**TFL21**

**TRANSPORT AND WORKS ACT 1992**

**TOWN AND COUNTRY PLANNING ACT 1990**

**PLANNING (LISTED BUILDINGS AND CONSERVATION AREAS) ACT 1990**

# PROPOSED LONDON UNDERGROUND (NORTHERN LINE EXTENSION) ORDER

## TRANSPORT FOR LONDON'S REBUTTAL

## OF

## THE EVIDENCE OF THE KENNINGTON & WALWORTH NEIGHBOURHOOD ACTION GROUP (Robert Lentell) AND THE KENNINGTON ASSOCIATION PLANNING FORUM

## ON

## THE NEED FOR AND OBJECTIVES OF THE NLE

**November 2013**

# 1. INTRODUCTION

1.1.1 This rebuttal proof of evidence has been prepared on behalf of Transport for London to address the Kennington & Walworth Neighbourhood Action Group's Proof of Evidence (OBJ 60/KWNAG1) related to the need for, alternatives and aspects of the alignment of the scheme (Dr Lentell) as well as aspects of the Kennington Association Planning Forum's Proof of Evidence (OBJ 206/KA1), also related to these issues. This rebuttal does not address other issues raised by these parties which will be the subject of further rebuttal evidence in accordance with the inquiry programme.

1.1.2 With regard to Dr Lentell, the issue of alternative locations for the shaft is dealt with below but will also be responded to in respect to Kennington Park as will other outstanding issues. With regard to Mr Boardman, this rebuttal deals only with his objections on the objectives of the scheme and economic benefits. Separate rebuttals will respond to evidence relating to funding and financing, impacts on the existing Northern Line (including split of journeys between branches), Kennington station, Kennington Green, construction impacts, consultation, and the scope and approval of the TWAO.

1.1.3 It is not intended that this rebuttal proof of evidence should address points that witnesses for TfL have previously covered in their evidence; however, cross-references to relevant paragraphs of those witnesses' proofs of evidence are made where appropriate.

1.1.4 It is intended that this rebuttal proof should be a composite response to those issues raised by the objector and set out above. In this respect, for cross-examination purposes the name of the TfL witness who is responsible for each aspect of this rebuttal proof is given at the beginning of each section below.

1.1.5 The following section is organised by sub-themes (numbered and shown in bold font) related to the theme of need, modal alternatives and alignment issues. In each of these sections, the objector's point is summarized in plain font, with any quotations shown in italics. This is followed by TfL's response in bold font, preceded by the name of the witness making that part of the rebuttal. Within each sub-theme, there may be several points, each of which is dealt with separately in turn, and with the witness identified as described.

## 2. LEGALITY OF THE NORTHERN LINE EXTENSION: DR LENTELL

### *2.1 Extension from Battersea*

2.1.1 In paragraph 3.2 of his Proof of Evidence, Dr Lentell states that the NLE should properly be considered as part of a two stage project and that under European Law, TfL are bound to submit an Environmental Impact Statement covering the entire scheme. He further states that the concern is that a further extension would most likely involve re-modelling and expansion of Kennington Underground station with another several years of attendant blight for their neighborhood.

***Expert witness**: Richard de Cani*

2.1.2 **As stated clearly in my Proof of Evidence at paragraphs 5.9.1-5.93 no plans currently exist for an extension of the Northern line beyond Battersea and no funding is available. There has been no appraisal of a route for such an extension, nor any station locations appraised or other infrastructure requirements identified. In short, there is currently no defined scheme for an extension of the Northern line beyond Battersea. TfL is applying for powers to construct and operate an extension of the Northern line from Kennington station to a terminus at Battersea Power Station and in accordance with relevant legislation has appropriately assessed the effects of this scheme.**

2.1.3 **Any extension beyond Battersea, should it ever be identified as required following a full needs assessment and Business Case, would be subject to its own Impact Assessment that would take into account the effects of the scheme on the existing network and stations.**

2.1.4 **My understanding is that in the absence of a scheme that is sufficiently defined and sufficiently likely to come forward there is no requirement as a matter of law to undertake cumulative impact assessment of an extension beyond Battersea.**

### *2.2 Overrun Facilities*

2.2.1 At Section 8 of his evidence Dr Lentell asks a series of questions relating to the overrun tunnels proposed at Battersea.

**Expert witness**: *Jonathan Gammon*

2.2.2 **I explain in my Proof of Evidence [TFL2/A] at page 15, paragraph 7.28 that the overrun tunnels are required beyond the end of the station platform extension tunnels at Battersea to provide a safety zone for a**

**train that may not stop in time at the end of the platform. They are a safety requirement. These tunnels are also required for the stabling of trains overnight on a daily basis. Additionally they are required as a stabling facility for a train that needs to be taken out of service following technical difficulties. No points system is provided. Trains emerging from the overrun tunnel will utilise the cross over facility to the east of Battersea station to change track where necessary.**

## 3. TRACK ALIGNMENT AND SHAFT LOCATIONS: DR LENTELL

### *3.1 Kennington Park shaft location and potential alternative locations*

3.1.1 At paragraph 9.2, Dr. Lentell states that TfL has not sufficiently considered alternative locations for the shaft in Kennington Park.

***Expert witness:*** *Richard de Cani*

3.1.2 **Dr. Lentell is incorrect in his statement regarding the considerations of alternative locations for the Kennington Park shaft. Paragraphs 4.4.54 - 4.4.59 of my Proof of Evidence [TFL1/A] explain the process that was followed that considered alternatives before selecting the Kennington Park site for the shaft location; Table 2 in paragraph 5.1.1 of NLE/C9 lists the alternative locations that were considered for the shaft, sections 3.5 to 3.7 explain the criteria for selecting a location for the shafts and section 5.8 explains reasons why the station and the Vauxhall telephone exchange site were not considered better than the site that was selected. More information is also contained within Jonathan Gammon's Proof of Evidence in paragraphs 13.16-13.26 and in Appendix 4.3.**

3.1.3 Dr Lentell states in paragraph 9.4, that there is additional risk associated with the proposed location:

*"A shaft in the park would in the event of a terrorist attack or other severe underground episode give rise to the dispersion and deposition of toxic materials in a well used public space adjacent to a tightly packed residential area. TfL appear to have given this important matter no consideration"*

***Expert witness****: Jonathan Gammon*

3.1.4 **The risk from the proposed shaft in Kennington Park with regard to terrorist or other attack is no worse than existing shafts and head houses elsewhere on the London Underground network. In any event such matters are regulated by the LFEPA. If the proposed scheme contained an inherent level of risk associated with potential terrorist attack that was unacceptable it would be a matter for LFEPA to consider. My understanding is that it has statutory powers that it could exercise to prevent operation of the NLE if it considers this to be the case.**

3.1.5 In paragraph 9.3, Dr Lentell states:

*"TfL's reviews of alternative locations have ruled out the possibilities of*

*installing shafts at either Kennington Station or the Telephone Exchange building primarily in terms of financial cost and increased project time. In undertaking their reviews TfL appear to have attached no costs at all to the disruption the shafts will cause in the park and the adjoining streets or to the longer term disbenefits of having a shaft sited in the park"*

3.1.6 Furthermore, in paragraph 11, Dr Lentell states that the decision to locate the shaft in Kennington Park was based on cost alone:

*"We wish to emphasis the point about costing. If Kennington Park was Kensington Gardens and the Lodge was Kensington Palace we may imagine that an alternative alignment for the line would be found. We would be interested to know what the engineering of such an alternative would involve."*

***Expert witness:*** *Richard de Cani*

3.1.7 **A detailed appraisal of alternative shaft options has been undertaken. This appraisal included shafts at Kennington Station and the Vauxhall telephone exchange building. The reasoning for the shaft and its location is explained in detail in chapter 12 of Jonathan Gammon's Proof of Evidence [TfL/2A]. That appraisal had regard to numerous factors including costs, but cost was not a determining factor. Of much more significant weight is the fact that the possibility of installing shafts at Kennington Station or at the Vauxhall telephone exchange, both involved the acquisition and demolition of residential property. The conclusions drawn that led to the dismissal is provided in detail in my Proof of Evidence [TFL2/A] paragraphs 12.43 to 12.45 and at my Appendix 4.3 and in NLE/C9.**

3.1.8 In paragraph 16, Dr. Lentell states:

*"We also note that TFL have not in their recent review returned to investigate the suitability of Oval Green at all."*

***Expert witness****: Jonathan Gammon*

3.1.9 **TfL looked at Oval Green as an option and found it inferior to the option proposed in the scheme. This appraisal can be found in detail in NLE C9 and is summarised in my Proof of Evidence [TFL2/A] p41 paragraph 13.23.**

3.1.10 **The proposed alternative shaft location at Oval Green is considered not to be feasible as, compared to a shaft at Kennington Park, an additional 500 metres of tunnel would not be provided with full smoke control and thus the overall safety of this section of tunnel is reduced. Therefore this option does not mitigate the risk to be 'As Low as Reasonably Practicable' (ALARP). Based on this reduction of safety, it is likely that**

**the LFEPA would not approve the position of the alternative head house at Oval Green.**

3.1.11 **Furthermore the geological ground conditions for tunneling are more difficult in this area than in the proposed location, giving rise to greater settlement risks and a greater burden of settlement monitoring and mitigation. There is also uncertainty regarding the presence of former war time bomb shelters in this area. This option also gives rise to potential highway safety implications as there is potential for the head house to block visibility sightlines for highway users.**

### *3.2 Connection to Kennington loop*

3.2.1 In paragraph 10, Dr. Lentell questions the use of the Kennington loop as the point at which the connection to the existing Northern line would be made:

*"We surmise that other methods of connecting the NLE to the Charing Cross Line using a more direct route to the station have not been considered on the grounds that they would involve closing the line for a certain period. However, many TFL projects have involved shutting down sections of line and using buses."*

***Expert witness:*** *Richard de Cani*

3.2.2 **In order to provide an interchange at Kennington station, the Northern Line Extension must connect to the Charing Cross branch on the Kennington Loop.**

3.2.3 **The extension must connect to this precise location on the existing Loop as the construction requires a straight section of track where both rails are on the same elevation. This is addressed in Jonathan Gammon's Proof of Evidence [TfL2/A] at paragraph 14.1.**

3.2.4 **Figure 12 of Jonathan Gammon's Proof of Evidence [TFL2/B] as well as the attached Figure 1 help to demonstrates the constraints in connecting the NLE to the existing Northern line, particularly that the track would need to go underneath the existing Loop (and Northern line) and this requires sufficient clearance to avoid causing damage to the Northern line tunnels above, requiring a very steep gradient that would not be possible. To avoid the steep gradient, the tunnels would need to be very long, resulting in longer journey times, higher cost and increases to the number of affected properties.**

3.2.5 **The only other means of connecting to Kennington would be to connect at a point "north" of Kennington Station resulting in trains by-passing Kennington Station altogether. This would not maximise the benefits of the scheme and would have adverse consequences for service reliability if trains were to be retained that would connect to Kennington Station.**

3.2.6 In paragraph 22.2 Dr. Lentell queries if the decision to use step plate technology is based solely on the need to minimise disruption to the existing Northern Line Services.

***Expert witness:*** *Jonathan Gammon*

3.2.7 **The step plate junction construction method is a well-established method of forming a junction that in addition to minimising disruption to existing services also has the advantage of posing less risk to those constructing the junction from a health and safety perspective.**

3.2.8 At paragraph 22.3, Dr. Lentell queries what other methods of connecting the NLE to the Charing Cross branch could be considered if a period of disruption to the Northern line service were to be tolerated.

***Expert witness:*** *Jonathan Gammon*

3.2.9 **The step plate junction is a practiced construction method that avoids compromising the operation of the existing Northern line during the majority of the construction works. The answer to this question can be found in my Proof of Evidence [TFL2/A] at paragraph 14.14.**

3.2.10 **The disruption associated with working from within the existing tunnel to form a junction, which would require total closure of the loop would be considerable. This would have a major impact on the capacity of the line, negatively impacting upon all users of the Northern line. There are also increased safety risks to workers constructing the junction as a result of working in that fashion.**

3.2.11 **Alternative methods would require mechanical excavation using large machinery and support. This would require additional working space underground resulting in a requirement to shut down the service on the whole line. The use of alterative methods would result in a greater risk of ground movement that would have to be managed. As stated earlier the step plate junction is a well-known and established method of construction. Less common methods involve more risk.**

3.2.12 At paragraph 22.4 of his evidence Dr Lentell also queries whether a more direct alignment of the track would be preferable in terms of long term maintenance of the track and trains.

***Expert witness:*** *Jonathan Gammon*

3.2.13 **The constraints on the alignment are presented in my Proof of Evidence [TFL2/A] paragraphs 8.1 to 8.10, inclusive, and paragraphs 10.10 to 10.16, inclusive. The track alignment identified is wholly acceptable and appropriate in my view.**

## 4. NLE OBJECTIVES: MR BOARDMAN

4.1.1 At paragraph 4.1, Mr Boardman queries the difference between the London Plan growth targets for the OA and those of the OAPF.

***Expert witness:*** *John Rhodes.*

4.1.2 **The London Plan 2008 required the de-designation of Strategic Industrial Land and the extension of the CAZ. It identified VNEB as an Opportunity Area.**

4.1.3 **A consideration of the London Plan and associated panel reports identifies:-**

a. **The 2004 Panel expressed concern about the continuing under performance of London relative to it's housing requirements and examined opportunities to increase supply. It's conclusions indicated that:-**
   i. **there was a need for higher density to bridge the gap between need and capacity (2.7);**
   ii. **there was considerable scope for the OAs to enable the Boroughs to exceed their target figures (4.24);**
   iii. **there was wide spread support for increased density to increase the number of homes (4.30);**
   iv. **there was wide spread support for the density matrix to be applied more flexibly – the minimum figure should be regarded as firm but the matrix beyond that should be flexible (4.34).**

b. **The 2008 Panel directly agreed with the 2004 Panel that the need for higher densities to bridge the gap is required in almost every area (6.25). Additionally, they confirmed the necessary relationship between density and transport accessibility in the London Plan density matrix (paragraph 6.15) and resisted objections that there should be a maximum level of density expressed in the matrix (6.16). The proposal to enlarge the CAZ to include the VNEB OA was recommended (5.142) as well as the proposal to de-designate the central part of the Strategic Industrial Location from the OA (5.152). In respect of the VNEB OA the Panel advised: "*We visited this part of London on our tour. As well as the New Covent Garden Market it includes a number of low intensity activities, such as coach and other vehicle parking, in what the FALP rightly describes as a degraded environment. Such low intensity land uses have their place***

***but not here so close to the heart of London where the potential for more intensive and value adding development is abundantly clear. We see no reason why such a change would reduce employment, quite the reverse."*** **(5.154)**

**c. The 2011 Panel then considered the detail of the Opportunity Area policies (Annex 1) at two separate examination sessions (2.77).**

**i. the figures for the OAs were revised in discussion with the Boroughs and were the subject of further proposed changes submitted to the examination by the Mayor (2.88).**

4.1.4 **The London Plan [NLE/E12] (annex 1 page 262) advises:-**

**A1.1"F*or the avoidance of doubt, this Annex is part of the London Plan and therefore part of the statutory development plan.***

**A1.3** ***It should be noted that in some Areas the transport system would not currently support this level of growth and developer contributions may be required to underpin enhancements."***

4.1.5 **It is apparent, therefore, that the figures for the OA in Annex 1 form part of the statutory development plan and have been examined. Whilst they specify a minimum level of 10,000 homes, the text in Annex 1 identifies "*scope for significant intensification and increase in housing and commercial activity". T*hey also identify the opportunity for 16,000 homes which could be achieved, dependent on the scale of public transport improvements. The same London Plan, of course, directly endorses the NLE at Policy 6.1 and provides (6.27) that the NLE "*would be needed to realise the full potential of the VNEB OA".***

4.1.6 **The London Plan also identifies (Policy 2.13) that development proposals within the Opportunity Area should support the strategic policy directions for the OAs, optimise residential and non-residential output and densities and contribute towards meeting the minimum guidelines for housing and/or indicative estimates for employment capacity set out in Annex 1.**

4.1.7 **Supporting economic development and population growth is the first goal of the Mayor's Transport Strategy [NLE/E13] (paragraph E6). The MTS policy 23 explains that the strategy will support regeneration of OAs. Para 2.10 of the MTS explains "in order for this growth to be sustainable, it must link closely with existing or potential improvements in public transport capacity and accessibility". Para 133**

**of the MTS confirms that alignment between transport and regeneration priorities will be of fundamental importance to achieving sustainable growth within Central London.**

4.1.8 **Similarly, the Mayor's Economic Development Strategy [NLE/E14] confirms at paragraph 5.39 that improving the supply of homes across all tenures will be vital if London is going to achieve the economic ambitions set out in this strategy.**

4.1.9 **The scale of development has also been examined through the statutory development plans of Wandsworth and Lambeth.**

4.1.10 **Starting with Wandsworth, the 2010 Core Strategy [NLE/E30] notes the requirements of the London Plan and (policy PL11) sets out policies for Nine Elms and the adjoining area in North-East Battersea. It provides that at least 1,500 homes should be provided in the Wandsworth part of the Opportunity Area by 2016 "*with the potential for a further 8,500 homes or more in the longer term dependent on the provision of any necessary infrastructure".* In other words, the Wandsworth Core Strategy 2010 already accepted capacity for 10,000 homes in the Wandsworth part of the OA 2 years before the approval of the OAPF.**

4.1.11 **Issues of density and the Opportunity Area were examined and the Core Strategy Inspector's report confirms The CS seeks to create a new urban quarter with high quality buildings and streetscapes. To achieve this, the scale and density of new development in the Opportunity Area will inevitably be considerably higher than the range specified in the London Plan Matrix based on the areas existing "setting", even if proposed improvements to public transport accessibility are taken into account (3.126).**

4.1.12 **This is developed further in the Wandsworth Site Specific Allocations document, adopted February 2012, which confirms (page 15) that *the* Wandsworth *part of the OA has the potential to deliver around 13,400 new homes and 20,000 jobs (gross) over a period of up to 20 years (based on the total capacity of the area identified in the OAPF).* The Inspector's report on the SSAD examined whether the "development *capacity of each allocation has been properly and realistically assessed"* and confirmed that it had been.**

4.1.13 **The Core Strategy [NLE/E30] (4.25) supports major transport infrastructure investments where these are shown to offer sustainable improvements to local accessibility. This includes potential improvements in the VNEB OA. The CS confirms (4.84) that transport provision will be the "*key to unlocking the area"* and that TfL is considering the NLE. Policy PL3 supports improvements to public transport capacity and para 4.83 states that the area will be the focus**

**for considerable new development in the medium to long term. The principle of high density regeneration of the area, therefore, was examined and incorporated in the adopted Core Strategy well before the approval of the OAPF.**

4.1.14 **In relation to Lambeth, the adopted Core Strategy [NLE/E19] January 2011 notes that the emerging capacity of the OAPF is far larger than the London Plan 2008 estimate (5.14) and that capacity has already been identified by Lambeth in the Vauxhall part of the OA to meet the existing London Plan (2008) target for the whole of the VNEB OA for the period 2001-2026 of 3,500 additional homes. Accordingly, Policy PN2 advises that development will be supported to provide at least 3,500 new homes and 8,000 jobs in the Vauxhall area (of the OA).**

4.1.15 **The same figures are included in the emerging draft Lambeth Local Plan [NLE/E22] (policy PN2).**

4.1.16 **Comparable figures are set out in the approved Vauxhall SPD 2013 [NLE/E21] (page 20). In combination, the extent of development supported through the local development plans is comparable to that incorporated in the OAPF.**

### *4.2 Trip generation methodology and assumptions*

4.2.1 In paragraph 4.4 of his Proof of Evidence Mr. Boardman queries the trip generation methodology used to assess the NLE. The objector uses the St George Wharf development as a comparator site and states that there are no more than 1.42 residents per completed dwelling.

***Expert witness:*** *David Bowers*

4.2.2 **The trip rates used by TfL are based on the surveyed travel characteristics of people who live and work in London. 162 separate trip categories are used to model the travel behaviour of people taking allowance of work-status, car ownership and age. The trip rates used in the model have been benchmarked against trips for other developments and 2011 Census data. This exercise shows the trip rates used to assess the NLE are robust and reflects the extensive use and refinement of the model.**

4.2.3 **Mr Boardman's estimate seems to be based on the population recorded living at the site in the 2011 Census (1,723) and the number of completed dwellings (1,211) according to Notting Hill Housing Trust (1,723 / 1,211 = 1.42).**

4.2.4 **Using the population and number of households stated in the 2011 Census is an unreliable method of calculating the number of people per**

**dwelling across an entire development as it assumes that everyone living at the development completed a Census survey.**

4.2.5 **An examination of the 2011 Census response rate for the London Borough of Lambeth (where St George is located), shows that only 87% of people completed the 2011 Census. This means that the population of St George Wharf stated in the 2011 Census is highly likely to be an under-representation of the actual population at that time.**

4.2.6 **The 2011 Census was completed by residents of 1,018 dwellings at St George Wharf and hence there were 1.69 residents per dwelling (1,723 / 1,018).**

4.2.7 **Using 2011 Census Journey to Work (JTW) data the objector states that St George Wharf generates no more than 0.37 underground trips in the 3 hour AM peak per completed dwelling. Mr. Boardman states that there will be 16,000 new dwellings across the VNEB area and that with 0.37 Underground trips in the 3 hour AM peak (in-line with his calculations for St George Wharf) there will be no more than 3,000 extra JTW journeys generated in the peak hour (i.e. 16,000x0.37x0.5=2,960).**

4.2.8 **This calculation seems to assume a peak 3 hour to peak hour conversion factor of 0.5. As stated in Table 1 of the proof of evidence of David Bowers [TFL7/B] the standard factor used for underground trips is 0.54, which when applied here, with the corrected rate of Underground trips, increases the number of peak hour Underground trips by over 625 trips (16,000x0.42x0.54=3,628).**

4.2.9 **Furthermore Mr Boardman bases his argument on the assumption that only people living in the VNEB area and making work trips will use the NLE. In practice, residents will make many other sorts of trips e.g. education or leisure. In addition, there will be many other NLE trips associated with the 25,000 new jobs and facilities in the area.**

4.2.10 Mr Boardman in paragraph 4.6 of his Proof of Evidence questions the extent (if any) of abatement of trip generation where, as in this case, jobs are juxtaposed with local residential hinterlands, whose Councils (Lambeth and Wandsworth) are emphasising job opportunities for their locals from the VNEB developments.

***Expert witness:*** *Bridget Rosewell*

4.2.11 **The VNEB OA is attracting, and will attract a variety of residential investments as well as a variety of employment opportunities. Section 5.3 of my Proof of Evidence [TfL6/A] describes the opportunities for local residents to access local opportunities and wider opportunities elsewhere in London, as well as the need for a growing population to have such access. Further detail is also available in Section 6 of the**

**Economic and Business Case [NLE/D1]. The NLE makes both wider access to jobs possible but also provides access to the range of travel modes associated with the Central Activities Zone.**

### *4.3 Consideration of alternative transport solutions*

4.3.1 Mr Boardman states in paragraph 4.7 of his Proof of Evidence that alternative Network Rail, light rail/tram, Crossrail 2 or other more innovative solutions were either cursorily dismissed, set aside on a spurious basis, or not given enough consideration.

***Expert witness:*** *Richard de Cani*

4.3.2 **As set out in paragraphs 4.2.1-4.2.17 of my Proof of Evidence [TFL1/A] and paragraphs 2.1.12-2.1.17 and 2.1.38 of Appendix 10 [TfL1/B] a substantial amount of work has been undertaken to determine the transport option that best supports the delivery of planning policy in the Opportunity Area (OA) and this work demonstrates that the NLE is the only option that can support the aims of and aspirations for the area. In addition to the evidence provided in my Proof of Evidence, the Summary of Alternatives to the NLE report [NLE/C8] and Chapter 3 of the Environmental Statement [NLE/A19/1] also describe this body of work in detail.**

4.3.3 **In relation to National Rail in particular, and as described in paragraphs 2.1.53- 2.1.55 of Appendix 10 of my Proof of Evidence, this work concluded that national rail options could not provide the level of capacity and accessibility needed to support the growth forecast for the OA. Network Rail has supported this conclusion as set out in Appendix 6 of my Proof of Evidence [TfL1/B].**

4.3.4 **A light rail/tram option has been assessed and would not provide the capacity required to support the aims of and aspirations for the OA. Nor would such a solution be as well integrated with the wider transport network as the NLE. Indeed, it is considered that such a solution would have a detrimental impact on other Surface modes by reducing available road capacity leading to increased congestion.**

4.3.5 **Finally Crossrail 2 is currently an unfunded and unconfirmed scheme and any possible implementation of it would not be until the 2030s, which is far too late to support development in the OA. Development of the VNEB OAPF and the NLE is embedded in recent policy including the London Plan 2011, the Mayor's Transport Strategy and local borough planning policy, as set out in section 3.2 of my Proof of Evidence.**

## *5.* COSTS AND BENFITS OF THE NLE: MR BOARDMAN

5.1.1 Mr Boardman, in paragraph 5.1, refers to the low cost benefit of the solution, particularly when excluding wider benefits.

***Expert witness:*** *Bridget Rosewell*

5.1.2 **The case for the NLE has never rested on a narrow transport benefit assessment. The objective of the scheme is to make possible more economic development. As a result, an appraisal limited to transport benefits alone is not appropriate, although it is a component of the assessment. This is made clear in my Proof of Evidence [TfL6/A], and in Section 5 of the Economic and Business Case [NLE/D1].**

5.1.3 Mr Boardman states in paragraph 5.4 that the proposal is a poor use of scarce resources, and costs are inequitably distributed between Wandsworth and Lambeth, to Lambeth's disadvantage.

***Expert witness***: *Richard de Cani*

5.1.4 **This statement is incorrect. As set out in paragraph 8.4.2 of my Proof of Evidence [TFL1/A] the NLE loan will be repaid through two sources of funding: an incremental business rate applied to the Enterprise Zone; and through developer contributions. Paragraph 8.4.4 of my Proof of Evidence [TFL1/A] details how any income from the business rate increment will not reduce the level of business rate that would be received by each borough under the Local Government Resource Review. The only financial input from each borough therefore is from the developer contributions: paragraph 8.4.6 of my Proof of Evidence [TFL1/A] notes that Lambeth's contribution is limited to only 3% of these developer contributions at £7.3 million.**

### *5.2 Existing Public Transport Accessibility Level at Nine Elms*

5.2.1 In paragraph 5.3 of his Proof of Evidence Mr Boardman refers to the Nine Elms station having a Public Transport Accessibility Level (PTAL) of 5, depending on the point chosen for appraisal.

***Expert witness:*** *David Bowers*

5.2.2 **Figure 7 of my Proof of Evidence [TFL7/A] shows a very small area with an existing PTAL level of 5 near the location of the proposed station at Nine Elms. Importantly however, the introduction of the station would improve the accessibility of the area surrounding the station and also**

**provide a much improved level of public transport accessibility in the catchment area of the station.**

5.2.3 **The improved catchment provided by the NLE and the station at Nine Elms is shown in Figure 27 of my evidence [TFL7/B]. This page of the Appendix also provides Figure 8 to show the comparison of scenarios "with" and "without" the NLE and the removal of areas which currently have very poor accessibility by public transport can be clearly seen.**

### *5.3 Benefit of NLE in supporting local development*

5.3.1 In paragraph 5.3 of his Proof of Evidence Mr. Boardman asserts that no Lambeth developments are dependent on or would benefit from the NLE.

***Expert witness:*** *Bridget Rosewell*

5.3.2 **The density of development committed within the Opportunity Area sites (Lambeth and Wandsworth) significantly exceeds that which the London Plan regards as sustainable if the NLE is not in place. Further, agency evidence (and precedent) confirms the obvious facts that significant new transport investment such as an underground line enhances property value and stimulates development.**

5.3.3 **Nine Elms station is so located, in order that it can benefit not only the Opportunity Area but the existing communities immediately to the south and east.**

## *6.* WIDER CONTEXT

### *6.1 Level of investment in proposed scheme*

6.1.1 Mr. Boardman in paragraph 7.17 of his Proof of Evidence questions the level of investment in the proposed scheme, suggesting that it is “cut price”.

***Expert witness***: *Richard de Cani*

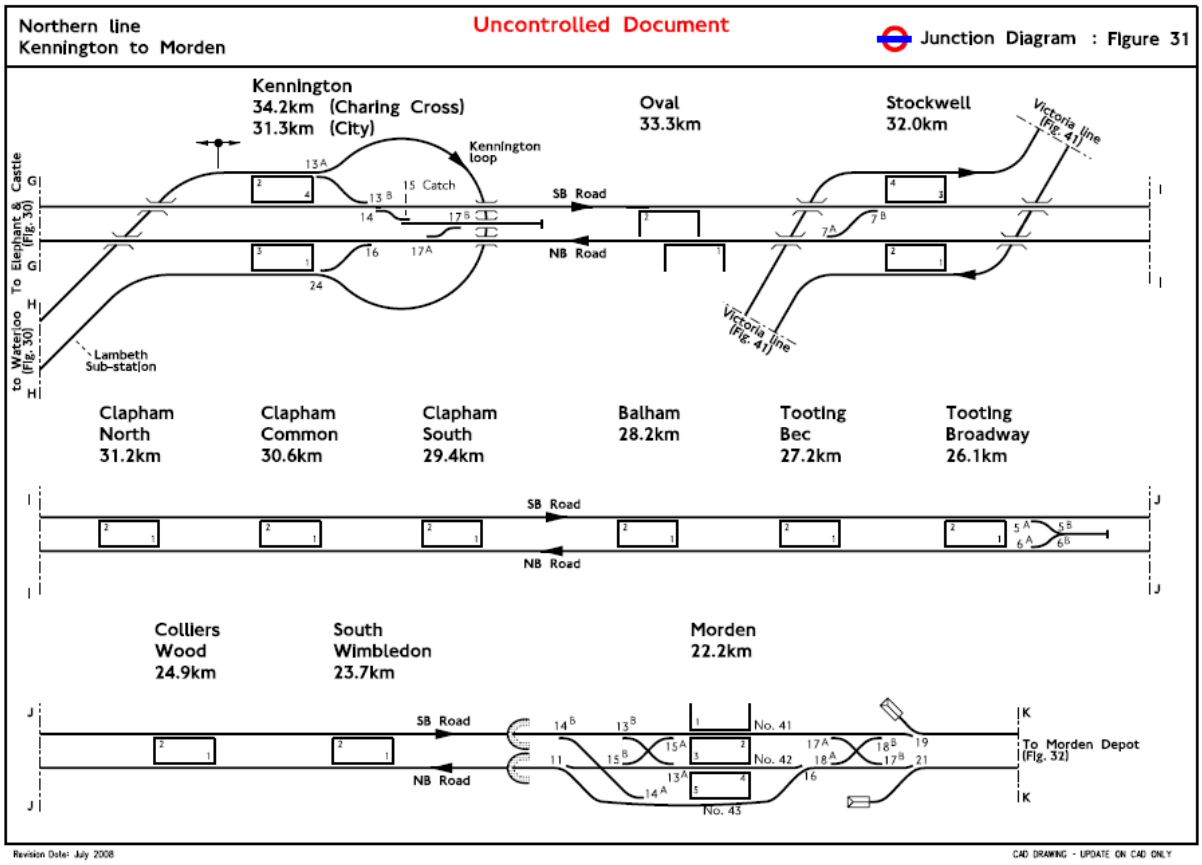
6.1.2 **TfL disagrees with this assertion; section 8.2 of my Proof of Evidence [TfL1/A] sets out the outturn cost of £1,002m and how this has been calculated.**

6.1.3 Mr. Boardman at paragraph 7.17 of his Proof of Evidence goes on to suggest that the existing proposals are targeted at providing the caché of “nearby tube access” to the Battersea Power Station development, without consideration of the wider transport context.

***Expert witness***: *Richard de Cani*

6.1.4 **The NLE sits within a much wider planning framework for London, including strategic plans such as the London Plan [NLE/E12] and the Mayor's Transport Strategy (MTS) [NLE/E13] as well as local planning policies as set out in paragraph 3.2.3 of my Proof of Evidence [TFL1/A]. And as set out in paragraphs 3.3.1-3.4.9 of my Proof of Evidence, the NLE is part of an integrated package of transport measures. This is also addressed in the evidence of Mr. Rhodes [TFL5/A].**

## Figure 1


Northern line
Kennington to Morden
Uncontrolled Document
Junction Diagram : Figure 31
Kennington
34.2km (Charing Cross)
31.3km (City)
Oval
33.3km
Stockwell
32.0km
Victoria line (Fig. 41)
Kennington loop
15 Catch
SB Road
NB Road
to Elephant & Castle (Fig. 30)
to Waterloo (Fig. 30)
Lambeth Sub-station
Clapham North 31.2km
Clapham Common 30.6km
Clapham South 29.4km
Balham 28.2km
Tooting Bec 27.2km
Tooting Broadway 26.1km
Colliers Wood 24.9km
South Wimbledon 23.7km
Morden 22.2km
No. 41
No. 42
No. 43
To Morden Depot (Fig. 32)
Revision Date: July 2008
CAD DRAWING - UPDATE ON CAD ONLY