



Appendix 9: NLR TAO: TfL position regarding availability of capacity for freight growth

Background

TfL's substantial investment in NLRIP, ODA's funding contribution and related Transport Innovation Fund / Network Rail investment will deliver additional capacity and capability on the North London Line, West London Line and Gospel Oak – Barking to enable the passenger services contained in TfL's SLC2k train services specification to be operated by London Overground's Concession Operator.

The SLC1 / SLC2k services will be delivered incrementally with the full services:-

- increasing the services operated between Stratford and Camden Road from 4 tph to 8 tph (2 tph of which will terminate at Camden Road, 2 tph will run through to Clapham Jn and 4 tph to Richmond)
- increasing the services operated between Clapham Jn and Willesden Jn from 2 tph to 4 tph (2 tph of which will terminate at Willesden Jn and 2 tph will run through to Stratford)
- increasing the services operated between Gospel Oak and Barking from 2 tph to 4 tph
- operating new higher capacity and higher performance rolling stock (dual voltage on NLL and WLL lines and diesel on GOB)
- increasing the length of trains from 3-car to 4-car sets on NLL and WLL

NB: ELL services operating from Highbury & Islington and Dalston Junction have not been included in the above.

The SLC2k services also feature the operation of the same service frequency all day, over longer hours of operation. However, to avoid conflicts with Empty Coaching Stock movements, TfL has thinned out its proposed passenger services at the beginning and end of the day and the assessment of available capacity for freight growth contained in this paper reflects this.

The increased service provision will be enabled by a programme of infrastructure enhancements including:-

- Willesden to Stratford re-signalling and headway improvements
- GOB signalling headway improvements and W10 gauge clearances (which are being delivered through a separate TIF- and NR-funded scheme)
- signalling control migration
- Part 4-tracking on NLL and re-doubling of Latchmere Curve
- improved traction power provision
- additional platforms, platform extensions and station re-modelling



- additional freight loops
- modifications to turnback facilities

The TIF- and Network Rail-funded GOB works will increase capacity beyond that required for the proposed passenger service creating a minimum of a 5 minute headway.

Network Rail has developed a high-level maintenance strategy which it proposes to implement on these routes from the start of the enhanced passenger services and which sets out its proposed requirements regarding maintenance possessions. These are based on operating the full passenger services Monday to Friday and, each week between Stratford and Willesden Junction, a 10-hour possession on Saturday nights / Sunday mornings and an 8-hour possession on Sunday nights / Monday mornings.

The assessment of available capacity for freight growth contained in this paper reflects the above maintenance possessions.

ORR's requirements

TfL recognises that in submitting the NLR TAO for ORR's approval, it will be necessary to demonstrate compliance with ORR's policies and criteria and, in particular, ORR's policies relating to long-term access contracts and track access options.

TfL recognises that ORR will not normally approve access contracts where rights granted would conflict with contracted access rights of other operators.

Also, in ORR's final conclusions from its consultation on track access options issued in Jan-08 ORR indicated it would:-

- expect the assessment of available capacity to take into account established or developed RUSs, existing access contracts and future uses of the network which have been identified during consultation
- expect the assessment to have regard to the firmness of other operators' plans for the capacity sought, by for example taking account of contractual commitments
- not necessarily expect TAOs to be wholly consistent with RUSs

RUSs

Freight operators pointed out in the consultation meetings held on 31-Oct-07 and 26-Nov-07, that the preliminary assessment of available capacity for freight growth carried out by TfL and presented to consultation meetings was based on



the Cross London RUS (CL RUS) although the Freight RUS was issued at a later date.

Although TfL acknowledges that the CL RUS (published Aug-06) pre-dates the Freight RUS (published Mar-07), TfL is of the opinion that the two RUSs are fully aligned and are based on common growth data as demonstrated in Appendix A to this paper.

TfL therefore considers that the CL RUS and Freight RUS use consistent forecasts of freight growth agreed with the rail industry and the analysis contained within this paper is therefore valid.

Freight operators' aspirations

The freight operators' assessment of the likely growth in freight demand is included in the established Freight and CL RUSs. The Freight RUS sets out anticipated growth in demand for freight services on a national basis and the CL RUS indicates the anticipated growth in freight paths on the NLRIP routes. The DfT's Jul-07 White Paper supports the forecasts up to 2014 contained in these RUSs but indicates that long-term growth cannot be forecasted with confidence.

As far as TfL is aware, freight operators are yet to enter into firm contractual commitments that would require the utilisation of these additional paths at the current time.

The anticipated growth in freight paths on the NLRIP routes included in the CL RUS (based on growth forecasts contained in the Freight RUS and CL RUS) is set out in Table 1 below.

DfT's Jul-07 White Paper includes an expectation that freight operators should as far as possible use capacity efficiently and relinquish unused space held in the timetable. TfL therefore anticipates that utilisation of freight paths on the NLRIP routes will improve between now and 2014.

Table 1 includes assessments of the planned paths that would need to be included in the timetable in order to meet the CL RUS and Freight RUS demand forecasts in 2014. These are based on utilisation factors of 70% and 75% for NLL and GOB (62% and 54% utilisation achieved in 2005 respectively) and 55% and 60% for WLL (31% achieved in 2005). The lower utilisation factors included for WLL recognise the constraint imposed by the 35 "protected" Channel Tunnel freight paths per day between Dollands Moor and Wembley. The CL RUS indicates that utilisation of freight paths on WLL is expected to increase to between 55% and 60% if international freight use returns to pre-2001/02 disruption levels and these figures have been used in the assessment for WLL.



TABLE 1: FREIGHT CAPACITY ASPIRATIONS INCLUDED IN THE FREIGHT RUS AND CL RUS

Route	Based on section...	Average freight paths per day used in 2005	Forecast freight usage by 2014 in Freight RUS and CL RUSs					
			Additional average paths per day used	Average paths per day used	Planned paths ¹ per day at...			
					75% utilisation	70% utilisation	60% utilisation	55% utilisation
NLL	Camden Road Jn to Camden Road East Jn	38	24	62	82	88		
GOB	Woodgrange Park Jn to Barking	36	9	45	60	64		
WLL	Kensington Olympia to West Brompton	26	19	45			76	83

¹"Planned paths" refers to paths to be included in the timetable.

Freight operators also expect their current contracted access rights to be protected.

TfL's response

General policy

TfL supports the rail freight industry and the benefits it brings in terms of safety, sustainability and relief of road congestion as evidenced by its Rail Freight Strategy published in Sep-07 and its positive input into the development of the Freight and CL RUSs.

In defining the scope of its enhancement projects, TfL is willing, where practicable, to accommodate the reasonable needs of the rail freight industry. TfL is also willing to co-operate with Network Rail, freight operators or other sponsors of relevant funded freight enhancement projects to obtain savings through integration of such schemes with TfL's plans. Such projects may be funded traditionally or through track access charges and may be supported by the Transport Innovation Fund and/or the additional £200m to be made available towards the development of a Strategic Freight Network as stated in DfT's White Paper and Statement of Funds Available dated Jul-07.

**NLRIP**

TfL considers that NLRIP is fully aligned with the Freight and CL RUSs and TfL has taken into account the needs of the freight industry in developing its proposals. NLRIP will protect the contracted rights and competitive position of freight operators on the NLRIP routes and maintain an appropriate balance between passenger and freight use by providing adequate capacity for both.

In particular, TfL considers that all the relevant substantive issues raised by EWS in connection with Crossrail have been addressed as they relate to NLRIP.

The substantial investment that TfL is making in connection with the NLRIP infrastructure enhancements (together with the TIF / NR-funded gauge clearance, passenger and freight capacity work on the Gospel Oak – Barking route) will not only avoid any obstacles to future freight growth and provide sufficient capacity to protect the current contracted access rights of freight operators (even though currently 37% of freight paths on NLL are unused on average), but will also deliver other significant benefits for freight. It will add significantly to cross-London capacity allowing passenger and freight traffic to grow together on NLRIP routes and will help give freight operators fully capable alternative routes for deep-sea flows as well as other types of freight. This will also deliver greater flexibility with both reliability benefits and greater ease of pathing freight trains during blockades, for example, during works to deliver NLRIP.

Furthermore, TfL has been able to accommodate within the scope of NLRIP the growth aspirations of the rail freight industry up to 2014 set out in the Freight and CL RUSs (and supported by the DfT's White Paper of Jul-07) at an affordable additional cost and with little or no risk to the delivery programme. This is evidenced by the feasibility timetable that TfL has developed in conjunction with NR which includes all specific Level 1 rights of freight operators and provides generic freight paths that exceed both those included in the current timetable and those required to meet the Freight and CL RUS 2014 growth aspirations on NLL, GOB and WLL.

Studies carried out separately by TfL and NR Strategic Access Planning team both indicate that the proposed NLR infrastructure and TfL's proposed enhanced passenger service specification are unlikely to be a constraint post-Crossrail to the pathing of freight services across the interface between the Crossrail and NLR infrastructure.

It is recognised that, in order to utilise the additional freight capacity created by NLRIP, it may be necessary for other sponsors to come forward with schemes to enhance the capacity of adjoining routes and to extend the geographic scope of electrification but this falls outside the scope of NLRIP.



Nevertheless, the NLRIP and GOB projects will make a substantial contribution towards the achievement of all the rail freight industry’s aspirations in respect of growth in freight capacity on NLL, GOB and WLL up to 2014, projects to which the freight operators themselves will make no capital contribution.

Also, TfL’s funding for NLRIP will potentially release TIF funding and Strategic Freight Network funding for other freight enhancements.

Table 2 below shows the freight capacity provided in the 24/7 feasibility timetable based on generic freight paths over and above the capacity sought for TfL’s proposed NLR passenger services, empty coaching stock movements and capacity required by other passenger operators, allowing for constraints imposed by conflicting movements at junctions and Network Rail’s current estimate of maintenance possessions required to maintain the railway. These generic freight paths are based on a Class 66 locomotive with a trailing load of 1600t. TfL considers that this will cover most eventualities. It is recognised that there are a small number of booked trains with 2200t trailing but TfL considers that these can be accommodated because the 1600t timings allow freight trains to overhaul the passenger train in front. The feasibility timetable also provides for two 2200t trains per day to be looped in the Camden Road area in order to pick up a slot behind.

TABLE 2: CONTRACTED FREIGHT RIGHTS, FREIGHT CAPACITY PROVIDED AND RUS ASPIRATIONS:

Route	Maximum contracted freight rights per day (Mon - Sat)	Freight capacity available									Freight RUS and CL RUS Planned freight paths per day in 2014			
		Total quantum of freight paths per day provided in 24/7 FTT ¹			Estimated capacity required for maintenance ²			Minimum quantum of freight paths per day			75% utilisation	70% utilisation	60% utilisation	55% utilisation
		Mondays	Tues - Sat	Sundays	Mondays	Tues - Sat	Sundays	Mondays	Tues - Sat	Sundays				
NLL	81	163	163	221	-47	0	-160	115	163	61	82	88		
GOB	27	151	151	172	0	0	-112	151	151	60	60	64		
WLL	77	188	188	218	0	0	-102	188	188	95			76	83

¹ Based on the lower of the Eastbound or Westbound paths at Camden Road Junction (NLL) and South Tottenham (GOB) and the lower of the Northbound or Southbound paths at Kensington Olympia (WLL).

² Assumes that Saturday night / Sunday morning maintenance possessions will be required on NLL only from 00:00 to 11:30

Contracted rights of freight operators are also included in the feasibility timetable.

TfL considers that the recently announced TIF funding for the full development of cross-country capacity as anticipated in the Freight and CL RUSs and DfT’s Jul-



07 White Paper will create further freight capacity although this has been excluded from the analysis below.

The feasibility timetable is supported by full RailSys performance modelling, the results from which indicate that the infrastructure proposed supports the proposed passenger service quantum and timetable pattern included in the NLR TAO whilst generally maintaining a level of performance comparable to the base position.

TfL therefore considers that NLRIP is making more than a reasonable contribution to freight growth and is consistent with the recommendations of both the Freight RUS and the CL RUS.



Appendix A: Alignment of Freight RUS and Cross London (CL) RUS

The following references to provisions in the CL RUS and the Freight RUS demonstrate that the two RUSs are fully aligned and are based on common growth data:-

CL RUS

1. Para 4.4.1 indicates that a draft Freight RUS was due to be published for consultation a month following the publication of the CL RUS i.e. in Sep-06.
2. Para 2.5.1 states that “the Freight RUS has produced industry agreed forecasts for future growth and these have been fed into this RUS”.
3. Para 4.4.1 states that:-
 - “the Freight RUS will compliment the role of individual “geographic” RUSs” and will “provide consistent freight forecasts for input into geographical RUSs”
 - “Freight RUS data has been supplemented by information produced for the SRA and data presented at recent Public Inquiries into port developments”
4. Para 4.4.5 contains forecast growth in paths to and from Felixstowe, Bathside Bay and Shell Haven used in the development of both the Freight RUS and the CL RUS.
5. Para 4.4.12 confirms that the rail industry’s forecast of future volumes of Channel Tunnel freight traffic are included in both the Freight RUS and the CL RUS.
6. Para 4.4.16 indicates that the overall continuous steady growth around London forecast in the Freight RUS has been recognised in the CL RUS.
7. Para 4.4.26 indicates that “the knowledge gained from the work to date on the Freight RUS and the information submitted by the ports to the Planning Inquiries... is held to form a robust prediction of what should be planned for within the [CL] RUS”.
8. Para 5.3.2 indicates that the growth figures contained in Table 5.9 of the CL RUS (on which the analysis in TfL’s freight growth paper is based) are based on those in the Freight RUS.

Freight RUS



9. Table 5.2 indicates that the need for additional capacity on the Stratford – Channelsea North Jn – Camden Rd route identified in the CL RUS will meet the Freight RUS growth forecasts.
10. Para 9.3.4 confirms that:-
 - the solutions proposed to overcome capacity gaps on NLL are consistent to those proposed in the CL RUS
 - the Freight RUS and CL RUS make common recommendations in relation to Haven ports traffic and both RUSs are based on the same assumptions regarding the upgrading of the Felixstowe branch and W10 gauge clearance of the F2N cross-country route
 - the routing strategy in the CL RUS for freight traffic bound for WCML destinations (including routing via GEML and NLL “is likely to be sufficient to accommodate the forecast growth until at least 2010/11 and should be adopted”
 - the Freight RUS and CL RUS “both recommend implementation of W10 gauge clearance of the Tottenham and Hampstead line with some enhancements”
11. Appendix C indicates that the assessed capacity and capability gap for the Stratford – Channelsea North Jn – Camden Rd Jn route is in accordance with the CL RUS.