

TfL LONDON RAIL

RESPONSE TO NETWORK RAIL'S DRAFT CROSS-LONDON ROUTE UTILISATION STRATEGY

1. INTRODUCTION

- 1.1 Transport for London (TfL) welcomes the opportunity to provide an input into Network Rail's draft Cross-London Route Utilisation Strategy (RUS).
- 1.2 TfL and the Department for Transport (DfT) have reached agreement on the transfer of responsibility for service specification and re-franchising of the Silverlink Metro service. The concession procurement programme currently envisaged proposes that an Invitation To Tender (ITT) is issued to pre-qualified bidders in summer 2006. This will enable the process to be completed in order for the concession to commence in autumn 2007. This response is therefore submitted by the authority responsible for letting the franchise for the future North London Railway concession.
- 1.3 London's requirements are based on the Silverlink Metro Rail Corridor Plan (RCP) that has been prepared by TfL London Rail. The RCP has examined the transport network in the area as a whole, identifying gaps in transport provision that are important to the Mayor's economic, social inclusion, accessibility and environmental objectives for London. Proposals to meet the gaps have been developed, with the RCP focussing on solutions that relate to the National Rail network. The RCP has been prepared in close consultation with the DfT and Network Rail (NR); TfL acknowledges the assistance and advice that has been provided.
- 1.4 TfL and NR are working closely on the programme of works needed to implement the improvement proposals put forward in the RCP. Further details of next steps are given in this document.
- 1.5 TfL is developing a 20-year vision, called Rail 2025, for all of London's railways as part of its refresh of strategic thinking. This recognises the significant travel demand increases over the last decade, and anticipates continuing growth in the period to 2025, driven by the London Plan's forecasts of growth in employment and population growth. However, capacity growth has not kept pace, and London's transport network is now under considerable stress, a situation that can only become worse without effective intervention. The future burden on rail will be particularly substantial because the new jobs are concentrated in the central

business district while housing growth is more generally distributed across London. While rail is well placed to meet demand for these types of journey, they will further pressurise radial and orbital transport corridors unless there are significant capacity enhancements to meet this. Given this context, Rail 2025 includes proposals for the cross-London routes which have informed the RCP and response to the franchise specification.

The Mayor's Objectives

- 1.6 The London Plan and the Mayor's Transport Strategy provide the primary basis for the planning and development of transport services in London. **Appendix A** provides a summary of main strategies and policies relating to London's National Rail network.
- 1.7 In particular the following are seen as priorities in relation to the cross-London rail routes:
- High frequency turn-up-and-go service of 4 trains per hour
 - More reliable and less crowded services
 - A more secure passenger environment at stations and on-train
 - Greater integration of rail services facilities and ticketing arrangements with the other transport modes in London. This includes the acceptance and retailing of Oyster ticketing on the National Rail network
 - Development of the orbirail proposal
 - Development of freight bypass routes around London for non-London rail freight traffic

Document structure

- 1.8 **Section 2** of this response sets out the findings of the RCP for input into the RUS. The RCP findings are organised under the following main headings:
- Customer requirements
 - Demand planning
 - Train service proposals
 - Freight services – current and future
 - Station facilities
 - Accessibility
 - Fares and ticketing
 - The Olympics
- 1.9 An assessment of the other options outlined in the RUS is given in **Section 3**. **Section 4** provides the next steps that need to be taken by Network Rail, TfL, and the Interim Olympics Delivery Authority (iODA) to deliver the future concession specification and associated upgrade proposals.

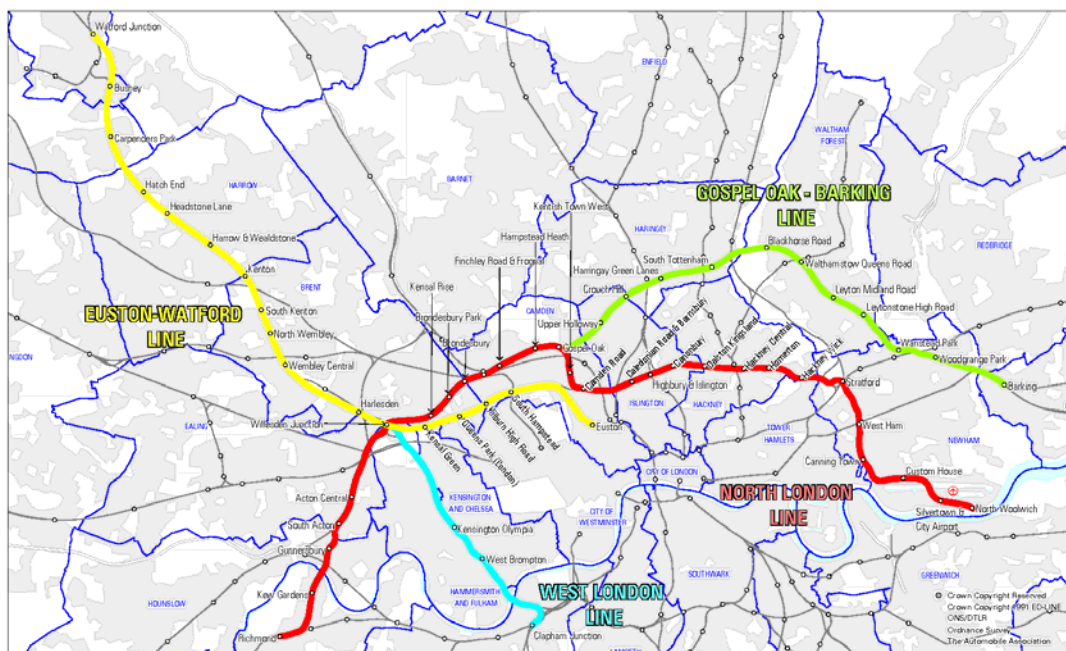
2. RAIL CORRIDOR PLAN PROPOSALS

2.1 DEMAND PLANNING

Route Description

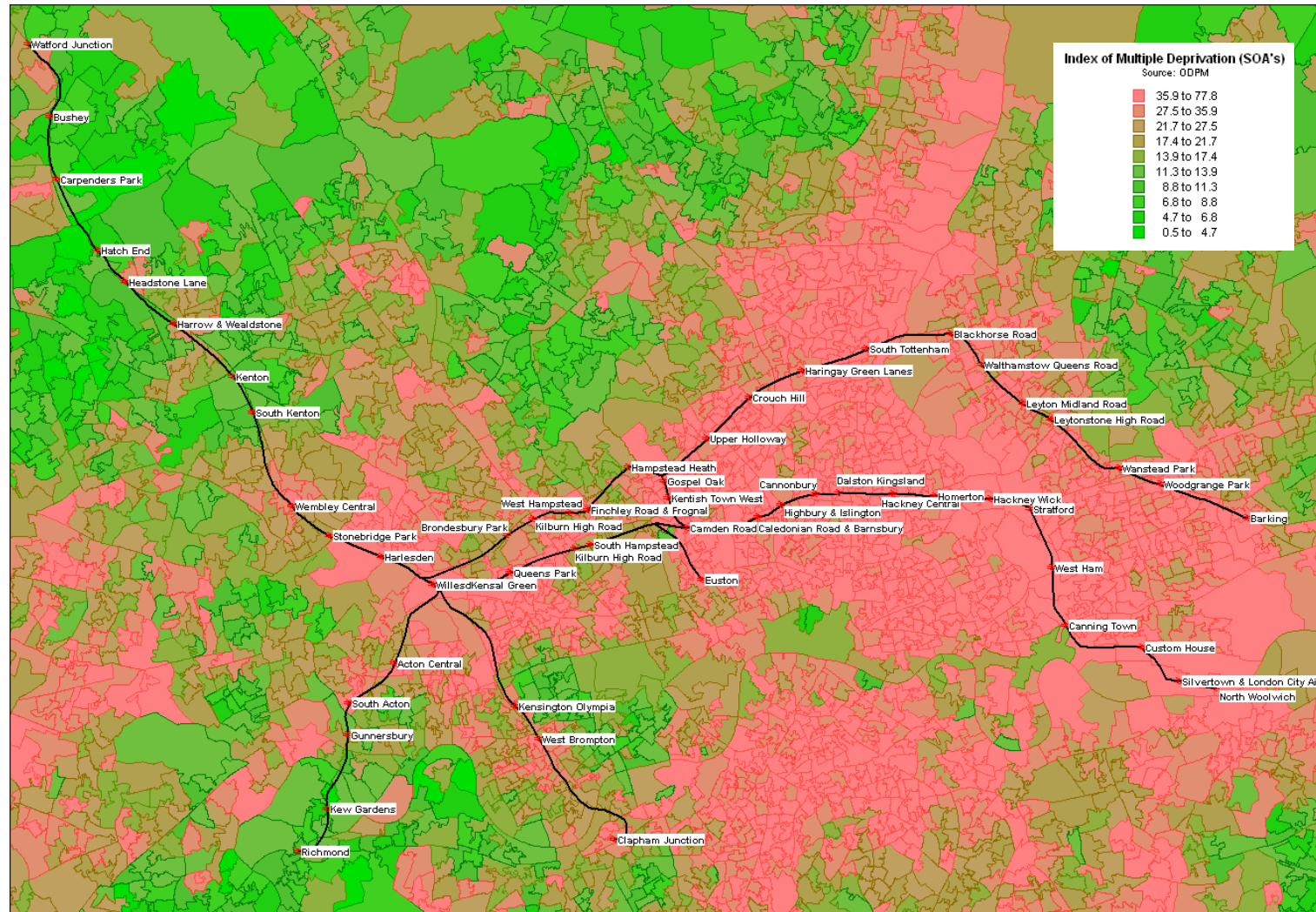
- 2.1.1 The Silverlink Metro service group covers the North London Line, the West London Line, Euston to Watford local services and the Gospel Oak to Barking Line. The franchise is currently operated by the National Express Group.

Figure 1: Map of current Silverlink Metro services



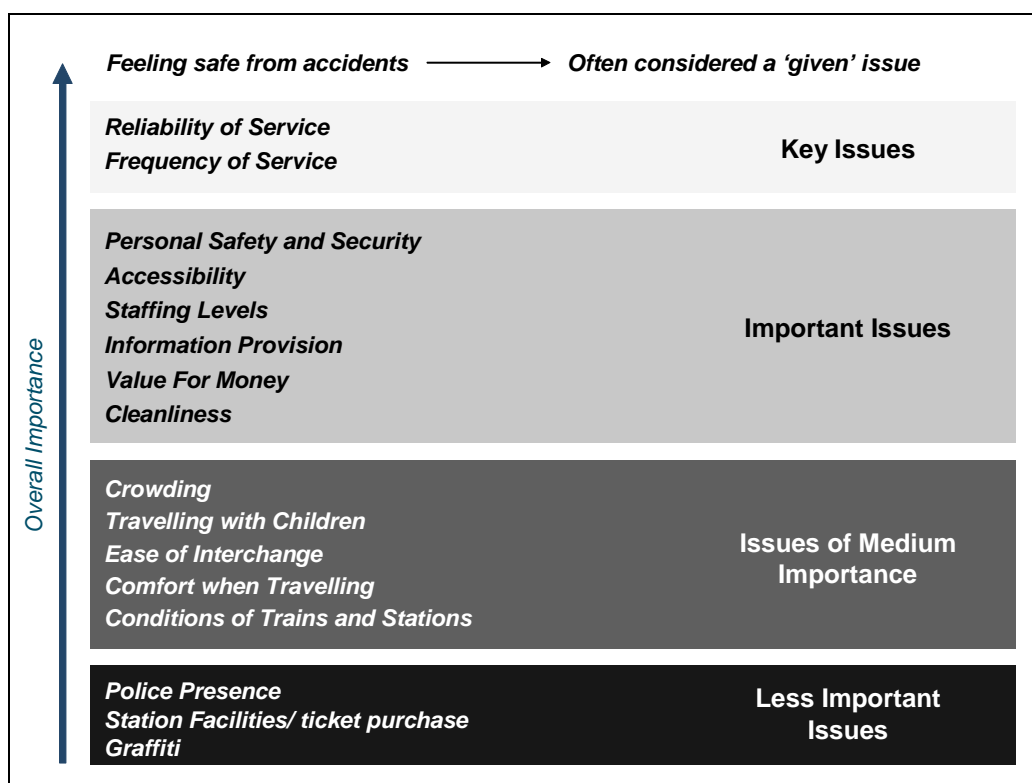
- 2.1.2 Many of these services run through densely populated and relatively socially deprived areas of London; approximately 17% of London's population are within 5 minutes walk of a Silverlink Metro station and some 30% of the 20% most deprived wards in London are within the line's catchment area. **Figure 2** shows clearly how the North London Line and the Gospel Oak – Barking line, in particular, pass through deprived areas of London. A key objective of TfL is to reduce the level of deprivation through promoting the accessibility of the rail service in a variety of different ways.

Figure 2: Map showing social deprivation within the Silverlink Metro franchise area



Customer Requirements

- 2.1.3 The starting point for the planning of the North London Railway (NLR) network is an understanding of current and prospective passenger needs and aspirations. TfL commissioned quantitative market research including a series of customer workshops covering a cross-section of users and potential users of NLR services.
- 2.1.4 Key findings on the importance of different factors are presented in the table below, and show that on all North London Railway lines, passengers are looking above all for frequent and more reliable services.
- 2.1.5 Other factors of importance are the provision of a safe and secure environment, good passenger accessibility to stations and trains, adequate level of staff presence and their ability to assist users, and appropriate information being available at various stages of a journey. Those characteristics represent the aspirations of users and potential users, and are being considered as part of the early stages of enhancement proposals on the routes following confirmation that TfL is to be the concession-specifying authority.



Source: Synovate, 2005

Base Demand

- 2.1.6 TfL has analysed current and future loadings in significant detail, and the charts in **Appendix B** present the results for the North London Line. Modelled patronage for 2001, has been validated against observed data from the LATS Questionnaire Survey and also surveys undertaken by TfL and Silverlink. The 2001 modelled patronage shows a good replication of observed demand on the Silverlink Metro routes and can be considered a good starting point for forecasting, and also understanding the current issues relating to demand on the route.
- 2.1.7 The 2001 position for demand and capacity on NLR services is shown in **Appendix B**. Capacity is based on SRA assessments for the relevant current rolling stock.

2.2 FUTURE GROWTH

- 2.2.1 The Mayor's London Plan is accepted by Government as the basis for the future spatial and economic planning of London. The London Plan sets out the expected pattern of growth in terms of population, employment and spatial development. It is planned that by 2016, population will have grown by 9% from 2001 levels and by 14% in employment terms. Much of the increase in employment will be located in Central London, the city fringes and in East London. The corridor does however have higher than average population and growth rates for London. Although the main growth areas are not directly served by North London Railway services, the growth to these areas will put increased pressure on the radial corridors into London. It will become increasingly important to promote orbital trips rather than making a journey into Central London and out again to free up much needed capacity for trips to the central areas.
- 2.2.2 On the North London Line, background growth in demand is predicted to be just above 10% between 2001 and 2016, assuming no service changes beyond those already committed. Given the significant improvements to the train service and to the accessibility of the rail service under TfL's preferred option (see **Section 2.3** for details), there will be an additional induced demand for rail services. On the North London Line following these service improvements demand will increase by 68% from 2001 to 2016. The 2016 forecast position for demand and capacity on NLR services is shown in **Appendix C**. Capacity is based on SRA assessments for metro-style inner suburban rolling stock and assumes 3 car operation on each NLR line.
- 2.2.3 The Olympics Games in 2012 will deliver a large increase in the number of passengers travelling to Stratford for the short period of the games. Modelling work has been undertaken, in conjunction with the iODA, on assessing the effect of this on train loadings and proposed capacities (see **Section 2.8** for further details).

2.3 TRAIN SERVICE PROPOSALS

TfL's preferred service option

2.3.1 TfL has analysed different permutations of service pattern against a set of criteria including economic, social and financial benefits. TfL has developed a service pattern for the North London Railway franchise which it intends to see delivered during the course of the new concession. This service pattern comprises the following elements:

- 4 trains per hour Richmond – Stratford, all stations
- 4 trains per hour Queen's Park – Stratford, all stations
- 4 trains per hour Clapham Junction – Barking (via Gospel Oak), all stations
- The preferred service option assumes that the Bakerloo Line is extended to Watford Junction operating at 6 trains per hour. This would replace the existing 3 trains per hour on the local Watford DC services.

2.3.2 The benefits for this service proposition include:

- Doubling the service frequency on key sections of the route, including Stratford – Camden Road, Willesden – Gospel Oak, Clapham Junction – Willesden Junction and Harrow & Wealdstone – Watford Junction.
- A service frequency matching or bettering the Mayor's minimum turn-up-and-go service of 4 trains per hour on all sections of route.
- New journey opportunities between Queen's Park and Stratford, enabling strategic interchange for passengers on Watford local services.
- More direct penetration into Central London for passengers on Watford local services.

The forecast level of crowding of these services is presented in **Appendix C**.

2.3.3 TfL has considered, and included in its plans, the significant number of freight trains which run over the NLR network. The timetable specification for the preferred service option includes 4 freight trains per hour running in each direction, on the North London Line, West London Line and Gospel Oak-Barking Line. This number of paths is a significant increase over that which is provided today. Freight movements in the working timetable on to, and off, these lines have been reviewed and where necessary an optimum timing determined. Detailed discussions are ongoing with Network Rail and the freight operators with regard to the detail and implementation of this timetable.

2.3.4 TfL has analysed in detail the infrastructure required to allow the preferred service option to be delivered: this includes a programme of infrastructure enhancements along the core route between Stratford and Willesden Junction, between Willesden Junction and Clapham Junction, and on the Gospel Oak – Barking line. The proposal to reconvert the Watford DC line to the Bakerloo Line in its entirety from Harrow & Wealdstone to Watford Junction is being developed by London Underground, in conjunction with Network Rail.

The network infrastructure required to support the level of service in TfL's preferred service option is, at this stage of work, the following:

- Resignalling to achieve at least a 5-minute headway on all the parts of the network covered by the RCP
- Reinstatement of the 4th track between Camden Road and Dalston where it is currently not present
- Some limited capacity improvements at Camden Road
- Additional through platforms at Gospel Oak
- Freight loops to be provided at Kensal Green, Channelsea Junction (west of Stratford), and at platform 10A at Stratford.
- New platforms at Stratford, for North London Railway services following conversion of the Stratford – North Woolwich section to DLR (the DLR will use the existing Low Level platforms at Stratford)
- A new platform at Clapham Junction (platform 1) to allow double the frequency of trains to turn round there, on the west side. This offers potential for synergy with options for the proposed Phase 2 of the East London Line Extension project
- Power supply requirements have been assessed by specialist consultants and TfL has been advised that existing arrangements are adequate for the forecast power requirement

2.3.5 TfL has worked closely with Network Rail on developing these infrastructure proposals, and on the timetabling work, and is confident that Network Rail will shortly confirm the results of a performance modelling exercise. This will allow all parties to finalise the scope of the infrastructure.

2.3.6 For this enhanced level of service to operate, more rolling stock will be required. It is intended that the current class 313 electric multiple units will be replaced by new inner suburban rolling stock. This will provide passengers with a significant improvement in internal ambience and reliability.

2.3.7 The preferred service option is based on an all-day 8 trains per hour service on the busy sections of the North London Line. Our research suggests that 3-car operation may be sufficient to meet 2016

forecast peak hour demand, using SRA-declared rolling stock capacities, but not beyond.

- 2.3.8 Development of the detailed specification for the NLR Concession will review how best to provide any additional capacity that may be necessary. This includes consideration of supplementary 'PIXC-buster' services at peak times on busy sections, and the potential for 4-car operation. An important element in this will be the rolling stock strategy for the NLR network, which will include review of rolling stock capacity capability in conjunction with the passenger capacity standards that are appropriate to a high-frequency metro-style operation with relatively short passenger journey lengths.
- 2.3.9 In designing relevant infrastructure works, provision will need to be made for the capability to extend to 6-car operation. Passive provision will be made for the infrastructure associated with the proposed Phase 2 of the East London Line Extension.

Programme phasing

- 2.3.10 The implementation of a significant upgrade of the infrastructure to permit this enhanced level of service to operate is one which will be phased. The initial target will be the delivery of 8 trains per hour into Stratford from the west, firstly because it is on the section to the east of Camden Road that the greatest levels of overcrowding occur, and secondly because of the necessity to deliver at least this level of service for the Olympics period. Resignalling a complex railway line such as this takes a considerable period of time, in the planning, design, development and delivery.
- 2.3.11 The first phase of the enhanced frequency will comprise the following elements:
- 4 trains per hour Stratford – Richmond
 - 4 trains per hour Stratford – Clapham Junction
 - 2 trains per hour Gospel Oak – Barking (with additional peak hour trains)

The Euston – Watford DC service will continue as now, until the extension of the Bakerloo Line to Watford Junction has been delivered. Completion of the Bakerloo Line extension will permit the introduction of the new Queen's Park to Stratford service.

- 2.3.12 The benefits of the first phase are:
- Enables a doubling of service frequency (to 8 trains per hour) on the most congested sections of the North London Line to be introduced in the shortest time possible.
 - Improves all-day frequency on the West London Line (to 5 trains per hour)

- A more accessible railway in terms of service frequency
- A service proposition which delivers the train service needed for the Olympics period on the route, concentrating scarce resources on those elements of infrastructure work which are essential for the Olympic transport provision in this corridor to be successful.

2.3.13 The provision of freight train paths is as identified for TfL's longer-term preferred option. The infrastructure required on the North and West London Lines is identical under both scenarios.

2.4 FREIGHT – CURRENT AND FUTURE

2.4.1 TfL's RCP, as summarised above, presents a service pattern which is TfL's and the iODA's preferred strategy. Included also is a short assessment of the infrastructure work that is believed to be necessary to support this service proposition. However, TfL recognises that there may be other ways by which the service proposition can be delivered, and these centre on freight movements to and across London. TfL perceives possible significant national and strategic benefits to these alternative proposals for delivering the passenger train service required for the Olympics, particularly in light of the preliminary decision on developments at Shellhaven and Bathside Bay. It strongly recommends that the wider industry, led by the DfT and Network Rail, and including freight operators, the port developers and TfL, examines these issues in detail so as to determine their feasibility.

2.4.2 TfL's RCP analysis was focused on addressing passenger needs from a London planning context. Rail options were prepared on the basis of providing at least the current quantum of freight rights. Since then, the freight industry's growth forecasts have been published. Moreover, the Secretary of State's preliminary decisions on the Shellhaven (London Gateway Port) and Bathside Bay port developments have been announced. These developments have added to the robustness of railfreight growth forecasts and have clarified TfL's understanding of the cross-country freight requirements of the rail network from the East Coast ports to the main radial routes. This should be the basis for national strategic review and NR's Freight RUS should take this into account.

2.4.3 The Cross London RUS has a very important role in analysing and addressing the joint impact in London of wider strategic freight development and TfL's passenger aspirations. It is TfL's belief that the Freight RUS is unlikely to be as well placed to do this as it does not have a specific London (or passenger) focus.

2.4.4 The freight demand assessment in the Cross London RUS consultation shows a number of gaps between planned capacity and need. The North London Line is a major cross-country freight

route, being the only one cleared to W10 gauge and the only one electrified. As such it has become a bottleneck. TfL accepts the continuing need to route container trains through London, as outlined in paragraphs 5.3.6 to 5.3.19 of the draft RUS. The Mayor supports the creation of a route providing a freight bypass of London and TfL continues to support the upgrade of the Felixstowe to Nuneaton route to W10 gauge to meet this. A fully upgraded Felixstowe to Nuneaton route could provide up to 30 paths per day between the Haven Ports and the WCML. It could potentially relieve the North London Line of 20-25% of its current freight traffic. However, it is clear that even with the full implementation of the Felixstowe to Nuneaton scheme, there will be a deficiency in current planned paths on the North London corridor associated with forecast growth in intermodal trains. If Network Rail is to satisfy effectively both passenger and freight aspirations on this corridor it is clear that an integrated, strategic approach is needed.

2.4.5 Options for easing the capacity bottleneck on the North London Line should be considered in a holistic way, reflecting the consequential benefits which rail schemes typically provide. For example upgrading the Gospel Oak – Barking line, aimed primarily at benefiting freight operators, could also benefit all users of the route. While the Cross London RUS consultation outlines a number of options designed to accommodate change, it is not clear at this stage that sufficiently integrated solutions are being considered. TfL is developing its own benefits model for passenger and freight to help assess strategic options.

2.4.6 TfL would like further consideration given to the forecasts and growth estimates, in particular:

- In the light of recent developments, the case for a contribution from the developer of London Gateway Port for additional rail capacity to support the development. (ref: paragraph 5.3.11);
- The demand forecast for paths for construction traffic of 10% over ten years is modest (ref: paragraph 5.3.20). TfL would like confirmation that this takes full account of the likely rail contribution to major projects such as the Olympics, Stratford City and Thames Gateway developments.

2.4.7 TfL would also like NR to explore synergies between the different options, in particular:

- Possible additional benefits from creating a parallel W10 gauge route across North London to supplement the existing North London Line / Primrose Hill route. Specifically, TfL feels that gauge clearance of the Gospel Oak – Barking line would be beneficial.

- The validity of the assumption in paragraph 5.3.5 that freight operators will increasingly rely on diesel traction should be re-examined in the light of the current period of inflation in the price of crude oil.

2.4.8 TfL recommends that the following upgrade options for the Gospel Oak to Barking Line should be actively considered by Network Rail, in addition to the Felixstowe – Nuneaton project:

- The strategic case for providing a W10 route capable of serving the North Thames corridor and Haven Ports container traffic which avoids Stratford. This would require the removal of some Haven Ports traffic from the Great Eastern Main Line west of Forest Gate by means of a flyover on to the Gospel Oak – Barking line towards the north.
- Electrification of the Gospel Oak – Barking line: Electrification would have potential environmental benefits, operational performance benefits to Network Rail, operator benefits and provide an alternative electrified freight route across London.

TfL understands that TIF funding may be a possibility in developing the Gospel Oak – Barking scheme.

2.4.9 The possible benefits of this strategic cross-London link include:

- If implemented as part of a programme of capacity improvements, this could allow the Gospel Oak – Barking line to act as the principal route for freight traffic during passenger operating hours, reducing the pressure for daytime paths on the core North London Line (between Camden Road and Stratford). Moreover, performance across Stratford would improve, to the benefit of Great Eastern passenger services as well as to the North London Line.
- Through timetable revisions, freight traffic (and especially the growing container traffic) could make greater use of night time capacity in London, either via the North London Line or the Gospel Oak – Barking line. This could help close the gap between future need and current capacity. Research on the feasibility of this option would need to be done with freight operators;
- It would remove reliance on the Temple Mills route for South Tottenham – Great Eastern traffic. This route section faces potential capacity problems arising from planned Lea Valley services via Stratford and any ECS movements relocated from Thornton’s Field to Lea Interchange (as included as an option in the Olympics’ Rail Relocations and Interruptions Strategy);

- Reduced junction conflicts, delivering improved operational performance;
- Less costly solutions for integrating East London Line Phase 2 with North London Line passenger and freight services;
- Improved engineering access, at Stratford, on the North London Line and on the Gospel Oak – Barking line itself;
- Improved options for diverting freight during infrastructure improvement works, including work at Stratford;
- Other infrastructure cost savings arising from a better distribution of freight and passenger traffic over the 24 hours.

2.5 STATION FACILITIES

2.5.1 It is TfL's objective that all stations in the GLA area, should be safe, secure, accessible, incorporate real-time information and be attractive for Londoners to use. Market research clearly indicates the benefits of stations being well-lit during the hours of darkness, providing real-time train running information and, above all, providing facilities so that personal security is assured. In addition to visible staff, provided by train operating companies, there are security benefits of having uniformed police and/or the facilities necessary to enable immediate interaction with a central staffed office which can provide emergency assistance and information.

2.5.2 As part of TfL's proposals for the North London Railway, it is proposed to upgrade all NLR stations. The first phase of the proposed programme would cover the North London Line and West London Line. The facilities to be provided include:

- CCTV of a quality that is sufficient for criminal evidence use, using digital format, and monitored by trained staff on a 24/7 basis;
- Passenger help points, monitored by a 24/7 staffed control centre, enabling passengers to make emergency calls as well as obtain information. All passenger help points should incorporate an induction loop. A help point should be provided on each platform as a minimum requirement;
- Real-time train running information should be provided at each entrance to the station and on each platform;
- Enhanced lighting levels, to ensure maximum visibility throughout the station area, is a minimum requirement;

- Waiting accommodation should be provided on every platform and be safe and pleasant to use.
- 2.5.3 London Rail believes that a visible, pro-active and targeted police presence should be provided at stations, on trains and at times that passengers require them. Such a police presence should be in addition to the normal BTP/TOC arrangements.
- 2.5.4 Contributing to the ideal of a secure and controlled station environment, it is intended to provide revenue protection gatelines at key stations on the North London Railway network. The gatelines would be staffed until the end of the train service and be manned with a pair of staff (as a minimum) during hours of darkness to ensure the security of passengers and staff. The detailed programme for the introduction of station gating is in development.

2.6 ACCESSIBILITY

- 2.6.1 As part of making the railway more attractive to passengers, TfL proposes to extend the operating hours of the North London Railway, so that it matches with the opening hours of London Underground. Extra train services, running earlier in the morning and later in the evening on all North London Railway routes are therefore to be introduced in the medium term to align with LUL services and provide better integration with other modes.
- 2.6.2 The Mayor's Transport Strategy requires London's stations to be fully accessible to those with disabilities. Included within the current business plan, the following DDA facilities will be provided:
- All real-time information systems will be DDA compliant
 - All passenger help points, public address systems and ticket office sales windows will incorporate induction loops for the hard-of-hearing.
 - Platform seating will be DDA compliant
 - Signage will be DDA compliant
- 2.6.3 However, the provision of step-free access to stations is to be urgently addressed. Whilst some stations have step-free access, a number of busy stations are not. The following such stations have the highest priority:
- Highbury and Islington
 - Camden Road
 - Hampstead Heath
 - West Hampstead
- 2.6.4 Feasibility studies and local authority consultation are taking place to review the potential for an interchange facility between Hackney

Central and Hackney Downs stations. Should a sufficiently strong business case be demonstrated, it would be necessary to identify how such a facility could be funded.

2.7 FARES AND TICKETING

- 2.7.1 The Mayor's Transport Strategy includes provisions for stations to offer a wider range of retailing options than currently exist. It is intended that passengers on the North London Railway network will have the facility to use pay-as-you-go Oyster cards. As such, all stations on the North London Railway network will, by mid-2007, be provided with validator equipment (for pay-as-you-go purposes). As soon as possible during the Concession, ticket offices will be provided with retailing equipment that can sell Oyster card products and, similarly, ticket vending machines operated by passengers on platforms will be provided.
- 2.7.2 Work is ongoing London-wide on the delivery of Oyster pay-as-you-go and Oyster retailing. The current non-acceptance of Oyster pay-as-you-go on the national rail network is confusing to customers and a barrier to improving transport integration in London. It is expected that Oyster equipment will be installed as soon as possible.

2.8 OLYMPICS

- 2.8.1 TfL has worked closely with freight operators and the Olympics Transport Team in developing the proposed service upgrades. The iODA has confirmed that the service specification of 8 trains per hour into Stratford from the west meets basic requirements for the Olympics period.
- 2.8.2 TfL's understanding is that on a small number of days, and only for a few hours, there may be the need for additional trains above the 8. The implications of this will be managed as part of the ongoing discussions on the delivery of the specification, with the iODA.

3. RESPONSE TO OTHER ISSUES IDENTIFIED IN THE ROUTE UTILISATION STRATEGY

- 3.1 This section outlines TfL's response to the series of options proposed in the RUS document. Whilst the options are generally presented discretely, TfL, in conjunction with the iODA and NR, has developed a detailed overall programme of infrastructure upgrades needed for option 5 (which corresponds to TfL's preferred service option).
- 3.2 TfL recommends that the Cross-London RUS be built around the requirements of option 5 integrated, where appropriate, with options that assist in delivery and operation of TfL's preferred service outputs.
- 3.3 TfL recommends that work be undertaken on a new option covering electrification of the Gospel Oak to Barking line and work to provide direct access from the Great Eastern Main Line west of Forest Gate.

| | | |
|----------|--------------------------------------|---|
| Option 1 | Re-configure rolling stock | TfL supports this proposal and it forms an integral part of TfL's preferred service option (RUS Option 5). |
| Option 2 | Extension of the PIXC buster concept | This is a proposal which TfL supports strongly as a short-term measure, and notes that a number of PIXC-buster trains on the North and West London Lines, in addition to the Gospel Oak – Barking line, were introduced in the December 2005 timetable change. These additional services are supported financially by TfL. |
| Option 3 | Longer trains | TfL's extensive analysis of passenger flows and growth on the North London Line, suggests that a stronger business case is delivered by a significant increase in train frequency, as is proposed, than by lengthening of the existing train services. The preferred service option is based on an all-day 8 trains per hour service on the busy sections of the North London Line. Our research suggests that 3-car operation may be sufficient to meet 2016 forecast peak hour demand, using SRA-declared rolling stock capacities, but not beyond. Development of the detailed specification for the NLR Concession will review how best to provide any additional capacity |

| | | |
|----------|--|--|
| | | <p>that may be necessary. This includes consideration of supplementary 'PIXC-buster' services at peak times on busy sections, and the potential for 4-car operation. An important element in this will be the rolling stock strategy for the NLR network, which will include a review of rolling stock capacity capability in conjunction with the passenger capacity standards that are appropriate to a high-frequency metro-style operation with relatively short passenger journey lengths.</p> <p>In designing relevant infrastructure works, provision will need to be made for the capability to extend to 6-car operation.</p> |
| Option 4 | Introduce 2 tph Barking – Clapham and 2 tph Stratford – Queen's Park | TfL does not support this option as a long-term solution. It believes strongly that a minimum of 4 tph to each station is needed on a suburban railway like this. As such, it would see any possible implementation of this option merely as a short-term step until TfL's full preferred option – NR's option 5 – could be implemented. However, as the concession specifier, TfL has developed its own phasing for the upgrade, and this is described in Section 2.3.10 . |
| Option 5 | Introduce additional 4 tph Barking – Clapham, 4 tph Stratford – Queen's Park | This is TfL's preferred service option. TfL recommends that the Cross-London RUS be built around the requirements of option 5 integrated, where appropriate, with options that assist in delivery and operation of it. |
| Option 6 | 2 tph Southern services on the West London Line | <p>TfL, as outlined in the train service section above, has developed detailed plans, and is in discussions with other industry parties about the doubling of service frequency of the Willesden-Clapham service from 2 to 4 tph, all day. This assumes continuation of the existing one-train per hour operated by Southern on the West London line.</p> <p>TfL is concerned that a second Southern service should not prejudice introduction</p> |

| | | |
|-----------|--|--|
| | | of the preferred service option for NLR. It therefore recommends that this issue is deferred, and placed as an option within the South London RUS. |
| Option 7 | Divert London Bridge – Victoria services to Clapham Junction | TfL would not support terminating South London Line services at Clapham Junction unless alternative services were provided (a) between Clapham High Street and Wandsworth Road and Victoria and (b) to serve Battersea Park. Examination of South London Line services needs to take place in the context of options for the proposed Phase 2 of the East London Line Extension. This should be examined as part of the planned South London RUS. |
| Option 8 | Raise speeds over Crofton Road Junction | TfL would support this proposal if NR chooses to see it implemented. |
| Option 9 | Move the AC/DC changeover to Shepherd's Bush station | TfL would welcome the time saving of 2 minutes forecast for each electric train, and the possible improvement in performance that implementation of this scheme may deliver. TfL does recommend however that development of this scheme should take place only within the whole programme of upgrading the routes under discussion to allow its preferred option to be delivered. |
| Option 10 | Provide a southbound freight loop at Kensington Olympia | If the number and nature of freight services dictates that a new freight loop is needed on the West London Line, TfL would not object to this, assuming that its preferred service option can be robustly delivered. TfL does recommend however that development of this scheme should take place only within the whole programme of upgrading the routes under discussion to allow its preferred option to be delivered. |
| Option 11 | Raise speeds over Chelsea Bridge | TfL would welcome this proposed speed increase, especially if it might ease the tight timetable on this line, characterised by international freight paths and mainly suburban frequent passenger trains. TfL |

| | | |
|-----------|---|---|
| | | does recommend however that development of this scheme should take place only within the whole programme of upgrading the routes under discussion to allow its preferred option to be delivered. |
| Option 12 | Improve speeds approaching Willesden High Level | TfL would support an increase in line speeds at this location but does not believe this to be necessary for the delivery of its preferred option. TfL does recommend however that development of this scheme should take place only within the whole programme of upgrading the routes under discussion to allow its preferred option to be delivered. |
| Option 13 | Improve Gospel Oak – Barking infrastructure and restrictive signal aspects on the North London Line | <p>TfL would support the measures that NR proposes to the infrastructure on these two routes. TfL does recommend however that development of this scheme should take place only within the whole programme of upgrading the routes under discussion to allow its preferred option to be delivered.</p> <p>TfL recommends that NR actively examines the case for electrification of the Gospel Oak to Barking line. Additionally, there should be review of the case for making the line a full alternative to the North London Line for freight traffic including consideration of a flyover at Forest Gate to allow direct access to the East Coast Main Line.</p> |
| Option 14 | Ensuring compatibility with Olympics | TfL very strongly urges NR to work closely with the iODA on all aspects of the delivery of a major frequency upgrade on the line by 2012. TfL's preferred option is identical to the train service pattern that the iODA has as its core proposal for the Olympics period. |
| Option 15 | Sustainable engineering access | Engineering access will need to be carefully considered in the light of TfL's preferred service option including proposed start and finish times. These will be developed as part of the detailed specification for the Concession. Start and finish times will be determined having |

| | | |
|-----------|----------------------------|--|
| | | <p>full regard for public transport arrangements in the NLR area including LUL operating hours.</p> <p>TfL and Network Rail will need to work closely in determining the possessions regime for maintenance, renewal and upgrade of the NLR.</p> <p>Having the Gospel Oak to Barking line as a future full alternative to the North London Line for freight traffic (see comments on Option 13), would facilitate a more flexible possessions regime.</p> |
| Option 16 | Freight gauge enhancements | <p>TfL supports the enhancement of the gauge on the Gospel Oak – Barking line to W10. It notes the benefits associated with delivering this in advance of resignalling and rebuilding the North London Line, so as to maintain a cross-London freight and passenger route. It also supports this option in conjunction with option 15, so as to give greater potential for larger freight trains to run via either route at night, if the other route is closed for maintenance work.</p> <p>Given the projected growth in freight traffic from the Haven Ports to other parts of Britain, TfL strongly urges all parties – especially those set to benefit directly from the port developments - to invest heavily in the railway. As such, if freight traffic bound for the Midlands, the North West and Scotland were to be routed via an enhanced Ipswich – Peterborough – Nuneaton railway, TfL believes that the needs of Londoners could be better protected and capacity for growth and environmental benefits retained.</p> |

4. NEXT STEPS

4.1 TFL AND THE CONCESSION FOR THE NEW FRANCHISE

4.1.1 TfL will specify and let a concession to operate the North London Railway, when the existing Silverlink franchise expires in November 2007. The North London Railway network forms a vital part of London's rail network and will play a key role in the transport arrangements for the Olympics Games. It is therefore vital that TfL, NR and iODA continue to work closely to deliver the enhancement in services and facilities that are planned.

4.2 NLR CONCESSION

4.2.1 The process to procure the new Concession for the North London Railway network will take some 18 months and it is planned to conclude the award in mid 2007. The Concession would commence in November 2007, following transfer of responsibility from DfT when the existing Silverlink franchise expires.

4.2.2 Procurement will begin with a notice in the *Official Journal of the European Union* seeking expressions of interest from operators.

4.2.3 It is the intentions to introduce changes as soon as possible on transfer – some are planned immediately from the start of the new Concession including:

- Additional station staffing
- Acceptance of Oyster ticketing including Pay-As-You-Go
- Extra trains earlier in the morning and later at night to align better with LUL services and provide improved integration with other modes.

4.3 TFL'S PROGRAMME OF WORK

4.3.1 TfL, Network Rail and the iODA are currently undertaking a considerable amount of work on assessing the detail of the proposals. The following aspects are essential to the successful delivery of the programme:

4.3.2 **Finalisation of the timetable (of option 5) and associated performance modelling.** NR has been working on a timetable, based on TfL's specification, for several months. Following completion of the timetabling, performance modelling is underway, to assess the robustness of the timetable. This uses today's timetable as a base, and TfL has requested from Network Rail that any minor changes to infrastructure provision in addition to those which have been analysed thus far (and listed above), be identified, in order to deliver satisfactory performance. Satisfactory performance is defined as delay minutes per train mile being equal to, or better than, today.

- 4.3.3 **Development of the enhancement programme.** The iODA, TfL and Network Rail are developing a formal statement of outputs required from the North and West London Lines, and the Gospel Oak – Barking line, in the form of a Functional Specification. This will set the framework for more detailed design of the infrastructure upgrade work, leading to implementation in advance of the Olympic Games.
- 4.3.4 **Engagement.** TfL has briefed affected London Borough representatives, London Travelwatch and Passenger Focus on the plans that it has developed. There will be further engagement, as appropriate, as TfL's plans move to the next stage of development.
- 4.3.5 **Environmental study.** TfL has recently commenced work on a study examining the environmental impact of its plans – incorporating the benefits of greater use of public transport (as a result of an improved service provision), and of the emissions of electric and diesel traction, at source and in the corridor. The results of this will inform TfL's work as it progresses.
- 4.3.6 TfL requests, in the final RUS, for a statement outlining NR's detailed renewal plans for the North London Railway network, to assist all parties in making the necessary plans.

NATIONAL RAIL: THE MAYOR'S OBJECTIVES

TfL's strategic objectives for National Rail are derived from Mayoral strategies, primarily those of the London Plan, the Mayor's spatial development strategy, and the Transport Strategy.

1. The London Plan

1.1 Improving London's accessibility is, in itself, one of five core objectives that form the Mayor's vision for London. It is primarily through providing improved access to jobs, education, services and leisure opportunities that rail can help contribute towards the Mayor's other core objectives. Providing improved rail access to Central London, the sub-regional centres and the other features of the Mayor's spatial development framework, such as the Opportunity Areas and Area of Intensification, will contribute to a more prosperous city with strong and diverse economic growth. Promoting rail and other sustainable transport modes, as a safe and reliable alternative to the car to access the wealth of opportunities London provides, will help build a cleaner city with greater connectivity. It is also through improved access to jobs, education and services that rail can help facilitate the greater social inclusion throughout London's diverse communities that is a major objective of the Mayor. Collectively, achieving these objectives will also help achieve the over-arching objective, specific to the London Plan, accommodating London's growth within its boundaries without encroaching on open space.

2. The Mayor's Transport Strategy

2.1 The priorities, policies and proposals of the Mayor's Transport Strategy (MTS) focus more directly on what TfL seeks to achieve for rail in London. Of the Strategy's ten priorities, one specifically sets out the task for rail to promote:

'Better integration of the National Rail system with London's other transport systems to facilitate commuting, reduce overcrowding, increase safety and move towards a Londonwide, high frequency 'turn up and go' Metro service'

2.2 Thus, from this priority, London Rail has many of the elements it would wish to see improved in relation to services on the cross-London rail network, detailed in the policies and proposals of the MTS. They include:

- higher frequency services with a minimum service of 4 tph;
- more reliable services and improved level of operating performance;

- less crowded services;
- a more secure passenger environment both at stations and on-train
- greater integration of rail services, facilities and ticketing arrangements with those of the other transport modes in London.

TfL's RCP sets out a programme to achieve this on the cross-London routes north of the river. The outcome of the RUS should encompass this objective and make significant improvement to achieve it within its time frame.

3. Cross London Services and the Mayor's Objectives

- 3.1 The cross-London rail routes are particularly relevant to a number of services that are critical to some of the MTS objectives.
- 3.2 The existing orbital services in north, south and west, London, combined with services that could be operated on the East London Line extensions, form the core of Orbirail. Orbirail is seen as a distinct part of the high frequency, 'turn-up-and-go' London Metro comprising of a group of over-lapping services wholly or in part operated on the North, East, South and West London Lines with a particular emphasis on providing for orbital journeys.
- 3.3 In many ways the cross-London rail passenger services are atypical of rail in London, They cater for journeys (in terms of journey length and distribution by time of day) and for people not always associated with rail travel. By catering for these travel needs, services on the cross-London routes can achieve objectives not always associated with rail. Orbirail has a particular value in helping to achieve the Mayor's objectives in relation to social inclusion as it would serve some of the most deprived areas of London but also provide links between them and London's growth areas thus facilitating both inward investment and providing residents with access to a wider range of opportunities. Importantly, in transport terms, Orbirail can provide for the requirements of growth without increasing the burden on public transport in Central London. Specifically, Orbirail can provide public transport that:
 - links some of London's established centres, in need of regeneration (Dalston, Peckham, Kilburn, Wembley) with some of the new growth areas, the Opportunity Areas of Stratford, Docklands, Tottenham Hale, Bishopsgate, Kings Cross, Wembley and Park Royal;

APPENDIX A

- caters for journeys between London's north, south, east and west sub-regions that do not require to travel through the Central Area thus bringing congestion relief to London's radial routes, central terminals and the Central London network; and,
- provides access to some of London more established leisure and sporting venues (the Lea Valley, Highbury, Hampstead Heath, Kew Gardens and Richmond) and some of its new ones (Wembley, the Emirates Stadium and the Battersea Power Station development).

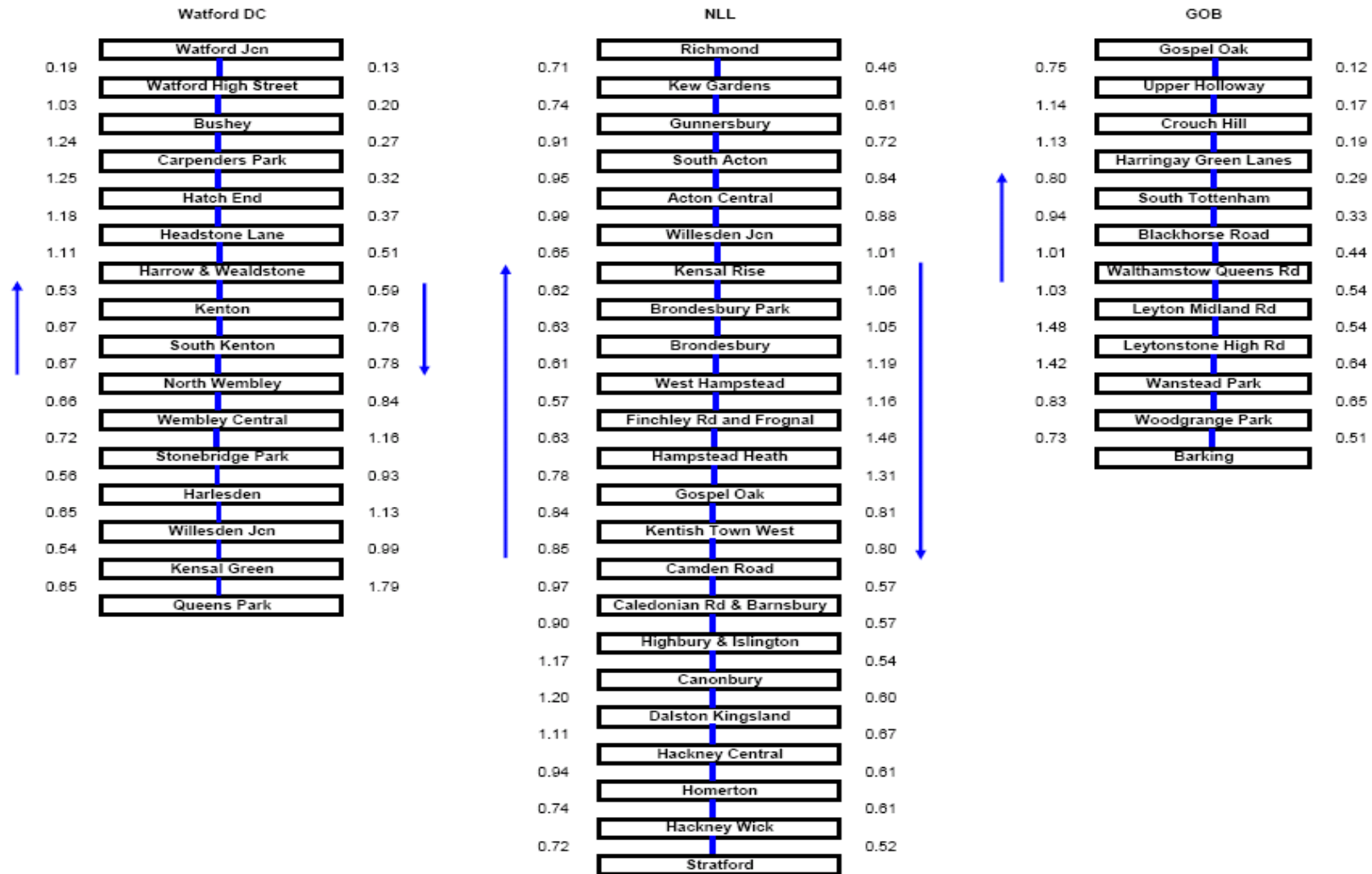
3.4 The advantages of the Cross-London rail network to passenger services are the same ones that make it important to rail freight services. The MTS has defined objectives in respect of rail freight. A transfer of freight from road to both water and rail is supported, particularly for freight with an origin and/or destination within London, at the same time seeking:

'the development of freight bypass routes around London, wherever possible removing non-London traffic from dense residential areas and releasing capacity for expanded passenger services and London-bound freight'. (Proposal 4E.8 (part of)).

3.5 The welcome growth in rail freight in general and the preliminary approval given to the development of Shellhaven freight port and Bathside Bay container port, increase the importance of the cross-London routes for rail freight but also heighten the potential tension between freight and other movements. TfL London Rail's objective, and one it hopes will be shared by the RUS, is to resolve any tensions and establish the balance, sought by MTS Proposal 4E.3, and assist Network Rail and others to bring forward the investment and network management regime to achieve it.

2001 DEMAND/CAPACITY RATIOS

2001 - AM Peak Hour Demand vs SRA Declared Capacity Ratios



APPENDIX C

2016 DEMAND/CAPACITY RATIOS – TFL’S PREFERRED SERVICE OPTION

2016 Option 12 - AM Peak Hour Demand vs SRA Declared Capacity Ratios

