

**M25 JUNCTION 10/A3 WISLEY INTERCHANGE IMPROVEMENT SCHEME
DEVELOPMENT CONSENT ORDER
REPRESENTATION BY RHS**

RESPONSE TO REP10-004 (APPLICANT'S RESPONSE TO ExA Q4 – 4.13.1)

1.0 Introduction

- 1.1 This representation has been prepared by Mr Hibbert of TTHC and Mr Bunney of Hatch Regeneris on behalf of RHS and responds to the journey time results presented by the Applicant as set out in **REP10-004**.
- 1.2 In order to assist with understanding the differences between the DCO Scheme, including the modelled route and the signed route, and the RHS Alternative Scheme, the graphical representations of the respective routeing (as previously provided in **REP1-044 paragraph 2.11**) have been updated:
- https://www.youtube.com/playlist?list=PLeCTDIIV1xbZWCXD5S_BAx8GBwKRLHOY
- 1.3 As noted in **REP10-025** and **REP10-026**, the journey time estimates presented by RHS are calculated values based on estimated average journey times for the respective routes. It is noted that the Applicant journey times set out in REP10-004 are mostly based on model output with manual adjustments for the routeing components associated with the retained Wisley Lane movement on to the A3 northbound carriageway.
- 1.4 In order to assist in drawing comparisons between the Applicant and RHS data sets, the journey times from REP10-004 have been converted into average speeds and combined within tables with the RHS times, which are contained in **Appendix A** to this representation. Separate tables have been produced for AM peak hour, Inter-peak hour and PM peak hour.

2.0 Journey Time Comparisons

2.1 Most of the journey times between the two datasets compare well and are within 10kph (or 6mph) of each other. However, there are some exceptions and other matters which are shaded within the tables and discussed below, prior to conclusions being drawn.

AM Peak Hour

2.2 In the AM peak hour, the journey time difference between the RHS and Applicant figures for the route **from** the M25 east and west towards RHS is 3½ minutes in the DoMinimum scenario. It is expected that this difference is due to the RHS estimate not having fully accounted for the existing congestion in the AM at J10. Whilst this reduces the benefits of the DCO scheme and the RHS Alternative in terms of the improved journey times which would accrue over the DoMinimum, it doesn't have any bearing on the comparison between the DCO Scheme and the RHS Alternative.

2.3 From Wisley Lane heading South, the Applicant's model suggests an average speed of 48km/h for the RHS Alternative (via the southbound SFS) which is only 4km/h faster than the DoMinimum (which requires a u-turn at the signal controlled junctions of J10). When compared against the Applicant's signed route, the RHS Alternative (based on the model) is suggested to be 6km/h slower. This appears counter intuitive given that the DCO signed route, would require a u-turn at Ockham and a u-turn at J10. RHS would expect the option with SFS to have the highest average overall speed for this movement but this is not reflected in the Applicant's modelling.

2.4 There are two journey times for the RHS Alternative Scheme in the Applicant's model (namely those from RHS to the A3 North and M25(E)) which don't appear to be correct – see shaded speeds/journey times for these routes in the AM peak hour table. In these two cases, the journey times appear to underestimate the RHS Alternative by 1 to 2 minutes. The consequence of this apparent error is that the scale of benefit of the RHS Alternative vs either the DCO Scheme or the DoMinimum is overstated by the Applicant's figures for these two routes.

2.5 In any event, in all cases, whether Applicant data or RHS data is used, the RHS Alternative results in improved journey times against the DoMinimum and DCO Scheme for all round-trips in the AM peak hour:

- For those travelling to/from the south, the RHS Alternative would provide significant journey time savings of over the DCO Scheme of between 8 to 11 minutes.
- For those travelling to/from the north, the RHS Alternative would provide significant journey time savings of around 3 minutes.

Inter-peak Hour

2.6 In the Inter-peak hour, there are fewer significant differences between the datasets, meaning there is generally a good match between the RHS and Applicant journey times.

2.7 However, the Applicant's model results in a relatively low speed for the journey to and from the South to RHS for the RHS Alternative. The DCO signed route (which requires u-turns at Ockham roundabout and Junction 10) is suggested to be some 15km/h quicker from the south and some 10kph quicker for the return. This underestimates the benefits of the RHS Alternative when compared to the DCO Scheme.

2.8 There are again some journey times for the RHS Alternative Scheme from the Applicant's model (namely those from RHS to the A3 North and to M25(W)) which don't appear to be correct. In these two cases the journey times appear to be underestimated by around 1 minute. The consequence of this apparent error is that the scale of benefit of the RHS Alternative vs either the DCO Scheme or the DoMinimum is overstated by the Applicant's figures for these two routes.

2.9 In any event, in all cases, whether Applicant data or RHS data is used, the RHS Alternative results in improved journey times against the DoMinimum and DCO Scheme for all round trips in the AM peak hour:

- For those travelling to/from the south, the RHS Alternative would provide significant journey time savings of over the DCO Scheme of between 6 to 12 minutes.
- For those travelling to/from the north, the RHS Alternative would provide significant journey time savings of around 3 minutes.

PM Peak Hour

- 2.10 In the PM peak hour, there are again fewer significant differences between the datasets than in the AM peak hour, meaning that there is generally a good match between the RHS and Applicant journey times.
- 2.11 Again, however, the Applicant's model results in a relatively low speed for the journey to and from the South for the RHS Alternative. The DCO signed route (which requires u-turns at Ockham roundabout and Junction 10) is suggested to be some 12km/h quicker from the south and some 7kph quicker for the return. This underestimates the benefits of the RHS Alternative when compared to the DCO signed route.
- 2.12 There are again some journey times for the RHS Alternative Scheme from the Applicant's model (namely those from RHS to the A3 North and to M25(E)) which don't appear to be correct. In these two cases the journey times appear to be underestimated by around 1 minute. The consequence of this apparent error is that the scale of benefit of the RHS Alternative vs either the DCO Scheme or the DoMinimum is overstated by the Applicant's figures for these two routes.
- 2.13 As with the other time periods, in all cases, whether Applicant data or RHS data is used, the RHS Alternative results in improved journey times against the DoMinimum and DCO Scheme for all round trips in the PM peak hour:
- For those travelling to/from the south, the RHS Alternative would provide significant journey time savings of over the DCO Scheme of between 10 to 14 minutes.
 - For those travelling to/from the north, the RHS Alternative would provide significant journey time savings of around 3 to 3½ minutes.

Overall Summary

2.14 As noted, irrespective of whichever data set is used and irrespective of which time period, the RHS Alternative Scheme results in journey times which are significantly improved against the DCO Scheme, whether the signed or modelled route.

3.0 Socio-economic Impact Analysis

3.1 Hatch Regeneris have reviewed the journey time data provided by Highways England for the DCO Scheme and RHS Alternative scheme, along with the equivalent assessment undertaken by TTHC on behalf of the RHS (REP10-025).

3.2 On the basis of the information presented, sensitivity tests have been undertaken on some of the key outputs from the socio-economic impact analysis presented in REP6-024.

3.3 The Hatch Regeneris central case analysis in Table 14, REP6-024 forecasts the DCO Scheme will result in a transport user impact of -£28.8 million, with a further wider economic impact of -£58.6 million.

3.4 Notwithstanding the RHS objections to the Highways England journey time assessment, even if these were applied then the impacts would still be of a comparable magnitude (-£24.5 million and -£54.4 million, respectively).

3.5 The comparative central case socio-economic forecasts are presented in the table overleaf for each of Hatch Regeneris, Highways England (HE) and TTHC journey time forecasts, for both the impact of the DCO Scheme and the RHS Alternative.

3.6 In all cases, these sensitivity tests demonstrate that the DCO Scheme will have significant negative socio-economic impact and that the RHS Alternative Scheme offers significant improvement in comparison to the DCO Scheme of between £56 million and £74 million.

Table 1 - Outputs from Sensitivity Tests showing relative impact of different sources of Journey Time data upon the economic impact of the DCO Scheme and RHS Alternative in relation to trips to and from the Garden at Wisley (£ million, 2020 prices)

		<i>Source of Journey Time Data</i>		
<i>Scheme</i>	<i>Type of Impact</i>	<i>Hatch</i>	<i>HE</i>	<i>TTHC</i>
DCO Scheme	Transport User Impact	-28.8	-24.5	-30.6
	Wider Economic Impact	-58.5	-54.4	-59.8
	Total Economic Impact	-87.3	-78.9	-90.4
RHS Alternative	Transport User Impact	5.8	4.7	11.2
	Wider Economic Impact	-27.7	-27.7	-27.7
	Total Economic Impact	-21.9	-23.0	-16.5
Difference RHS Alt. vs DCO	Transport User Impact	34.6	29.2	41.8
	Wider Economic Impact	30.8	26.7	32.1
	Total Economic Impact	65.4	55.9	73.9

APPENDIX A
JOURNEY TIME COMPARISON TABLES)