



Department of the Environment, Transport and the Regions

MULTIMODAL STUDY

A453 NOTTINGHAM TO JUNCTION 24

WORKING PAPER NO. 7

Strategy Development

Status Report



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1 INTRODUCTION

1.1 PURPOSE OF REPORT

This paper has been prepared to outline the status of work on strategy development for the A453 Multimodal Corridor Study. The paper draws together the findings of work undertaken to date not only to provide an interim report to keep all parties informed on what has been done, but also to provide a basis for the ongoing refinement of strategies and the specification of options for assessment using the transportation model and subsequent evaluation procedures.

1.2 BACKGROUND

During the autumn of the year 2000 the study team in association with the Project Management Group (PMG) have given consideration to transport related issues and problems identified from consultation with local communities, the travelling public and the Wider Reference Group (WRG) for the study. This enabled initial consideration of the likely range of measures, or interventions, which may be necessary to address current problems and those likely to arise in the future. Given that it was unlikely that any single intervention would be able to address the wide range of interacting issues and problems emerging from the consultations initial consideration was also given as to how those measures could be combined together to form a strategy.

More recently these considerations have been increasingly supported by information emerging from the wide range of travel surveys undertaken in the corridor. In addition to providing information for the development of the transportation models which will be used for forecasting and option evaluation, the emerging survey results have also provided a much greater insight into the nature and patterns of journeys made within the study area and their impact on the transport networks. The process will be further informed when the first results become available from the transport models.

The process has also been informed by strategy seminars undertaken with the PMG, and significantly by a seminar held with the WRG on 6 December 2000. This seminar was somewhat innovative in that participants were given the choice of commenting upon or working up some example strategies focussed on particular objectives, or taking the opportunity to develop strategies of their own. The study team were impressed by the efforts made by all attendees to make a real contribution to strategy development at such an early stage. This has contributed both to strategies and to mutual understanding of the range and complexity of issues.

This report carries strategy development a stage further. Essentially progress has been made in turning the rather generic early strategies into proposals more directly focussed on the A453 Corridor. The process is ongoing with consideration being given to amalgamation of some strategy concepts of common synergy. The ongoing process will include a review of issues, problems, interventions and strategies when forecasts become available from the transportation model in a few weeks time.

We should emphasize that the various strategy packages discussed in this report are only “initial suggestions”. At this stage, nothing is ruled in, ruled out or “emblazoned in tablets of stone”. They are intended to gain a response from consultees and to illustrate the scale and scope of the interventions under consideration and illustrate the way in which mutually compatible interventions can be combined into a strategy to meet a range of objectives.

2 APPROACH TO STRATEGY DEVELOPMENT

2.1 GENERAL APPROACH

The development of strategies for the A453 Corridor poses particular problems due to the complex mix of movements which take place within the study area. The A453 route itself has a wide range of roles within the overall highway network catering for an equally wide range of movement types including::

- | | | |
|----------------------------|---|---|
| Strategic | - | J24 confluence of M1, M42, A50 and A6 |
| | - | Alternative access routes to Nottingham and Derby |
| | - | eg via J23a, J24, J25 and J26 |
| | - | |
| Intermediate | - | Nottingham to Derby |
| | - | Alternative routes include A453/A50, A52 and A6005 |
| | - | Hinterland to Nottingham |
| | - | |
| Local Movements in Clifton | - | Short journeys by car and bus |
| | - | Pedestrian and cycle movements |
| Access | - | Major traffic generators |
| | - | eg Nottingham Trent University, East Midlands Airport |
| | - | Frontage premises. |

These movements vary in proportion and purpose throughout the length of the route. In many cases the descriptions are equally applicable to public transport when train, coach and bus are considered together.

This mix of journey types and roles of the route, and their combined impact, has made strategy development a particularly complex process as interventions which seek to overcome one problem may contribute to, or work against resolution of another. For example measures to reduce congestion by local road improvements could result in greater volumes of faster traffic elsewhere or measures to constrain capacity/speed could result in diversion of traffic to less suitable routes.

There are therefore many interacting matters to address when developing strategy alternatives and the more important of these are summarised in Appendix A. The overall approach within the context of study objectives has been to allow for the progressive development of strategy objectives as the issues and the influence of interventions to resolve them becomes clearer.

In principle the approach seeks to:

- Examine the potential role for all modes of transport
- Meet local objectives in the strategic context (eg effects on M1)
- Mitigate/resolve local problems caused by strategic influences (eg effects of M1 interventions).
- Include close analysis of local issues

and to evaluate against the five overarching objectives defined in Government Guidance:

- Environment
- Safety
- Economy
- Accessibility
- Integration

2.2 STRATEGY OPTIONS – THE INTERVENTION TOOLS

A wide range of policy and scheme measures are available as possible interventions. The initial list has been derived from suggestions from consultees, the PMG and work by the consultant’s team. The list is still growing as ideas develop and it may be some time before all relevant and the more innovative ideas are identified.

The more important possible interventions have been classified under the following headings:

- External Developments
- Land Use in Corridor
- Highway Network/Utilisation
- Public Transport
- Demand Management and
- National Policy

An initial schedule of measures may be found in Appendix A.

Other issues include strategies for freight transport and to instigate changes in travel behaviour eg choice of mode, recognition of environmental implications of choice, and practical measures such as safe journeys to school.

2.3 THE CONCEPT OF AN INTERVENTION MATRIX

The number and range of possible interventions in association with the diverse nature of the issues and problems to be addressed, complicates the task of exploring them through the strategy tests. A process was required which illustrates the packaging together of compatible interventions to achieve a set of objectives and thus define a strategy. In addition the process needed to recognise that different levels of intervention within a theme would be required in different strategy packages.

This was achieved by the use of an “Intervention Matrix” in which interventions were allocated to a box in a table (or matrix) classified as:

Rows:	:	The nature of the intervention eg highway improvements, enhanced rail services
Columns:	:	The level of intervention eg high, medium, low and doing the minimum but including committed schemes.

High, medium and low classifications relate to the level of anticipated impact in relation to other items within the intervention group.

An example of an early intervention matrix may be found in Appendix A.

The example shows the use of a ‘generic’ matrix containing a standard set of interventions. The level of intervention envisaged in each case being shown by the hatched area. Once the framework of each strategy has been defined on the generic matrices, the definition of the interventions may be progressively refined and focussed into real proposals to address real problems.

The progression of this process is described in the next chapter of this report.

3 DEVELOPMENT OF STRATEGY PACKAGES

3.1 INTRODUCTION

Clearly a strategy made up of any mix of the generic interventions might form a package that would help to ameliorate or resolve the many problems and issues which the study was established to address. The problem currently facing the consultant’s team and PMG is to identify a small number of focussed strategies which will both provide the basis for the strategy ultimately preferred and which will prove informative when evaluating them. They should also allow different extremes of policy to be assessed before becoming too committed to any particular philosophy.

Following workshops with the PMG and WRG and consultations with other bodies the schedule of transport interventions was widened slightly to cover the following decision areas:

- Strategic Measures
- Heavy Rail
- Light Rail
- Bus Network
- Highway Network
- Highway Utilisation
- Cycle Network
- Pedestrian Network
- Demand management
- Freight
- Travel Behaviour

In Addition to the above, it was recognised that Land Use Development would form an important input to the process. The nature and possible location of future development will certainly influence growth in travel demand and possibly its pattern, the nature and location of transport facilities, and could actually comprise strategies in its own right. The consultant’s team are progressing separate consultations with planning bodies to resolve this issue, but these are incomplete at this stage. The results will be incorporated into the strategy review mentioned earlier.

The following sections of this report outline the development of intervention matrices representing the following strategy concepts:

1. **Maximise utilisation of existing infrastructure with improvements at bottlenecks.**
2. **Reduce the demand for travel in the corridor**
3. **Encourage mode change for longer distance movements.**
4. **Encourage mode change for local movements**
5. **Promote public transport and non motorised travel.**
6. **Improve highway capacity.**

These strategy concepts have particular relevance to the characteristics of movements currently taking place within the A453 corridor, relate to aspirations identified during consultation and represent a range of rather different concepts for informative testing. They also include the sensible concept of making best use of existing transport infrastructure and as required in the study brief the full consideration of the highway improvement strategy historically proposed for the corridor but currently suspended pending the outcome of this multimodal study.

3.2 STRATEGY 1 - MAXIMISE UTILISATION OF EXISTING INFRASTRUCTURE WITH IMPROVEMENTS AT BOTTLENECKS

This represents a strategy both to examine what could be achieved by making maximum use of existing facilities plus committed proposals, and to provide a base for the assessment of the worth of higher levels of intervention. The concept certainly does not represent doing nothing as there could be substantial changes in the way facilities are used, eg dedicated traffic lanes for high occupancy vehicles, or considerable investment in real time information systems for both road and public transport.

Objectives:

- Minimise new construction
- Identify and resolve ‘bottlenecks’
- Maximise use of roadspace – measured in persons rather than vehicles
- Improved public transport journey times and reliability
- Improved public transport and accessibility
- Improved safety and accessibility for cyclists
- Improved safety and accessibility for pedestrians.

The intervention matrix after the first round of local focus may be found in Appendix B.

3.3 STRATEGY 2 : REDUCE DEMAND FOR TRAVEL IN THE CORRIDOR

Essentially this strategy addresses the key issue of the ever growing demand for movement and seeks to investigate what could be done to halt or even reverse the trend towards more and more travelling. To address this concept thoroughly would involve a consideration from first principles of the need and reasons for the movement of people and goods. It would involve considerations of lifestyle, employment and working practices of people along with considerations of the production/supply strategies of manufacturers and retailers and working practices in other businesses.

Such considerations should not be shied away from, but there are limits to what can be achieved within the relatively local A453 Corridor, and many of the concepts involved require consideration at the regional/national level. They could also apply at least in part to most other strategies.

Key features of a local strategy would include:

- Land Use Development strategies
- Location where public transport accessibility can be high
- Land use mix to reduce the need for travel

- Layout design to discourage dependence upon the car and encourage travel by public transport and walk/cycle
- Measures to reduce road traffic and encourage mode change.

These would comprise strategy objectives, and the strategy intervention matrix following the first round of focus may be found in Appendix B.

3.4 STRATEGY 3 - ENCOURAGE MODE CHANGE FOR LONGER DISTANCE MOVEMENTS

This strategy concept recognises the importance of longer distance movements in the corridor and especially on the A453 route itself. Clearly this local strategy must be developed compatible with strategic proposals developed by the M1(North-South) study. The key questions are the extent to which mode shift can be achieved for longer distance movements and what issues and problems remain to be addressed locally.

Objectives

- Increase use of public transport
- Reduce traffic congestion
- Reduce environmental impact
- Reduce rat-running
- Improve local accessibility
- Improve local safety
- Reduce the need for local construction.

The strategy intervention matrix following the first round of local focus may be found in Appendix B.

3.5 STRATEGY 4 - ENCOURAGE MODE CHANGE FOR LOCAL MOVEMENTS

This strategy recognises the importance and influence of local movements and objectives in resolving many of the issues and problems in the study area. This strategy must recognise policies already under development by the local authorities but build upon these ideas for the longer term.

Objectives:

- Increase use of public transport
- Reduce traffic congestion
- Reduce environmental impact
- Reduce rat-running
- Improve local accessibility
- Improve local safety

The strategy intervention matrix following the first round of local focus may be found in Appendix B.

3.6 STRATEGY 5 - PROMOTE PUBLIC TRANSPORT AND NON MOTORISED TRAVEL

The purpose of this strategy is to examine the maximum potential for diversion to public transport and walk/cycle modes, initially on the basis of choice and perhaps latterly aided by traffic restraint measures. This comprises one of the 'extremes' tests and will have particular value in identifying the

scale and nature of residual problems, and the financial aspects of a comprehensive public transport strategy.

Objectives

- Increase use of public transport
- Reduce dependence upon the private car
- Reduce traffic congestion
- Integration of travel modes
- Reduce environmental impact
- Reduce rat running
- Improve local accessibility and safety.

The strategy intervention matrix following the first round of local focus is given in Appendix B.

3.7 STRATEGY 6 - IMPROVE HIGHWAY CAPACITY

This strategy is tailored to examining the potential role of a major highway intervention within the corridor. The concept was identified as a key element of any strategy by many people during consultation, opposed by an almost equal number, and with widely different views as to what form any scheme should take. The study brief requires consideration of this alternative.

Objectives

- Reduce traffic congestion
- Reduce road journey times and improve reliability
- Reduce rat running
- Improve local accessibility
- Improve local safety
- Encourage economic development

The strategy intervention matrix following the first round of local focus is given in Appendix B.

4 THE WAY FORWARD

The preliminary strategy concepts outlined in Chapter 3 comprise a first effort at strategy identification and should not be regarded as definitive at this stage. Similarly the list of intervention measures to achieve strategy objectives, and indeed the objectives themselves are not regarded as exhaustive.

Working with the PMG, the consultant's team are proceeding to work up all these elements to a more definitive specification recognising the contributions and comments received from consultees. However the door remains open to new ideas. Current thinking within the management group includes a possible shortlisting of strategies along the following lines.

- A Maximise Utilisation of existing
- B Maximise Use of Public Transport and Walk/Cycle Modes (a high intervention amalgamation of strategies 2, 3, 4 and 5)

- C Encourage Mode Choice within the Corridor (a mixed level of intervention amalgamating elements of strategies 2, 3, 4 and 5)
- D Improve Highway Capacity (including a major scheme)

An assessment process is in progress to investigate this thinking which opens the door to testing different Options or ways of implementing the strategy using the transportation model.

In parallel with this, work is in progress to develop the strategy elements including:

- Review and refinement of objectives
- Extension of the schedule of possible intervention tools, especially for the longer term.
- Development of the intervention matrices.
- Identification of indicative schemes/options
- Feasibility investigation and costing of indicative schemes
- Examine compatibility with strategies emerging from the M1(North-South)- study.

Working with the PMG, the emerging strategies will be reviewed when first forecasts become available from the transportation model in a few weeks' time.

The next stage will comprise the identification of Options, or alternative ways of implementing shortlisted strategies, for testing using the model. A further round of Consultation will take place at this Option Development Stage.



APPENDIX A



A453 MULTIMODAL STUDY

STRATEGY

Matters to Address

Consultation Issues

Survey Findings	People	Road	Public Transport Walk and Cycle)
	Freight		Road Rail)

Network Characteristics All Modes

Projection of Demand

Problem Identification

Objectives Local Focus

Context

Land Use Planning Base Case and Problems
Plan period/Beyond

Transportation Identify Measures
Committed
Top down/Bottom up

Study Strategy Land Use/Transport
Future Scenarios 2011/2021 ?
Assessment – Model/Non model
Course/Fine sift?
NATS?)

Feasibility Engineering/Cost
Political/Social
Environmental

Strategy/Option Relationship

**A453 MULTIMODAL CORRIDOR STUDY
 STRATEGY
 Implementation Tools**

External Influences

- IT & Communications – (home working etc)
- Retail Policies i– (out of town –v- city centre)
- Education on health, conservation etc
- Land Use outside corridor.

Land Use within Corridor

- Existing Development Control
- New policies
- Special Areas, eg Airport, Rushcliffe

Highway Network Utilisation

- Close/Remove sections f highway network
- Improve network information (signing etc)
- Traffic Management
- Localised highway improvements
- Major highway improvements
- Additions to highway network

Public transport

- Quality Bus Initiatives)
- Increase Bus Service Frequency) With/Without Park & Ride
- Increase Bus Service Reliability)
- New Bus Services)

- LRT Route Expansion (Network)) With/Without Park & Ride
- Heavy Rail – Improve Frequency)
- Heavy Rail New Infrastructure (eg Parkway Station)) With/Without Park & Ride

- Walk/Cycle Improvement of Facilities
- Water Transport Improvements

Demand Management

- Work Place Parking Levy)
- Parking restraint/Control) Revenue Streams
- Road User Charging)
- Selective Vehicle Identification, eg high occupancy vehicles
- Freight Restrictions

National Policy

- Fuel Price
- Vehicle Excise Duty
- Tolling
- Taxation
- Cheaper fares



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Strategy Assessment and Selection Process
Strategy – Generic Matrix

A453 Corridor Multimodal Study
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Intervention		Level			
		High	Medium	Low	Do Minimum
A	Strategic measures	National	Regional	Local	
B	Heavy rail	New lines Innovative vehicles	New stations Restructure services New rolling stock	Improve facilities Frequencies Through ticketing Information	
C	Light rail	New lines New modes	Park and Ride New routes	Integration	
D	Bus network	Restructure services Innovative vehicles	Quality partnership Park and Ride RT Information	Piecemeal improvements Fare levels Bus priority	
E	Highway Network	New major links	New minor links Junction improvements Remove links	Minor improvements Traffic management Signing	
F	Highway Utilisation	Electronic guidance Reallocate capacity	Dedicated lanes Variable speed limits	Area control RT Information Traffic Orders	
G	Cycle Network	Separate network Bike stops	Segregation Safety Cycle loans	Cycle parks Cycle priority Cycle routes	
H	Pedestrian Network		Segregation Safety/Security Pedestrianisation	Pedestrian priority School routes	
I	Demand Management	Road user charges	Workplace parking HGV restrictions	Parking control Parking charges	
J	Freight	Restructure commodity supply Transshipment depots	Expand subsidy Dedicated routes Railhead/sidings	Market forces Designed routes Taxation	
K	Travel Behaviour	Legislation	Education Integration Green Commuter Plans	Environmentalists Information	



APPENDIX B

STRATEGIC INTERVENTION MATRIX

Strategy Assessment and Selection Process

Strategy No 1 – Maximise Utilisation of Existing Infrastructure with Improvements at Bottlenecks

Intervention \ Level		High	Medium	Low	Do Minimum
A	Strategic measures			LTP policy	
B	Heavy Rail		More capacity (seats) with more rolling stock Improvements to junction at east end Nottingham station. Reopen freight lines for passenger trains, & disused sidings for freight		
C	Light Rail				✓
D	Bus Network		Quality partnership Bus priority at problem junctions (e.g Farnborough Rd, Clifton). Real time information	Fare levels	
E	Highway Network		Junction improvements (e.g Junction 24 roundabout, A453 Crusader Roundabout)	Minor improvements Traffic management Signing	
F	Highway Utilisation	Electronic Guidance Reallocate capacity	Dedicated lanes Variable speed limits	Area control RT Information Traffic Orders	
G	Cycle Network		Cycle lanes	Cycle priority Signed cycle routes on existing roads Better surfaced paths	
H	Pedestrian Network		Better lighting on pedestrian routes, CCTV		
I	Demand Management		HGV restrictions	Parking control	
J	Freight		Dedicated routes	Information	
K	Travel behaviour		Education Green commuter plans Car sharing (high occupancy lanes)	Information	

STRATEGIC INTERVENTION MATRIX

Strategy Assessment and Selection Process

Strategy No 2 – Reduce the Demand for Travel in the Corridor

Intervention \ Level		High	Medium	Low	Do /inimum
A	Strategic measures			LTP policy	
B	Heavy Rail				✓
C	Light Rail				✓
D	Bus Network		Quality partnership, Bus priority at problem junctions (e.g Farnborough Rd, Clifton). Real time information	Fare levels	
E	Highway Network			Road Safety Improvements	
F	Highway Utilisation	Reallocate capacity			
G	Cycle Network		Cycle lanes	Cycle priority Signed cycle routes on existing roads etc Better surfaced paths	
H	Pedestrian Network		Better lighting on pedestrian routes, CCTV		
I	Demand Management	Road user charges	Workplace parking charges HGV restrictions	Parking control Parking charges	
J	Freight	Restructure Commodity Supply Transshipment Depots	Dedicated routes	Information	
K	Travel behaviour	Legislation	Education Integration Green commuter plans Car sharing (high occupancy lanes)	Information Environmentalists	

STRATEGIC INTERVENTION MATRIX

Strategy Assessment and Selection Process

Strategy No 3 – Encourage Mode Change for Longer Distance Movements

Intervention \ Level		High	Medium	Low	Do Minimum
A	Strategic measures		Output from M1 North –South MMS	LTP policy	
B	Heavy Rail	Reopening of Great Central Line for freight to Europe (Central Rail scheme)	Enhance Inter-City services Better connections to the NE and SW Direct services to Birmingham avoiding De: (using freight line) Reintroduce through services to Glasgow and Harwich New station at Ratcliffe-on-Soar		
C	Light Rail	NET extension to East Midlands Airport	P+R close to the M1	Through ticketing between LRT, bus and heavy rail	
D	Bus Network	New services from M1 P+R site	Quality partnership, Bus priority at problem junctions (e.g Farnborough Rd, Clifton). Real time information	Fare levels	
E	Highway Network				✓
F	Highway Utilisation			Traffic regulation orders (TROs)	
G	Cycle Network				✓
H	Pedestrian Network				✓
I	Demand Management	Road user charges		Controlled parking zone Increased Parking charges	
J	Freight	Restructure Commodity Supply Transshipment Depots	Dedicated routes New railheads		
K	Travel behaviour		Green commuter plans		

STRATEGIC INTERVENTION MATRIX

Strategy Assessment and Selection Process

Strategy No 4 – Encourage Mode Change for Local Movements

Intervention		Level	High	Medium	Low	Do Minimum
A	Strategic measures				LTP policy	
B	Heavy Rail		New line to link to existing test track line to Melton Mowbray	New stations at Long Eaton Central, Sandia and Sutton Bonnington (GNARDS) New station at Ratcliffe-on-Soar	Improved station facilities Better service frequencies Through ticketing between LRT, bus and heavy rail	
C	Light Rail		NET line 2 built to Clifton and Gamston		Through ticketing between LRT, bus and heavy rail	
D	Bus Network		Restructure services to provide more cross city routes Innovative vehicles	Quality partnership, Bus priority at problem junctions (e.g Farnborough Rd, Clifton). Real time information	Piecemeal improvements Reduce Fare levels	
E	Highway Network			Area wide traffic calming in Clifton	Traffic management Reallocate Road Space to buses, pedestrians and cyclists	
F	Highway Utilisation			Variable speed limits	Traffic regulation orders (TROs)	
G	Cycle Network		Separate network of segregated routes	“Dial a bike” scheme safety schemes, especially at junctions	Improved, secure Cycle parking facilities (including more at Bus and Rail stations) Cycle priority at junctions Cycle routes	
H	Pedestrian Network			Enhancement to security and safety (e.g lighting and new crossings) Pedestrianisation	Pedestrian priority Safe routes to schools (Pedestrians and Cycles)	
I	Demand Management		Road user charges	Workplace parking charges	Residents parking schemes Controlled parking zone Increased Parking charges	
J	Freight					✓
K	Travel behaviour		Legislation	Education Green commuter plans	Information	

STRATEGIC INTERVENTION MATRIX

Strategy Assessment and Selection Process

Strategy No 5 – Promote Public Transport and Non Motorised Travel

Intervention		Level	High	Medium	Low	Do Minimum
A	Strategic measures			Regional Policy	LTP policy	
B	Heavy Rail		New line to link to existing test track line to Melton Mowbray	New rolling stock New stations at Long Eaton Central, Sandiacre : Sutton Bonnington (GNARDS) New station at Ratcliffe-on-Soar	Improved station facilities Better service frequencies Through ticketing between LRT, bus and heavy rail Integrated public transport information	
C	Light Rail		NET line 2 built to Clifton and Gamston		Through ticketing between LRT, bus and heavy rail	
D	Bus Network		Restructure services to provide more cross city routes Innovative vehicles Renovate fleet	Quality partnership/ quality corridors (A453,A52). Bus priority at problem junctions (e.g Farnborough Rd, Clifton). Real time information	Piecemeal improvements Reduce fare levels	
E	Highway Network			Area wide traffic calming in Clifton	Traffic management Reallocate Road Space to buses, pedestrians and cyclists	
F	Highway Utilisation				Bus lane Orders	
G	Cycle Network		Enhanced network of segregated routes	“Dial a bike” scheme Safety schemes, especially at junctions	Improved,secure Cycle parking facilities (including more at Bus and Rail stations) Cycle priority at junctions, Cycle routes	
H	Pedestrian Network			Enhancement to security and safety (e.g lighting and new crossings) Pedestrianisation	Pedestrian priority Safe routes to schools (Pedestrians and Cycles)	
I	Demand Management				Residents parking schemes Increased Parking charges Reduced long stay availability	
J	Freight					✓
K	Travel behaviour			Education Green commuter plans	Information	

STRATEGIC INTERVENTION MATRIX

Strategy Assessment and Selection Process
Strategy No 6 – Improve Highway Capacity

Intervention		Level	High	Medium	Low	Do /inimum
A	Strategic measures			J24 Improvements		
B	Heavy Rail					✓
C	Light Rail					✓
D	Bus Network					✓
E	Highway Network	M1 to Clifton dualling Clifton bypass		A453 junction improvements	Traffic management	
F	Highway Utilisation	Reallocate capacity on relieved routes		Variable speed limits	Traffic regulation orders (TROs) High Occupancy lanes (to replace standard bus lanes) to increase capacity	
G	Cycle Network	Separate network of segregated routes			Cycle crossing facilities on relieved A453	
H	Pedestrian Network			Safety improvements	Improved crossing facilities	
I	Demand Management					✓
J	Freight				Possible shared use of bus lanes by HGVs	
K	Travel behaviour					✓