



## OLD OAK COMMON, HS2, CROSSRAIL, GWML, NLL AND WLL

### BRIEFING NOTE – MARCH 2014

**“When we build, let us think that we build for ever.” John Ruskin**

The West London Line Group is very concerned that:-

- the best returns are secured from the proposed rail complex at OLD OAK COMMON to the benefit of Londoners and the users of HS2, CROSSRAIL, GWML, NLL AND WLL
- the benefits of High Speed Rail are as brought to as many UK residents as possible
- the Old Oak Common complex reduces pressure elsewhere on the road, rail and tube networks in London and across the UK.

#### A. Background

1. Old Oak Common is to be the nexus of the UK's two premier rail projects (Crossrail and HS2) and therefore should be as 'future-proofed' as possible. It should therefore be built to accommodate all known and forecast passenger growth to, we would suggest, the year 2080 – i.e., to avoid massive upheaval on this site in the first 50 years after the planned completion of Phase 1 of HS2.
2. Moreover, these growth figures should include significant allowance for major optimum bias as has been experienced across the whole rail network and especially with new rail developments. Relevant examples include Alloa, the South Wales Valley Lines and the latest London Overground network extensions via the East London Line to New Cross, Crystal Palace, West Croydon and now Clapham Junction. In the last instance, initial demand was three times greater than anticipated.
3. Furthermore, these instances are of just single strings of stations. At Old Oak Common there may be some additional phenomena in terms of growth patterns, given the fact that this will be a major interchange with an extraordinary range of possible journey combinations.

4. For example, in addition to the existing services on the GWML, NLL and WLL, there is the aspiration to double the Southern WLL frequency. Then there should be the new Crossrail services (we are suggesting that some Crossrail trains also use the HS2 axis to a new station at Denham Parkway to serve a potentially huge catchment across the Southern Chilterns).
5. Later will be the HS2 Phase 1 services (again potentially with our proposed three way-stations en route (catchments totaling 1.3 million) to Birmingham International (to become another of London's airports?) including an interchange with the proposed East-West Rail link).
6. Still later will be HS2 Phase 2 linking Manchester and Leeds to London (whose population will have grown by another 1.6 million to 10 million by 2030, according to Mike Brown, MD of LUL [Evening Standard 12 March 2014]).
7. Moreover, in order for the WLL and other lines to service Old Oak Common adequately, while at the same time creating additional journey combinations, we are suggesting a number of new links, including:-
  - Old Oak Common – WLL – SE London;
  - Guildford (semi-fast) – Clapham Junction – WLL – Old Oak Common – Dudding Hill Curve – St Albans – Luton (for Luton Airport);
  - Basingstoke – Staines – Feltham (for Heathrow) – Brentford – Kew Curve – Old Oak Common – NLL – Stansted Airport;
  - GWML and WCML trains via Old Oak Common and the WLL to terminate at Clapham Junction;
  - HS2 – HS1 link trains via the WLL, Clapham Junction, East Croydon, Merstham Parkway (for the M23/M25 interchange and Gatwick), Tonbridge and Ashford International
8. However, once completed, future development of this rail complex, although presently in the middle of a large open space, is likely to be severely constrained by new building above and alongside it to meet regeneration and opportunity area expectations. Therefore, this rail complex needs to be future-proofed to at least the year 2080 (and include space for a new London Overground depot that can deal with sufficient 10-car trains, if Willesden Junction cannot).
9. As a final comment in this opening section, the complex needs to work efficiently as possible throughout; therefore, it should be designed and engineered to minimise (i) rail journey times, (ii) the hassle of interchanging, and (iii) internal walking timings.
10. The desirability of even-handedness in its operation could lead to an 'Old Oak Common Tsar', to receive, review and modify designs submitted for (i) the platforms on the four axes to produce a cohesive and efficient interchange with necessary connecting lines, e.g., HS2 (to/from Denham) – Crossrail (to/from Paddington) and HS2 (to/from Denham) – WLL (to/from Westway Circus), and (ii) outside surface links to and from the (to be developed) areas surrounding the station.

## B. WLLG's Concerns

In brief, our line of argument runs thus:-

11. Network Rail's Draft London & SE RUS shows an expected Capacity Utilisation of +185% on the West London Line. It is not clear as to what the scenario is/was on which this forecast was based (one- or two-way volumes; on which train formations, etc), but it seemed to exclude any impact that would arise from the RUS's expectation of interchange between the WLL, Crossrail (2018) and HS2 (2031), while putting forward a BCR of 4.2 for lengthening the WLL platforms to take 8-car trains.
12. Since then we now have virtually all of the Southern WLL trains being extended to 5- or 8-cars throughout the week as from May 2014 and the London Overground WLL trains to 5-cars by December 2015.
13. The +185% figure did not appear in the Final RUS (why not?), but the commentary still excluded any impacts of a WLL/Crossrail/HS2 interchange. (We note that at least one senior manager in Crossrail is still maintaining that Crossrail will only be building a depot and not a station at Old Oak Common.)
14. Networks north and south of the Thames are being developed to accommodate 10- or 12- car trains. So that the WLL is properly served from points south of Clapham Junction and north of Wembley/Willesden, WLL platforms should also be lengthened to accommodate 10-car (LO) and 12-car (Southern) trains. This would also include the WLL platforms at Old Oak Common.
15. Moreover, the WLLG is advocating intermediate stations on the HS2 axis between Old Oak Common and Birmingham International (Denham Parkway (Crossrail), Aylesbury/Chiltern Ridge (HS2), Claydon [for East-West Rail] (HS2) and North Warwickshire (HS2)). Denham Parkway's catchment would encompass Uxbridge, Slough, High Wycombe, Wendover, Hemel Hempstead and Watford. The local catchments of the other three stations represent a 13% increase above the combined populations of London (8 million) and Birmingham (2 million).
16. We are also advocating a new WLL station at Westway Circus both (i) to link new rail catchments (North Kensington, Ladbrooke Grove, White City and the new Imperial College campuses of Imperial College West and Hammersmith Hospital) that have a very high local rail usage with a new large set of destinations, and (ii) to provide much sought-after improved pedestrian and cycle access between this proposed station's hinterlands.
17. All trains on HS2 will be stopping at Old Oak Common (11 tph in each direction). How will they be properly served – even presuming a Crossrail interchange will be provided – and ease the pressures on the five Underground lines at Euston/Euston Square, unless they can be accessed from rail and other modes in the area? These other accesses, plus the new regeneration area that will be integral to the rail complex, will generate considerable demand for all these rail services, including the WLL.
18. However, no station exists at Old Oak Common yet. Therefore, there should be no justification in attempting to exercise 'Grandfather' or 'Higher Prestige Route' rights. The complex should be designed to allow all users to benefit equally from the complex's interchange possibilities. This means that every effort should be made by all concerned (including relaxing the 'Red Lines' put forward by

the DfT and/or local authorities) to ease access to and within the rail complex for the overall benefit of all passengers at Old Oak Common.

C. WLLG's Suggested Solutions

19. We see significant advantages in an independent 'Old Oak Common Tsar' being appointed to receive, review and modify designs submitted for (i) the platforms on the four axes to produce a cohesive and efficient interchange with necessary connecting lines, e.g., HS2 (to/from Denham) – Crossrail (to/from Paddington) and HS2 (to/from Denham) – WLL (to/from Westway Circus and (ii) accesses to local pedestrian, cycle, bus and other modes for the regeneration areas surrounding the rail complex.
20. Each rail axis should access each other with as little distance between them as possible to minimise the extended WLL and NLL journey times due to the sharp curves presently proposed and the walking times from their platforms presently proposed to be some considerable distance from the other axes. Otherwise, this will build in, even before the rail complex is open and, to the detriment of both the London and the UK economies many 'person-years' of non-productivity – permanently.
21. Given the relatively very low speeds of all GWML, Crossrail and HS2 trains immediately east of Old Oak Common, it should be possible to slew existing or lay new tracks to accommodate the requisite stanchions for the higher level WLL and NLL, thus reducing NLL/WLL through and interchange timings without any time penalties on the other axes. WLL timings will also be extended by the serving of Westway Circus, but this is not a case for its non-provision, given the multiplicity of rail and non-rail transportation, public safety and amenity advantages of its opening.
22. Plans for the interchange should remain largely as at present for the GWML/Crossrail and HS2 platforms, save that, to reduce the vertical distance between the latter and the WLL/NLL, the HS2 platforms should be elevated, as on the central section of the Piccadilly Line, using the resultant gradients to aid braking and acceleration. Even now, that between City Thameslink and Blackfriars (said to be 1 in 29) is efficiently negotiated by trains on the Thameslink network.
23. The WLL and NLL should invert their southern approaches to Willesden Junction, both crossing above the GWML/Crossrail/HS2 complex towards its eastern end, with new links between the western end of the WLL (12-car) platforms and (i) the Dudding Hill Curve (if necessary) and West Coast Main Line (for the WLL Southern services), and (ii) the present axis of the NLL to Willesden Junction (for the WLL LO services).
24. Similarly, the NLL should be diverted from close to Acton Wells Junction to run between the axes of GWML/Crossrail and HS2, with a two or four 10-car platform layout above the GWML/Crossrail/HS2 complex and curving back to join the present route of the WLL into Willesden Junction.
25. There should also be a link between the HS2 tracks (to/from Denham) and the WLL (to/from Westway Circus) to provide an additional link with HS1 via Clapham Junction, East Croydon, Merstham (for Gatwick and the M23/M25 junction), Tonbridge and Ashford International.
26. This would (i) allow for market growth, (ii) bring both HS networks closer to the rail and road links to south-east, southern and south-west England, and (iii) provide an alternative, diversionary HS route during times of disruption via Euston and Stratford.

27. Taking these proposed new axes for the WLL and NLL and careful design of the links in the paragraph above should mean that there would be no encroachment on areas such as Wormwood Scrubs.
28. HS2, GWML, WLL should all accommodate double-deck trains and HS2 should be wide enough to allow single-line working when needed – instead of ‘bustitution’ on what will be the UK’s premier rail network.
29. Space should also be included at Old Oak Common for a new London Overground depot that can deal with sufficient 10-car trains, if Willesden Junction cannot.

MLB

13 March 2014