

Dispersal from Old Oak Common

1. I believe that HS2's modelling forecasts 70% of passengers will use Euston, 30% Old Oak Common. While there would be a small reduction in HS2 volumes if the Old Oak Common - Euston section is dropped, I would expect that the time penalty for the great majority of the forecast Euston passengers would be limited, given the speed and capacity of Crossrail¹.
2. The latest indicative service pattern for Crossrail has 24 trains an hour through the central core at peak periods, but only 12 of these are shown to operate west of Paddington; the other 12 are shown to turn round at Paddington (sidings have been built at Westbourne Park to enable this). It is assumed that the Paddington trains will be extended to Old Oak Common when HS2 is built.
3. The 12 trains projected west of Paddington are projected to be busy, but it has always been assumed that many trains will terminate at Paddington as (1) there is insufficient demand to justify more running through, and (2) there are capacity constraints on the route, particularly because of the need to provide paths for freight trains. However, these join the route at Acton, west of Old Oak Common, so don't prevent more Crossrail trains operating through to OOC
4. The projected load factors on the western end of the core Paddington - Liverpool Street section have always been significantly lower than at the Eastern end, so there is spare capacity from Paddington to the West End. While there are high projected loadings at the eastern end of the central section in the peaks, the majority of HS2 passengers won't get that far.
5. Simplistically, the 12 trains an hour starting from Old Oak Common at peak periods could move 18,000 people, although of course this wouldn't allow for passengers joining at Paddington; if you say there's space for two thirds of this number, you could move 12,000 passengers an hour, or 192,000 a day (assume 16 hours). However, arrivals won't be equally spread over 16 hours, so there *may* be a potential problem in the morning peak period - but nothing compared with the problems at Euston without Crossrail 2. The Victoria Line and the City branch of the Northern Line are full today in the morning peak, whereas it's clear that Crossrail will have a lot of spare capacity at the Paddington end.
6. There is scope to increase the capacity of Crossrail to achieve operation of 30 trains an hour (as already happens on the Jubilee and Victoria Lines) giving a 25% capacity uplift. I believe there is also possible scope for longer trains, increasing train lengths from 9 to 10 (possibly 11) cars, although I'm not absolutely certain on this.
7. I judge Crossrail provides sufficient capacity to allow HS2 to terminate at Old Oak Common, particularly given the potential to increase the frequency to 30 trains an hour.

¹ As an example Crossrail will take 10 minutes from Old Oak Common to Tottenham Court Road; Euston to Tottenham Court Road takes 5 minutes, but the HS2 journey time to Old Oak Common is 7 minutes less than to Euston, so, if interchange times at Old Oak Common and Euston are the same, Old Oak Common is quicker. Clearly, Euston is better for Charing Cross and Victoria, while Old Oak Common is better for the City and Canary Wharf.