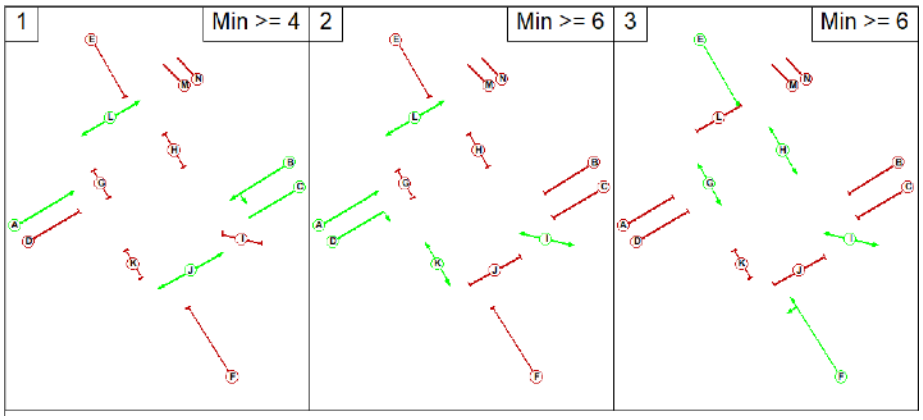
Introducing the left turn into Eversholt Street from Euston Road

As part of the HS2 Interim Taxi Rank relocation proposals, a design has been explored to allow taxis to turn left from Euston Road in to Eversholt Street which is currently banned. This would allow taxis to access the rank from Euston Road as the left turn in to Churchway has been banned as a result of a pedestrian improvement scheme in 2020.

Currently the pedestrian crossing operates at the same time as the Euston Road eastbound movement. To allow the left turn from Euston Road on to Eversholt Street a new method of control is required to allow taxis to make this movement. Currently most of the green time is given to the Euston Road due to the high demand of buses and vehicular traffic using the Inner Ring Road.

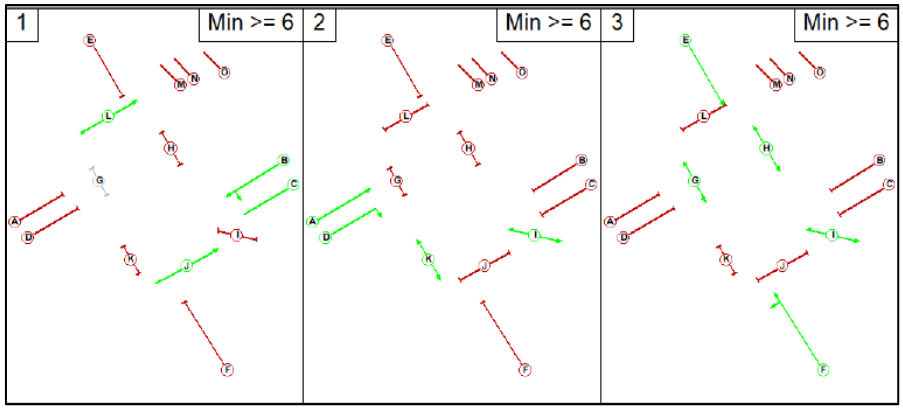
Proposed Changes to Method of Control

Current Method of Control



The method of control for the junction has been altered to introduce the pedestrian crossing on Eversholt Street (Phase L) which would operate in stage 1 and Euston Road eastbound would only operate in stage 2. The proposed method of control means that Euston Road would need to operate at different times to allow the pedestrian crossing to be demanded.

Proposed Method of Control



Modelling

The design was tested in a LinSig model to assess the impact of the changes on the junction of Euston Road/Eversolt Street/Upper Woburn Place. The HS2 Scenario 1 Interim Taxi Rank LinSig model was used to assess the new proposals on the network. The green times have been optimised as much as possible to balance the demand on each approach to this junction.

Modelling Results

		AM Peak	PM Peak

Approach		Future Base	Proposed	Future Base	Proposed
Euston Road (Eastbound)	Lane 1	64%	153%	72%	184%
	Lane 2	58%	138%	40%	101%
Euston Road Right Turn		93%	69%	68%	39%
Eversholt Street		63%	60%	37%	42%
Euston Road (Westbound)	Lane 1	43%	104%	99%	131%
	Lane 2	99%	121%	85%	109%
	Lane 3	86%	52%	82%	106%
Upper Woburn Place		98%	94%	108%	124%

The modelling results indicate the changes to the method of control at the junction of Euston Road/Eversholt Street/Upper Woburn Place will significantly impact capacity as the degree of saturation on multiple approaches are over 100%. In the new method of control, Euston Road movements will operate at separate times and the junction is unable to optimise causing significant delays which will also result in queuing on all approaches.

Overall, the proposals will have a significant impact on the junction and the high degree of saturation at multiple approaches means the junction is unable to optimise therefore this section of the network would experience a significant increase in delay to all road users especially to bus services.