

1. INTRODUCTION

1.1 BACKGROUND

1.1.1 The origins of the A453 Nottingham to M1 Junction 24 Multi-Modal Study (A453 MMS) can be found in the Governments White Paper on Integrated Transport 'A New Deal for Trunk Roads in England', published by the Department of the Environment, Transport and the Regions (DETR) in July 1998. This proposed a series of studies to address problems on the strategic trunk road network that were not addressed in the Targeted Programme of Improvements. On 23 March 1999, following consultation with Regional Planning Bodies, DETR announced a programme of 27 studies and the timetable for taking these forward.

1.1.2 Two kinds of study were identified:

Road-Based Studies in which the focus would be on further consideration of solutions to particular problems on the road system (10 studies); and

Multi-Modal Studies to consider problems and potential solutions including all modes of travel in particular corridors (17 studies), the study of the A453 between Nottingham and M1 Junction 24 being one such study.

Further studies have subsequently been added to the initial programme.

1.1.3 In 1999 the Government Office for the East Midlands (GOEM) invited Expressions of Interest to undertake the A453 MMS. Following a selection process GOEM appointed Pell Frischmann Consultants in December 1999, who set up a Study Team:

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| Appointed Consultants: | Pell Frischmann Consultants Ltd. |
| <i>Environmental specialist:</i> | Gillespies Environmental Consultancy |
| <i>Transport Modelling:</i> | PTV Consult GMBH, John Fearon Consultancy |
| <i>Consultation Facilitators:</i> | Capital Value and Risk |

1.2 MANAGEMENT OF THE STUDY PROCESS

1.2.1 The A453 MMS has been overseen primarily by two management groups, a Regional Steering Group and a Project Management Group, both of which have been chaired by the Government Office for the East Midlands.

The East Midlands Regional Steering Group

In view of the number of Road-based and Multi-Modal Studies scheduled for the East Midlands area the Regional Steering Group (RSG) was established to oversee, coordinate and direct such studies. Initially these comprised the A453 MMS and the Multi-Modal Study into North/South Movements in the M1 Corridor in the East Midlands (M1 MMS). Subsequently further Road-based and Multi-Modal Studies have been commissioned. The RSG's role has been to co-ordinate the studies ensuring that any proposals can be integrated with the production of regional strategies such as Regional Planning Guidance and the Regional Transport Strategy.

The A453 Project Management Group

The bulk of the detailed monitoring work has been carried out in the Project Management Group. This Group's role has been to oversee the day to day management of the Study including liaison with the consultants. The Group has met regularly during the course of the Study, received and reviewed reports on intermediate work stages, and, ensured compliance with guidance on study methodology.

The A453 Wider Reference Group

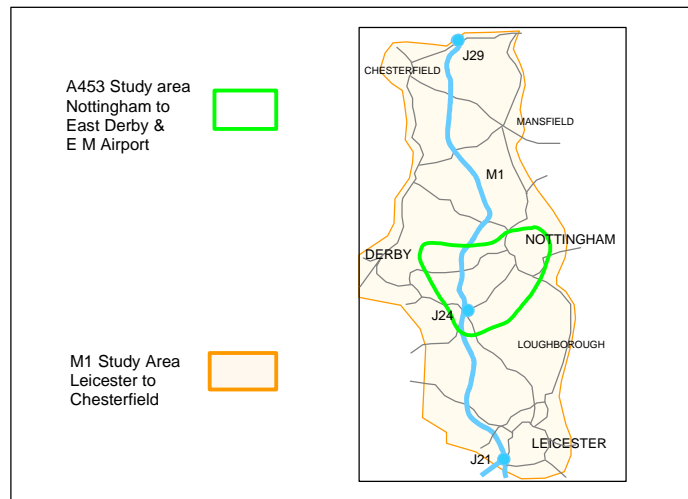
As part of the inclusive process of the Study a Wider Reference Group has been established. This group comprises representatives of over 100 organisations with a bona fide interest in the A453 corridor, including inter-alia, local authorities, transport service providers, local transport environmental community and other interest groups, and industrial and commercial organisations.

The results of the Study will need to be taken into account in the Regional Transport Strategy that is to be prepared by the Regional Planning Conference in their updating of Regional Planning Guidance. The A453 Study will be seen as a source of information and advice about how the transport system, and perhaps also the land-use system, in the area should be developed. It will also be one of a number of elements considered for inclusion in the Regional Transport Strategy and the Regional Planning Guidance.

1.3 THE STUDY AREA

1.3.1 The Study Area for the A453 MMS is shown in Figure 1.1, which also shows the study area for the more strategic M1 MMS. The A453 MMS area extends from central Nottingham towards central Derby, and west of the M1 junctions 23a and 24 to take in the East Midlands Airport. It includes the A52 in the north and J23A to the south. Several large settlements fall within the Study Area including Kegworth, Castle Donington, Long Eaton, Beeston, Borrowwash and Clifton, and a number of different Local Authority areas including Nottingham City, Broxtowe, and Rushcliffe Districts in Nottinghamshire; Northwest Leicestershire District in Leicestershire; South Derbyshire and Erewash Districts and Derby City in Derbyshire.

Figure 1.1. The Study Area



1.4 STUDY AIMS AND OBJECTIVES

1.4.1 Overall Aims

The overall aim of the Study is wide ranging and was identified in the brief as follows:-

- a) To carry out an in-depth appraisal of the total transport needs of the A453 transport corridor at present and for the future to the year 2021, considering:-
 - the contributions which different modes of transport can make to developing alternative solutions to problems; and
 - the potential effects of an integrated transport approach
- b) To identify viable, sustainable and costed options for future measures to address current and forecast problems; and
- c) To recommend
 - a long term strategy to address strategic transport problems in the Study Area
 - a plan to address the most urgent transport problems across all modes, looking in particular at opportunities for modal transfer, whilst ensuring that all measures are consistent with the long term strategy, and
 - detailed range of measures necessary to implement the strategy, showing the potential benefits and cost-effectiveness of each.

1.4.2 Strategy Objectives

The brief identified a number of issues that must be specifically addressed in developing options for the long-term strategy:

- a) the opportunities for changing travel behaviour through the implementation of a coherent and integrated series of strategic and/or local initiatives (including demand management) aimed at modal transfer and reducing traffic volumes;
- b) the role of motivation measures designed to promote sustainable travel behaviour;
- c) opportunities to reduce the environmental impacts associated with the transport networks;
- d) the potential role of public transport, including mass rapid transit systems, in improving accessibility within the conurbation;
- e) the potential role of rail service improvements in meeting regional transport objectives;
- f) the interaction between land use development options and the transport system; and the need for improvements to maintain network integrity and safety.

1.4.3 Specific Objectives

As well as Strategy Objectives a number of Specific Objectives were identified in the brief. These are:

- a) To assess the scale and nature of existing and future transport problems on the A453 between Nottingham and M1 Junction 24. This will include an assessment of environmental problems (e.g. noise, air pollution), directly related problems on neighbouring roads and existing and potential problems for public transport in the corridor which could affect the scope for modal shift.
- b) To consider planned and possible future development needs and pressures affecting the A453 and assess their impact on it.
- c) To review and summarise any measures already being taken (or planned) to tackle transport problems on the A453, in the Study area, directly (by local authorities and/ or the Highways Agency) or indirectly (by promoting modal shift).
- d) To identify a comprehensive range of strategies, consistent with the policies set out in the Government's Integrated Transport White Paper ("A New Deal For Transport - Better for Everyone"), associated "daughter" documents and Roads Review Report ("A New Deal For Trunk Roads"), that could be used to tackle the transport problems of the A453, identifying:
 - scope for modal shift to reduce use of the private car ~ all modes of travel should be considered
 - major parties affected (e.g. colleges, schools and parents; individual businesses and their customers; conference, leisure and sporting facilities and those attending)
 - implications for bodies with relevant policy, operational or representational roles (e.g. local authorities; public transport operators; chambers of commerce)
 - resource implications
 - possible programming
 - likely effectiveness
 - performance against "New Approach to Appraisal"
 - safety implications for all transport modes, with specific implications for road safety targets
- e) To identify a preferred strategy and a more detailed range of measures and / or policy recommendations necessary to implement it (measures to cover trunk road and local road networks and public transport infrastructure, and to include traffic management (including car-parking policies), new infrastructure and proposals for public transport).
- f) To ensure the consistency of the strategy and measures with other strategies affecting the Study area, especially those being developed in the following Multi-Modal Studies:

- North South Movements in the M1 corridor in the East Midlands
 - London to South Midlands
 - South and West Yorkshire Motorway Box
 - West to East Midlands
- g) To take account of other relevant issues.
- h) To demonstrate that the recommendations put forward are consistent with the principles of sustainable development.
- i) To flag up significant implications of individual options for specific economic and social sectors, and generally for economic development, regeneration and social inclusion.
- j) To identify the likely cost of implementing the recommended strategy and the best means of resourcing it, including:
- existing and potential funding sources
 - links to other investment
 - specific action which can be taken by Government, local authorities and other partners in support of the strategy
- k) To be alert to the developing thinking of the Integrated Transport Commission and the Strategic Rail Authority.
- l) To recognise and accommodate the need for emergency vehicle access to all transport routes at all times.

1.4.4 Specific Issues to be Addressed in the Study Area

The brief also set out a comprehensive range of area specific issues that the Study should take into consideration, as set out below:

- a) Scope for environmental improvements (in line with the policies set out in the Integrated Transport White Paper)
- b) Scope for road safety improvements
- c) Scope for bus and rail service improvements to reduce:
- commuter traffic using the A453, especially between Clifton and Nottingham City Centre (taking account of significant work on this already carried out by Nottingham City Council)
 - local traffic to other destinations within the corridor
 - traffic for the East Midlands Airport, Ratcliffe-on-Soar Power Station, Nottingham Trent University, Nottingham University School of Agriculture at Sutton Bonington and other major traffic generation points.

- d) Options for the more sustainable movement of freight, including the scope to transfer traffic from road to rail
- e) Scope for reducing congestion caused by slow vehicles on narrow sections of the A453, especially in the section between Clifton and the M1
- f) Scope for interchange of traffic between the A453 and the A52 corridor from Nottingham City Centre to the M1 at Junction 25
- g) Scope for enhancing the transport options of residents in the A453 corridor without access to private cars
- h) Scope for encouraging cycling and walking
- i) The expected high level of public interest locally
- j) Relevance to community and social inclusion issues
- k) The particular concerns of Clifton residents about A453 dualling splitting the community

1.5 OVERALL APPROACH TO THE STUDY

1.5.1 To undertake the Study, Pell Frischmann derived an approach within the framework provided by the DTLR Reference Guidance on Methodology for Multi-Modal Studies (GOMMMS) of 7th September 1999 which was founded on seven basic phases of work:

- Inception
- Surveys and Transportation Model Development
- Strategy Development
- Option Identification
- Option Appraisal
- Consultation
- Recommendations and Programme of Implementation

1.5.2 A summary of these seven phases is set out briefly below.

- 1) The **inception** phase saw the gathering together of a wide array of basic data that was already available from previous studies of the A453, and information on the local context. It was also the stage that set out the general way forward for the study and included the first meeting of the Wider Reference Group.
- 2) The **survey phase** included four main survey elements:
 - travel surveys
 - transport network inventories
 - planning and environmental data collection
 - the review of any data services/documents outstanding from the inception stage.

The Transport Model was built up and specified to reflect as many identified issues as is possible within the constraints of technology and resources. The Model was developed by the normal method of calibration against survey data to establish:

- suitable parameter values
 - validation at the present year (2000)
 - forecasting of future scenarios.
- 3) The starting point for **strategy development** was problem and issue identification. The process included consideration of measures to:
- influence the level and nature of travel demand and their implications
 - assess the potential of all modes of transport to contribute to an integrated/package of measures and investments.
- 4) **Option identification** examined various ways of implementing transport strategy.
- 5) **Appraisal of both strategies and options** has followed the New Approach to Appraisal (NATA). This involved the identification of issues, problems and local objectives through the consultation process.
- 6) A continuous programme of **consultation** was carried out focusing on key stages of the project in order to ensure that the Study approach has been transparent, recognised local issues, in order to maximise public acceptability of the option that emerges as preferred. The programme of consultation has focussed on the advice given in GOMMMS but included consultation at additional stages to engender a feeling of inclusion on the part of the wider local community.
- 7) The **Implementation Programme and Recommendations** take account of and seek to resolve implementation constraints and funding issues and issues of timescale such as legislative and lead time factors.

1.6 ROLE OF CONSULTATION

1.6.1 From the outset of the Study the importance of meaningful and effective consultation has been recognised by the Study Team. Stakeholder consultation is a systematic process. It provides an opportunity for the key stakeholders of the study to share their experience, knowledge and goals and combine their energy to create a plan which is technically sound, economically attractive, generally understood and accepted by most of those affected by it, and is thus politically viable.

1.6.2 The process of consultation that has been embodied in the Study was devised to achieve these aims.

1.6.3 In particular the objectives of the stakeholder consultation for the A453 Multi-Modal Study (MMS) have been to:

- a) Provide key advice and appropriate external communications at key stages
- b) Keep the Steering and Project Management Groups informed of media interest and reaction, and advise accordingly

- c) Advise on co-ordination with other national and local events, which may attract media interest
- d) Keep the Wider Reference Group informed of the intention to proceed with the Study, of progress and of the final recommendations
- e) Assist informed decision making through meaningful participation to obtain views on issues, problems and needs and options
- f) Build consensus and encourage realistic expectations.

1.6.4 From the commencement of the Study the Study Team has sought to develop an approach that is as inclusive as possible. The consultation has been wide ranging and has incorporated regular meetings, and seminars attended by the Wider Reference Group, facilitated workshops with groups and organisations, public exhibitions, news and media events, the production and dissemination of a study newsletter (Inclusion) and the development of a Study website. This range of techniques has been used in order that stakeholders could be engaged at all key stages throughout the Study.

1.7 REPORT LAYOUT

This Final Report is set out in twelve sections. Following this Introductory section, Section 2 sets out the Study's approach to the establishment of the land use and planning data that is required for the transport model in order that future estimates of travel demand can be established. Section 3 gives information on the model specification, forecasting procedures and the travel forecasts. This is followed in Section 4 with information on Problem Identification and Local Objectives.

Transport Strategy, Scheme and Option Development are set out in Sections 5, 6 and 7 respectively. Consultation is addressed in Section 8 and the Transport Plan is set out in Section 9, with information on Programme of Implementation in Section 10, and Funding Issues are discussed in Section 11.

The Conclusions of the Study are summarised in Section 12.

This Report is one of a family of reports produced by Pell Frischmann Consultants over the duration of the Study. Further detailed information on the approach to the Study is included in the Inception Report (March 2000), the Travel Survey Report (July 2001), the Model Development and Validation Report (November 2001), and the Forecasting Report (July 2002).

A series of Working Papers has been prepared covering various detailed aspects of the Study, and are on the Study website. All Study Reports, Working Papers, newsletters, and material from selected presentations are being placed on the Study Website – www.a453multimodal.com. Other Study documentation is available for inspection by arrangement through the Government Office for the East Midlands.