

A453 Widening M1 Junction 24 to A52 Nottingham

OUTLINE STATEMENT OF CASE

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Contents

1.0	INTRODUCTION.....	1
2.0	DRAFT ORDERS.....	2
3.0	TRUNK ROADS AND GOVERNMENT POLICIES	4
4.0	THE NEED FOR THE SCHEME	7
5.0	BACKGROUND TO THE PUBLISHED SCHEME.....	8
6.0	DESCRIPTION OF THE PUBLISHED SCHEME.....	11
	Rural Section	11
	Urban Section	12
	Environmental Mitigation.....	13
7.0	ASSESSMENT OF PUBLISHED SCHEME	14
	Assessment Methodology.....	14
	Engineering Assessment.....	14
	Traffic and Economics	15
	Environmental Impact Assessments and the Environmental Statement.....	17
	Environmental Mitigation.....	22
8.0	ALTERNATIVES CONSIDERED.....	23
9.0	OBJECTIONS AND REPRESENTATIONS.....	25
10.0	CONCLUSIONS.....	27

Appendices

A	LIST OF DEPOSIT DOCUMENTS
B	APPRAISAL SUMMARY TABLE
C	SCHEME LAYOUT

1.0 INTRODUCTION

- 1.1 The Secretary of State for Transport (the Secretary of State) has published proposals for the A453 Widening (M1 Junction 24 to A52 Trunk Road Nottingham) scheme. They are contained within the draft Orders published under the Highways Act 1980 and the Acquisition of Land Act 1981.
- 1.2 Important documents referred to in this Statement are called deposit documents, and have been annotated with the letter D followed by the document number. The deposit documents contain important information into the background behind the scheme, and have been placed on deposit at a number of locations near the scheme. The list of deposit documents and deposit locations is contained in Appendix 1.
- 1.3 This Statement of Case is required by Rule 6 (1) (b) of the Highways (Inquiries Procedure) Rules 1994 [DD115] and the Compulsory Purchase by Ministers (Inquiries Procedures) Rules 1994 [DD116]. It sets out the case the Secretary of State will put forward at the Public Inquiry, programmed to start in November 2009, in support of the draft Orders being made. It sets out the principal submissions to be made covering:-
 - Government Policy and objectives.
 - The need for the Scheme
 - The background to the proposals
 - A description of the proposed Scheme and any necessary mitigation
 - A description of the draft Orders
 - An assessment of the Scheme
 - Alternatives considered
 - The objections and representations received in response to the publication of draft Orders

2.0 DRAFT ORDERS

2.1 The Secretary of State published 3 draft Orders on the 29th January 2009, under the Highways Act 1980 [DD108], as follows:

- The A453 Birmingham to Nottingham Trunk Road (M1 Junction 24 to A52 Nottingham Improvement and Slip Roads) Order 20.. [DD01]

This is an Order under sections 10, 41 and 106 of the Highways Act 1980, which identifies the line of the roads which the Secretary of State proposes to construct and classify as trunk roads.

- The A453 Birmingham to Nottingham Trunk Road (M1 Junction 24 to A52 Nottingham Improvement) Detrunking Order 20.. [DD02]

This is an Order under section 10 of the Highways Act 1980, which indicates the lengths of roads which the Secretary of State proposes should cease to be trunk roads and shall be classified as classified road from the date the Secretary of State notifies the local Highways Authority that the new trunk roads are open to traffic.

- The A453 Birmingham to Nottingham Trunk Road (M1 Junction 24 to A52 Nottingham Improvement) Side Road Order 20.. [DD03]

This is an Order under sections 12, 14 and 125 of the Highways Act 1980 which will enable the Secretary of State to improve, stop up and construct new local highways and to stop up and provide new private means of access to premises affected by the Scheme.

2.2 The Secretary of State published a draft Compulsory Purchase Order on the 29th January 2009, under the Acquisition of Land Act 1981 [DD101]; as follows:

- The A453 Birmingham to Nottingham Trunk Road (M1 Junction 24 to A52 Nottingham Improvement) Compulsory Purchase Order 20.. [DD04]

This is an Order under sections 239, 240, 246 and 260 of the Highways Act 1980, as extended and supplemented by section 250 of that Act, and under section 2 of the Acquisition of Land Act 1981 which would authorise compulsory acquisition of land and rights for the following purposes:

- The construction and improvement of the new trunk road
- The construction and improvement of highways and the provision of means of access in pursuance of the Side Roads Order
- The mitigation of adverse effects of the Scheme
- The diversion of watercourses and the execution of other works on watercourses in connection with the construction of the new trunk road and the improvement and execution of other works mentioned above.

- 2.3 An Environmental Statement (ES) [DD05] was published with the draft Orders on the 29th January 2009.
- 2.4 Following publication of the draft Orders and ES on the 29th January 2009, the public and other interested organisations were given the opportunity to make representations, object or give support to the draft Orders and accompanying ES during a 13 week objection period. To further publicise the draft Orders, an Orders Exhibition was held on the 25th, 27th and 28th February 2009; and the Non-Technical Summary (NTS) of the ES was delivered to all land owners, tenants, stakeholders, interested parties and properties within close proximity to the Scheme.
- 2.5 28 objections to the draft Orders were received within the 13 week objection period, together with 48 representations and 27 letters in support of the proposals.
- 2.6 After considering these responses, the Secretary of State has decided that a Public Inquiry into the objections to the draft Orders should be held before an independent Inspector, appointed on the nomination of the Planning Inspectorate, by the Secretary of State. The Inspector will report his findings of facts, conclusions and recommendations to the Secretary of State and the Secretary of State for Communities and Local Government (the Secretaries of State) who will consider the report, together with the objections and representations, before deciding whether or not to confirm the draft Orders.

3.0 TRUNK ROAD AND GOVERNMENT POLICIES

- 3.1 Under the provisions of the Highways Act 1980 (the 1980 Act) [DD108] the Secretary of State is the highway authority for trunk roads. The Secretary of State has a statutory obligation to keep under review the national system of routes for through traffic in England and Wales. The 1980 Act defines the procedures to be followed when the Secretary of State proposes to carry out improvements to the trunk road network.

Policy Statement

Transport Policy

- 3.2 The Government's long term strategy for the transport network was set out in the July 2004 White Paper, "The Future of Transport: a Network for 2030" (Command Paper (CM) 6234). The strategy charts a course over the next 30 years for improving the transport system by sustained investment, improvements in the management of the transport network and planning ahead to address projected pressures on the transport system over the longer term. The White Paper identifies the following policy measures, which will provide the basis for delivering enhancements to the road network:
- new capacity where it is needed, assuming that any environmental and social costs are justified;
 - locking-in the benefits of new capacity through various measures including some tolling and carpool lanes where appropriate;
 - Government leading the debate on road pricing and its capacity to lead to better choices for motorists;
 - better management exploiting the potential of new technology to avoid problems and deal with them rapidly if they occur; and
 - using new technology to keep people informed both before and during their journey.
- 3.3 The programme of trunk road improvements being taken forward by the Highways Agency contributes to the first of the policy measures listed above - providing new capacity where it is needed, subject to such schemes being justified, taking account of social and environmental costs as well as their economic costs and benefits. The trunk road programme has been developed within the policy framework set out in the July 1998 White Paper "A New Deal for Transport: Better for Everyone" (Cm 3950). This introduced a new integrated transport policy, which aims to achieve:
- Integration **within and between different types of transport** – so that each contributes its full potential and people can move easily between them;
 - Integration **with the environment** – so that transport choices support a better environment;

- Integration **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;
- Integration **with policies for education, health and wealth creation** – so that transport helps to make a fairer, more inclusive society.

3.4 The 1998 White Paper identified the following key functions for trunk roads:

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

3.5 "A New Deal for Trunk Roads in England", a daughter document to the Transport White Paper also published in July 1998, set out Government Policy specifically in relation to trunk roads. This established the Targeted Programme of Improvements (TPI), replacing the National Trunk Road Improvement Programme, as a carefully targeted programme to address the most serious and pressing problems on the strategic road network.

3.6 "A New Deal for Trunk Roads in England" included the results of a Strategic Review of all the trunk road Schemes which were then in the National Programme. Each scheme was assessed against the Government's objectives for the environment, safety, economy, accessibility and integration. The Review identified thirty-seven schemes, which were carried forward under the Targeted Programme. Some of the original schemes were dropped from the programme altogether and a number of other schemes were remitted for further consideration through a series of Multi-Modal and Road-Based Studies. Such schemes were to be re-considered for entry into the TPI following completion of the studies.

Government response to the Multi-Modal and Road Based Studies

3.7 The programme of Multi-Modal and Road Based Studies commissioned by the Government in 1999 and 2000 is now complete and the Government has responded to the study recommendations in a number of separate announcements.

3.8 The A453 widening proposals are the direct result of the Multi-Modal Study, A453 Nottingham to M1 Junction 24 Final Report, which reported in August 2002. The Government responded to the outputs from this study in December 2002, by asking the Highways Agency to develop proposals for improvements to the A453 between the M1 Junction 24 and the A52 Nottingham ring road. The proposed scheme entered the Targeted Programme of Improvements in May 2004.

3.9 The proposed improvements to the A453 would help to deliver the five Central Government objectives for transport as defined in the 'New Deal for Trunk Roads in England', namely environment, safety, economy, accessibility and integration as follows:

- Impact on the natural and built environment would be minimised;
- Safety would be improved for road users on the A453 and local roads, and for other user groups including pedestrians, cyclists and equestrians;
- Economic efficiency would be improved by reducing congestion and improving the reliability of journey times;
- Accessibility around the A453 for those using non-motorised modes of travel, especially pedestrians, cyclists and equestrians, would be improved by reducing severance; and
- Improvements would be made in the context of the Government's integrated transport policy by reflecting national, regional and local plans and policies and wider land-use considerations. Objectives of the Multi-Modal Study would be delivered, including the provision of access to the Parkway Station and NET developments.

Regional Context of the proposals

3.10 The A453 is the southern link between the M1 and Nottingham. The A453 is a vital part of the secondary trunk road network, forming part of the east-west route from the M6 to the A1 (via the A50 and A52). The A453 forms the direct road connection between Nottingham and the East Midlands Airport.

Local Context of the proposals

3.11 The A453 connects to the M1 at Junction 24 and the A52 at Silverdale Roundabout. This section of the A453 passes through both rural and urban settings, and the proposals would affect Kegworth, Thrumpton, Barton in Fabis and Clifton. The rural section has direct connections to the Ratcliffe on Soar Power Station and Parkway Railway Station and has a number of direct field accesses. The rural section of the A453 also provides access to the local and trunk road network for Thrumpton and Barton in Fabis. The urban section passes through Clifton and provides direct access to Nottingham Trent University as well as a number of residential properties and small retail businesses. The proposed scheme would also provide an access point for the proposed Nottingham Express Transit System.

THE NEED FOR THE SCHEME

- 4.1 The A453 is an important regional trunk road and is a major route between Nottingham, the M1 and East Midlands Airport. It carries between 23,000 and 30,000 vehicles per day and a high proportion of heavy goods vehicles (up to 19% in the rural section, compared with a national average of 10% on rural trunk roads).
- 4.2 The road is one of the most heavily congested routes in the region at peak times, and the number of vehicles using the A453 is predicted to increase. In the rural section the road currently carries 23,000 vehicles per day, which is predicted to increase to 25,000 vehicles per day in 2012 and to 30,000 vehicles per day in 2027 without the scheme, making congestion even worse.
- 4.3 The proposed scheme would have the capacity to safely handle this increase in traffic and attract traffic back to the A453 reducing the traffic on a number of local roads.
- 4.4 A number of footpaths and bridleways join and cross this section of the A453, but walkers, cyclists and horse-riders find it difficult to cross because of heavy traffic. The proposed scheme would segregate or manage these movements improving access to all forms of transport.
- 4.5 The A453 has a poor safety record, with a recorded accident level 33% higher than the observed national average for similar rural roads and 23% higher than the observed national average for similar urban roads. Over a five-year period between 2003 and 2007 there were 167 personal injury accidents, of which 134 were slight, 31 serious and 2 fatal. The proposed scheme would significantly reduce these accident statistics.
- 4.6 The Multi Modal Study desired to promote a modal shift away from private vehicle use, and the proposed scheme would provide better accesses to the Parkway Railway Station near Ratcliffe on Soar, and to the proposed Nottingham Express Transit terminus south of Clifton.
- 4.7 The current congestion in the urban section through Clifton is largely caused by the demand activated pedestrian crossings together with the junctions and limited road capacity. The proposed scheme would significantly reduce congestion by combining the pedestrian /cycle crossings with the vehicle signal controlled junctions and by doubling the roads capacity
- 4.8 The Government's key objectives of the Scheme are:
 - To provide relief from traffic congestion and improve the safety of the A453 in accordance with the relevant targets in 'A New Deal for Trunk Roads in England' (DETR) July 1998; and
 - To ensure that there is no significant worsening of the Appraisal Summary Table (AST) [DD07] sub-criteria and to improve them over the existing conditions where possible, within the constraints of the Brief, taking into account any special requirements. The "target" AST dated December 2008 is included in Appendix 2.

5.0 BACKGROUND TO THE PUBLISHED SCHEME

- 5.1 The original proposals to improve the A453 between M1 Junction 24 and Clifton were first included in the National Trunk Road Programme as early as 1983. These proposals were developed through discussion at Public Consultation between 1985 and 1989. At this time the Highways Agency was promoting two separate schemes;
- 1) A 6.9km long widening scheme between the M1 Junction 24 and Manor Road, nr Barton in Fabis. These proposals were for a dual carriageway, with all movement grade separated junction at West Leake and Barton Lane, and a limited movement junction at Ratcliffe on Soar. All other roads would connect to the new dual carriageway via at grade left in-left out junctions. The Public Inquiry was held in 1992.
 - 2) A 5.7km widening scheme between the A453/junction with Manor Road to a point 400m north of Farnborough Road. These proposals were for a standard dual carriageway, including climbing lanes to Crusader Roundabout, at which point the new road would drop into a cutting through Clifton, to emerge north of Farnborough Road. There would be limited connectivity to Clifton, though additional local roads would be provided. The Public Inquiry was held in 1996.
- 5.2 The original A453 widening schemes were removed from the roads programme in 1998, for further consideration through a series of Multi-Modal and Road-Based Studies. Consequently, the Secretary of State did not issue a decision on the draft Orders for these schemes. These Orders have been withdrawn, and replaced by the current scheme.
- 5.3 In 1999, the Multi-Modal Study, A453 Nottingham to M1 Junction 24 (MMS) commenced. The MMS was overseen by the Government Office for the East Midlands through two management groups. Its purpose was to:
1. carry out an in depth appraisal of the transport needs for the A453 corridor up to 2021;
 2. to identify viable, costed measures to meet the future transport needs of the A453 Corridor; and
 3. to recommend both long term and short term strategies to address both the strategic and most urgent problems in the study area, looking at all modes of transport, and in particular looking at opportunities for modal transfer.

- 5.4 The MMS considered not only road construction options, but also rail, bus and pedestrian/ cyclist options in order to define the most appropriate solution to take forward. The study reported that there should be a number of initiatives taken forward, based in 4 main areas:
1. Public Transport Investments – which included, improved rail services between Derby and Nottingham, Park and Ride to Nottingham via the Proposed Parkway Station and the Nottingham Express Transit (NET) extension to Clifton and Beeston
 2. Demand Management – which included, workplace Parking Levy or equivalent commuter charging in Nottingham and Policies to influence future travel behaviour
 3. Highway Improvements – which included, dual carriageway A453 improvements with grade separation between M1 junction 24 and Clifton , A453 widening to 4 lanes at grade through Clifton with junction improvements and pedestrian facilities and M1 junction 24 improvement with A50 flyover to M1 south
 4. Complementary Measures – which included extensions to the footpath and cycleway networks
- 5.5 The draft conclusions from the MMS were grouped together and formed the basis for the Public Consultation held in February and March 2002, and the final report was issued in August. The MMS final report [DD13] detailing the recommendations is available on the Government Office for East Midlands Website:
- <http://www.go-em.gov.uk/transport/mmr-b-studies/a453/Final%20Report.htm>
- 5.6 The recommendations to improve the A453 online were endorsed by the Regional Planning Body and now forms part of the Regional Transport Strategy. Over the next two years preliminary design was carried out to define the proposed scheme, based on the MMS recommendations. This work defined the scheme brief, requirements and budget for the scheme; which were accepted by DfT /the Regional Planning body, prior to entry into the Government's Targeted Programme of Improvements on 18 May 2004.
- 5.7 Local Public Exhibitions were held in September 2004 with limited consultation to clarify the HA's proposals for widening the A453 following the MMS.
- 5.8 The Early Contractor Involvement (ECI) Contract was awarded to Laing O'Rourke [LOR] and their Designer, White Young Green [WYG] for the design and construction of the proposed Scheme on the 6th March 2006.
- 5.9 LOR identified that there would be significant improvements in terms of buildability and operation if a section of the rural alignment was built off-line – which would minimise the effects of construction on the route. A further Public Consultation was held in June 2007 promoting these minor alterations to the alignment.

- 5.10 Following the public Consultation detailed surveys were undertaken and the Environmental Statement [DD05] was produced, defining the nature and effect that the proposed scheme would have on the local and regional area. The Draft Orders and Environmental Statement were published on 29th January 2009.

6.0 DESCRIPTION OF THE PUBLISHED SCHEME

- 6.1 The A453 Widening Scheme is situated within Leicestershire and Nottinghamshire, within the area covered by the Government Office for the East Midlands.
- 6.2 A plan of the proposals is attached at Appendix 3, and the Environmental Statement [DD05] provides a detailed scheme description.
- 6.3 The existing A453 between M1 Junction 24 and the Farnborough Road/Fabis Drive Junction in Clifton is an 11.5 kilometre (km) single two-lane road. We are proposing to build an additional lane in each direction.
- 6.4 The scheme is split into two sections, an approximately 9km rural section between the M1 motorway and Mill Hill on the edge of Clifton, and the approximately 2.5km urban section from Mill Hill to the Farnborough Road Junction.

The Rural Section

- 6.5 Between the M1 Junction 24 and Mill Hill on the edge of Clifton, the proposed scheme would create a rural two lane dual carriageway all-purpose road subject to the National Speed Limit. This section would have no permanent central reserve crossings and a safety barrier would separate the two carriageways. There would also be an at-grade left in / left out connections for Cedar Isle and an abnormal load access to Ratcliffe on Soar Power Station.
- 6.6 The proposed road would be built on the existing alignment between the M1 Junction 24 and Thrumpton, by building a new carriageway to the south of the existing A453, to form a dual carriageway. Between Thrumpton and Barton Lane the proposed road would be built off-line but running parallel to the existing A453. The proposed road would then follow a new alignment between Barton Lane and Mill Hill on the edge of Clifton. The resulting redundant section of existing A453 would then be de-trunked, and passed to the local highway authority as a local road.
- 6.7 The western end of the rural section would end at the M1 junction 24 roundabout, and improvements to the A453 exit geometry would improve its current capacity. The eastern end of the rural section would end in a new roundabout at Mill Hill, on the edge of Clifton next to the Larkhill retirement village. This roundabout would connect the rural section of the A453 to the urban section of the A453 and provide access for the de-trunked section of the A453 and the NET terminus on the edge of Clifton.
- 6.8 The existing junctions at Parkway and West Leake would be upgraded to full movement split level junctions. The Parkway Junction would provide the main access to the Ratcliffe on Soar Power Station and Ratcliffe on Soar village. The West Leake Junction would also provide access to the Power Station, West Leake Road and the de-trunked A453 via Barton Lane.
- 6.9 The de-trunked section of the A453 would be used as a local distribution road, providing safe access to Thrumpton, Barton in Fabis, field and farm accesses and the local road network.

- 6.10 Barton Lane, between Barton Lodge and Nottingham Road, would become a private means of access for some of the farms in the area, and a new farm underpass would allow vehicles to pass under the new A453. This section of Barton Lane would also be used as a Bridleway.
- 6.11 Pedestrian, equestrian and cyclist routes would be maintained, and enhanced with additional routes. With the inclusion of the de-trunked section of the A453, these non-motorised user groups would be able to travel safely between Clifton and Kegworth. These groups would utilise grade separated crossings of the new A453 at Long Lane Bridge, Cedar Isle, the River Soar, the new Parkway Junction, the improved West Leake Junction, the farm accommodation bridge near Thrumpton and the new farm underpass at Barton Lane.

Urban Section

- 6.13 Between the new Mill Hill roundabout and the Farnborough Road Junction the scheme would create a four lane single carriageway road with a speed limit of 40mph. This style of road has successfully been used in a number of urban environments in Nottingham and other parts of the country.
- 6.14 This section would be built on the existing alignment, and would include fully signalised roundabout junctions at the existing Crusader roundabout, Green Lane and Farnborough Road Junctions. A further traffic light protected 'T' junction would be provided at Nottingham Trent University (NTU) northern access, allowing left in - left out and right in manoeuvres. Other minor junctions with the A453, including private accesses would either be stopped up, or allow left in - left out access only.
- 6.15 Pedestrian and cyclist facilities would be maintained, and a combined pedestrian / cyclist route would be provided on the northern side of the A453. Crossing facilities would coincide with each of the major junctions and the traffic lights at NTU, a further crossing facility would also be provided opposite the Man of Trent pub. The pedestrian crossing facilities would synchronise with the proposed signalised junctions in order to improve the traffic flow for all users.
- 6.16 In general, the A453 would be widened to the north of the existing A453, and land would be required from NTU and a few properties near Farnborough Junction. No land take would be required from Clifton Village Green.

Environmental Mitigation

6.17 The Scheme has been designed to avoid any significant effects on the environment. Other measures to reduce, as far as is possible, adverse environmental impacts could include:

- Earth mounds and noise fences;
- Low-noise road surface;
- Planting trees, shrubs and hedges common to the location;
- New habitats for wildlife and new wildlife crossing points;
- Use of modern high pressure SON lighting from Mill Hill through to Farnborough Road Junction would improve night time safety and minimise light spillage;
- The proposed lighting as required at Parkway and West Leake Junctions has been designed to modern standards, to minimise the environmental impact. These proposals will be reviewed, in line with the Highways Agency's latest standards in order to ensure the proposed lighting is necessary; and
- Balancing ponds, oversized pipes and flood compensation areas would be used to reduce the potential for water pollution and reduce flooding due to storm events.

7.0 ASSESSMENT OF THE PROPOSED SCHEME

Assessment Methodology

- 7.1 During the Roads Review undertaken in the mid 1990's, 'A New Approach to Appraisal' (NATA) was developed to provide a comprehensive approach to the assessment of road investment proposals. The assessment was based on the five key objectives of Accessibility, Safety, Economy, Environment and Integration as set out in the document "A New Deal for Trunk Roads in England" (1998). NATA was superseded by Guidance on the Methodology for Multi-Modal Studies 2000 (GOMMMS), which itself has been superseded by WebTAG, which aims to make the appraisal process throughout Government more consistent and transparent.
- 7.2 The appraisal techniques are described in "A New Deal for Trunk Roads in England: Understanding the New Approach to Appraisal", "A New Deal for Trunk Roads in England: Guidance on the New Approach to Appraisal"; the more recent GOMMMS, and its daughter documents, especially "Applying the Multi-Modal Approach to Appraisal to Highways Schemes" (The Bridging Document).
- 7.3 The Appraisal Summary Table [DD07] is produced using the GOMMMS and WebTAG methodology and summarises the results of an assessment of the impact of the Scheme against the five criteria: Environment, Safety, Economy, Accessibility and Integration (and their sub-criteria).

Engineering Assessment

Design

- 7.4 The Scheme has been designed appropriately in the context of its sensitive environment and it generally meets the standards set out in the DMRB. Where the design does not meet these standards, approvals to depart from the standards have been given by the Highways Agency's Net Serve directorate, acting independently of the project team.
- 7.5 The Stage 3 Scheme Assessment Report [DD08] discusses the engineering assessment of the geometrical, geotechnical, drainage and hydrology and structures design, detailing the departures from standards which have been agreed.

Construction

- 7.6 A detailed description of the construction methodology and the potential effects of construction is included in Volume 1: Section 2 : Part 3 the Environmental Statement [DD05]
- 7.7 The Scheme would take approximately 2¼ years to build, with construction activities currently programmed to start in Autumn 2010, and finish in 2012.

- 7.8 The urban section through Clifton, from the proposed Mill Hill Roundabout to the Farnborough Road junction, would be constructed in approximately 22 months and would, therefore, be completed before the rural section. This would ensure that the A453 through Clifton would have the capacity to accommodate the traffic before the rural dual carriageway is opened.
- 7.9 Prior to the start of the main scheme construction works, a range of activities would be required to minimise operational constraints. These would include various environmental mitigation works and, potentially, Statutory Undertakers Diversion works.
- 7.10 The scheme would involve substantial earthworks in order to form the cuttings and embankments. Where possible, excavated materials would be re-used in the embankments and landscaping areas, minimising both the environmental impact and the cost of the scheme.
- 7.11 The Contractor's traffic management arrangements would be agreed in detail with the relevant authorities, the Police and the Highways Agency before implementation. The main objectives of the traffic management design would be to provide a safe environment for road users and the workforce, and to minimise delays and disruption to the travelling public, whilst allowing the works to progress.
- 7.12 Disruption due to construction to both the natural and built environments would be minimised through the implementation of the Outline Construction Environment Management Plan (CEMP) [DD09], which would be enforced during construction to ensure that disturbance to the local residents, road users and the natural environment is kept to a minimum. The CEMP would also include a detailed waste management plan, which will highlight the materials to be re-used or recycled.

Traffic and Economic Assessment

- 7.13 The traffic model, forecasting and economic assessments were carried out as required by the DMRB, WebTAG guidance and other Highways Agency/ DfT standard procedures.

Traffic

- 7.14 A multi modal traffic model for the area was developed in accordance with the above guidance using traffic flows measured in the base year (2006). The model was then validated using traffic flows recorded in March and May 2006, in order to verify that it accurately reflected the way vehicles use the network. A detailed description of the transport model and the results of this testing are detailed in the Local Model Validation Report [DD10].
- 7.15 The model was then used to forecast the future traffic flows for the proposed opening year (2012) and the proposed design year (2027) both with and without the Scheme in place. A detailed description of the forecasting methodology and results are detailed in the Transport Forecasting Report [DD11].

- 7.16 Safety benefits are one of the major drivers behind the proposed scheme, and the provision of a new dual carriageway through the rural section, and enhanced traffic management through the urban section, would produce significant accident savings. The accident savings assessed using COBA analysis have shown that the Scheme would potentially prevent 43 fatal accidents, 195 serious accidents and 650 slight accidents from occurring, over the 60 year assessment period.
- 7.17 Overall it is considered that the proposed Scheme would shorten the existing journey times on the A453 and reduce congestion and traffic conflict through Clifton. In terms of capacity the proposed improvements would operate adequately for the full 15 year design life of the Scheme.

Economics

- 7.18 The results of this modelling and the accident statistics gathered from the TUBA, COBA and QUADRO were used to determine the Scheme Economics. The methodology used in this assessment and the results are detailed in the Economic Assessment Report [DD12]
- 7.19 The following table summarises the Costs and Benefits of the Scheme over the 60 year assessment period, and demonstrates that the Scheme has a healthy cost to benefit ratio of 3.25, making a very robust case for the construction of the Scheme.

Scheme Economics (Based on HA P50 Budget - £168m)	£M
Consumer User Benefits	96.1
Business User Benefits	168.4
Carbon Benefits	-0.9
Accident Benefits	56
Net Present Value Costs (PVC)	98.4
Net Present Value of Benefits (PVB)	3196
Net present Value (NPV) [PVB - PVC]	221.2
Benefit to Cost Ratio (BCR) [PVB ÷ PVC]	3.25

- 7.20 The Contractor's point estimate for the proposed scheme is £146m, which is less than the HA agreed budget. If the Contractor's estimate is used the BCR increases to 4.22.

Environmental Impact Assessment & the Environmental Statement

7.21 The Environmental Assessment of the Scheme was carried out using the latest methodology given in the Design Manual for Roads and Bridges (DMRB), Volume 11, WebTAG and best practice guidelines relevant to specific disciplines. The methodology and results of these assessments are defined in the Environmental Statement (ES) [DD05]. The following is a summary of the findings of these assessments.

Air Quality (ES: Vol 1: Section 2: Part 1)

7.22 The overall effect on the Air Quality by the proposed road scheme is a *Neutral* effect.

7.23 The Air Quality modelling undertaken predicts a slight increase in nitrogen dioxide and PM₁₀ exposure at receptors along the A453 corridor. The scheme is not predicted to result in any exceedence of National Air Quality Objectives at any receptors close to the A453.

7.24 In a regional context, the proposed scheme would result in a slight increase in greenhouse gas emissions from road traffic.

7.25 Beyond the scheme there is predicted to be a slight increase in nitrogen dioxide levels in four Air Quality Management Areas (AQMAs) and a reduction in five AQMAs. The scheme is forecast to be compliant with the European Union Directive limit value for nitrogen dioxide

7.26 The construction phase of the scheme has been ranked as 'high' risk due to the potential to produce dust and PM₁₀. Mitigation measures have been included in the CEMP to minimise these effects.

Cultural Heritage (ES:Vol 1:Section 2:Part 2)

7.27 The overall effect on the Cultural Heritage of the proposed road scheme is a *Moderate Adverse* effect.

7.28 Twenty-nine archaeological and heritage sites have been identified within the study area centred on the proposed route. Twelve sites would be directly impacted by the proposed scheme; three of these sites would suffer a *Moderate Adverse* effect and the other nine sites would suffer a *Slight Adverse* effect.

7.29 No Historic Buildings or Historic Landscapes would be physically affected by the scheme, though there would be a slight impact on the setting of some of the listed buildings and Conservation areas in Thrumpton and Clifton; as well as having an indirect effect on the setting of the historic landscape of Clifton Pasture, Barton Moor and Clifton Village Green.

- 7.30 The proposed scheme has been discussed and designed in order to avoid as many of the cultural heritage assets as possible. In areas where impacts are unavoidable, archaeological mitigation measures would be used to minimise this impact. This should ensure the preservation by record of the cultural heritage resources, both known and currently unknown, that would be disturbed by the construction.

Ecology and Nature Conservation (ES: Vol 1: Section 2: Part 4)

- 7.31 The overall effect on ecology and nature conservation of the proposed scheme is assessed as *neutral*.
- 7.32 The A453 crosses the River Soar, River Soar Navigation and a number of streams and ditches. Proposed road embankments would be within the flood plain, and flood compensation would be provided. Careful construction techniques and permanent measures to control accidental spillage of harmful substances following road opening would ensure no adverse impacts on water quality.
- 7.33 No sites of special scientific interest (SSSI) or other statutory designated sites will be directly affected by the scheme. There may be some indirect effects during road construction from the removal of trees and hedges which connect to 6 locally important sites. However these effects would be temporary and offset by the proposed planting.
- 7.34 Dualling of the A453 would increase the barrier effect of the road through the increase in carriageway width, safety barrier in the central reserve (in the rural section) and increased traffic flows. These effects would be offset by local biodiversity gains through the provision of new and enhanced habitats such as species-rich hedgerows, grassland and wetland, and the re-profiling of ditches.
- 7.35 The proposed mitigation measures include; mammal underpasses, badger / rabbit fencing, landscape planting (including hedgerows) and tight environmental controls during construction through the use of the CEMP and pre-construction surveys for protected species.

Landscape Effects (ES: Vol 1: Section 2: Part 5)

- 7.36 The overall effect on the landscape of the proposed scheme is assessed as *Slight Adverse*.
- 7.37 The rural section the A453 passes through an agricultural landscape of pleasant but not high quality. It is of local value, the character of which would not be adversely affected by the proposed widening to the south of the existing road.
- 7.38 Where the proposed alignment veers off-line between Thrumpton and the southern boundary of Clifton, the open character of the Green Belt landscape would be slightly affected but would remain essentially open.

- 7.39 New junctions where lighting is necessary would be visually intrusive, but impacts would be reduced through the use of modern full cut-off lighting and mitigation planting.
- 7.40 In the urban area through Clifton, widening of the A453 would be achieved without significant adverse effects. There would be some vegetation loss, including some along the University frontage and within the Clifton Conservation Area; however this would be replaced.

Land Use (ES Vol 1: Section 2: Part 6)

- 7.41 The overall effect on land use due to the proposed scheme is assessed as *Slight Adverse*.
- 7.42 6 residential properties, Radcliffe Power Station, Nottingham Trent University, Larkhill Retirement Village and 19 farms would be directly affected by the Scheme.
- 7.43 The Scheme would permanently require 66.08 Ha of land, 38.1 Ha of which is good quality agricultural land, with the remaining 27.98 Ha being taken from Ratcliffe Power Station, private gardens and access drives, existing highway land, Nottingham Trent University and Larkhill Retirement Village.
- 7.44 During construction a further 21Ha of agricultural land would be required temporarily for haul roads and bulk material storage areas, to minimise the effects of construction on the local residents and the road network. This land would be returned to its original use once the works are completed.
- 7.45 The Scheme complies with Government policy for the protection of agricultural land, as the design has been developed to ensure that the land take required is minimised, and options have been considered to reduce, or if possible eliminate, the loss of farmland.

Noise (ES Vol 1: Section 2: Part 7)

- 7.46 The overall effect on noise due to the proposed scheme is assessed as *slight/moderate adverse*.
- 7.47 Noise mitigation has been considered throughout the design of the scheme and has been influential in the decision making process. Noise mitigation measures are included within the scheme design, namely, fencing to properties backing on to the road at Meden Close, Morgan Mews and Cavell Close, and mounding and fencing around the proposed Mill Hill Roundabout to reduce noise levels in the grounds of Larkhill Retirement Village. Low noise surfacing would be used throughout the scheme to help reduce traffic noise.

- 7.48 Generally, there is predicted to be a net increase in noise as a result of the forecast increase in traffic. Most of the increases in traffic noise would be within the 1-3 decibel level, which is considered to be a slight impact. A few properties in Clifton would exceed the noise threshold defined in the 1975 Noise Insulation Regulations (amended), and noise insulation would be offered prior to construction to mitigate the modelled noise increase.
- 7.49 Noise levels from construction works are not likely to exceed the Advisory Leaflet 72 (AL72) level in the rural area. However, noise levels due to construction works in the urban area are likely to exceed the AL72 level (75 dBA) at several properties, most notably near Farnborough Road Junction. These properties would be offered noise insulation prior to construction to mitigate against the noise from construction works.
- 7.50 Overall there is expected to be an increase in vibration nuisance levels to 271 properties and a reduction to 138 properties, but increases would be well below the level likely to cause any damage to buildings.

Pedestrians, Cyclists and Equestrians

(ES: Vol 1: Section 2: Part 8)

- 7.51 The overall effect of the proposed scheme on Pedestrians, Cyclists and Equestrians is assessed as *Slight/Moderate Beneficial*.
- 7.52 There is an extensive network of Public Rights of Way (PROW) and local roads used by non-motorised users (NMU's) within the study area. However, it is generally accepted that the existing A453 acts as a barrier to north-south movements, particularly in the rural section between M1 Junction 24 and the proposed Mill Hill roundabout. This is due to the limited formal and/or grade separated crossing provisions and the inherent safety concerns with crossing a trunk road. There are more extensive provisions for NMU's in the urban section, including footways, cycle ways and formal crossing facilities.
- 7.53 The proposed scheme has been developed to improve pedestrian, cyclist and equestrian amenity and provide better connectivity than the existing network, thereby reducing severance.
- 7.54 The proposed scheme would provide a continuous route for pedestrians and cyclists between Clifton and Long Lane, in part utilising sections of de-trunked A453, linking the nearby residential areas of Clifton, Barton in Fabis, Thrumpton, Gotham, Ratcliffe on Soar, Kegworth, Sawley and Long Eaton to key destinations such as the Parkway Station, East Midlands Airport, the Power Station and the proposed NET Park and Ride terminus.
- 7.55 The proposed scheme incorporates safe and convenient grade separated crossing points for NMU's along the rural section at Long Lane, Cedar Isle, Parkway Junction, West Leake Junction, Thrumpton Accommodation bridge and Barton Lane.

- 7.56 The proposed scheme increases the number of pedestrian crossings in the urban section to 8 crossings. These will work in phase with the vehicle traffic light signals and provide safe access at Crusader Roundabout, Green Lane Junction, the northern access to Nottingham Trent University and Farnborough Road Junction.
- 7.57 The proposed scheme would also provide new combined pedestrian / cycle paths on the northern side of the A453, adjacent to Nottingham Trent University.

Vehicle Travellers (ES: Vol 1: Section 2: Part 9)

- 7.58 The overall effect of the proposed scheme on Vehicle Travellers is assessed as *Large Beneficial*.
- 7.59 Views from the proposed A453 will be similar to the existing views through both the urban and rural sections of the scheme.
- 7.60 Traveller stress is currently considered to be high, due to delays caused by congestion and fear of potential accidents. Overall, traveller stress would be reduced for users of the A453 and surrounding local roads as frustration and fear of potential accidents are greatly reduced. The scheme would also reduce congestion through Clifton and provide a safer environment for both Vehicle Travellers and Non-Motorised Users.
- 7.61 The Highways Agency, through the maintaining Agents is carrying out a study into the effect of the proposed improvement works on the A52 Silverdale Junction. These studies indicate that the proposed scheme would alleviate the PM peak hour traffic congestion at Silverdale Junction, due to the increased capacity through Clifton reducing the potential for tailbacks on the A453, which currently block this junction.
- 7.62 The scheme does not include any improvements at Junction 24 as these are part of the Motorway Widening Phase 2 project.

Policies and Plans (ES: Vol 1: Section 2: Part 13)

- 7.63 The overall effect of the proposed scheme on Policies and Plans is assessed as *Neutral*.
- 7.64 The proposed improvements for the A453 are generally in line with planning policy at national, regional, county and local levels. Most of these plans, statutory and non-statutory, recognise and promote the need for the A453 improvements. Consequently, the proposals will be beneficial to the aims of the planning and economic development of the region. Furthermore, the review of the planning policy documents demonstrates a positive attitude towards the improvement of the A453 at national, regional, county and local levels.
- 7.65 At national level, adverse impacts are generally related to the loss of Best and Most Versatile soils, air quality impacts and the fact that the scheme conflicts

with the aim of PPS 1 to reduce the reliance on the car, due to the anticipated increase in car use over the life of the scheme.

- 7.66 At a regional level, the need to improve the A453 is again recognised in policy as a benefit. At county level there is a general conformity to the plans although, again, the same issues score adversely, i.e. impact on Best and Most Versatile soils, the anticipated increase of car use over the life of the road and air quality, and to a lesser degree impacts on cultural heritage.
- 7.67 At the local level the main adverse impacts relate to soils, archaeology, noise and air quality, and, in Nottingham, the effects on the Clifton Conservation Area. Many of these adverse scores are for similar issues within several of the local policy documents, but overall they support the road improvements and see them as a part of the strategy for economic growth in the region.

Environmental Mitigation

- 7.68 The Scheme has been designed appropriately in the context of its sensitive environment and the environmental design has been developed in accordance with guidance provided within Volume 10 of the DMRB, with the aim of minimizing the impact of the trunk road network on both the natural and built environments.
- 7.69 The environmental design and mitigation measures incorporated into the Scheme are described in detail in the Environmental Statement [DD05].

8.0 ALTERNATIVES CONSIDERED

- 8.1 There have been a number of proposals to widen and improve the A453 over the years, the most recent being in the 1980's; at which time the Highways Agency was promoting two separate schemes to widen the A453 between the M1 and A52 south of Nottingham.
- 8.2 These proposals were taken to two separate Public Inquiries in the 1990's, however these schemes were not included in the Highways Agency's Targeted Programme of Improvements in 1998. Following this decision, the Government commissioned the A453 Nottingham to M1 Junction 24 (MMS) in 1999 to consider options for improving the A453 route in order to develop an integrated transport plan to address the existing and future travel problems in the A453 corridor.
- 8.3 The Multi Modal Study's remit was very wide ranging and it considered a number of alternative options in order to resolve the problems associated with the A453 route corridor. The 154 schemes considered were split into 10 types of proposals, which included integrated public transport, highways improvements, improvements for pedestrians and cyclists, information and training, taxation and legislation. The 30 Highways schemes were considered alongside the other schemes promoted.
- 8.4 All the schemes were considered by a number of focus groups, with representatives from the Highways Agency, local Councils, Authorities and Representative groups. During this process a number of the schemes were rejected as not being feasible for further consideration.
- 8.5 Three options were then taken to public consultation in order to gauge public opinion, and get further information in order to complete the MMS. Each option was a combination of Public Transport schemes, Non Motorised User schemes, Freight transport schemes, Demand Management schemes, including ways of altering travel behaviour and Highways schemes.
- 8.6 Following the Public Consultation, the views of the public were considered and different combinations of the schemes promoted were taken forward as two further options, which were considered by the focus groups, in order to determine the 'best' solution to the congestion issues on the A453. The Highways Solutions recommended by the MMS, as part of the chosen option were:
- Dual carriageway A453 improvements with grade separation between M1 Junction 24 and Clifton
 - A453 widening to 4 lanes at grade through Clifton with junction improvements and pedestrian facilities
 - M1 junction 24 improvement with A50 flyover to M1 south
- 8.7 The proposals form part of the Highways Agency's response to the results of the A453 Nottingham to M1 Junction 24 Multi Modal Study 2002 Multi Modal Study (MMS).

- 8.8 Following the award of Contract to Laing O Rourke in March 2006, the Contractor has looked at a number of minor alterations to the scheme, in order to improve buildability, efficiency and to resolve detail issues which had not been considered during the earlier preliminary design.
- 8.9 Originally the mainline for the A453, followed the existing A453, between the M1 and Crusader Roundabout in Clifton. There were a number of problems associated with this alignment, which included; significant land take from residential properties on the approach to Crusader Roundabout, access to Barton in Fabis, access to the NET site and the substantial earthworks and surplus material from the proposed deep cutting through Brands Hill.
- 8.10 The solution was to take the proposed A453 mainline offline between Thrumpton and a new roundabout at Mill Hill. The new roundabout allows access to the NET site and connects to the original A453 alignment. This new alignment, avoids the need for a deep cutting through Brands Hill, and allows the use of a single 4 lane carriageway between the estates on approach to Crusader Roundabout, minimising landtake. As the alignment is offline, it leaves the original A453 in place as a local distributor road for farm and village traffic. The offline section would also cause significantly less disruption to the travelling public during construction of the scheme.
- 8.11 Originally the scheme required landtake from Clifton Village Green, however, the Contractor was able to re-design the proposed Green Lane Junction such that no landtake from the village green is required. This re-design included a further look at the Public Cycleway/ Footway's in the area and in addition to saving the Green, there would be a new footway /cycleway bordering that edge of the Green as part of an overall NMU strategy within Clifton.
- 8.12 During this period, the Contractor has identified a number of improvements to the footway /cycleway provision in the rural section of the scheme, and has provided a safe offline route for pedestrians and cyclists between Clifton and Kegworth. This has been achieved through a mixture of using the old A453, and providing further paths to link with the existing 'routes' in the area.

9.0 Objections and Representations

9.1 Twenty eight objections, including thirteen objections from statutory objectors to the draft Orders were received by the end of the 13 week objection period. A further forty eight representations and twenty seven letters of support of the proposals were also received. No alternative to the scheme were put forward within the objection period. A summary of the topics covered by the correspondence is listed below.

Ref No	Topic Details	Number of references
1	Objection and concerns regarding the reported increase in air and noise pollution.	16
2	Concerns and Issues with the detail of the Line/ Side and CPO, questioning the need for some land take and position of footpaths.	14
3	Objection and concerns over the closure of the Barton Lane Link	10
4	Objection and concern over the Offline Section of the A453	8
5	Objection and concerns to some of the proposed footpath/ cyclist network (inc L60) and concern that it could be used by undesirable elements of society.	6
6	Concern over the effects of Disruption due to Construction/ including the satellite compound in Clifton	5
7	Objection and concern that the original options dismissed at the previous Inquiry were better than the current proposals.	5
8	Concern that the S4 through Clifton would be divisive and 40 mph speed limit is too high	5
9	Concern over the positioning/ size/ effectiveness of the flood compensation land and Storm water wetland areas.	5
10	Requests for bridges to carry pedestrians/ cyclists over the A453 through Clifton, instead of pedestrian traffic lights.	4
11	Objection and concern over the increased use/ vehicle speed on Barton Lane through Thrumpton, and access through the steep section.	4

12	Concern over the position, number of and type of Bus Lay-bys proposed in Clifton	4
13	Objection and concern re the effect of the scheme on Statutory Undertakers apparatus	4
14	Concern at the proposed level of Environmental Mitigation and requests for more environmental mitigation	3
15	Objection and concern over the design of Fabis Drive/ Farnborough Rd Junction, and access for residents. (inc loss of car parking)	3
16	Concern that the scheme will attract significant additional traffic	2
17	Concern that the effects on Silverdale Roundabout have not been addressed	2
18	Objection to the proposed access for Ratcliffe on Soar Power station and the effects on its operation.	2
19	Request for an improved Abnormal Load access to Ratcliffe on Soar power station.	2
20	Objection that the ES does not provide a full representation of the impacts of the Scheme	2
21	Concern that the proposed Traffic Lights at the NTU central access will hold up traffic.	1
22	Objection to the proposed access to Dowells Barn	1
23	Objection over the access to Redhill Farm Marina and Smiths Meadow	1
24	Objection that the CPO would effect operational Railway Land	1
25	Concern that the Offline Section does not include a dedicated cyclist provision.	1
26	Objection to the NET/ Nottingham Gateway Schemes	3

10 CONCLUSIONS

- 10.1 The Highways Agency's scheme provides the optimum highways solution to the problems encountered on this section of the trunk road network. It represents good value for money and has been developed in the context of this sensitive environment.
- 10.2 The A453 is a key route in the country's trunk road network, which carries 25,000 to 30,000 vehicles per day, which cause serious traffic delays during both morning and afternoon peak hours. The existing alignment through the rural section is poor, contributing to the increased driver stress and poor accident statistics along this section of road. The existing alignment through Clifton is severely congested during peak hours, which is compounded by the demand activated pedestrian crossings.
- 10.3 The Scheme would meet its objectives to improve road safety and reduce congestion in the following ways:
- The re-aligned rural section would improve safety, and reduce driver stress, by providing better forward visibility, and by replacing the current unsuitable accesses with 2 grade separated junctions;
 - Through the urban section the S4 road would allow a better flow of traffic and all the major junctions would be designed to accommodate the predicted traffic levels. The proposed traffic lights would also help enforce the speed limit. Pedestrian movements would be synchronised with the vehicle traffic light phases, improving access for all user groups.
 - The proposed scheme would provide safe routes for non-motorised users, segregating them from high speed traffic in the rural section, and providing safe crossing facilities in the urban section of the scheme.
- 10.4 The Engineering Assessment demonstrates that the scheme would have a long design life before congestion builds up to unacceptable levels. It would be significantly safer than the existing road, and potentially save an estimated 43 fatalities over a 60 year period.
- 10.5 The schemes economics are robust, giving a BCR of 3.25 over a 60 yr assessment period, using the Highways Agency's P50 cost for the scheme. This has been accepted by both the Department for Transport and the planned spend profile has been agreed with the East Midlands Regional Assembly.
- 10.6 This Outline Statement of Case has described the Government Policies and Objectives for the proposed scheme, and how the preferred scheme has been developed in line with those policies. It summarises the objections received in response to the publication of the draft Orders, gives a description of the scheme and the draft Orders, and provides an overview of the effects that the scheme would have on the local environment.

Appendix A

List of Deposit Documents.

Public Inquiry List - Deposit Documents

DD Ref No	Document Title
	Scheme Specific Documents
DD01	Draft Order - The A453 Birmingham to Nottingham Trunk Road (M1 Junction 24 to A52 Nottingham Improvement and Slip Roads) Order 20
DD02	Draft Order - The A453 Birmingham to Nottingham Trunk Road (M1 Junction 24 to A52 Nottingham Improvement) Detrunking Order 20
DD03	Draft Order - The A453 Birmingham to Nottingham Trunk Road (M1 Junction 24 to A52 Nottingham Improvement) Side Road Order 20
DD04	Draft Order - The A453 Birmingham to Nottingham Trunk Road (M1 Junction 24 to A52 Nottingham Improvement) Compulsory Purchase Order 20
DD05	Environmental Statement (ES) Volumes 1 and 2
DD06	Scheme Layout
DD07	Appraisal Summary Table
DD08	Stage 3 Scheme Assessment Report
DD09	Outline Construction Environment Management Plan
DD10	Local Model Validation Report
DD11	Transport Forecasting Report
DD12	Economic Assessment Report
DD13	A453 Multi Modal Transport Study Report August 2002
DD14	A453 Outline Statement of Case

	Acts of Parliament
DD100	Ancient Monuments and Archaeological Areas Act 1979
DD101	Acquisition of Land Act 1981
DD102	Countryside Act 1968
DD103	Countryside and Rights of Way Act 2000
DD104	Control of Pollution Act 1974
DD105	Compulsory Purchase Act 1965
DD106	Environmental Protection Act 1990
DD107	Environment Act 1995
DD108	Highways Act 1980
DD109	Land Compensation Act 1973
DD110	Planning and Compensation Act 1991
DD111	Planning (Listed Buildings and Conservation Areas) Act 1990

DD112	Planning & Compulsory Purchase Act 2004
DD113	Road Traffic Regulation Act 1984
	Town and Country Planning (Listed Buildings & Conservation Area) Act 1990 See DD111 and DD114
DD114	Town & Country Planning Act 1990
	Statutory Instruments
DD115	Highways (Inquiries Procedure) Rules 1994 (S.I 3263)
DD116	Compulsory Purchase by Ministers (Inquiries Procedure) Rules 1994 (S.I 3264)
DD117	Secretary of State Traffic Orders (Procedure) England & Wales 1990 (S.I 1656)
DD118	Highways (Assessment of Environmental Effects) 1988 (S.I 1241)
DD119	Highways (Assessment of Environmental Effects) 1994 (S.I 1002)
DD120	Highways (Assessment of Environmental Effects) 1999 (S.I 369)
DD121	Noise Insulation Regulations 1975 (S.I 1763)
DD122	Noise Insulation (Amendment Regulation) 1988 (S.I 2000)
DD123	Groundwater Regulations 1998 (S.I 2746)
DD124	The Conservation (Natural Habitats) Regulations 1994 (S.I 2716)
DD125	The Conservation (Natural Habitats) 1994 Amended England Regs 2000 (S.I 192)
DD126	Air Quality Standards Regulations 1989 (S.I 317)
	Optional Legislation (Acts & Statutory Instruments)
DD127	Land Drainage Act 1991
DD128	Land Drainage Act 1994
DD129	Noise and Statutory Nuisance Act 1993
DD130	Protection of Badgers Act 1992
DD131	Water Resources Act 1991
DD132	Water Act 2003
DD133	Wildlife & Countryside Act 1981
DD134	Wild Mammals Protection Act 1996
DD135	Surface Waters (River Ecosystem Regs) 1994 (S.I 1057)
DD136	Water Supply (Water Quality) Regulations 2000 (S.I 3184)
DD137	Air Quality Regulations England 2000 (S.I 928)
DD138	Air Quality Limit Values Regulations 2003 (S.I 2121)
DD139	Air Quality Limit Values (Amendment Regulations) England 2004 (S.I 2888)
DD140	Hedgerow Regulations 1997 (S.I 1160)

	Government White Papers
DD141	A New Deal for Trunk Roads in England - July 1998
DD142	A New Deal for Transport: Better For Everyone 1998
DD143	Transport 2010 - The 10 Year Plan
DD144	The Future of Transport: A Network for 2030
DD145	A New Deal for Trunk Roads in England: Guidance on the New Approach to Appraisal
DD146	A New Deal for Trunk Roads in England: Understanding the New Approach to Appraisal
DD147	Delivering Better Transport: Progress Report- (DfT 2002)
DD148	A Better Quality of Life-Strategy for Sustainable Development for the UK (DETR 1999)
DD149	Our Countryside the Future: A Fair Deal for Rural England (DETR 2000)
DD150	Biodiversity Impact: A Good Practice Guide for Road Schemes (July 2000)
DD151	Landscape Character Assessment- Guidance for England & Scotland (2002)
DD152	Air Quality Strategy for England, Scotland, Wales & Northern Ireland (DETR 2000)
DD153	Air Quality Strategy for England, Scotland, Wales & Northern Ireland (Addendum)
	Planning
DD156	Planning Policy Statement 1: Delivering Sustainable Development
DD157	Planning Policy Guidance 2: Green Belts
DD158	Planning Policy Statement 3: Housing
DD159	Planning Policy Guidance 4: Industrial & Commercial Development & Small Firms
DD160	Planning Policy Statement 6: Planning for Town Centres
DD161	Planning Policy Statement 7: Sustainable Development in Rural Areas
DD162	Planning Policy Statement 9: Biodiversity & Geological Conservation
DD163	Planning Policy Statement 11: Regional Spatial Strategies
DD164	Planning Policy Statement 12: Local Development Frameworks
DD165	Planning Policy Guidance 14: Development on Unstable Land
DD166	Planning Policy Guidance 15: Planning and the Historic Environment
DD167	Planning Policy Guidance 16: Archaeology and Planning
DD168	Planning Policy Guidance 17: Sports and Recreation
DD169	Planning Policy Guidance 21: Tourism

	Optional Additional Documents
DD170	Guidance on the Methodology for Multi Modal Studies- Volume 1, March 2000
DD171	Guidance on the Methodology for Multi Modal Studies- Volume 2, March 2000
DD172	Biodiversity: The UK Action Plan 1994
DD173	Biodiversity: The UK Steering Group Report, Volume 2 Action Plan 1995
DD174	Trunk Roads and the Generation of Traffic (The Standing Advisory Committee on Trunk Road Assessment 1994)
DD175	Not Used
DD176	Design Manual for Roads and Bridges May 2009 (CD)
	European Union Directives
DD177	75/440 EEC Council Directive of 16 June 1975 concerning the quality required of surface water intended for the abstraction of drinking water in the Member States
DD178	76/160 EEC Council Directive of 8 December 1975 concerning the quality of Bathing water
DD179	78/659 EEC Council Directive of 18 July 1978 on the quality of fresh waters needing protection or improvement in order to support fish life
DD180	79/409 EEC: Council Directive on the Conservation of Wild Birds
DD181	80/68 EEC Council Directive of 17 December 1979 on the protection of groundwater against pollution caused by certain dangerous substances
DD182	85/337 EEC Council Directive of 27 June 1985 on the assessment of the effects of certain public and private projects on the environment
DD183	91/441 EEC Council Directive of 26 June 1991 amending Directive 70/220/EEC on the approximation of the laws of the Member States relating to measures to be taken against air pollution by emissions from motor vehicles
DD184	91/692 EEC Council Directive of 23 December 1991 standardizing and rationalizing reports on the implementation of certain Directives relating to the environment
DD185	92/43 EEC of 21 May 1992 on the Conservation of Natural Habitats and of Wild Fauna and Flora
DD186	97/11 EC Council Directive of 3 March 1997 amending Directive 85/337/EEC on the assessment of the effects of certain public and private projects on the environment
DD187	2000/60 EC Directive of 23 October 2000 establishing a framework for community action in the field of water policy

Appendix B

Scheme Appraisal Summary Table.

Appendix C

Scheme Plan