Birmingham provides a valuable service for freight traffic. Birmingham International Airport is expanding rapidly, and there is also a fast-growing freight airport at Coventry.

Pressure Points on West Midland Region’s Trunk Roads

Following publication of What role for trunk roads in England? six sub-regional meetings were held with the relevant local authorities and the Highways Agency to consider problems on the trunk road network and priorities for action. A further region-wide meeting was held with the local authorities, business organisations, transport operators and environmental interest groups. In addition over 1,000 written representations were received.

The main areas for action identified as a result of the regional consultation were:

- Need to keep traffic flowing on the region’s motorway network to support economic prosperity, and early completion of the Birmingham Northern Relief Road;
- Need to explore public transport improvements as alternatives to or alongside road building and to consider complementary traffic restraint and demand management measures;
- Removal of through traffic from communities to improve the safety and environment for residents, particularly on the A435, A49 and A5, and generally improving the safety and environment of routes

by a variety of small-scale measures;
- Improvement of the A5 west of Shrewsbury to tackle safety and environmental problems and facilitate economic activity in North Shropshire and North Wales;
- Dealing with congestion and safety issues at key junctions;
- Improvement to the City Road and Stoke Road junctions on the A500 in Stoke to support regeneration in North Staffordshire;
- Need to consider development pressures, including infrastructure requirements for Birmingham International Airport and the National Exhibition Centre and developments on the A38 in Staffordshire;
- Need for a co-ordinated and multi-modal approach to management of local and national traffic and demand through and around Birmingham and the Black Country;
- Further expansion of the Highways Agency Midlands Driver Information System.

Targeted Programme of Improvements

It was announced in July 1997 that, following the 1994/95 public inquiry, the go-ahead had been given to the privately financed Birmingham Northern Relief Road. The following further schemes have now been included in the targeted programme of improvements:

A5 Nesscliffe Bypass - Will provide a safer and healthier environment in Nesscliffe by removing more than 90% of traffic from the village.

A5 Weeford-Fazeley - Will improve safety and environmental conditions in the village of Hints by removing through traffic, and will improve safety and traffic flows on the core network, particularly at the A5/A38 junction where there is already significant congestion.

A500 City Road/Stoke Road junctions - Will promote economic regeneration by improving the flow of traffic through two key junctions in the heart of the North Staffordshire conurbation close to several major development sites, and will improve conditions for public transport, cyclists and pedestrians.

In addition, preparation work will continue to progress the following scheme aimed at dealing with serious congestion at a key junction enabling it to be taken forward without delay, subject to full appraisal and the views of the regional planning conference:

- **A45/A46 Tollbar End Improvement**

Schemes Associated with Development

The following development driven scheme will be taken forward subject to agreement with the developer concerned:

- A38 Streethay-Hilliards Cross

East Midlands Region

Transport System

The East Midlands Region comprises the counties of Derbyshire, Leicestershire, Lincolnshire, Northamptonshire and Nottinghamshire. It is a diverse region and includes cities and towns with substantial traffic congestion problems, such as Nottingham, Derby, Leicester, Lincoln and Northampton, the region's main commercial, administrative and cultural centres; remoter areas, such as rural Lincolnshire, where the problem is poor accessibility; former coalfield areas which also have poor transport links; and areas such as the Peak District, which are under traffic pressure from visitors.

North-south movement is comparatively easy. Both the Midland and East Coast Main Line railways run through the region, mirroring the M1 and A1 trunk roads. In addition, the West Coast Main Line railway serves the western fringe of the region. East-west travel is less convenient, the principal rail routes being those through Nottingham, from the West Midlands to Lincolnshire, and those through Leicester, from the West Midlands to East Anglia. East-west road connections improved significantly with the opening of the A14 in the south of the region and the A50 in the north-west. The East Midlands Regional Airport at Castle Donnington is an important and fast growing facility which is well served by its proximity to the M1, A42 and A50. There are four small ports in the region at Boston, Sutton Bridge, Fosdyke and Gainsborough which are important to their immediate localities and have capacity to serve a wider area.

Pressure Points on East Midland Region's Trunk Roads

Following publication of What role for trunk roads in England? a consultative meeting was held with representatives of local authorities, business and environmental groups to consider problems on the region's trunk road network and priorities for action. The meeting served to inform the region's integrated transport seminar. In addition, over 3,800 written representations were received.

The main areas for action identified as a result of the regional consultation were:

- Dealing with congestion problems on the M1;
- Improvement of the A46 between Newark and Lincoln;
- Addressing congestion and safety problems on the A43 between the M1 and M40;
- Dealing with congestion problems on the A38, A42 and A453;
- Removing trunk road traffic from communities to improve the local environment and road safety.

Targeted Programme of Improvements

It was announced in July 1997 that the A50 Derby Southern Bypass Contract B would go ahead. The following further schemes have now been included in the targeted programme of improvements.

A6 Great Glen Bypass - Will enhance the environment and improve road safety in Great Glen by removing traffic from the village;

A6 Rothwell to Desborough Bypass - Will eliminate a bottleneck, enhance the environment and improve road safety by removing traffic in Rothwell and Desborough;

A6 Rushden & Higham Ferrers Bypass - Will enhance the environment and improve road safety in the towns by removing traffic;

A6 Alvaston - Will enhance the environment and road safety in Alvaston by removing traffic and will improve access to development sites thereby assisting regeneration and competitiveness.

A43 Silverstone Bypass - Will eliminate a bottleneck, enhance the environment and improve road safety by removing traffic from the village;

A43 Whitfield Turn to Brackley Hatch Improvement - Will improve road safety by dualling a sub-standard section of single carriageway road and enhance the environment;

A46 Newark to Lincoln Improvement - Will improve access to and from Lincolnshire thereby assisting regeneration, competitiveness and road safety.

Eastern Region

Transport System

The Eastern Region includes the six counties of Bedfordshire, Cambridgeshire, Essex, Hertfordshire, Norfolk and Suffolk. The southern parts of Essex and Hertfordshire are urban in character with travel and transport patterns heavily dominated by the pull of London. On the other hand Norfolk and Suffolk are mainly rural, their main centres of population being Norwich and Ipswich respectively, supported by market and coastal towns. The rest of the region can be described as an urban/rural mix with Bedford, Cambridge, Luton and Peterborough being key centres.

The main trunk road routes radiating through the region are the M1, A1(M)/A1, M11/A11 and A12, while the M25, A14 and A47 provide the main east-west routes. The main rail routes radiating from London are the West Coast Main Line, Midland Main Line, East Coast Main Line, Cambridge/King's Lynn, Ipswich/Norwich and Essex Coast Lines. All are electrified. The Region is less well served by east-west rail connections, the main routes being those around north London and from Ipswich and Norwich to Ely and onward to Peterborough. London Luton and London Stansted Airports are now expanding rapidly and the range of services is increasing, particularly with low cost operators. There are also regional airports at Southend, Norwich and Cambridge. Felixstowe, Harwich and Tilbury are major ports which are very important for the country's international trade and dependent on good road and rail communications with the rest of the country. Other important ports are Ipswich, Lowestoft, Great Yarmouth, King's Lynn and Wisbech.

Pressure Points on Eastern Region's Trunk Roads

Following publication of *What role for trunk roads in England*? two consultative meetings were held with representatives of local authorities, business and environmental interest groups to consider problems on the region's trunk road network and priorities for action. These meetings served to inform the region's integrated transport seminar. In addition over 500 written representations were received.

- The main areas for action identified as a result of the regional consultation were:
- Improvement of access to more remote areas of region, in particular completion of dualling of the A11 to Norwich;
- Dealing with serious congestion problems on main routes including the M1, M25, A12 in Essex and the A14 in Cambridgeshire;
- Removing trunk road traffic from communities to improve the environment and safety for residents;
- Improving the A47 as an east-west route in the north of the region;
- Addressing safety problems on single carriageway trunk roads;
- Need to consider development pressures, including infrastructure requirements, for expanding urban areas and major developments such as Stansted Airport;
- Transfer of some trunk roads of lesser importance to local highway authorities so they can be more effectively managed as part of the local road network.

Targeted Programme of Improvements

A6 Clapham Bypass - Will provide a safer and healthier environment in Clapham by removing 80% of traffic.

A10 Wadesmill Bypass - Will eliminate a bottleneck and provide a safer and healthier environment for Wadesmill, High Cross and Colliers End by removing nearly 90% of traffic

A11 Roudham Heath to Attleborough - Will improve safety and accessibility to remoter areas of East Anglia thereby assisting development and regeneration.

A14 Rookery Crossroads - Will improve safety by provision of two-level junction, carriageway realignment and closure of central reserve gaps.

A120 Stansted - Braintree - Will give greater accessibility required by local plans for expansion of Stansted Airport and improve environment of local communities by removing upwards of 65% of traffic from existing route.

A421 Great Barford Bypass - Will provide a safer and healthier environment for Great Barford by removing 75% of traffic and eliminate a bottleneck on core route from Milton Keynes to Cambridge.

In addition, preparatory work will continue to progress the following schemes for dualling the remainder of the A11 to Norwich enabling them to be taken forward without delay, subject to full appraisal and the views of the regional planning conference:

- **A11 Fiveways to Thetford**
- **A11 Attleborough Bypass**

Schemes Associated with Development

The following development driven schemes will be taken forward subject to agreements with the developers concerned:

- **A6 Bedford Western Bypass A428-A421 Link**
- **A13 M25 - Lakeside Widening**
- **A120 M11 - Stansted Slip Roads**
- **A428 Caxton Common - Hardwick**

South West Region

Transport System

The South West Region comprises the counties of Cornwall, Devon, Dorset, Somerset, Wiltshire and Gloucestershire, as well as the former Avon area. It has substantial conurbations in Bristol, Swindon, Gloucester/Cheltenham, Bournemouth/Poole, Exeter, Torbay and Plymouth, which provide much of the economic drive in the region. But it has a much lower than average population density - over half the South West's inhabitants live in towns of less than 20,000. Parts of the westerly counties are as remote as any part of England. With lower densities, distances to work and other facilities tend to be greater and dependency on the car higher. The service sector, distribution, tourism and high-tech manufacturing are the most significant sectors of the regional economy.

The main trunk road network in the South West is based on the east-west M4 in the north of the region and the north-east/south-west M5/A38/A30 axis. These routes are closely paralleled by the main rail network connecting the west to the major conurbations in the region and onward to the South East and Midlands/North. North-south routes - both road and rail - are less well developed, especially in the eastern part of the region. The main airports in the South West are at Bristol, Bournemouth and Exeter, while the airports at Plymouth and Newquay provide highly-valued links to Gatwick. There are locally important sea and air links from the mainland to the Isles of Scilly. The region's principal port facility is at Bristol which is well located in relation to main road and rail routes. Other significant port activity is at Plymouth and Poole.

Pressure Points on South West Region's Trunk Roads

Following publication of What role for trunk roads in England? a consultative meeting was held with representatives of local authorities, environmental interest groups, business, transport users and providers to consider problems on the region's trunk road network and priorities for action. In addition, about 1,600 written responses to the consultation concerning specific schemes in the region were received.

The main points and areas for action identified as a result of the regional consultation were:

- The main motorway and trunk road network is vital to the region's economy but the level of congestion on much of the inter-urban network in the South West is not as serious at present as in other regions;
- The M4/M5 is the principal corridor for the east of the region. Congestion around Bristol is mainly due to local traffic and peak holiday movements. There was support for management options to be explored to tackle these problems;
- The A303/A30 is an important strategic route linking the western counties of the region to the South East. Rail might offer an effective alternative for some trips and, as the route is in part an alternative to the M4/M5, the two routes would need to be studied/managed accordingly, alongside rail options;
- The existing Salisbury Study should look broadly at travel between the M4 and the south coast, including A34, A350, A37 as well as the A36/46, alongside rail routes;
- There is very strong local support for improvement of the A30 between Bodmin and Indian Queens, a new bridge in Poole, and a bypass of Blunsdon, where the role of alternative means of transport in addressing the local problems may well be limited.

Targeted Programme of Improvements

The A303 alongside Stonehenge is a bottleneck and intrudes into the setting of this precious ancient monument. It has been decided that the only acceptable solution which will relieve the problem and at the same time enhance the setting of the monument is to construct a dual carriageway in a 2km cut and cover tunnel. Such a scheme would be too expensive to warrant priority within the targeted programme of improvements if assessed solely in terms of transport benefits. The scheme will therefore be taken forward on the understanding that at least a third of the costs will be funded from heritage sources. The scheme will include the proposed A303 Winterbourne Stoke Bypass.

In addition, preparation work will continue to progress the following scheme to remove a bottleneck on the A30 in Cornwall to enable it to be taken forward without delay subject to full appraisal and the views of the regional planning conference:

- **A30 Bodmin-Indian Queens Improvement**

Scheme Associated with Development

The following development driven scheme will be taken forward subject to agreement with the developer concerned:

- **M49 Severnside Junction**

Proposed Studies

Subject to consultation with the regional planning conference it is proposed to undertake the studies detailed below. The outcome of these studies will inform consideration of transport infrastructure requirements in preparing Regional Planning Guidance, including the need for improvements to the trunk road network.

London to South West and South Wales - Study of the corridor encompassing the M4/M5/A303/A30/A38 and parallel rail routes from the south east to Penzance. The objective of this study will be to examine the scope for reducing congestion by better management and modal shift, as well as options for taking forward focused improvements, particularly on the A303.

A419 at Blunsdon - Study to look at the problems of the A419 at this location

In addition, the **Salisbury Transport Study** is underway of options for dealing with through traffic in the city following the withdrawal of the A36 Salisbury Bypass from the national programme in July 1997.

South East Region

Transport System

The South East Region includes Berkshire, Buckinghamshire, East and West Sussex, Hampshire, Isle of Wight, Kent, Oxfordshire and Surrey. Transport infrastructure in the region is a strength. Nearly a quarter of the motorway network in England, including a substantial part of the M25, a key hub in the national road network, is in the South East. Major road and rail links in the region primarily serve radial movements to and from London, providing good access to most major centres of population, though some peripheral coastal areas are less well served. East-west connections in the region are generally less good. The region’s ports accounted for 77% of international passenger movements and 14% of freight handled at all UK ports in 1995. London Heathrow and London Gatwick airports serve the region and impact

significantly on its economy, jobs, development patterns and traffic.

The environment/transport interface is especially prominent in the South East where population density is one of the highest in the country outside London, development pressure is strong, car ownership and usage is high compared to the rest of Britain and where 40% of the land is designated as Area of Outstanding Natural Beauty and/or Green Belt.

Pressure Points on South East Region's Trunk Roads

Following publication of What role for trunk roads in England? two seminars were held with representatives of local authorities, business, transport providers and environmental interest groups to consider problems on the region's trunk roads and priorities for action. An integrated transport seminar was also held and over 8,000 written representations were received, including some 3,000 after the close of the consultation period concerning the proposed widening of the M25 between the M3 and M4 junctions.

- The main areas for action identified as a result of the regional consultation were:
- Development of an integrated transport strategy for improved access to and within Kent Thames-side and other regeneration areas in North and East Kent, including improvement of the A2, and the link to the Isle of Sheppey;
- Development of a long-term strategy for the M25;
- Removing trunk road traffic from communities to improve the environment and safety for residents;
- Tackling bottlenecks on key strategic regional routes, including the A3 at Hindhead, links to the south coast, and the M4/A34 and M40/A404 junctions;
- A study of the south coast corridor from Southampton to Folkestone, to include the M27, A27, A259, rail and other public transport aimed at improving access to and between the regeneration areas and other areas of economic activity along the south coast. Early action to tackle problems at Polegate, Hastings and Worthing.
- Development of integrated transport strategies for Heathrow and Gatwick to minimise the road traffic impacts of the airports' business.

Targeted Programme of Improvements

It was announced in July 1997 that the go-ahead had been given to the A2/M2 Cobham to Junction 4 widening, and that all reasonable endeavours would be made to ensure that it is completed within the period of construction of the Channel Tunnel Rail Link. The following further schemes have now been included in the targeted programme of improvements:

M25 Junctions 12 - 15 Widening - Provision of additional capacity where the current level of traffic is already causing severe congestion at times and threatening jobs and prosperity over a wide area. The widening will be within the existing motorway boundary and will be a key part of a wider, long-term strategy for managing traffic on the M25.

A2/A282 Dartford Improvement

A2 Bean-Cobham Widening Phase 1

A2 Bean-Cobham Widening Phase 2

These three interlinked schemes form part of an integrated transport strategy providing enhanced access to a major regional regeneration area - Kent Thames-side - and other regeneration areas in North and East Kent. They involve provision of free flow links between the A2 and A282 and widening of the A2 alleviating congestion and safety problems and helping to support jobs and prosperity.

A21 Lamberhurst Bypass - Will allow through traffic to avoid the existing tortuous road approaching and through Lamberhurst making the village a much safer and healthier place to live.

A27 Polegate Bypass - Will remove a high proportion of the traffic from Polegate enhancing the safety and environment of this small town and, along with local road improvements, will enhance accessibility to Eastbourne and the surrounding area, assisting regeneration.

A34 Chieveley/M4 J13 Improvement - Will remove last bottleneck on core route between the Midlands and Southampton supporting jobs and prosperity and also eliminate traffic queuing back on to the M4 thus improving safety.

A41 Aston Clinton Bypass - Will remove 70% of traffic from Aston-Clinton making the village a safer and healthier place to live.

A43 M40 - B4031 Improvement - Will improve safety at the M40 Ardley junction and on the strategic link between M40 and M1 motorways.

A249 Iwade - Queenborough Improvement - This new high level fixed bridge crossing of the Swale will greatly improve accessibility to regeneration areas on the Isle of Sheppey including the Port of Sheerness.

London

Transport System

It was explained in Chapter 2 that the new Greater London Authority - to be set up in 2000 - will have responsibility for the strategic road network in London. It will become the highway authority for all existing trunk roads within Greater London apart from the M1, M4, M11 and M25. It may also become highway authority for a number of existing borough roads; the Government is consulting on this. As part

of this review, therefore, it has been necessary to decide which improvement schemes can proceed without compromising the development of the Greater London Authority's integrated transport strategy.

Within London the response to *What role for trunk roads in England*? was relatively limited. There was support for the A23 Coulsdon Inner Relief Road. There were calls for the cancellation of the A406 Bounds Green to Green Lanes Improvement. Business interests and others in the Park Royal area and beyond asked for the reinstatement of the previously proposed improvements to the A40 junctions at Gypsy Corner and Western Circus. These were dropped in July 1997 because it was considered they would have the effect of encouraging car commuting where public transport alternatives exist.

As a result of the review the decisions taken with regard to trunk roads within Greater London are set out below.

Targeted Programme of Improvements

It was announced in July 1997 that the A13 Thames Gateway Design Build Finance and Operate (DBFO) project had been given the go-ahead to provide the transport infrastructure needed for regeneration of East London and Docklands. Tender invitations for the DBFO project will be invited shortly. This will include improvement of the road between Ironbridge and Canning Town, junction improvements at Woolwich Manor Way and Movers Lane and a tender for an improvement at the junction with Prince Regent Lane.

Following the decision not to proceed with the major A40 junction schemes at Gypsy Corner and Western Circus, an integrated package of traffic management, bridge strengthening and more modest junction improvements is being developed. The package will assist the movement of people and goods along and across the A40, help increase the reliability of bus services, protect residential areas from through traffic and assist the regeneration of the Park Royal area by providing improved access arrangements.

The following further scheme has now been added to the targeted programme of improvements:

A23 Coulsdon Inner Relief Road - Will provide a safer and healthier environment by removing 80% of traffic from the town centre.

Schemes Associated with Development

The following schemes will be taken forward subject to agreement with the developers concerned:

- **M4 Junction 3-4B Widening**
- **M25 Terminal 5 Spur Road**
- **M41 Development Access**
- **A102(M) Millennium**

Smaller Scale Measures

The following scheme is being withdrawn from the national trunk road programme and it is proposed to assess whether traffic management measures would provide a worthwhile, more immediate, alternative:

- **A4 Henleys/Waggoners Corner Improvement**

Decisions for the Greater London Authority

The A406 North Circular Road will be a key route in the strategic road network to come under the control of the Greater London Authority. The Authority will wish to study the role of the road as part of the development of its integrated transport strategy for London. The Government Office for London will initiate preliminary analysis to support such a study and to assess the merits of more immediate traffic management measures. In the meantime the following proposed A406 schemes are being withdrawn from the national trunk road programme.

- **A406 Bounds Green - Green Lanes Improvement**
- **A406/A1/A598 Regents Park Road Junction Improvement**
- **A406 Golders Green Road Junction Improvement**

In addition, the following scheme is also being withdrawn from the national programme:

- **A205 Catford Town Centre Improvement**
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Annex A - Summary of Consultation Responses

The consultation document *What role for trunk roads in England?* was published on 28 July 1997. It was in two parts: Volume 1 sought views on trunk road policy while Volume 2 set out transport problems on a region by region basis and described schemes in the inherited trunk road programme designed to address them. Consultees were invited to give their views on the future direction of trunk road policy and investment plans. The formal closing date for responses was 14 November 1997, but account was taken of responses received up to 30 January 1998.

Government Offices were instrumental in carrying forward consultations at the regional level. As well as taking receipt of written representations about particular schemes they also arranged seminars and meetings with representatives of local authorities, business, environmental and other interested organisations to consider the role of the trunk road network in their areas. The role of trunk roads was also considered at a series of regional seminars held last autumn on the development of an integrated transport policy. The Minister for Roads, Helene Hayman, later invited all the Members of Parliament with English constituencies to a series of regionally based meetings to report on the outcome of the regional consultative exercise and to hear their views.

About 14,000 written responses received in response to the consultation were concerned with particular schemes. 600 responses concentrated on trunk road policy.

Overall trunk road policy

Of the 600 responses which concentrated on policy issues, just over 200 were from local authorities. A further 150 were from individual members of the public. Most of the remainder were from business, environmental groups, transport operators, representative associations, contractors and consultant engineers.

Tackling congestion

On the broad question of how congestion should be tackled there was clear support for making better use of existing infrastructure. Measures suggested for achieving this included provision of better driver information, wider use of variable speed limits, control of access to trunk roads and use of new technology.

There was also clear support for demand management measures. Improvement of public transport was most frequently mentioned as a means, followed by encouragement of transfer to rail and fiscal measures (including tolling, road pricing and increased fuel duty). Public education was the least mentioned means of controlling demand although it had support from a fifth of local authorities who responded. Imposition of a tax on private non-residential parking was suggested by a fifth of the local authorities who responded, but by few other respondents. Many respondents commented that existing road/fuel taxes and any prospective new charges for using roads should be ring fenced for maintenance/improvement of the road network or alternative transport investment.

While there was less support for new road building as a means of dealing with congestion many respondents accepted that some new building was necessary. But new road building was the option least favoured by environmental groups. The most favoured approach to creation of new infrastructure was the construction of bypasses, followed by widening of existing roads and improvements to remove bottlenecks. Creation of completely new routes received least support as a means of providing new capacity.

Assessment criteria and priorities for investment

Safety and protection of the environment were most frequently mentioned by respondents as the priorities for new investment. Helping competitiveness was mentioned least. Some respondents commented that the relative balancing of the Government's five assessment criteria should take into account particular local circumstances. A few respondents commented that there should be some investment in improving the environmental conditions on existing roads.

Planning new investment and responsibility for trunk roads

There was agreement on the need for better integration of land use planning and transport, but no clear preference for whether the trunk road network should be planned at national, regional or local level. The general consensus was that the motorway network should remain a national responsibility. There was also acceptance that some trunk roads should be detrunked and managed as part of the local road network.

Other points

Several respondents suggested that speed limits should be lowered or that there should be stricter enforcement of existing limits.

On funding new investment several local authorities and some environmental groups expressed misgivings about design, build, finance and operate (DBFO) projects. They had concerns about value for money and schemes being driven by funding considerations rather than transport need. However, some other respondents suggested greater use of DBFO funding.

The importance of roads to the rural economy were stressed by rural interest groups.

Views from the regions

89 per cent of the scheme specific representations received by Government Offices were in favour of individual schemes and 11 per cent were against. Three-quarters of the written representations were prompted by strong local lobbying campaigns for particular schemes, including a number of bypasses.

The main issues to emerge from the regional consultations are highlighted in Part C. The responses to the consultation at regional level had a number of common themes as well as reflecting the response on general policies already outlined. The regional responses showed general support for the objective of an integrated transport system and the need for improved integration of transport and land use planning. An efficient trunk road network was perceived as playing an important role in the prosperity of regional economies, providing links to peripheral areas and helping regeneration initiatives in cases where the roles of traditional regional industries had declined. At the same time scope was seen for improvement of public transport and encouraging the switching of freight from road to rail. There was strong support for some rail initiatives, particularly the East-West Route to facilitate journeys between the Oxford area and East Anglia without passing through London. However, the car was seen as continuing to have a very important role in providing access to remoter rural areas where it was considered unlikely that public transport could provide a viable alternative. There were some calls for better integration of the management of trunk roads and local roads and an acceptance that some trunk roads should be detrunked.

Annex B - The New Approach to Appraisal

Introduction

A key objective of the Roads Review has been to develop a clear and open framework to appraise and inform the prioritisation of trunk road investment proposals. To achieve this objective the Government has developed a new approach to appraisal which is broadly based and takes account of the five criteria:

- **environmental impact;**
- **safety;**
- **economy;**
- **accessibility; and**
- **integration.**

An important element of this new approach has been the development of an Appraisal Summary Table (AST). This is a one page summary of the main economic, environmental and social impacts of a trunk road scheme. As part of the Roads Review, ASTs have been completed for 67 schemes which were sufficiently advanced to be candidates for the targeted programme of improvements

An accompanying document Understanding the New Approach to Appraisal is available to explain in more depth the ASTs for those 67 schemes.

Purpose of the AST

The purpose of the AST is to make the appraisal process more transparent. It gives decision takers a clear, consistent and reliable basis on which to found their decisions about which trunk road schemes should proceed. And in the Roads Review, ASTs have been used to help decide which trunk road schemes should take priority.

In developing the AST we have kept in mind the need to:

- understand the problem and ask what priority it deserves;
- identify a range of options;
- appraise options to determine the extent to which they meet the Government's objectives, given the need for benefits to outweigh costs and to achieve value for money.

Those trunk road schemes where alternative options could help relieve the problems identified have been excluded from the targeted programme of improvements. For these cases, other options will be more fully developed and appraised as alternatives to the proposed trunk road improvements.

Roads Review Appraisal Criteria

The AST summarises the key consequences of a proposed trunk road scheme against the five criteria. It presents information derived from established, detailed techniques that are used to appraise the environmental, economic and social consequences of trunk road schemes. In each case the information reflects the net effect of the trunk road scheme on each of the five criteria compared with a scenario without the road scheme. The information is presented in a way that does not give prominence to any one type of effect, or to those benefits expressed in monetary terms compared with those which cannot be measured in the same way.

The criteria have been divided into a number of sub-criteria, reflecting the wide variety of impacts arising from schemes:

Criteria	Sub-Criteria
Environmental Impact [4]	- Noise
	- Local Air Quality
	- Landscape
	- Biodiversity
	- Heritage
	- Water
Safety	- None
Economy	- Journey times and Vehicle Operating Costs
	- Journey Time Reliability
	- Scheme Costs
	-Regeneration
Accessibility	- Access to Public Transport
	- Community Severance
	- Pedestrians and Others
Integration	- None

For each of these, the impacts of a road scheme are expressed in the following ways:

- **qualitatively** - using words to describe the main impacts;
- **quantitatively** - using numbers to indicate the scale of the impacts; and
- as a **summary assessment** - using either a monetary value, a quantitative indicator or a textual ranking.

Detailed guidelines have been used for each of the sub-criteria to determine what information should be included in the AST. Every effort has been made to ensure that the AST includes all significant impacts. However, it is for decision takers to make judgements about the relative value to be put on the individual criteria.

This approach marks a fundamental change in the way in which road schemes are considered. It makes the underlying problems and consequences of each scheme more explicit. It assists the comparison and ranking of schemes, particularly where positive impacts have to be traded off against different and negative ones. It does this in a way which gives environmental and other impacts equal prominence to economic ones.

[4] Environmental Impact also includes data on additional CO_2 emissions.

Annex C - Summary of Scheme Decisions

	Scheme	Cost Â£m*	Primary Objective	Next Stage	Standard	Length Km
A1	Willowburn-Denwick	7	Safety & Healthier Communities	OM	D2	4.2
A1(M)	Ferrybridge-Hook Moor	160	Safety & Healthier Communities	OM	D3	16.3
A1(M)	Wetherby-Walshford	50	Safety & Healthier Communities	SOW	D3	5.9
A2	Bean-Cobham Widening (Phase 1 Bean-Tolgate)	44	Jobs & Prosperity	PC	D4	6.0
A2	Bean-Cobham Widening (Phase 2 Tolgate-Cobham)	35	Jobs & Prosperity	PC	D4	4.0
A2/A282	Dartford Improvement	38	Jobs & Prosperity	OP	D4	3.4
A5	Nesscliffe Bypass	14	Safety & Healthier Communities	SOW	D2	4.5
A5	Weeford-Fazeley Improvement	31	Regeneration & Integration	SOW	D2	5.0
A6	Great Glen Bypass	15	Safety & Healthier Communities	SOW	D2	5.6
A6	Rushden & Higham Ferrers Bypass	9	Safety & Healthier Communities	SOW	D2/SC	5.5
A6	Rothwell-Desborough Bypass	11	Safety & Healthier Communities	SOW	SC	6.0
A6	Clapham Bypass	31	Safety & Healthier Communities	SOW	D2	5.0
A6	Alvaston (formerly Derby Southern Bypass Contract C)	14	Safety & Healthier Communities	OP	D2	2.3
A10	Wadesmill Colliers End	24	Safety & Healthier Communities	SOW	D2	10.7
A11	Roundham Heath-Attleborough Improvement	27	Regeneration & Integration	SOW	D2	9.9

A14	Rookery Crossroads Grade Separated Junction	5	Safety & Healthier Communities	PC	D2	N/A
A21	Lamberhurst Bypass	12	Safety & Healthier Communities	SOW	D2	3.0
A23	Coulsdon Inner Relief Road	40	Safety & Healthier Communities	SOW	D2	1.7
A27	Polegate Bypass	24	Regeneration & Integration	SOW	D2	2.9
A34	Chieveley/M4 J13 Improvement	36	Jobs & Prosperity	OP	D2	2.1
A41	Aston Clinton Bypass	21	Safety & Healthier Communities	SOW	D2	6.4
A43	Silverstone Bypass	18	Safety & Healthier Communities	SOW	D2	8.0
A43	Whitfield Turn-Brackley Hatch Improvement	13	Safety & Healthier Communities	SOW	D2	4.5
A43	M40-B4031 Improvement	18	Safety & Healthier Communities	SOW	D2	6.5
A46	Newark-Lincoln Improvement	29	Regeneration & Integration	OM	D2	12.9
A63	Selby Bypass	41	Safety & Healthier Communities	SOW	SC	9.8
A66	Stainburn & Great Clifton Bypass	10	Safety & Healthier Communities	SOW	SC	3.9
A120	Stansted-Braintree Improvement	92	Regeneration & Integration	OM	D2	24.0
A249	Iwade-Queenborough Improvement	79	Regeneration & Integration	OP	D2 + Bridge	5.3
A303	Stonehenge	125	Exceptional Environmental Scheme	PC	D2	9.2
A421	Great Barford Bypass	25	Safety & Healthier Communities	OP	D2	7.5
A500	City Road & Stoke Road Jcts Improvement	24	Regeneration & Integration	OP	D2	1.6

A500	Basford/Hough/Shavington Bypass	28	Regeneration & Integration	OM	D2	4.0
A650	Bingley Relief Road	59	Safety & Healthier Communities	SOW	D2	5.0
A1033	Hedon Road Improvement	53	Jobs & Prosperity	SOW	D2	6.7
M25	J12-15 Widening	94	Jobs & Prosperity	OM	D5/D6	10.9
M60	J5-8 Widening (formerly M63 J6-9)	82	Jobs & Prosperity	OM	D3/D4	7.4

*** Estimated costs at 1997 prices, rounded to nearest Â£m**

Glossary of Abbreviations:
PC Public Consultation
OP Draft Orders Published
OM Orders Made
SOW Start of Works
D2 Dual 2-lane carriageway
SC Single carriageway

Annex D - The Proposed Study Programme

This annex sets out our proposed programme of further work on the most severe and urgent problems on the trunk road network not addressed by the targeted programme of improvements. We will be consulting RPCs on our proposals and on the scope for each study. We anticipate that the final programme of studies will encompass both large scale multi-modal studies addressing problems across all modes and more localised consideration of problems on particular routes. Part C sets our proposals for study in a regional context.

The results of this work will inform development of strategic transport plans and regional planning conferences' priorities for trunk road investment, either as part of the current round of Regional Planning Guidance or in a partial update of Regional Planning Guidance.

Name of Study	Roads Problems in Study Area
London to South Midlands	Congestion on motorway network within the corridor
	Development pressures
	Access to major urban areas

Southampton to Folkestone	Congestion particularly on M27 at Southampton and Portsmouth, on A27 at Chichester, Arundel, Worthing - Lancing and on A259 at Bexhill, Hastings, Winchelsea, Rye, St Mary's Bay and Dymchurch
	Environment and safety problems in communities through which A27 and A259 run
	Study will need to take into account local authority led work on solutions to congestion on M27 in South Hampshire and between Worthing and Lancing on the A27
West Midlands to Nottingham	Congestion on A42/M42 corridor
	Development pressure at M42 J10
	Role of A38 and M69 and M42/A42
London to South West and South Wales	Severe congestion, particularly on M4 around Bristol, Swindon, and A303 single carriageway sections
	Impact of seasonal traffic
	Development pressures around Bristol,
	Weston-Super-Mare and Saltash
	Safety problems on sections of A303
North South Movements in East Midlands	Congestion on M1 J21 to 28
	Development pressures
	Need for Kegworth Bypass
	Access to former coalfield sites, including consideration of need for new Junction 29A as recommended by Coalfields Taskforce
Cambridge to Huntingdon	Congestion on A14, likely to be exacerbated by potential developments to North of Cambridge and at Alconbury
	Safety concerns on D2 section to east of Huntingdon
London Orbital	Congestion on M25 and adjacent sections of route
London to Reading	Congestion on M4 between M25 and J12
	Development pressures
	Limited junction capacity on M4

West Midlands Area	Congestion and environmental problems in West Midlands
	Study will need to take account of measures being taken forward in metropolitan transport package
SE Manchester	Transport problems in South East quadrant of Manchester
Tyneside Area	Scope for using toolkit measures to relieve congestion on Gateshead Western Bypass
	Capacity problems, particularly at junctions on A19 arising from dualling of Tyne Tunnel and development pressures
	Poor safety record on A19
	Pressures arising from regeneration of
West Midlands to North West conurbation	Congestion on M6
	Environmental problems on A556 link between M6 and M56
	Journey time reliability on M6 affecting access to North West and Scotland
	Environmental problems caused by rat-running
	Scope for modal shift
South and West Yorkshire Motorway Box	Congestion, particularly on north-south motorway routes
Access to Hastings	Capacity and congestion problem arising from planning and development pressures around Hastings
	Congestion and safety problems on A21 between Tonbridge and Pembury
A453 (M1 - Nottingham)	Safety and congestion on A453 between M1 and Nottingham
A1 Bramham to Barton	Safety on A1(M) between Bramham and Barton in North Yorkshire
Norwich to Great Yarmouth	Congestion and safety problems on single carriageway section of route
	Poor access and unreliable journey times to ports of Gt Yarmouth and Lowestoft
A5 Shrewsbury to Welsh Border	Congestion on A5, particularly during holiday season
	Safety and environmental problems

A38 Derby Junctions	Congestion at three junctions on A38
M1 J19	Congestion and safety at Junction 19 on M1. Mostly caused by east-west movements
A3 Hindhead	Congestion and safety on A3 at Hindhead
	Impact of existing road on sensitive environment
Deeside Park Junctions	Congestion and safety at three junctions on A550
	Scheme will need to take account of Welsh Office led study of problems on A55 in Wales
M40/A46 Longbridge roundabout	Congestion at Longbridge roundabout M40/A46 junction
	Development pressure
A419 Blunsdon	Congestion and safety problems on A419 at Blunsdon
Hull	Congestion, particularly at Castle Street Junction in Hull
A66 Safety Study	Safety problems on A66 between Penrith and Scotch Corner

In addition there are a number of studies already underway, led by Government Offices, the Highways Agency or Local Highways Authorities. These include:

- **Gatwick Area Study**
- **Trans-Pennine Strategic Environmental Assessment Corridor Study**
- **Salisbury Study**
- **M60 J12-18 Study**
- **M40/A404 Handy Cross Study**