



Department of the Environment, Transport and the Regions

**MULTI-MODAL STUDY
A453 NOTTINGHAM TO M1 JUNCTION 24**

WORKING PAPER NO 16

Possible Freight Options

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Possible Freight Options

1. Overview

The purpose of this paper is to stimulate discussion which will allow options and option packages to be identified for testing. These would be added to the general scenarios already identified as appropriate. Possible options considered are as follows:-

- a) Goods vehicle priorities on existing roads;
- b) New routes for goods vehicles;
- c) Route restrictions for goods vehicles;
- d) Congestion charging for goods vehicles;
- e) Operating time restrictions;
- f) Use of environmentally friendly vehicles
- g) Transshipment;
- h) Transfer to rail;
- i) Central Railway;
- j) Transfer to waterways;
- k) Land use policies; and
- l) Market restriction policies.

2. Goods Vehicle Priorities

Goods vehicle priorities could be provided either on the approaches to congested junctions, in a similar manner to bus lanes, or as dedicated lanes for longer sections of road. These priorities could be shared with buses although it would be necessary to resolve conflicts at bus stopping locations.

The objective of this measure would be to improve journey times and reliability for freight operations. It would also reduce pollution caused by goods vehicles due to more efficient running, although this might be counterbalanced by additional emissions from other types of vehicle.

3. New Routes for Goods Vehicles

The River Trent severs the study area and concentrates goods vehicle flows on Clifton Bridge and the A453 route through Clifton. It may be possible to construct a new route from the A52/A453 junction to join the A453 south west of Clifton. This route would run along the southern edge of the Beeston industrial area, and be linked to it. This route could be prioritised for goods vehicles, while goods vehicle traffic on the A453 through Clifton could be banned.

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The objectives of this measure would be to improve environmental conditions and relieve congestion on the A453 through Clifton and provide a more reliable route for goods vehicles. It would also provide better access to the Beeston industrial area and reduce the impact within Nottingham of goods vehicle traffic generated in this area.

4. Goods Vehicle Route Restrictions

This measure would involve the banning of through goods vehicle movements on roads which are environmentally sensitive. For example, all through goods vehicle movements between Nottingham and the M1 could be restricted to the A52. This measure is likely to be implemented in connection with some priority on the route or routes selected for goods vehicle use.

The objective of this measure would be to reduce environmental impact on sensitive sections of road. It should be noted that such a solution may result in an economic loss and additional air pollution due to the need for goods vehicles to travel further. This will need to be balanced against the other environmental gains.

5. Congestion Charging

Goods vehicles could be charged either to use specific routes or to enter the Nottingham urban area. If charging is by route it would be necessary to combine this with restrictions on uncharged routes to avoid rat running.

The objective of this measure would be to restrain goods vehicle demand and thereby achieve environmental improvements. Research on congestion charging in London has shown that this has a relatively low impact on goods vehicle demand due to other overriding considerations in the distribution process. The effects of charging on goods generating business in the charged area would need to be considered.

6. Operating Time Restrictions

Goods vehicles operating periods could be restricted to avoid periods of maximum congestion and periods where they are most environmentally intrusive, e.g. night-time.

The objectives of this measure would be to reduce congestion at peak periods and reduce environmental impacts at sensitive times of day. Such proposals are likely to increase operating costs and the economic impacts would need to be considered.

7. Environmentally Friendly Vehicles

Access to Nottingham or particular routes could be limited to goods vehicles which use environmentally friendly fuels, e.g. LPG.

The objective of this measure would be to reduce air pollution. Such proposals are likely to increase operating costs and their economic impacts would need to be considered.

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8. Transshipment

Goods to/from Nottingham would be transshipped outside the urban area, with delivery within the urban area by means of small vehicles propelled by environmentally friendly fuels.

The objective of this measure would be to improve environmental conditions within the Nottingham urban area. Transshipment would add significantly to distribution costs. The impact of this for commerce within Nottingham would need to be considered. Also the use of more smaller vehicles is likely to increase congestion in the urban area. The environmental effects of this increased congestion would need to be weighed against the environmental gains arising from the use of smaller vehicles.

9. Transfer to Rail

Freight would be transferred from road to rail. This could comprise large bulk flows or more general distribution of goods. The latter would need to be undertaken in parallel with the development of rail served transshipment depots.

The objective would be to reduce trunk haul road freight traffic entering the Nottingham area. It should be noted that other than for major freight generators adjacent to rail lines, distribution within Nottingham would need to be by road. In consequence such proposals are not likely to have a significant effect on road goods traffic within Nottingham. The effects of road access to rail terminal locations, e.g. Beeston and Toton, would need to be considered. New access routes might be required to facilitate the increased use of these rail terminals, e.g. linking Toton directly to the A52.

10. Central Railway

Central Railway is being promoted by a private company as a freight railway from Liverpool to Lille via the Channel Tunnel. It would pass through the study area using the Erewash Valley line via Toton. The railway would carry unaccompanied road trailers between various terminals in England and Lille. A terminal is proposed at Toton. The railway may also carry some domestic freight traffic.

The objective of Central Railway is to generate financial returns for investors. It would have the additional environmental benefit of transferring international road freight traffic to rail. This proposal would bring additional road goods traffic into the study corridor to access the Toton terminal. To facilitate this it would probably be necessary to improve road access to Toton from the A52.

11. Transfer to Waterways

Freight would be transferred from road to inland waterway. This could comprise large bulk flows or more general distribution of goods. The latter would need to be undertaken in parallel with the development of waterway served transshipment depots.

The objective would be to reduce road freight traffic entering the Nottingham area. The inland waterways would be used for trunk distribution while local distribution would be by road as in the transfer to rail option. The potential for this option is severely limited by the low vessel size capacity of the Trent and other inland waterways. Also the coverage of the inland waterway system is very sparse and travel times are much longer than by road or rail.

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12. Land Use Policies

Land use policies for freight would aim to concentrate high generation freight activities in areas where they could be served by non-road modes and where road access would be via routes which do not pass through environmentally sensitive areas. They would also aim to protect potential rail and waterway connected sites from use for non-freight generating developments.

The objective of this measure would be to reduce road congestion and environmental impact by concentrating freight generators in areas where use of non-road modes is encouraged and impact on the urban highway network is minimised. Such policies need to be balanced against the requirement to provide access to jobs.

13. Market Restriction Policies

It is argued by environmental groups that all goods should be sourced locally thus minimising the need for transport.

The objective of this measure is to achieve major environmental benefits by minimising the need for transporting goods. It is difficult to see how such an option could be introduced except in a planned economy which is totally under state control. In any event, many necessities cannot be sourced locally, therefore such a policy would lead to shortages. The only way to progress towards such a policy in our capitalist economy would be to impose an extremely high tax on the movement of freight. Unless this policy is followed by all our trading competitors, this would lead to a major decline in the UK's economic position relative to other countries.

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