RHS WISLEY

M25 JUNCTION 10 / A3 INTERCHANGE DCO
REQUEST FOR INFORMATION FROM HIGHWAYS ENGLAND
TRANSPORT MODELLING AND DATA INFORMATION

1 Copies of all traffic model information relied on within the DCO submission which has been provided to Surrey County Council.

Response

Throughout the development of the DCO application (between October 2017 and June 2019) the Scheme evolved after each consultation phase:

- Design Fix 2 refers to the Scheme at statutory consultation and January/February 2018. Data from the strategic model was used for the air quality assessment (see APP-050). This is provided as part of request 2.
- Design Fix 3 refers to the Scheme at the date of the December 2018 consultation. Data from the strategic model was used in the Transport Assessment, shared with Surrey County Council and is now issued in response to this request.
- Design Fix 3.1 refers to the Scheme at the consultation in April 2019 and includes changes at Seven Hills junction. The strategic model was not updated, and data used in the Transport Assessment for Seven Hills junction utilised the S-Paramics model.

In the '1_WKT_Flows' folder, there is a spreadsheet (WKT_Flows.xlsm) containing link flows from the strategic model for the following scenarios:

- 2015 Base
- 2022 Do Minimum and Do Something
- 2037 Do Minimum and Do Something.

These flows cover the following time periods:

- Morning peak period
- Inter-peak period
- Evening peak period
- Off-peak period

The spreadsheet contains a WKT reference which can be loaded into any GIS software package to plot the links- the required CRS is EPSG:3857.

This output is equivalent to that issued to Surrey County Council but is based upon Design Fix 3 and relates to the DCO submission.

RM Response

This requires review by GIS software.

Upon inspection this is missing new link/highway network information at Wisley Lane and Ockham for the DCO scheme and so is incomplete.

See attached a plot of the 'Existing' network which TTHC constructed from the information available - note the missing connections between the A3 and Wisley Lane. There is no equivalent network for the 'DCO Scheme' (ie with amended Wisley Lane to Ockham Link provisions). The missing information affects items (7), (8) and (11) below also.

2 Copy of all traffic modelling and forecasts used specifically in connection with the Air Quality assessment.

Response

The spreadsheets used for air quality assessment are included in folder 2_13 Air Quality, in the AQ Noise Assessment Traffic Data DM2 spreadsheet.

The flows used for the Air Quality Assessment utilised Design Fix 2.0 outputs (the statutory consultation scheme).

RM Response

Information has been provided, but not for the final Design Fix 3.

Highways England to provide information on the AADT flows for the links in Ripley and along the A3 for the final Design Fix 3, and describe the changes from the consultation flows to the final design fix.

3 Copies of the ANPR survey results (2014 and 2017), including any associated information and data required to enable the results to be interpreted/understood.

Response

Data has been provided in the folder '3_ANPR Surveys' including the following:

2014 ANPR

- 2014 ANPR Survey.xlsm-- Contains RAW 2014 ANPR Survey data

2017 ANPR

- ID03250 M25 J10 - ANPR Trip Chain Report - 16_05_2017v2.xlsx-- Contains raw trip chain data (origin-destination and journey time data)
- ID03250 M25 J10 - ANPR OD Report - 16_05_2017v2.xlsx—Contains raw Origin Destination flows by 15-minute period
- ID03250 M25 J10 - ANPR Sample Rate Report - 16_05_2017v2—Includes the number of captured and matched number plates
- 2017 Manual Count of RHS Wisley Gardens Entry and Exit- this manual count was undertaken using the video footage provided by the survey company.

The above spreadsheets contain raw data for 2014/2017.

Analysis for visitors to RHS will follow.

RM Response

When will the analysis follow?

4 **Copy of the Model Validation Report for the SERTM. Please include Zone system and centroid connection plan(s) if not provided in the Validation Report**.

Response

The model validation report for the SATURN has been provided in the folder '4_SATURN Model Validation Report' in the PDF file HE551522-ATK-GEN-XX_Z-RP-TR-000003. A Link structure figure of the location network has been provided in Figure 4-1 of the report. Figure 4.2 of the model validation report shows the zone structure in the Area of Detailed Modelling (AoDM) and traffic access points to and from the network (akin to a centroid connector plan).

RM Response

Thank you

5 **Copy of the Model Validation Report for the S-Paramics Model. Please include Zone system and centroid connection plan(s) if not provided in the Validation Report.**

Response

A PDF copy of the S-Paramics Local Model Validation Report is provided in the folder '5_S-Paramics Model Validation Report' in the PDF file HE551522-ATK-GEN-XX_Z-RP-TR-000007. The model extents are shown in Figure 6 of the Local Model Validation Report. A zoning plan, which also shows the model extents, has been provided in the S-Paramics Model Zones.png file. This shows where vehicles enter/exit the network and therefore a centroid connector plan is not required.

RM Response

Thank you

6 **The Transport Assessment Report (DCO Doc 7.4) states at para 3.4.3 that the Paramics model has been developed for the morning and evening peak periods. Please can you clarify whether the Paramics model has been developed for the Inter-peak period also or if this period relies solely on the SERTM**.

Response

The S-Paramics model has been developed for morning and evening peak periods. It does not cover the inter-peak period.

RM Response

Thank you

7 **Copies of the directional flow and turning movement plots for the study area for the 2017 Base Year and 2022 and 2037 forecast years for AM, Interpeak and PM Peaks (for Existing, Do Minimum and Do Something scenarios).**

Response

In the 'WKT_Flows' folder, there is a spreadsheet (WKT_Flows.xlsm) containing link flows from the strategic model for the following scenarios:

- 2015 Base
- 2022 Do Minimum and Do Something
- 2037 Do Minimum and Do Something.

These flows cover the following time periods:

- Morning peak period
- Inter-peak period
- Evening peak period
- Off-peak period

The spreadsheet contains a WKT reference which can be loaded into any GIS software package to plot the links- the required CRS is EPSG:3857

Turning flows to follow in due course. Please say whether plots or a spreadsheet would be preferred.

RM Response

This requires review by GIS software.

Upon inspection this is missing new link/highway network information at Wisley Lane and Ockham for the DCO scheme and so is incomplete.

See attached a plot of the 'Existing' network which TTHC constructed from the information available - note the missing connections between the A3 and Wisley Lane. There is no equivalent network for the 'DCO Scheme' (ie with amended Wisley Lane to Ockham Link provisions). The missing information affects items (7), (8) and (11) below also.

Also, some Link flows provided but turning flows still awaited. HE response requests our preference – Spreadsheet(s) would be preferred.

8 Select link analysis of trips for the scenarios referred to in (7) above, for Wisley Lane, the proposed Wisley Lane bridge link and B2215 High Street, Ripley.

Response

Select link analysis has been undertaken for Portsmouth Road and RHS Wisley Gardens. A spreadsheet containing this information is in the folder '8_Select Link analysis' in the spreadsheet Select Link analysis.

This spreadsheet contains flow information on each link relating to the Select Link scenario. The spreadsheet contains a WKT reference which can be loaded into any GIS software package to plot the links- the required CRS is EPSG:3857

Select link data has been provided for the following scenarios:

- 2022 Do Minimum and Do Something
- 2037 Do Minimum and Do Something.

These flows cover the following time periods:

- Morning peak period
- Inter-peak period
- Evening peak period
- Off-peak period

The origin/destination select links have been provided for RHS Wisley Gardens. This traffic would use Wisley Lane and the proposed Wisley Lane bridge link (in the with scheme scenario).

Please let us know if these individual sections of Wisley Lane and the proposed Wisley Lane bridge link are still required.

Base flows to follow in due course

RM Response

This requires review by GIS software.

Upon inspection this is missing new link/highway network information at Wisley Lane and Ockham for the DCO scheme and so is incomplete.

See attached a plot of the 'Existing' network which TTHC constructed from the information available - note the missing connections between the A3 and Wisley Lane. There is no equivalent network for the 'DCO Scheme' (ie with amended Wisley Lane to Ockham Link provisions). The missing information affects items (7), (8) and (11) below also.

Also, Select Links provided for 2022 and 2037 forecasts but 2015 Base noted as 'to follow in due course' – when?

9 Copies of the local junction models referred to in Chapter 7 of the Transport Assessment Report (DCO Doc 7.4).

Response

PDFs have been provided from the local junction models referred to in Chapter 7 of the Transport Assessment Report in folder '9_Local Junction Models'. The following PDF files have been provided:

- M25 Junction 10 Do Min LinSig
- M25 Junction 10 Do Something LinSig
- Painshill_Seven Hills Do Min LinSig
- Painshill_Seven Hills Do Something LinSig
- Ockham Do Min 2022 Junctions 9
- Ockham 2037 Do Min LinSig
- Ockham Do Something LinSig
- Ripley Junctions 9

Do Minimum (or DM) refers to Without Scheme and Do Something (or DS) refers to With Scheme.

RM Response

2022 and 2017 Junction Models have been provided but not the 2015 Base Models.

When will these be provided?

10 Copies of the journey time data (by link) from the model(s) which the journey time information presented in section 7.8 of the Transport Assessment Report has been based on.

Response

A spreadsheet (Distance-Time Graphs.xlsm) has been provided relating to the distance-time information from Section 7.8 of the Transport Assessment Report in the folder '10_Distance Time Graphs'. The first two tabs have data for each link on the journey time route, with the following tabs showing the graphs which were presented in the Transport Assessment Report.

The links in the spreadsheet can be related to the WKT references in the 'WKT_Flows' folder. These can be loaded into any GIS software package to plot the links- the required CRS is EPSG:3857

RM Response

Thank you

11 **Some of the tables presented in Chapter 7 of the Transport Assessment Report only provide information for the AM and PM peaks. Please can you provide the equivalent information for the Interpeak period also.**

Response

Flows have been provided in the "WKT_Flows" folder. The spreadsheet contains a WKT reference which can be loaded into any GIS software package to plot the links. The required CRS is EPSG:3857

RM Response

This requires review by GIS software.
Upon inspection this is missing new link/highway network information at Wisley Lane and Ockham for the DCO scheme and so is incomplete.

See attached a plot of the 'Existing' network which TTHC constructed from the information available - note the missing connections between the A3 and Wisley Lane. There is no equivalent network for the 'DCO Scheme' (ie with amended Wisley Lane to Ockham Link provisions).

12 **Accident references for any and all accidents which are being relied on as representing a specific weaving accident from Wisley Lane to M25 J10**.

Response

To follow

RM Response

When?

INFORMATION REQUIRED IN RELATION TO AIR QUALITY ISSUES

13 The traffic flows for all links within 2 km of the centre of Ripley for the baseline year, and for 2022 and 2037, as used in the Air Quality modelling (illustrated on a map).

Response

See query 2. 'WKT' Spreadsheets have been provided in folder 2_13 Air Quality. The links in the spreadsheet can be related to the WKT references in the 'WKT Flows' folder. These can be loaded into any GIS software package to plot the links- the required CRS is EPSG:3857

RM Response

The required information has been provided, but not for the final Design Fix 3. See response to (2) above.

14 What assumptions do these flows make about the proportions of RHS traffic accessing the RHS site to and from the south, i.e. traffic using the A3 to the south of Potters Lane, in relation to the designated routing via the A3 and the option of using Portsmouth Road through Ripley

Response

The TA (App-136) states in Section 7.8.5 that "the impact of the proposed road alignment is that all trips to/from Wisley Lane to/from the A3 south are expected to travel via Ripley". The alternate route, via a U-turn at M25 junction 10, takes marginally more time."

Ref APP-050 for details for model version used

RM Response

Please clarify whether this applies to the flows from Design Fix 2.0 or the final Design Fix 3.

15 The speeds used in determining emission factors on the road network at (13) above. Please provide a map showing speeds on different sections of the roads, i.e. how speeds are reduced at junctions.

Response

See query 2. The 'WKT' spreadsheets are in folder 2_13 Air Quality. No amendment was made to speeds at junctions as the speed banding approach is used which takes into account congestion.

RM Response

Thank you

16 **The modelled speeds on the A3 (from Ockham roundabout to the M25) for all three years with and without the scheme (these should be the speeds used to derive the speed bandings for the air quality model). With a map showing the speeds (not the speed banding) for each section of road.**

Response

The maps are provided in the folder for Response 16.

RM Response

Thank you

17 **Linked to (16) above, details of the speed analysis behind the speed-banding approach applied to the vehicle emissions, together with maps showing which sections of road have changed from one band to another for the different time periods**.

Response

The speed-banding approach has been conducted in accordance with Highways England Interim Advice Note (IAN 185/15). This IAN is provided in folder for Response 17. Maps showing speed bands used in the air quality modelling for each year and time period are provided in the folder for Response 17.

RM Response

Thank you

18 **Details of the emission factors for NOx used in the speed-banding approach for the three modelled years, with and without the scheme, for the roads identified in (13) and (16) above.**

Response

Emission factors for NOx used in the speed-banding approach have been taken from the Speed Band Emission Factors spreadsheet v3.1 provided by Highways England. The spreadsheet is provided in the folder for Response 18.

RM Response

Thank you

19 **The deposition velocities used to calculate N deposition, and whether different values were used for short vegetation and trees.**

Response

Deposition velocities used to calculate N deposition were taken from the Design Manual for Roads and Bridges (DMRB) HA 207/07 Annex F paragraph F2.3 Step 5 which states: "*Dry NO_2 deposition rates should be estimated using the following scaling factor which is based on a deposition velocity for NO_2 of 0.001 m/s (taken from EMEP Eulerian*

photochemistry model). 1 µg/m$_3$ of NO$_2$ = 0.1 kg N ha^{-1} yr^{-1}"
Different values were not used for short vegetation and trees

RM Response

Thank you

20 **The exact location of receptor R59 in Ripley (described as Aberdeen House, High Street, Ripley), as input to the model, and its distance from the road centre line and kerb. Please provide a detailed map showing the location**.

Response

The location of the receptor R59 and maps showing distances to the nearest roads are provided in Response 20 folder.

RM Response

Thank you

21 **Report 5.3 Habitats Regulations Assessment: Stage 2 throughout cites various Figures that are critical to understanding the document. These should be contained in Report 5.3 Habitats Regulations Assessment Figures (https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/TR010030/TR010030-000137-TR010030_5.3_HRA_figures.pdf) but all that can be found in that document is a list of figures with (apparently) incomplete document numbers. Where are the actual Figures to be located? And if they are not in the material posted online, will you please supply them as a matter of some urgency**

Response

These are now on line at:

https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/TR010030/TR010030-000290-TR010030_5.3_HRA_figures_01.%20n.b.%20THIS%20HAS%20BEEN%20UPDATED.pdf

RM Response

Thank you

HIGHWAYS ENGLAND REQUESTS FOR INFORMATION FROM RHS

Please may we be provided with the following:

A. Data from your membership database that supports the movement pattern assumed in the Motion Traffic Assessment (suitably anonymised) and any updates since that work

RM Response

Please see attached:

- Wisley Total Visitors Postal Area Breakdown;
- M25 Café Survey Oct 2019;
- UK Postal Areas - email

B. The economic assessment as referenced in the RHS letter of 26 March 2018 to Jonathan Wade at Highways England and any subsequent updates that will be referred to during the Examination.

RM Response

Counterculture Report dated November 2017 attached.

C. Survey/questionnaires carried out by RHS in reference to the Scheme, including questions and answers that will be referred to during the Examination (the letter of 26 March 2018 refers to a survey in late 2017)

RM Response

See Question B.

D. Details of any air quality assessment undertaken to date (including that referred to the RHS letter of 26 March 2018) that will be referred to during the Examination.

RM Response

The RHS has not undertaken any additional air quality assessments.

E. Current traffic numbers to and from the gardens and any revised projections of visitor demand.

RM Response

See Question A.

BDB Pitmans LLP
8 November 2019

Richard Max & Co
LLP

25-11-2019