Board

Date: **29 March 2017**

Item: **High Level Output Specification (HLOS) – TfL proposals for London**

This paper will be considered in public

1 Executive Summary

Decision required	The Board is asked to note the paper
Previous Consideration	The Programmes and Investment Committee considered a similar paper on 8 March 2017.
Sponsoring Director	Contact Officer: Leon Daniels, Managing Director, Surface Transport Number: 020 3054 0180 Email: LeonDaniels@tfl.gov.uk
Information classification	Public.

Summary

- This paper is to brief the Board on activity being undertaken by TfL to make the case for potential enhancement schemes for delivery in the next five year National Rail financial settlement which runs from 2019 to 2024.
- Initial Industry Advice was produced by Network Rail and train operators early in 2017 setting out their high level priorities for enhancements during 2019-24. This will form an important input to the High Level Output Specification (HLOS3) process.
- The paper seeks endorsement of the case for investment in London's railways and invites comments on our recommendations.
- On 8 March 2017, the Programmes and Investment Committee considered this paper. It supported the issues and proposals, including extending the number of stations with step free access. Following further engagement with stakeholders, the Committee requested TfL consider prioritising the key recommendations.

2 Recommendation

2.1 The Board is asked to note this paper and the High Level Output Specification 3 recommendations.

3 Background

3.1 The High Level Output Specification (HLOS) is the Government's statement of the outputs it requires from the National Rail network for the next five year rail industry Control Period for 2019-2024. The specification is accompanied by a Statement of Funds Available.

3.2 Network Rail and the train and freight operating companies have jointly produced "Initial Industry Advice" to DfT. This sets out the rail industry's view on priorities and will inform the HLOS.

3.3 This paper therefore has two purposes:

(a) to inform our input to the HLOS; and

(b) to provide material to support the case for essential investment in London's railways.

4 HLOS3 Recommendations

4.1 Crossrail 2 is our highest priority scheme but its scale and timing means that it is outside the HLOS process. TfL's recommended schemes are summarised below and in the appendices. These have been developed with a view to affordability and deliverability; this is a judgement where we have aimed for a suitable level of ambition towards delivering the National Rail outputs of the Mayor's Transport Strategy (which is currently under review), whilst recognising the likely funding constraints and the fact that there will be a substantial overhang of schemes deferred from Control Period 5 (CP5 2014 - 2019) which will not now be delivered during 2014-2019. The package of schemes does not address all future capacity concerns, but instead goes for value for money solutions where available.

4.2 TfL's proposed package of schemes has a capital cost of £3.6bn. Key benefits of the schemes are frequency improvements, journey time savings and reduced crowding. The schemes contribute to access to homes and jobs through improved connectivity. The package will generate significant wider economic benefits. The programme assumes the ongoing programme of London Underground line upgrades and other committed investment projects in the TfL Business Plan.

4.3 The schemes include the metro-isation of services in south and southeast London to deliver higher frequency, simplified service patterns and improved performance. Most of our recommendations focus on south London, where train frequency is significantly lower than in north London with consequential impacts on economic growth. Office for National Statistics data shows that growth in Gross Value Added (GVA) per head from 2004-14 was significantly lower at 23-25 per cent in outer south and southeast London than in other areas of outer London, where it averaged 33 per cent over the same period.

4.4 The package of schemes has been modelled in Railplan (London's Public Transport Assignment model) and has a Benefit Cost Ratio of 2.2:1 using TfL's appraisal methodology. If wider benefits are included, the Benefit Cost Ratio is increased to 3.0:1.

Train capacity recommendations

4.5 The recommended train capacity schemes are summarised in the sketch map of the London area below. They focus on the areas of most severe crowding in future years, which are not addressed by CP5 schemes and other committed programmes including:

(a) Crossrail;

(b) Thameslink 12-cars and 24 trains per hour (tph) through the core;

(c) Lengthening to 12-cars on Southeastern inner suburban services;

(d) Lengthening of Southern trains to provide more 10-car inner suburban trains and 12 car trains on Brighton Main Line route;

(e) Lengthening of Southwestern trains to provide 10-car Windsor line and main suburban inner services, 12-car outer suburban services;

(f) Gospel Oak – Barking electrification and new 4-car trains; and

(g) Infrastructure upgrade to deliver new service on West Anglia Main Line between Stratford and Angel Road.

4.6 There are a number of schemes recommended for the London Overground orbital routes above and beyond the optional service increases in the current concession contract. These are:

(a) capacity schemes to run longer trains and/or more frequent trains on the Stratford to Richmond and Clapham Junction routes;

(b) investigation of means to increase frequency on the East London Line to up to 24 tph by applying digital railway technology compared with 16 tph operating now; and

(c) investigating the case for Old Oak Common interchange stations at Hythe Road and Old Oak Common Lane.

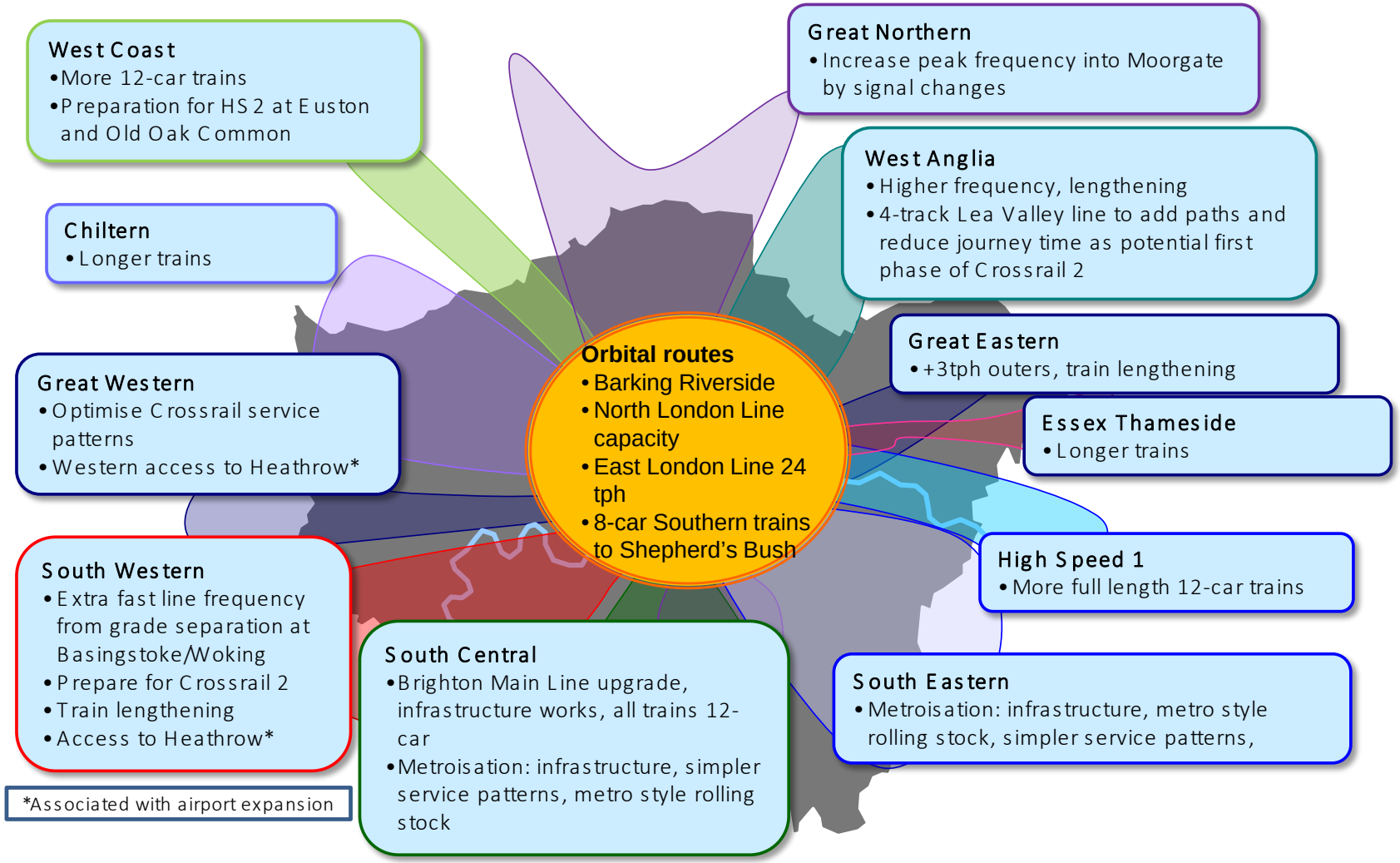
Other recommendations

4.7 In addition to train capacity enhancements, other improvements would be required to ensure that London's railways can meet the city's transport challenges, notably:

(a) station enhancements;

(b) capacity for rail freight; and

(c) technology and the potential role of the digital railway.


West Coast
•More 12-car trains
•Preparation for HS2 at Euston and Old Oak Common
Great Northern
•Increase peak frequency into Moorgate by signal changes
Chiltern
•Longer trains
West Anglia
•Higher frequency, lengthening
•4-track Lea Valley line to add paths and reduce journey time as potential first phase of Crossrail 2
Great Eastern
•+3tph outers, train lengthening
Great Western
•Optimise Crossrail service patterns
•Western access to Heathrow*
Orbital routes
•Barking Riverside
•North London Line capacity
•East London Line 24 tph
•8-car Southern trains to Shepherd's Bush
Essex Thameside
•Longer trains
South Western
•Extra fast line frequency from grade separation at Basingstoke/Woking
•Prepare for Crossrail 2
•Train lengthening
•Access to Heathrow*
High Speed 1
•More full length 12-car trains
South Central
•Brighton Main Line upgrade, infrastructure works, all trains 12-car
•Metroisation: infrastructure, simpler service patterns, metro style rolling stock
South Eastern
•Metroisation: infrastructure, metro style rolling stock, simpler service patterns,
*Associated with airport expansion

4.8 Providing sufficient space at stations is a crucial enabler to achieving higher frequency services, maintaining dwell times and running longer or higher capacity rolling stock. Some stations are congested during peak hours making movement through the station difficult. Among the joint TfL/Network Rail priorities for congestion relief in London in Control Period 6 (CP6, 2019 - 2024) are:

Station	**Main points of congestion**
Barking	Platforms and gateline
Bromley South	Platforms and stairs
Clapham Junction	Underpass and subway, stairs and platforms
Dalston Kingsland	Platforms and stairs
Denmark Hill	Station entrance and overbridge
East Croydon	Platforms and stairs
Hackney Central	Gateline
Imperial Wharf	Stairs
Lewisham	Gateline, stairs and stepping distance
Liverpool Street	Gatelines overbridge concourse
Paddington	Overbridge and concourse
Peckham Rye	Gateline, stairs and platforms
Seven Sisters	Stairs between rail and LU
Stratford	Subways and wayfinding
Victoria	Gatelines and concourse
West Brompton	Stairs and overbridge
West Ham	Platforms and stairs
Wimbledon	Platforms and stairs, exit

4.9 This is not an exhaustive list of stations requiring congestion relief during CP6 and we continue to discuss a range of schemes with Network Rail.

4.10 While not part of Network Rail's ongoing route study process, TfL also wishes to see the continuation of the DfT's Access for All fund, which funds accessibility improvements at rail stations. The 2015 Hendy review of Network Rail's enhancements programme has resulted in the deferral of a number of accessibility schemes because of a shortage of funding. TfL will continue to make the case for

stations it recommended for CP5 but which are not yet included in the programme. Appendix 3 contains a list of stations proposed for introduction of step free access.

5 Conclusions and next steps

5.1 Initial discussions have been held with the DfT and TfL has been involved in the Network Rail route study process. These recommendations are reflected in route studies where these have been completed.

5.2 We are undertaking a programme of engagement with stakeholders, seeking their views on our recommendations for investment in rail in London.

5.3 The recommended schemes have been developed with a view to affordability and practicality. The document does not therefore include every scheme that some of the Boroughs would like to see, though the recommended schemes, or close variants of them, have previously been considered by London Councils at officer and member level, as well as TfL's sub-regional planning meetings.

5.4 Additionally, there are other aspirations which are out of scope of this document on HLOS3 because of the 2019-24 timescale or because they are not relevant to DfT's role in National Rail such as:

(a) London Underground extensions such as Bakerloo line to Lewisham;
(b) Tramlink and DLR extensions such as Tramlink to Sutton;
(c) schemes affecting international services; and
(d) any other schemes planned for the period beyond 1 April 2024.

5.5 These, together with station schemes will be covered in the proposed updated Mayor's Transport Strategy.

6 Financial Implications

6.1 Most of the schemes are currently unfunded and funding would be sought through the Rail Industry Planning Process.

List of appendices to this report:

Appendix 1: Summary table of TfL HLOS3 recommended train capacity schemes by corridor
Appendix 2: Reduction in crowding as a result of TfL's proposed enhancements
Appendix 3: Table of step free access schemes
Appendix 4: Schemes outside the scope of our HLOS recommendations

List of Background Papers:

None

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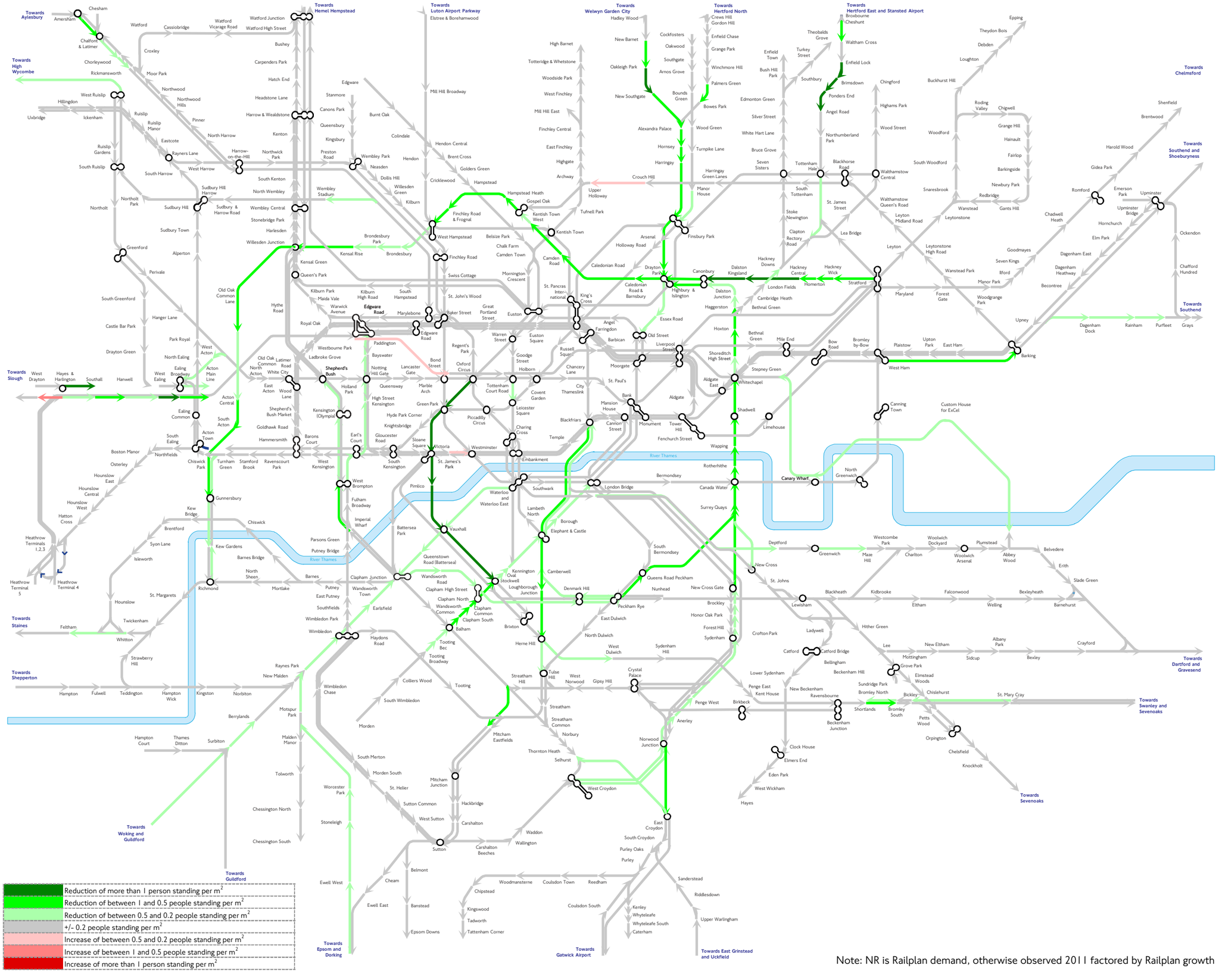
Appendix 1

Summary table of TfL HLOS3 recommended train capacity schemes by corridor

Corridor	Route	Time of day	Recommendations
Orbital	North and West London Lines	All day	Combination of train and platform lengthening and/or frequency increases on London Overground services. Review case for stations at Old Oak Common
	West London line	All day	Additional services between Clapham Junction and Shepherds Bush operated by 8-car South Central services
	East London Line	All day	Investigate frequency increase to 24 tph on the core
East Coast	Main Line and Hertford Loop	Peak	Increase peak frequency between Welwyn and Hertford North and Moorgate
West Anglia	Main Line	All day	Additional tracks and line speed improvements to allow extra 2tph fast services and 2tph stopping services and the extension of Stratford –Angel Road services to Broxbourne (not modelled)
	Southbury Loop	Peak only	Enhanced turnback facilities to allow additional 2 tph peak service between Cheshunt and Seven Sisters
Great Eastern	Main Line	Peak only	Increase in frequency by up to 3tph and lengthening of outers to up to 12 cars
Essex Thameside	Main Line	Peak only	Train lengthening to up to 12 cars on selected peak services to/from Shoeburyness, Southend Central and Laindon
	Tilbury Loop	Peak only	Train lengthening to up to 12 cars on selected peak services to/from Shoeburyness, Thorpe Bay, Southend Central and Pitsea, via both Rainham and Ockendon
South Eastern	Metro services	All day	Metro-isation of service pattern to increase frequencies and new rolling stock
South Central	Main Line	Peak only	Additional two platforms at East Croydon. Remodelled junctions in East Croydon area. Remodelling at Victoria. Additional platform at Norwood Junction.
	Metro services	All day	Metro-isation of service pattern to increase frequencies. New interchange at Streatham. Introduction of metro style rolling stock
South Western	Main Line	Peak only	Junction remodelling at Woking/ Basingstoke in order to increase frequency for 12-car trains
	Metro services	n/a	Start preparations for Crossrail 2 (not modelled)
	Windsor Line	Peak only	Train and platform lengthening to 12 cars on peak services to/from Reading. Start work on capacity scheme to provide southern access to Heathrow via or Main Line Windsor Lines linked to Heathrow expansion (not modelled)
Great Western	Main Line	n/a	Completion of Crossrail, electrification and resulting introduction of new rolling stock. Western access to Heathrow linked to Heathrow expansion (not modelled)
Chiltern	Main Line and Aylesbury route	n/a	Train lengthening
West Coast	Main Line	n/a	Alterations to services may be required during HS2 construction Train lengthening to 12 cars
Thameslink	Main Line	n/a	No scheme proposed subsequent to completion of Thameslink programme

2031 AM Base vs HLOS Schemes, AM Peak Hour (45% of peak period)

Appendix 2



Note: NR is Railplan demand, otherwise observed 2011 factored by Railplan growth

Appendix 3

London stations proposed for step free access

Access for All Schemes for delivery in Control Period 5
Alexandra Palace
Bexley
Blackhorse Road
Brondesbury
Carshalton
Coulsdon South
Finsbury Park
Palmers Green
Plumstead
Selhurst
Shortlands
Tottenham Hale
West Hampstead
Whitton

Access for all schemes deferred to Control Period 6
Barnes
Battersea Park
Hither Green
Petts Wood
Queen's Park
Peckham Rye
Seven Sisters
St Mary Cray
Streatham

Crossrail (Elizabeth line) step free access schemes
Hanwell
Iver
Langley
Manor Park
Maryland
Seven Kings
Taplow

Appendix 4

Schemes outside the scope of or HLOS3 recommendations

Stakeholder aspiration	Borough	Reason not included
Croydon – Lewisham – Canary Wharf – Stratford – Tottenham ("Thameslink Programme 2")	Multiple	This is not a scheme for the 2019-24 period, when the focus should instead be on additional capacity in the Croydon area.
Greenford to West Ruislip and beyond	Ealing, Hillingdon	Work cannot plausibly start until after the completion of HS2 in 2026 as it uses the same alignment through west London.
London Overground extension from old Oak Common to Hounslow	Hounslow	This is not a scheme for 2019-24 and would need to be reviewed against other London Overground capacity schemes.
Crossrail 3	Multiple	This is not a scheme for the 2019-24 period, though it could have a longer-term role.
Outer-orbital	Multiple	This is not a scheme for the 2019-24 period, though it could have a longer-term role.
Centre for London "Turning south London orange" (TSLO) package of proposals	Multiple	We believe that our metro-isation proposals to improve frequency and connectivity are adequate for the time being in context of devolution, though some aspects of TSLO could be taken forward in the longer term.
Additional stations:	Multiple	New station proposals require additional analysis and are generally outside the scope of HLOS.
Step free access at stations	All boroughs	Whilst in an ideal world all stations would be step free, it is only realistic to recommend an affordable package of the highest priority stations.
Congestion relief measures at stations	All boroughs	Whilst many stations have crowding issues, it is only realistic to recommend an affordable package of the highest priority stations.