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The London Bus Initiative - A Partnership

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Transport for London Street Management

Presentation to third joint meeting of the Transport Economists ' Group
and Institution of Civil Engineers, London Association at the
Institution of Civil Engineers
17th January 2001

The London Bus Initiative (LBI) is an ambitious new two-year initiative to improve bus services in the capital. In the short term, it is the only way of significantly improving public transport.

Background

- Transport White Paper - July 1998
- Daughter Document: 'From Workhorse to Thoroughbred: A Better Role for Bus Travel' - March 1999
- LBI announced by John Prescott at the "Bus Summit" - 15th November 1999
- LBI central to Mayor's priorities
- Strong local authority support - building on LBPN

London Bus Priority Network (LBPN), begun in 1994, has:

- Length 560 miles (960 km)
- Over 1,000 schemes completed
- 313 bus lanes
- 100% network studied
- Over 4,000 Bus Stop Clearways implemented
- Interchange improvements

But much more needs to be done! Hence, the London Bus Initiative.

The Mission Statement for the LBI is *"to provide safe, efficient, reliable and customer friendly bus services in London"*

The end vision for the LBI is *"to deliver a 'step change' enhancement of the actual and perceived quality of London's bus service"* by:

- Promoting a change in travel habits and get more people onto London's buses;
- Making buses more attractive for potential users;

- Making buses first choice mode of transport on LBI routes; and
- Delivering the above on a 'whole route' basis.

Outside the central area, the aim is to increase the modal shift from car to bus. Within the central area, buses will increasingly be seen as a desirable alternative to the Underground system, releasing capacity for longer-distance journeys.

A partnership, which is vital for success, has been established between:

- Association of London Government
- London Local Authorities (LBPN)
- Metropolitan/City/Transport Police
- Bus Operators
- Transport for London
  - *London Buses*
  - *Street Management*

Key Features of the LBI are:

- A Whole Route approach
- Whole Journey approach (a passenger's perspective)
- Significant improvement on 24 routes
- Flagship status for 3 further routes
- Enforcement

LBI Funding consists of:

- £60m over 2 years from central government
- Additional funding of £24.6 million (from LBPN, former TDfL, London Buses)
- £10 million ring fenced for borough spending on parking attendants
- £12.6 million for Bus Lane Enforcement Cameras
- £3 million for borough CCTV
- London Boroughs will be funded to deliver LBI schemes through the LBPN
- Funding through LBI Programme Director

LBI Targets are:

- 5% to 7.5% increase in passengers
- 10% to 20% reduction in average bus journey times
- 40% to 60% coverage of route with bus priority measures
- At least 50% of stops with improved accessibility

- Boarding times reduced by 10%

Route Selection

- Passenger numbers
- Bus frequency & orbital/radial routes
- Regeneration impacts
- Impact on deprivation/social exclusion
- Interchange/integration
- Sub regional partnerships
- Combined impact with other bus-related programmes (AVL[1], SVD[2], bus lane enforcement cameras, bus renewals, shelter improvements and bus stop low floor accessibility programme).

Twenty-seven routes have been identified for inclusion. Of these, eight will benefit from enhanced levels of customer care and three of these will be provided with a higher level of bus priority.

Table 1: Whole Routes

Bus Route	Route to/from	Type	Area
12	Notting Hill - Dulwich	Radial	Inner
18	Sudbury - Euston	Radial	Inner
29	Trafalgar Square - Palmers Green	Radial	Central/Inner
38	Victoria - Clapton	Radial	Central/Inner
47	Catford Garage - Shoreditch	Orbital	Inner
55	Oxford Circus - Leyton green	Radial	Central/Inner
65	Ealing Broadway - Kingston	Orbital	Outer
86	Romford Station - Stratford	Radial	Inner/Outer
89	Lewisham - Slade Green Station	Radial	Inner/Outer
131	Wimbledon - Kingston	Orbital	Outer
134	Tottenham Court Road - North Finchley	Radial	Central/Inner
140	Heathrow Airport Central - Harrow Weald	Orbital	Outer
168	Elephant and Castle - Hampstead Heath	Radial	Central/Inner
180	Thamesmead East - Lewisham	Orbital	Inner/Outer
227	Crystal Palace - Bromley North Station	Orbital	Inner/Outer
270	Putney Bridge Station - Mitcham	Orbital	Inner/Outer
279	Holloway - Waltham Cross	Radial	Inner/Outer
280	Tooting - Belmont Station	Radial	Inner/Outer
329	Turnpike Lane - Enfield	Radial	Inner/Outer

[1] Automatic Vehicle Location
[2] Selective Vehicle Detection

Table 2: Quality Whole Routes			
Bus Route	**Route to/from**	**Type**	**Area**
32	Kilburn Park Station - Edgware Station	Radial	Inner/Outer
68	West Norwood - Euston	Radial	Central/Inner
144	Edmonton Green - Muswell Hill Broadway	Orbital	Outer
207	Uxbridge - Shepherd's Bush	Radial	Inner/Outer
220	Harlesden - Wandsworth	Orbital	Inner/Outer

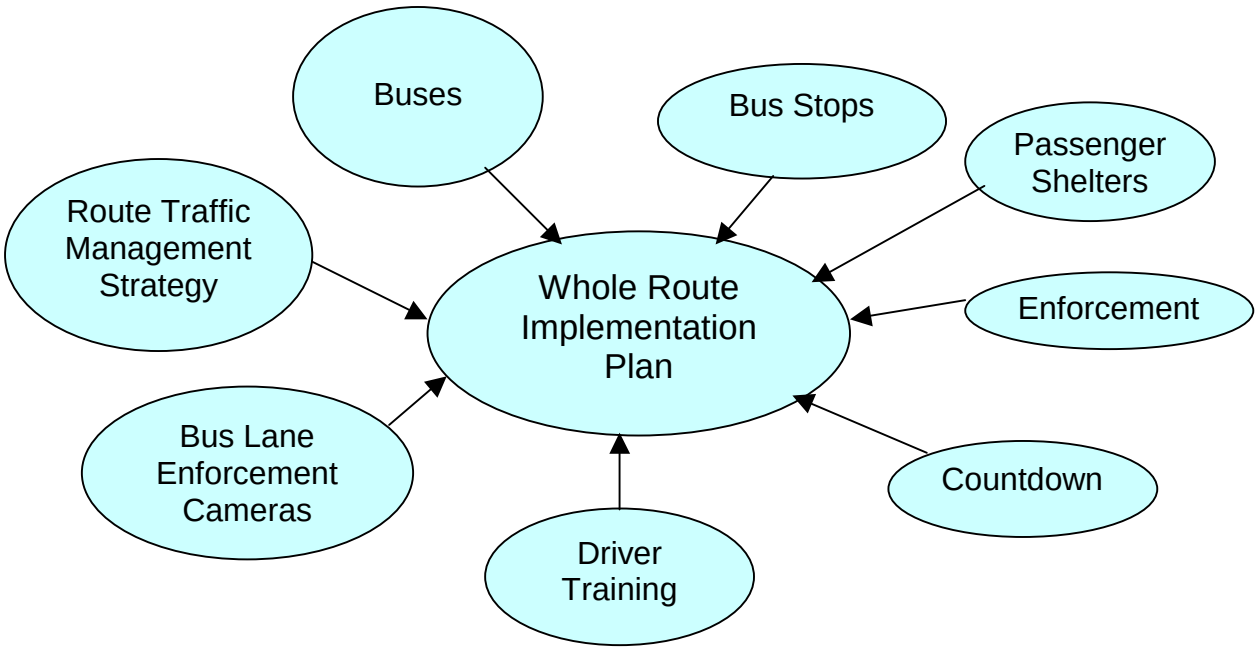
Table 3: Quality Whole Routes +			
Bus Route	**Route to/from**	**Type**	**Area**
115	East Ham - Aldgate	Radial	Central/Inner
149	Ponders End - London Bridge Station	Radial	Central/Inner/Outer
185	Lewisham - Victoria	Radial	Central/Inner

All these routes are known by the single descriptor ***BusPlus***.

Plan for Each Route

- Route partnership
- Senior Route Co-ordinator convenes Joint Inspection Meetings
- All local partners attend
- Whole Route / Whole Journey approach
- Existing route description
- Identification of needs

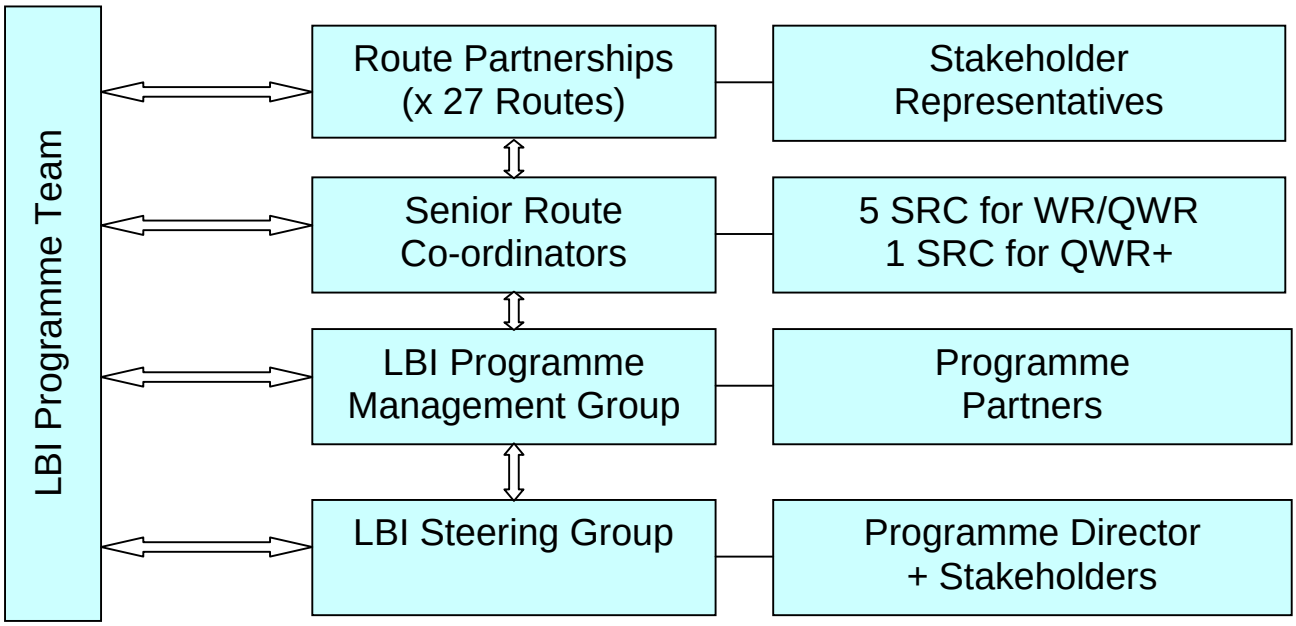
Figure 1: Whole Route Implementation Plan (WRIP)



Boroughs' Role:

- A major whole route partner
- Design - preliminary and detailed
- Consultation
- Implementation - borough roadworks
- Enforcement
- Five Senior Route Co-ordinators for 24 routes (1 SRC for 3 QWR+)

Figure 2: Organisation of LBI Programme



Where We Are Now?

- WRIPs are agreed by partners
- Programming
- Preliminary and detailed design - borough/sector consultants
- Enforcement Service Level Agreements in place
- Enforcement Strategy
- Communication
- Consultation
- Contracts:
  - Highways: borough and appointed contractors
  - Bus stops: London Buses

Communications

- A vital element of the LBI
- LBI to be high profile
- Londoners need to:
  - ***perceive*** a genuine improvement in reliability and travel experience
  - ***be consulted*** on priority measures
  - ***know*** that enforcement is consistent and dependable
- Public promotional campaign

Consultation will be:

- Borough led on Borough roads (TfL Area Team led on TLRN)
- Support from LBI programme team
- Residents
- Traders
- Transport users - including on-bus
- Locally managed
- Early

Monitoring will include:

- Traffic surveys of bus and other traffic journey times, traffic volumes and parking activity;
- Retail surveys of effects on commercial activity;
- Bus service performance, including measures of bus reliability and patronage change; and
- Public and passenger perception surveys

The surveys will be done:

- Pre: March and May 2000
- Mid: March and May 2001
- Post: September and October 2002

Enforcement is:

- Mayoral priority
- Key to success of traffic management schemes
- Enforcement has been improved through introduction of technology and decriminalisation

Enforcement Action Plan

- Developed in partnership with all enforcement agencies and key players
- Main strands of the Action Plan are:
  - Harmonisation of bus lane penalties
  - Communications campaign
  - More on bus and CCTV enforcement cameras
  - New initiatives such as targeting congestion hotspots and dealing with persistent evaders

Enforcement of the LBI will be done by:

- CCTV cameras — Boroughs/TfL
- Bus cameras — Police/TfL
- On street — Borough Parking Attendants
  - Police Traffic Wardens
- Moving offences — Police

Is there to be LBI 2?

- Plans being drawn up for second phase
- 100 routes prioritised in key corridors
  - patronage and bus flows
  - Central / Inner London radial routes
  - Orbital routes near Central / Inner London
  - Inner / Outer London orbital routes
- 55 routes shortlisted and consulted on
- 43 now being assessed for work required

In summary, the LBI is a:

- New partnership initiative
- New approach - Whole Route and Whole Journey
- Step change
- Great opportunity

Discussion

Stephen Miller (Leader of Transport Special Interest Group of the London Association) opened the discussion by asking if LBI 2 is likely to run on longer than LBI 1?

ZK: LBI 2 will go onto April 2004

Peter White enquired whether the bus franchises are monitored for improvements in reliability, etc.

ZK: Yes, they are monitored and there are penalties if they fall short. The railway analogy is interesting. Monitoring has shown that bus arrived at the time it should but reliability is more than just journey time.

John Cartledge (London Transport Users Group) asked ZK how confident he is that measures will improve bus reliability or is it just cosmetics? There are three parts to reliability:

1. Is there a working bus (less of a problem at present)?
2. Is there a driver (a cyclical problem)? and
3. Is the infrastructure there? In any given area of London, different routes can have very varied reliability and lost mileage.

ZK: There are cultural differences and different usage patterns, which all make for different reliability. London Buses have the information; it is a lot to do with existing contracts. As they come up for renewal, operators become responsible for what is delivered. There should be savings because of LBI, which should be used to put more buses on the route.

Dick Dunmore (PriceWaterhouseCooper) enquired whether there are any examples of best practise elsewhere and how will people who are "bus blind" be attracted to use buses.

ZK: there are not many examples elsewhere, although Paris is about to embark on LBI-type initiative. Spider maps are being developed, but there is a need to get good quality information so that people know about what buses can deliver.

Peter Collins asked what the weakest link is to achieving objectives.

ZK: It is a lot harder to do bring the resources together on the ground. Although LBI is being given high priority, resources are finite. There is a need to promote traffic engineering training since most schemes have now disappeared (TfL is looking at setting up a graduate training scheme, but it will take time).

On a question about whether bus frequency is to be increased, ZK said that it should be improved substantially. Work will be done on both marketing and improving the service.

Peter Gordon (Chiltern Railways): There does seem to be more attention paid to trains than buses.

ZK: We are looking to a gradual campaign of about a year and will be hammering home next spring.

Brian Evans thought that LBI approach is encouraging, which would increase patronage. If there is to be a 5-7½% increase without congestion charging, is there an estimate with a charge?

ZK: Not yet, a set of route targets is being developed.

With other users of bus lanes, is there any mechanism to ensure LBI helps cycle use?

ZK: Yes, it is part of LBI - a policy is being put together for cycling. Safety audits are done and looking at footways to widen bus lanes.

Report by Laurie Baker

Intermediate Modes in London

Jon Willis, Head of Project Development
Integration Department, Transport for London

Talk given to the Transport Economists' Group
at University of Westminster
28th March 2001

Jon outlined that he would talk initially about Croydon Tramlink and then the development of four proposals in London:

Uxbridge Road Transit
East London Transit
Greenwich Waterfront Transit
Cross River Transit

Croydon Tramlink

Croydon Tramlink opened early 2000, almost 50 years after the last trams ran in Croydon. Tramlink provides an east-west transport network in outer south London linking Wimbledon, Beckenham and New Addington to Croydon. It is a 28.4 kilometre, three line system which includes 3.4 kilometre street running, 17 kilometres of converted railway lines and 8 kilometres of new rights of way.

Croydon, with a population of approximately a million, is the seventh largest city in the UK. There had been economic expansion partly due to the office location policy in the 1950s and 1960s decentralising offices from Central London. But, by the 1980s the development had become dated.

New Addington was built in the 1960s as housing over-spill with 25,000 residents, 7 kilometres south-east of Croydon.

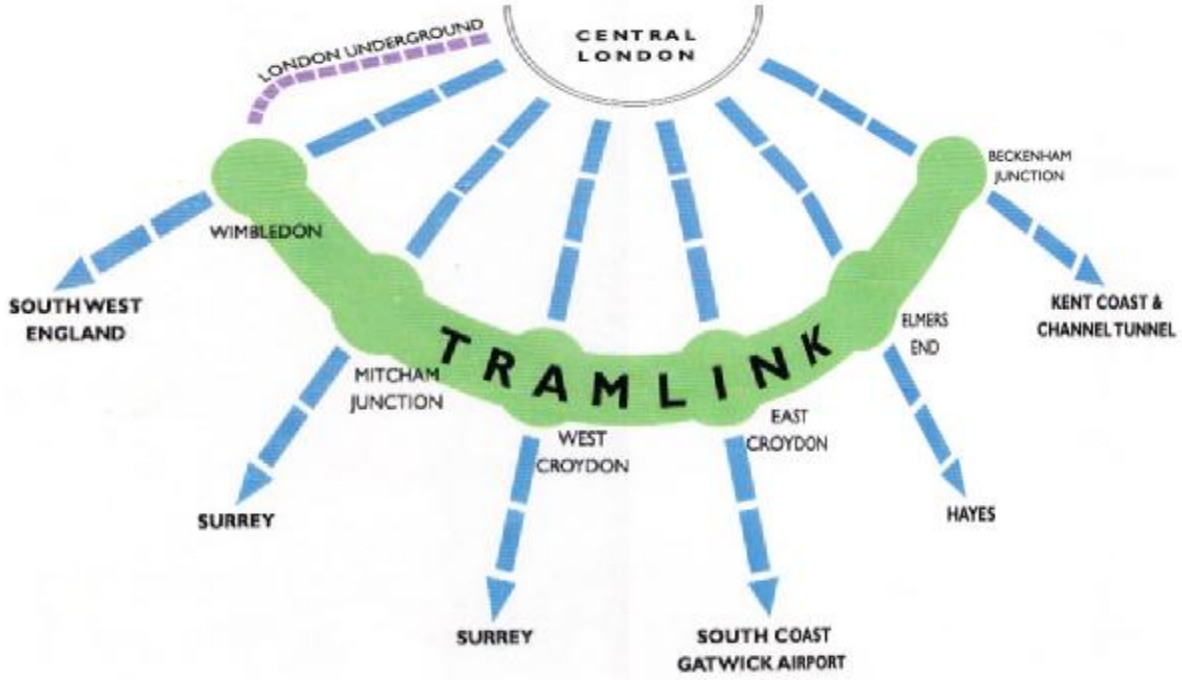
There are mainline radial routes into Central Croydon but east-west movement by rail was very difficult (one train every 47 minutes was not conducive to travel). Therefore, there was a heavy dependency on the car to travel in and out of Croydon.

The Reasons for Tramlink being developed were:

- Expansion of business and retail needed to compete with other centres.
- Much of the town was due for re-investment.

- New Addington was a deprived area, reliant on a bus journey to Croydon that took 40-60 minute.
- Increasing road congestion in the town centre preventing economic growth
- Need to increase catchment of town centre without building more roads

Figure 1: Croydon Tramlink - orbital route linking radial rail routes



Tramlink studies

There were a large number of studies undertaken from 1986:

- Light Rail for London Report, 1986
- South Croydon Assessment Study, 1987-9
- Croydon Light Rail Study, 1990
- Croydon Tramlink Economic Evaluation, 1991
- Croydon Tramlink Environmental Impact Assessment, 1991
- Parliamentary Bill deposited November 1991
- Royal Assent July 1994

Construction issues
A number of alternative alignments were considered. There were a number of construction issues for Croydon Tramlink, which led to the final routes chosen:

- Existing rail infrastructure was available between Wimbledon and Croydon and Elmers End to beyond Addiscombe.
- Site clearance of twelve houses and one block of flats.
- Green Belt beyond Sandilands to New Addington
- Sections of route for road widening
- Most disbenefits were within central Croydon:
  - Extensive periods of road building
  - Poor co-operation between private sector companies
  - Effects on local bus services

The interchange with national rail (at seven stations) and new bus interchange at East Croydon, West Croydon and Addington Village was described.

The environmental improvements allowing more pedestrianisation in Croydon Town Centre and the easy access for mobility impaired people were both illustrated.

Impact Study
The objectives of the study were to:

- Understand the effects of the scheme on travel patterns
- Understand the relationship with wider economic, social and environmental conditions in the area.
- Monitor usage against projections.
- Provide information to assist in the planning and knowledge of such modes in London

Since Tramlink is fully accessible to mobility impaired people (MIP), part of the study is finding out how many people use it who would not have used public transport in the past.

The Impact Study produced a "before" Tramlink Inception report, which was completed in February 2000. An "Agents of Change" working paper has now been completed. Three working papers are in preparation on the household survey, Stated preference study and Transport study.

Both the Baseline and Initial 'After' survey report are due in spring 2001.

Intermediate Modes - Where Next?

A major study was initiated by London Transport Planning in 1995 on "New ideas for Public Transport in outer London". Initially, 45 proposals put forward by LT and local authorities were studied, which was reduced to nine case studies for more detailed analysis and assessment against planning objectives:

Around Romford	Edgware Road corridor	Heathrow Orbital
Around Barking	Uxbridge Road corridor	Croydon Tramlink extensions
Around Wood Green	A23 corridor	Thamesmead/Greenwich corridor

Four of these outer London schemes are being taken forward as three schemes:

- Romford and Barking have been combined as East London Transit
- Uxbridge Road corridor
- Greenwich Waterfront Transit

Cross River Transit in Inner and Central London was initially studied by London Transport and the Cross River Partnership, and has since been added to the list as the fourth intermediate mode scheme in the Mayor's draft Transport Strategy.

The Mayor will consult on these four schemes in 2001. The Cross River Transit consultation has been deferred until later in the year after further studies of the joint impact with congestion charging.

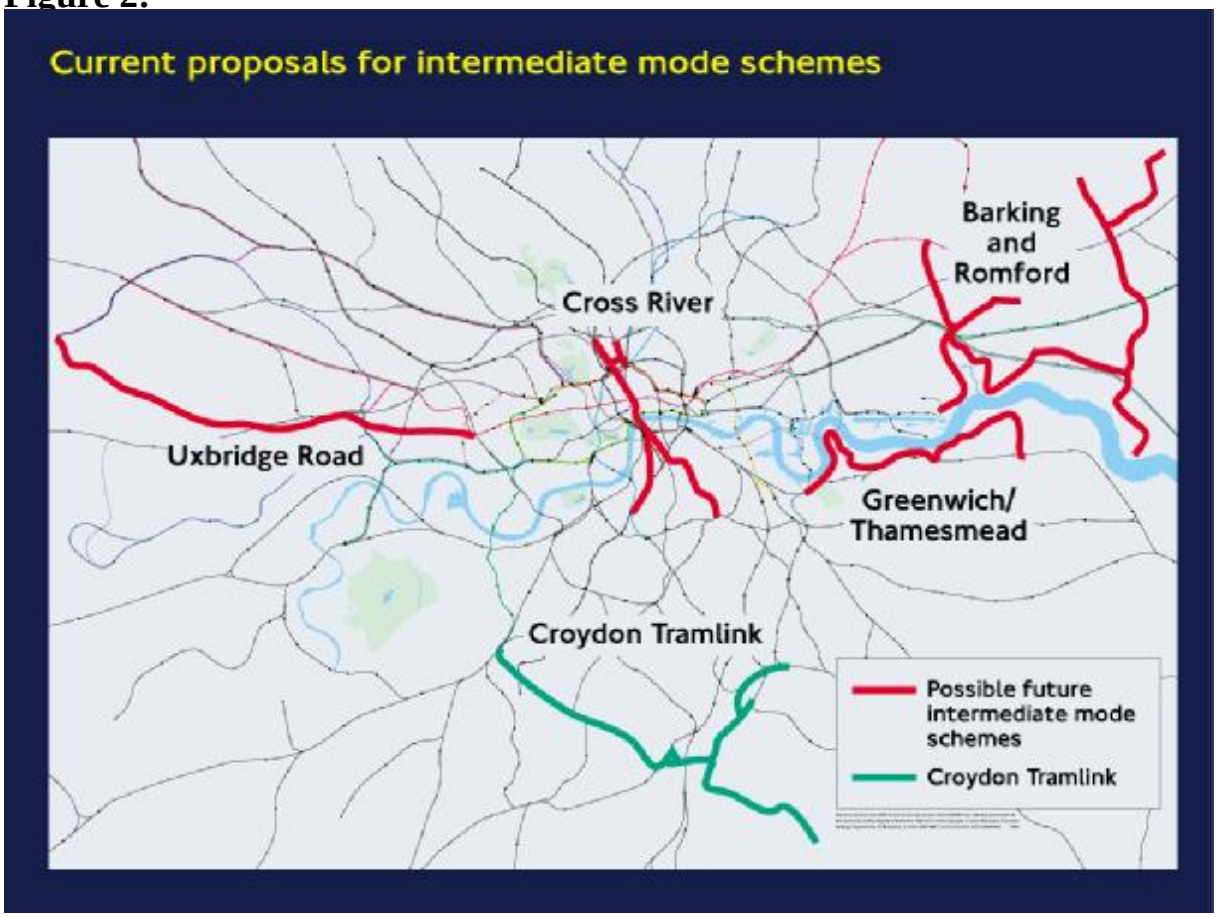
Project Development Studies

The projects have been taken forward in partnerships with local authorities on reallocating road space. The full project development options have assessed:

- Engineering and costs
- Public transport and highway modelling
- Operations planning and costs
- Multi-criteria assessment framework (MCAF)[3], which involves five main criteria:
  - economic - cost-benefit analysis
  - accessibility - local centre catchment areas
  - environment - noise/emissions
  - safety - accidents
  - integration with other policies - serving ‘deprived’ population

[3] See *The Transport Economist* volume 27, number 3 (Autumn 2000) pp 31-50: New Approaches to Transport Appraisal - Report of Seminar in June 2000 and the references therein.

Figure 2:



East London Transit

East London Transit is assumed to be a bus-based system along a 53-km network in Barking and Romford. It would link regeneration sites to town centres and residential areas, providing orbital and feeder links to key interchanges. This scheme is designed to plan land use and transport together, it providing key feeders into development areas.

The systems considered were:

- 25 km priority measures with existing service patterns (Euro III)
- 40 km priority network (to serve development sites) with restructured service pattern
- as above with articulated trolley-buses

Jon Willis illustrated the use of MCAF with the East London Transit to produce an optimum scheme. Although there is no justification for a tram, the views of others will be sought during the consultation process. The following diagram (figure 3) illustrates the process of the analysis.

The MCAF approach uses a number of different models (top line of boxes) that have very different outputs (second line of boxes). These outputs are fed into MCAF, which uses cost-benefit appraisal, environmental assessment and movement-direct effects. The movement effects measures economic (capacity, transport use), accessibility (other modes, public transport) and integration of modes. Finally, the derived effects are measured - achievement of policy goals

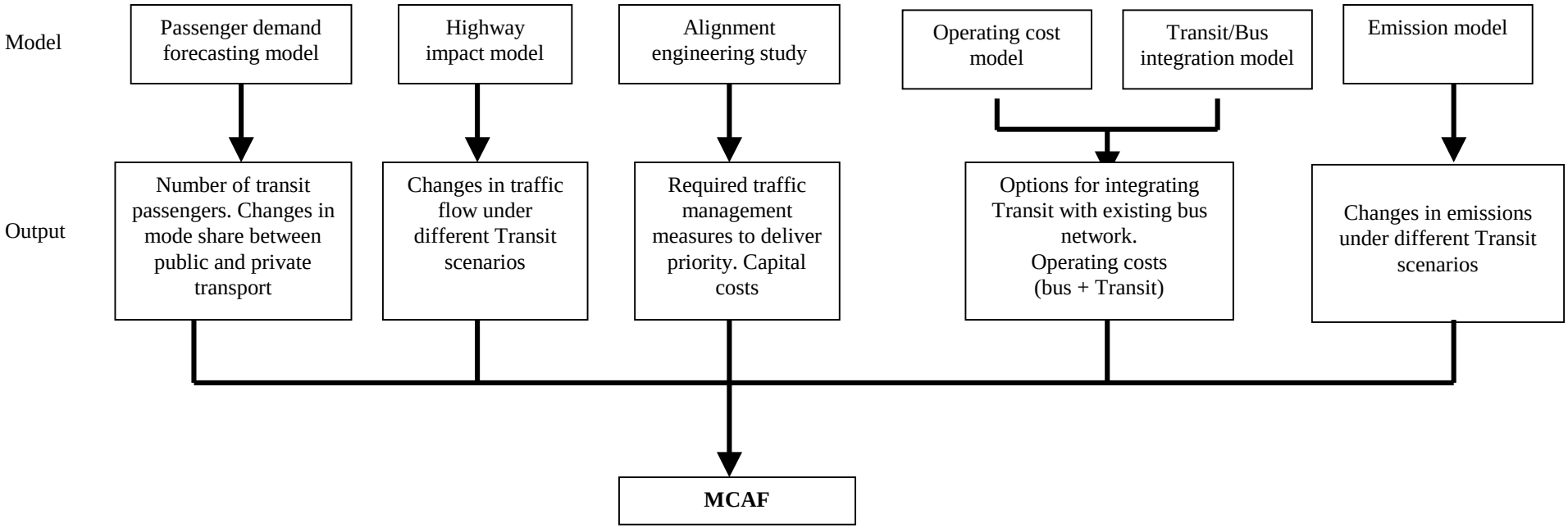


Figure 3: The MCAF process

An assessment against objectives is shown in table 1 and table 2 indicates the key results of the MCAF analysis for East London Transit.

Table 1: Assessment of East London options against objectives

Objective	Existing high priority bus	Extended high priority bus	Trolley Bus
To encourage sustainable development and aid regeneration	√√	√√	√√√
To improve public transport accessibility	√√	√√	√√
To encourage economic activity in local centres	√	√	√
To improve the environment	√	-	√√√
To improve transport efficiency in the corridor	√	√√	√√√
To improve safety in the local area	-	-	√

Table 2: Key results of East London Transit options

	High priority Euro III	Extended Network Euro III	Extended Network Articulated trolleybus
Boarders (mpa) Costs (£PVm) Passenger benefits (£PVm)	33 25 210	38 178 443	39 200 488
Benefit-Cost Ratio BCR, highway impacts =0	0.1:1 10.7:1	1.4:1 2.9:	1.6:1 2.8:1
Reduced car trips (mpa)	2.7	3.2	3.4
Pop within 30 minutes of local centre (000s) Pop within 30 minutes of development areas (000s)	240 110	550 280	590 300

Greenwich Waterfront Transit

Greenwich Waterfront Transit is assumed to be a bus or tram based option along a 15-km corridor between Greenwich and Thamesmead. It would link regeneration sites, tourist sites, town centres and residential areas. There is a street running option as an alternative to new road alignment through developments. It will provide feeder links to key interchanges, including the

Jubilee Line extension. It is assumed to be incremental development, building on the Millennium Transit.

Bus and tram based options considered were:

- segregated busway Euro III buses
- segregated busway 24 b. p. h articulated trolleybus
- segregated 16 t. p. h. tram
- on-street articulated trolleybus on 12 km route with priority shared with other buses

Table 3: Key results of Greenwich Waterfront Transit options

	Segregated Euro III	Segregated Trolleybus	Segregated Tram	On-Street Trolleybus
Boarders (mpa) Costs (£PVm) Passenger benefits (£PVm)	11 151 27	11 162 76	16 186 123	12 39 84
Benefit-Cost Ratio BCR, highway impacts =0	0.5:1 0.4:1	0.8:1 0.6:1	1:1 0.9:1	1.6:1 2.6:1
Reduced car trips (mpa)	0.5	0.5	0.6	0.2
Pop within 30 minutes of development areas (000s)	135	135	135	100

Uxbridge Road Transit

Bus and tram based options have been considered in a 20-km corridor from Uxbridge to Shepherds Bush. It would link town centres, development sites and residential areas, providing radial connections and feeder links to key interchanges. It would require radical traffic management proposals to improve performance and environment in town centres. It would rely on road space reallocation in key town centres and significant modal transfer is anticipated.

The bus and tram based on-street options for the 21-km corridor considered:

- high priority along length of route with 40 b. p. h. (Euro III)
- high priority 30 b. p. h. articulated trolleybus
- high priority 20 t. p. h. tram

Table 4: Key results of Uxbridge Road options			
	High priority Euro III	**Articulated Trolleybus**	**Tram**
Boarders (mpa)	34	42	50
Costs (£PVm)	97	116	148
Passenger benefits (£PVm)	233	477	625
Benefit-Cost Ratio	Negative	2.6:1	3.5:1
BCR, highway impacts =0	3.2:1	5.2:1	5.3:1
Reduced car trips (mpa)	5.5	7.1	7.9
Pop within 30 minutes of local centre (000s)	180	600	450
No of properties (net) with noise and pollution benefits	6,500	6,500	6,500

Cross River Transit

Bus or tram options have been considered for the 15-km corridor linking Camden Town and King's Cross/St Pancras to Peckham and Stockwell via Euston, Holborn and Waterloo. It is designed to increase central London capacity, forming a key part of the strategy in the central area. It would provide links, dispersal and relief for key interchanges in central London and serves significant areas of deprivation/ regeneration. It could provide the "carrot" for other restraint measures in central London.

Bus and tram based options for a 15 km network considered were:

- existing service patterns with high priority buses (Euro III)
- High frequency (x2.5) Euro III bus services
- articulated trolleybus - 80 b. p. h. in centre
- trams - 40 t. p. h. in centre

Table 5: Key results of Cross River Transit options				
	High priority Euro III	**High frequency Euro III**	**Articulated Trolleybus**	**Tram**
Boarders mpa	24	32	64	72
Costs £PVm	34	254	261	271
Passenger benefits £PVm	94	172	726	892
Benefit-Cost Ratio	Negative	Negative	0.3:1	1.0:1
BCR, highway impacts =0	3.3:1	0.8:1	3.1:1	3.6:1
Rail network crowding relief £PVm	43	54	179	201
"Deprived" population benefiting (000s)	13	13	50	41

Summary

- East London: effective in linking development areas and town centres, highway measures seen as 'quite severe' by boroughs but drive benefits. Recommended: high priority bus based strategy - trolley bus possibility.

- Waterfront: poor performance of segregated route due to cost, street running alternative reduces cost whilst retaining majority of benefits. Assists regeneration. Recommended: high priority street running bus based strategy building on Millennium Transit.

- Uxbridge Road: effective in encouraging mode shift and improving the environment, particularly in town centres. Some property acquisition. Local access and parking issues to be addressed. Recommended: high priority trolleybus or tram based strategy.

- Cross River: effective in reducing rail congestion and improving access to 'social exclusion' areas. Significant and wide reaching highway impacts, which probably need to be addressed by other restraint measures. Recommended: high priority trolleybus or tram based strategy.

Intermediate Modes are:

- 'top end' of the strategy for developing surface transport (LBPN[4] → LBI[5] → Intermediate Modes)
- much less costly alternative to rail in appropriate demand corridors

[4] London Bus Priority Network
[5] London Bus Initiative (see previous report)

- radical approach to combining public transport improvement with changing use of road space in line with traffic reduction policies
- tie in well with regeneration and environmental objectives in partnership with others

Issues

- broader objectives achievable - modal transfer in outer London, central area strategy in centre
- strong Borough and other support
- significant road-space reallocation and restraint on mix of Borough and GLA roads
- incremental approach - building on LBI - extending priority measures
- public consultation on principles and interest from private sector

Table 6: Comparative results of all transit systems

	East London	Cross River	Uxbridge Road	Greenwich Waterfront
Boarders mpa	39	72	50	16
Costs £PVm	200	271	148	186
Passenger benefits £PVm	480	882	625	123
Benefit-Cost Ratio	1.6:1	1.0:1	3.5:1	1.6:1
BCR, highway impacts =0	10.7:1	3.6:1	5.3:1	2.6:1
Reduced car trips mpa	3.4	4.4	7.9	0.6
Pop within 30 mins of development areas (000s)	300	182	68	135
Pop within 30 mins of local centres (000s)	590	111	600	68
No of properties (net) with noise and pollution benefits	1,000	1,000	6,500	100
"Deprived" pop benefiting (000s)	38	50	11	10
Rail network crowding relief equiv. £PVm	24	201	9	66

Way forward

- **Spring 2001 -** Mayor/T*f*L decision to proceed to consultation
  - final reports published
  - commence public consultation
  - expressions of interest on private sector involvement and funding
  - develop funding and implementation plans

- **Autumn 2001** - Mayor & local authority decision whether to proceed to seek a Transport and Works Act Order
- **2002** - Transport and Works Act Order?
- **c2006** - full system(s) opens?

The Mayor will decide on the programme to develop light transit schemes through many factors including:

- Local authority support
- Results of consultation
- Agreement of Boroughs and TfL to work in partnership
- Agreeing definition of project (mode, road space reallocation)
- Results from feasibility studies
- Results of private sector interest and agreeing their involvement
- Overall availability of resources and priority within the transport investment programme

Discussion

Peter White (University of Westminster) asked whether in the case of Croydon Tramlink and the 1999 agreement that the operator will have to finance replacement vehicles.

In answer, Jon Willis pointed out that the scheme could only have gone ahead if there was no public money. It is a difficult process getting the private sector involved before the Parliamentary Bill had been deposited. Once deposited, they did help get it through the parliamentary process. The government had resisted London Transport owning Tramlink so the concession was for a long period. The package does not work well and it would not be repeated now.

David van Rest () asked the speaker if he could say something about the change of mind on the use of road space.

JW: Initially, sold on the basis of economic regeneration. With Labour control, it would have been unlikely politically that 12 houses would be demolished.

DvR: In the centre of Croydon has the road space been kept?

JW: Yes, built a road parallel to Tramlink but it has evolved by removing traffic.

Dick Dunmore (PriceWaterhouseCooper) enquired whether each evaluation had been separate and whether each technology had been proved? Have you looked at the benefit of standard technology?

JW: There are benefits of compatibility but not all are standard yet. It would be interesting to see the response of industry.

DD: Is there any scope to design a scheme so it could be upgraded to cope with increased patronage?

JW: There is a point when you have to decide what is best scheme to build based on the forecasts.

Martin Brazil thought that a more efficient system would be to use 12-seater vehicles that can stop off-line from the track. He was worried that putting in schemes will mess up the use of space.

JW: remarked that streets have a multi-purpose function that has to be recognised.

John Cartledge (London Transport Users Committee) remarked that there is a technological gap between the car and bus or rail. He hopes very much that one of the bus-based schemes goes ahead to demonstrate what they are really capable of.

JW: In Croydon there is 28 km at £200 million - it is not a very high-tech vehicles. Much of the high costs are determined by regulations that now exist as, e.g., running alongside rail track, regulation in streets. However, the costs are still relatively cheap. The study will give some of the answers.

Peter Gordon asked how much of passengers are diverted from other modes and how many is generated

JW: The surveys done in March should provide answers to those questions. Boroughs are saying that sites are being developed, which they are sure would not have been without Tramlink.

Report by Laurie Baker

BOOK REVIEW

The Transport Economists' Group does not necessarily agree with the statements contained in book reviews, and neither does it accept responsibility for reviewers' assessments of the books that they evaluate.

The Transport System: markets, modes and policies by Tim Powell
PTRC, February 2001, 299 pp, £40

The book is a companion volume to The Principles of Transport Economics (review to be published in next issue), which are written by the same author.

The book attempts to cover a very wide remit, with a general overview being followed by chapters on policies for different markets and modes. It is written from an economist's perspective, covering the key concepts in a sound manner, and there is a glossary at the end, which should be very useful for students. In the view of this reviewer, the book would have been better if written from a wider perspective.

Virtually nothing is said about land use policies. It is also thin on politics. For example, the author might usefully argue that many political decisions appear irrational as, for example, where a higher value is put on a person maimed in a rail accident than crossing the road (does it make a difference in future life). However he only makes dismissive comments about politics instead. The author usefully raises the concept of external costs but then gives the impression is given that they can easily be quantified.

A number of contentions, which whilst not entirely unsupported, require further substantiation, are made. The author says that loss making rail services should be closed in favour of road. This may sometimes be correct. (A very good case could be made that the existing subsidy to former Regional Railways Train Operating Companies (TOC) would give much better value if spent on bus services.) However the statement raises questions such as "will the roads become so congested that journey times will increase" and "if population increases would a rail link that would become viable in the future be lost?" These are not considered.

The book could do with more examples to illustrate the author's points. The examples that are given are very useful.

The Hatfield accident occurred during the writing of the book and as such is only mentioned briefly in the chapter about the privatisation of British Rail. Writing a textbook, like this is a dangerous task, what is written all too quickly

gets overtaken by events. As it is comments about Railtrack being very profitable look rather dated. The accuracy of the comment about subsidies to TOCs declining in future years remains to be tested.

The book falls between two stools. As a basic textbook the reviewer would have preferred a more discursive text perhaps with some of the author's recommendations replaced by questions for the reader to consider. As an advanced work many of the contentions require much more support. However, it might be interesting for a student (or general reader) to consider this text in conjunction with one or more books from a different but similarly narrow viewpoint (for instance one written by an environmentalist) and to try and develop a synthesis.

Reviewed by Peter Gordon