



Proofs of Evidence

Highways England

East West Rail Western Section Phase 2 Transport and Works Act Order.

Topic: Impact of construction traffic on the Strategic Road Network at the M40 J10.

Witness: AECOM (individual names to be advised at a later date)

Reference: REP/8

Date: 7th January 2019

Proofs of Evidence from Highways England - ref REP/8

1. This Proof of Evidence has been prepared by Highways England in response to East West Rail Western Section Phase 2 Transport and Works Act Order (TWAO).
2. This proof of evidence should be read together with Highways England's previous consultation responses to the TWAO.
3. Highways England is responsible for the operation, maintenance and improvement of the Strategic Road Network (SRN) in England on behalf of the Secretary of the State. In the area affected by East West Rail Phase 2 we have responsibility for the M40, A43, A5, M1 and A421.
4. Firstly Highways England does not wish to raise any new areas of concerns or issues but wish to reiterate our previous comments we made.
5. Highways England main area of concern is
 - The impact of construction traffic on the SRN at the M40 J10 and Baynards Green roundabout, in particular Highways England requires clarification of the measures necessary to mitigate traffic impacts at this location.
6. Highways England has reviewed the impacts of the construction traffic of the proposed rail improvements at Junction 10 of the M40 (includes Ardley, Padbury and Cherwell roundabouts) and the adjacent Baynards Green roundabout.
7. Based on the information provided in the Transport Assessment, the construction traffic was likely to result in a peak hour traffic impact of 111 trips in the AM peak hour and 136 trips in the PM peak hour during the peak construction period at M40 J10. The construction traffic impact is expected to last only 1 month (July 2020), the shoulder months construction traffic impacts between April 2020 to June 2020 and August 2020 to October 2020 is expected to have a trip impact of more than 60 trips at this junction location
8. In addition, it has been noted in the transport evidence submitted by the applicant that the construction traffic for HS2 is expected to be on the network at these locations during the same period. The trip impacts from HS2 at this location are expected to be about 100 trips as reported in the transport evidence submitted by the applicant. Together, this level of construction traffic activity may have a significant impact on the performance of these junctions.
9. As part of the Transport Assessment prepared by the applicant for the proposal, capacity assessments have been undertaken using ARCADY for Padbury and

Baynards Green roundabout to assess the impact of peak construction traffic at these locations. While these models have not been checked in detail, a review of the modelling results for the 2020 Baseline scenario indicated inconsistencies regarding the representation of queueing at these junctions. Highway England's technical advisors AECOM consider that the wrong modelling tool has been used to access these junctions and that a VISSIM or similar microsimulation traffic model is necessary to understand fully the interactions between the junctions.

10. Highways England is aware of existing queueing issues at these junctions and interaction between junctions which was replicated in a 2016 Base VISSIM model developed by AECOM on behalf of Highways England. For the development of this model, staff from AECOM, went on site to observe the queueing behaviours to be replicated in the VISSIM model. The validation of the VISSIM model is explained further in the M40 Junction 10 VISSIM LMVR.
11. Whilst issues have been identified in the modelling work undertaken to assess the impacts of construction traffic at M40 J10 and Baynards Green roundabout, the construction traffic is expected to be temporary and indicated to last only for a few months.
12. Since the submission of the Statement of Case we have met Network Rail's consultants on 21st November 2018 to discuss the issues raised in our Statement of Case.
13. Highways England have shared the VISSIM Model with Atkins, so they can remodel the traffic flows with and without construction traffic impacts at J10 M40. This will enable all concerned to determine what measures are necessary to mitigate construction traffic impacts at these junctions.
14. Once the results of the modelling and mitigations have been agreed, Highways England will be willing to enter into a MoU with the applicant and in doing so remove the need to attend the Public Inquiry.