

THE OXFORDSHIRE COUNTY COUNCIL (DIDCOT GARDEN TOWN HIGHWAYS INFRASTRUCTURE – A4130 IMPROVEMENT (MILTON GATE TO COLLETT ROUNDABOUT), A4197 DIDCOT TO CULHAM LINK ROAD, AND A415 CLIFTON HAMPDEN BYPASS) COMPULSORY PURCHASE ORDER 2022

THE OXFORDSHIRE COUNTY COUNCIL (DIDCOT TO CULHAM THAMES BRIDGE) SCHEME 2022

THE OXFORDSHIRE COUNTY COUNCIL (DIDCOT GARDEN TOWN HIGHWAYS INFRASTRUCTURE – A4130 IMPROVEMENT (MILTON GATE TO COLLETT ROUNDABOUT), A4197 DIDCOT TO CULHAM LINK ROAD, AND A415 CLIFTON HAMPDEN BYPASS) (SIDE ROADS) ORDER 2022

THE CALLED-IN PLANNING APPLICATION BY OXFORDSHIRE COUNTY COUNCIL FOR THE DUALLING OF THE A4130 CARRIAGEWAY, CONSTRUCTION OF THE DIDCOT SCIENCE BRIDGE, ROAD BRIDGE OVER THE APPLEFORD RAILWAY SIDINGS AND ROAD BRIDGE OVER THE RIVER THAMES, AND ASSOCIATED WORKS BETWEEN THE A34 MILTON INTERCHANGE AND THE B4015 NORTH OF CLIFTON HAMPDEN, OXFORDSHIRE (APPLICATION NO: R3.0138/21)

PLANNING INSPECTORATE REFERENCE:

APP/U3100/V/23/3326625 and NATTRAN/SE/HAO/286 (DPI/U3100/23/12)

Rebuttal proof of evidence of

Claudia Lesley Currie

Traffic Modelling

1 SCOPE OF EVIDENCE

- 1.1 This Rebuttal Proof of Evidence has been prepared regarding Traffic Modelling matters relating to Proofs of Evidence submitted by Rule 6 parties to the Inquiry.
- 1.2 The purpose of this rebuttal evidence is to respond to various points made in the evidence of other parties, to clarify points of confusion and to signpost where matters have already been dealt with in my main Proof of Evidence or its appendices. I have only addressed specific points that I consider need rebuttal, clarification, correction or signposting. Where I do not respond to a point raised by another party, my lack of response should not be construed nor interpreted as agreement, unless explicitly stated so within this Rebuttal Proof of Evidence.

2 MATTERS OF GENERAL CONCERN PREVIOUSLY ADDRESSED IN MY MAIN PROOF OF EVIDENCE

Induced Traffic

- 2.1 The following parties have suggested that induced traffic effects have not been considered or not properly considered:
- 2.1.1 Alan James (paragraph 22), Chris Hancock (Page 8 1st Paragraph and 4.2.16.3), Dr Angela Jones (paragraphs 17.2 and 18.4), Richard Harman (Paragraphs 3,6 and 5.2), Ng Chien Xen (paragraph 9) and Sam Casey-Rerhaye (paragraphs 8 and 18) on behalf of the NPC-JC;
- 2.1.2 Roger Williams (paragraphs 2.1 bullet point 4 and paragraph 3.3 b) on behalf of POETS; and
- 2.1.3 Roger Turnbull on behalf of East Hendred Parish Council (paragraph 2.11).
- 2.2 Induced traffic seems to be an issue of confusion in the context of what may trigger its presence in a modelled area and what action should be taken if it is. In my rebuttal below I have sought to help clarify what modelling considerations are taken into account to in order to establish whether induced traffic may be present.
- 2.3 The definition of induced traffic in the WSP DfT report entitled 'Latest evidence on induced travel demand: an evidence review' (publishing.service.gov.uk) (para 2.1.7 of Appendix CC3.1) is: *induced traffic can then be considered to consist of the change in traffic VKT [vehicle kilometres travelled] on a network that results from a change in:*
- *Mode of travel, e.g. switching from public transport to driving;*
 - *Frequency of travel, specifically in terms of making additional trips that were not made previously;*
 - *The distance travelled by changing route to the same destination or to a new destination;*
 - *The distance travelled by changing destination (change location of activities); and*
 - *In the longer term, the distance travelled due to changes in residential or employment location or as a result of changes in land-use.*
- 2.4 Any significant change in any of these parameters would require the need for variable demand modelling to be carried out. In the case of the Oxfordshire Strategic Model (OSM), Variable Demand Modelling (VDM) was carried out from the outset and, even though there was no evidence of induced traffic in the modelled area demand, modelling was carried out in line with the TAG guidance that was applicable at the time the model was constructed. As previously stated in my main proof of evidence, the TAG Guidance Units are a suite of living documents that are regularly updated.
- 2.5 Demand models are required to ascertain the change in travel behaviour of individuals in reaction to the changes in cost from the changed supply conditions. For example, where car congestion on the roads increases over time, people may decide to shift to public transport modes, travel to alternative locations or even travel less. The demand model takes these responses into consideration and simulates the choices that people make given the options that are available to them.
- 2.6 Induced traffic has, therefore, been considered as part of the modelling process and has been discussed in detail in my main proof of evidence at paragraphs 5.2 to 5.11, with traffic information cascading from the VDM completed in the OSM, through the Paramics microsimulation model to the detailed Transport Assessment as part of the comprehensive three-stage modelling process, as detailed in Section 2 of my main proof of evidence.

Paragraph 5.11 of my main proof of evidence summarises that “*the required modelling tests have been carried out and have shown that no further actions need to be undertaken as ‘induced traffic’ for this Scheme is not evident and is, therefore, not a cause for concern.*”

Geographical scope of the microsimulation traffic models

- 2.7 This topic has been raised as a concern by Alan James (paragraph 22) , Chris Hancock (Paragraph 4.1.2), Roger Williams (paragraph 2.1 bullet point 3 and paragraph 3.1) and Roger Turnbull (paragraphs 2.3, 2.6 and 2.8). A number of objectors raise the matter of the operation and modelling of Golden Balls roundabout, the A4074 and Nuneham Courtenay. This has been addressed previously in my main proof of evidence so I do not intend to repeat my evidence, although I will identify below where the relevant information can be found.
- 2.8 My main proof of evidence, paragraphs 5.27 to 5.29, summarise previous comments made in relation to the geographic scope of modelling. Paragraph 5.30 explains that the LPA commissioned Origin Transport Consultants to review elements of the Scheme including the geographic scope of the assessments (CDO.2, Annex 1), and they agreed with the assessments as set out in the Applicant’s Technical Note (CDO.1).
- 2.9 The Applicant’s Technical Note (dated 14 December 2023) concerning the Environmental Statement (CDO.1) includes detailed commentary on the Golden Balls roundabout, the A4074 and Nuneham Courtenay. The most relevant paragraphs of CDO.1 are 2.27 and 2.28, and the map shown at Figure 8, which shows the Scheme changes which alter which arm of Golden Balls roundabout some of the vehicular traffic uses. These changes in flows on the B4015 to Golden Balls and A415 through Burcot (towards Berinsfield) are an intended consequence of the Scheme. The flow reductions on A415 through Burcot help with the future plan for this route to become an important walking and cycling route between Berinsfield and Culham Science Centre / Railway Station / the new secondary school on the Land Adjacent to Culham Science Centre / Abingdon. The Non-Motorised User (NMU) improvements along the A415 through Burcot are to be delivered by the Berinsfield housing site as allocated in the SODC Local Plan 2035 (CDG.1), as per the Infrastructure Delivery Plan (CDG.1.9, Policy BER27).
- 2.10 The Applicant’s Technical Note also explains how there is a funded study of Golden Balls and the A4074, and how the multiple allocated development sites are required to contribute towards a future scheme at Golden Balls, as per the SODC Local Plan 2035 Infrastructure Delivery Plan.
- 2.11 Related to the geographic scope of modelling, Chris Hancock makes comments related to the traffic and noise modelling of Nuneham Courtenay in his paragraph 4.1.2, as does Roger Williams in his paragraph 3.6. Roger Turnbull also makes comments in his paragraphs 2.14 and 2.15 related to traffic modelling at Golden Balls roundabout, which is linked to Chris Hancock and Roger Williams’ comments. The principle of changes in flows at Golden Balls roundabout are already addressed in CDO.1 as explained in my paragraph 2.9 above, however, below I quote paragraph 3.20 of Andy Pagett’s main Proof of Evidence (AP1) as it addresses the specific point of flows changes on the A4074 at Nuneham Courtenay (bold emphasis added):

*“Noise impacts in Nuneham Courtenay are not specifically referred to in the ES. The village sits outside of the initially defined study area for the operational noise assessment. However, **all links in the traffic model are considered as part of the assessment**, initially using a spreadsheet calculation looking at the ‘Basic Noise Level’ (BNL), to identify ‘affected routes’ (with at least a minor change in BNL due to the Scheme). **The BNL change on the A4074 south of Nuneham Courtenay was negligible**, and therefore these links were not identified as ‘affected routes’. Nuneham Courtenay was, therefore, not considered further in the assessment as no potential for significant adverse traffic noise effects was identified in this location.”*

COVID impacts on traffic have not been considered in the traffic models

- 2.12 This topic has been raised as a concern by Russell Harman (Paragraph 3.6), Sam Casey-Rerhaye (Paragraphs 12 and 13) on behalf of NPC-JC and by Roger Turnbull on behalf of East Hendred Parish Council (paragraph 2.20).
- 2.13 Automatic traffic count data for Oxfordshire Council Highway Area and for the Strategic Highways has been analysed to show that the level of traffic in 2023 is approximately at the pre-COVID levels. This is discussed in detail in paragraphs 5.31 to 5.40 of my main proof of evidence, and in Appendix CC2.6 to my main proof of evidence.

Decide and Provide approach has not been evidenced

- 2.14 This has been raised as a concern by Roger Williams (paragraph 2.3.1 bullet point 2) on behalf of POETS.
- 2.15 The Decide and Provide approach and Predict and Provide approach have been considered as part of the three-stage modelling process. This has been discussed in detail in paragraphs 2.49, 5.12 to 5.26 of my main proof of evidence, and in paragraphs 2.42 to 2.45 of the proof of evidence of John Disley.

3 NEW GENERAL MATTERS ARISING

3.1 This section considers matters of a general nature that have arisen in the proofs of evidence of Rule 6 parties to the called-in Planning Application Inquiry, largely being the same parties as outlined in paragraph 2.1 above.

Mode Shift

3.2 Alan James (paragraph 34) and Chris Hancock (Section 2 Page 7 last paragraph) both raise a concern that mode shift options have not been considered.

3.3 The ability for individuals to switch travel modes has been considered during the Variable Demand Modelling (VDM) which allows for individual trips to switch between private vehicles and public transport (bus and rail), which has been discussed in detail in paragraphs 2.30 and 2.38 of my main proof of evidence.

3.4 Support for additional bus services to have been provided by Oxford Bus Company (CDN.7) as the Scheme will enable mode choice from the outset.

3.5 The use of active travel modes, walking and cycling, are encouraged by the level of non-motorised user infrastructure that is to be delivered as an integral part of the Scheme. These modes choices have been accounted for in the level of trip rates used when determining the use of motorised vehicle trips from each development identified in the uncertainty log.

HGV movements and Weight Restrictions

3.6 Chris Hancock (paragraph 4.2.9 and 4.2.16.4), Dr Angela Jones (paragraph 17.3) and Sam Casey-Rerhaye (paragraphs 18) all raise a concern that HGV movements would increase through villages as they would not be required to follow existing routeing agreements.

3.7 All three stages of the traffic modelling take account of HGVs.

3.8 The Scheme does not propose to remove the existing weight limit on the village roads. If HGV movements related to minerals and waste operations in Sutton Courtenay are being referred to, the vehicle movements are subject to routing agreements under the Highways Act 1980. If an operator wished to amend a routeing agreement, it would need to go through the official process and be considered by Oxfordshire County Council as Local Planning Authority, including consultation.

Attraction of Traffic

3.9 Chris Hancock (page 17 last paragraph), Dr Angela Jones (paragraph 17.3) and Roger Williams (paragraph 3.3 C and throughout section 3) all raise the issue that the Scheme will attract traffic from the A34 to the Scheme, which will have an impact on the surrounding villages.

3.10 Diversion from the A34 is discussed at paragraphs 4.20 and 4.21 of Appendix CC2.7 to my main proof of evidence, together with the map shown at Figure 1 in paragraph 4.21. These paragraphs use information from a previous response on the same matter, in "Joint Parish Council Comments – Response Note" (CDB.9, pp.2 to 3).

Construction Phase Modelling

3.11 Russell Harman makes general comments about the traffic modelling and states (Section 3.6) that *"for the Inspector to make an informed decision, the Applicant should provide this [construction Phase modelling] evidence at the Planning Stage."*

3.12 It is not clear how Mr Harman has come to his conclusions, which seem to assume that the Scheme planning application and modelling methodology was similar to that of a developer

scheme seeking planning permission for approximately 175 dwellings in Sutton Courtenay. This is not the case, as set out in the Scheme Transport Assessment (CD A.7) and my main proof of evidence which sets out in detail, in Section 2, the three-stage modelling process utilised in the Scheme modelling assessment.

- 3.13 Whilst a Construction Phase scenario has not been modelled using the Paramics model, ES Chapter 16: Transport (Section 16.10) includes an assessment of the impact of construction traffic on the local highway network. This is based on information provided by Graham Construction Limited, the Early Contractor Involvement (ECI) Contractor, including likely site access points and an estimate of the monthly construction traffic flows at each site access. These vehicle movements were distributed onto the local highway network taking into consideration existing weight and width restrictions.

Out of Date Traffic and Census Data

- 3.14 Russell Harman (paragraph 3.6) and Roger Turnbull (paragraphs in Section 3) both raise the concern that out-of-date traffic data and census data has been used in the development of traffic flows and mode share levels.
- 3.15 Traffic data has been used from neutral month traffic counts in the appropriate calibration / validation years for the three-stage traffic modelling as detailed in my main proof of evidence. The Transport Assessment model output information cascades from the Paramics model as detailed in my main proof of evidence. Where appropriate, this has been informed by the latest available Census data at the time of the Planning Application, which was that from 2011. The 2021 Census contains a warning on its landing page "Chapter 6 - Using the Data" that the information was collected during the COVID pandemic and it should not be relied upon - *"Take care not to overinterpret the data from the travel to work topic. We are unsure whether people on furlough followed guidance as intended. Because of this and complications resulting from some inconsistency in the guidance, it is unclear how representative the method of travel, distance travelled, and derived variables are of Census Day¹."*

¹ [Travel to work quality information for Census 2021 - Office for National Statistics \(ons.gov.uk\)](https://ons.gov.uk/census/2021-census-data/using-the-data)

4 NON-COMPLIANCE IN TRAFFIC MODELLING

- 4.1 In this section, I address matters raised by Rule 6 parties that suggest that the traffic modelling is not compliant with good practice and industry standards.
- 4.2 Chris Hancock states in paragraph 4.2.9 that the traffic modelling through Appleford (Link 26) *“is not based on credible traffic flows”,* and *“speed restrictions will be maintained or lowered with or without the HIF road”*. In 4.2.12, Mr Hancock states *“Traffic calming measures or vehicle restriction for commuter cars on Main Road must be in place if there is a future traffic growth, either due to the HIF1 road or other road scenarios. So, there should be no substantial increase in traffic on Main Road (B4016) for future scenarios.”*
- 4.3 My main proof of evidence addresses in its entirety why the traffic flows are credible. In relation to the speed limits on the roads in Appleford, pages 49 to 53 of Appendix G of the Transport Assessment (CD A.7) set out the speed limits assumed in the model, which show that the same speed limits through Appleford are assumed in all scenarios with or without the Scheme, as Mr Hancock states should be done.
- 4.4 Chris Hancock (paragraph C Page 8) details that the option appraisal is not compliant with DfT WebTAG Transport Appraisal Guidance dated 2014. The modelling optioneering was compliant with the relevant TAG Guidance Units published at the time of the Scheme development in respect to the modelling requirements as detailed in my main proof of evidence Section 2.
- 4.5 In paragraph 2.6 Sam Casey-Rerhaye states *“Traffic flow projections suggest that the HIF1 scheme will actually result in more traffic passing through Clifton Hampden than at present. Without downgrading the A415 from Clifton Hampden to Berinsfield to a B-Road, not included in these plans, traffic seeking to avoid the likely jams at Golden Balls will use the A415. (Issues 1,2,5)”*
- 4.6 It is not clear why Sam Casey-Rerhaye states that the Scheme will increase traffic flows passing through Clifton Hampden. As per Appendix CC2.9 of my main proof of evidence, the traffic modelling shows flows through the village significantly decreasing as a result of the Scheme. The most relevant links to the village and their traffic flows with and without the Scheme has been extracted from Table 3.1 in CC2.9 and is replicated below for ease:

| Link Number | Link Name | 2034 DN | 2034 DS | Absolute Difference | Percentage Difference |
|-------------|--------------------|---------|---------|---------------------|-----------------------|
| 29 | B4016 High Street | 16,110 | 3,671 | -12,439 | -77% |
| 38 | A415 Abingdon Road | 14,402 | 2,384 | -12,018 | -83% |
| 39 | A415 Abingdon Road | 11,249 | 2,139 | -9,110 | -81% |
| 40 | B4015 Oxford Road | 12,707 | 2,481 | -10,226 | -80% |

5 DATA REQUESTS

- 5.1 On behalf of East Hendred Parish Council, Roger Turnbull requested additional data and sensitivity testing for the traffic modelling which are provided below in summary. However, I would respond that none of these additional requests would change the decisions made by the Applicant to progress the Scheme. However, where possible the information requested has been provided below.
- 5.2 Requests for additional sensitivity modelling based on a series of assumptions detailed in his Proof of Evidence are listed in his conclusions on page 31, as he suggests they should be use as *“robust evidence, covering impacts across a wider area”*, and the suggested modelling changes requested by him in the conclusion to his proof of evidence are:
- i. *“Modelling a wider area covering Abingdon, Wantage, A4074.*
 - ii. *A housing requirement based on the 2023 NPPF-based Standard Method, applying research/general industry-based trip rates for the Campuses.*
 - iii. *Applying the 2022 National Road Traffic Projection Behavioural Scenario.*
 - iv. *Assessing 70% of total vehicular demand for all development.*
 - v. *Assessing 80% of total vehicular demand for all development.*
 - vi. *Using HIF1 funding from omitting the most-costly, environmental [sic] harmful, schemes with limited benefits, the Science Bridge & River Thames Crossing.”*
- 5.3 In paragraph 2.10 Mr Turnbull also requests traffic flow data on all the links-coloured green in the OSM model. This would be a significant volume of data and relevant extracts have been reported throughout my main proof of evidence or appendices, and those of the other witnesses, where appropriate, to clarify the effect of the Scheme on the surrounding area.
- 5.4 In Section 2.1, Mr Turnbull queries why the assessment years used in the Transport Assessment (TA) (CD A.7) and ES (CD A.15, Chapter 16) differ from those used in the SODC Local Plan Evaluation of Transport Impacts: Stage 3 Development Scenarios and Mitigation Testing – Addendum (CDG.1.5). Paragraph 5.2.1 of the TA (CD A.7) sets out the reasons for the assessment years used in the TA and ES chapter, replicated below for ease:
- “Completion of the Scheme is currently planned for 2024. The adopted Vale of White Horse District Council (VoWHDC) Local Plan Part 1 and 2 period ends in 2031. The adopted South Oxfordshire District Council (SODC) Local Plan period ends in 2035, although little growth is expected between 2034 and 2035. Therefore, based on the guidance set out in Section 2.5 of this report and the available model years, and as agreed with the highway authority, the following assessments have been undertaken for the purposes of this TA:*
- *2020 Baseline;*
 - *2024 (year of Scheme opening) – without Scheme;*
 - *2024 (year of Scheme opening) – with Scheme;*
 - *2034 (design year) – without Scheme; and*
 - *2034 (design year) – with Scheme”.*
- 5.5 Traffic flows for selected links are tabulated (Table 1 of Mr Turnbull’s proof of evidence) and then discussed below in paragraphs 5.6. Table 1 of Mr Turnbull’s proof of evidence is reproduced below for clarity. It has been assumed that reference to ‘Scenario 5c’ in the proof of evidence means the 2034 DS scenario in the ES. Figures in **bold** were incorrect in Mr Turnbull’s proof of evidence and have been amended. Traffic flows shown for the 2034 DN scenario are the updated flows from the *2034 DN Traffic Flow Update Technical Note* (Appendix CC 2.9).

Table 1 – Assessed Links with Modelled Daily Traffic Flows

| | 2024 DN | 2034 DN | 2034 DS | 2034 DS - 2034 DN | Percentage Difference |
|--|---------|---------------|---------|-------------------|-----------------------|
| Link 1, A34 North of Milton Interchange | 71,116 | 77,867 | 76,931 | -936 | -1% |
| Link 3, A34 South of Milton Interchange | 49,809 | 50,350 | 49,622 | -729 | -1% |
| Link 8, A4130 West of Milton Interchange | 21,723 | 26,329 | 25,507 | -821 | -3% |
| Link 10, A4130 East of Milton Interchange | 30,989 | 40,955 | 39,598 | -1,357 | -3% |
| Link 34, Tollgate Road | 7,650 | 10,076 | 3,061 | -7,015 | -70% |
| Link 35, A415 to/from Abingdon | 11,133 | 9,785 | 14,893 | 5,107 | 52% |
| Link 37, A415 Culham Station | 10,910 | 13,494 | 29,919 | 16,424 | 122% |
| Link 39, A415 East of Clifton Hampden | 7,349 | 11,249 | 2,139 | -9,111 | -81% |
| Link 41, B4015 to/from Golden Balls roundabout | 9,337 | 12,812 | 27,640 | 14,828 | 116% |

5.6 In sections 2.10 to 2.15 Mr Turnbull queries some of the link flows shown in Table 1, above. These are addressed below:

5.6.1 *“On Links 1,3 & 8, the amended model results show no difference in traffic flows on the A34 & A4130 between the Do Minimum & Scenario 5c Option. That means that the assessment of the Milton Interchange for these options, in paragraph 6.9.1-9 of the Transport Assessment Part 1, is no longer credible or robust evidence. It argues that there would be a 2-hour journey time delays in 2034 without HIF1 & a slight increase with HIF1 in para 6.9.4. This is not credible with the amended 2034 flows on the A34 & A4130 being the same for 2034 with & without HIF1.”*

5.6.2 The link flow data included in the ES Transport Chapter 16 (CD A.15.16) was updated in my Proof of Evidence Appendix CC2.9. In the original ES Chapter (CD A.15.16), paragraph 16.5.2 (replicated below) explains how 2034 without Scheme data (including the link flows) is extracted from the Paramics model, which is by running the model at 70% demand and then factoring back to 100%:

5.6.3 *It is not possible to extract meaningful results from the 2034 model without the with Scheme scenario as the model network gridlocks. To enable results to be extracted for comparisons, in the 2034 without the Scheme scenarios the model has been run at 70% total demand (70% of everything, after the demand reduction) to prevent gridlock. These values have then been factored back up to 100% to calculate the ‘factored’ flow e.g. how many vehicles will have wanted to go through that junction, if the network had not been gridlocked.”*

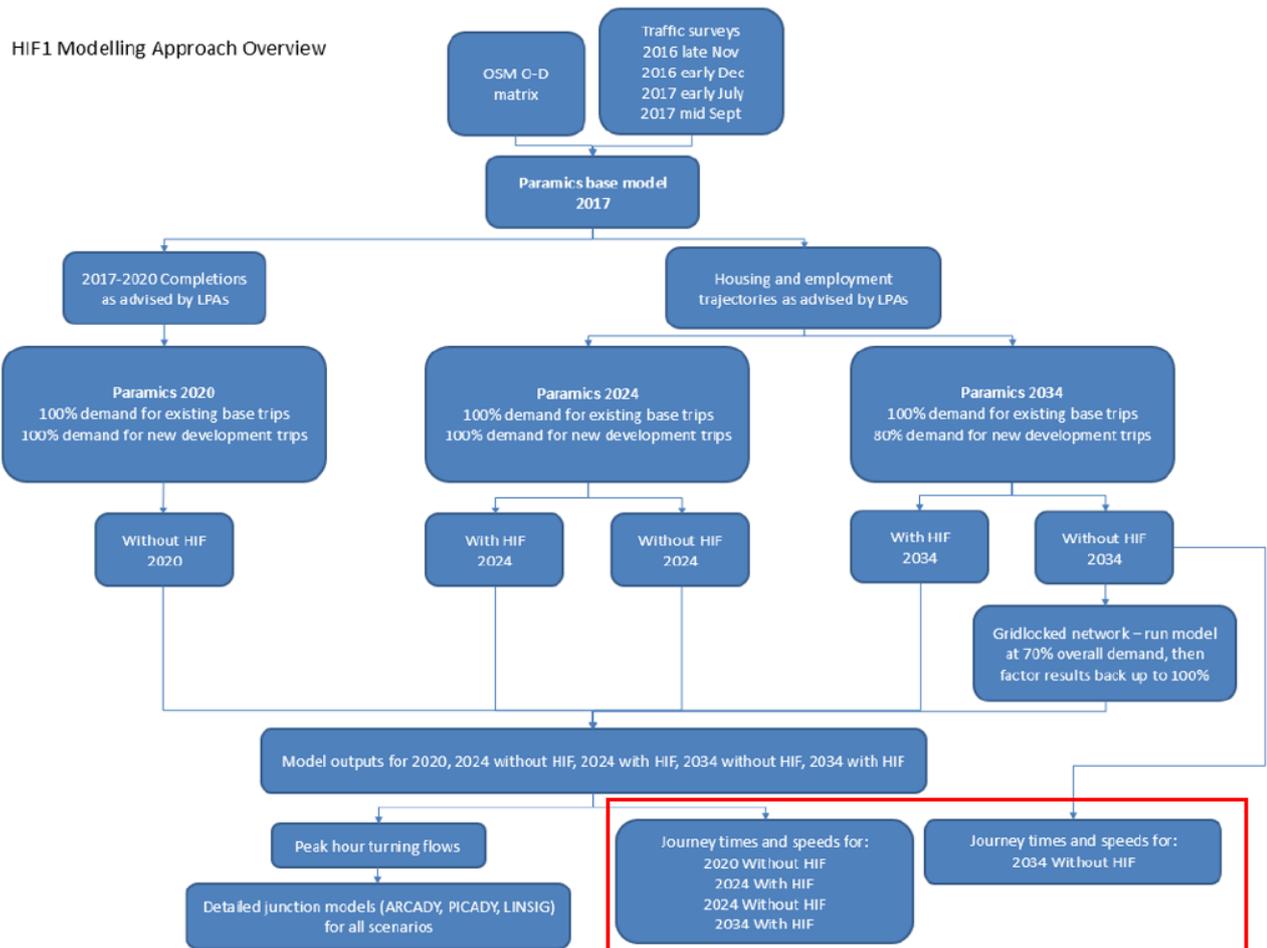
5.6.4 The Transport Assessment (CD A.7) explains that journey time and speed data do not undergo this factoring, this is because journey times and speeds cannot be factored to enable comparisons. TA paragraph 5.3.11 states (bold emphasis added):

*“Initial model runs exhibited significant congestion in 2034 with the full development demand in place. To enable results to be extracted for comparisons, in the 2034 without HIF scenarios the model has been run at 70% total demand (70% of everything, after the demand reduction explained in paragraph 5.3.8) as this value enabled the model to run without gridlock. Modelled journeys were able to be completed, and therefore data could be extracted. These data have then been factored back up to 100% to calculate the ‘factored’ flow e.g. how many vehicles would have wanted to go through that junction, if the network had not been gridlocked. **As shown in Figure 5.2, the 70% factoring exercise was not***

undertaken for the 2034 without HIF journey time and speed data presented in this TA.”

5.6.5 Figure 5.2 from the TA is replicated below for ease, with a red box added to highlight the methodology used for journey times across different scenarios:

Figure 5.2: Modelling Approach Methodology



5.6.6 Therefore, the journey time data and conclusions drawn in the Transport Assessment related to Milton Interchange remain unaffected by the data update reported in my Appendix CC2.9. This was also confirmed in paragraph 1.1 of my Appendix CC2.9 (replicated below):

5.6.7 An error was made in the reporting of one dataset in the Environmental Statement (ES) Chapter 16: Transport submitted with the Didcot Garden Town Highway Infrastructure Fund (HIF1) planning application. The Technical Note in Appendix CC2.9 provides the replacement dataset and shows how there is no change to the overall results of the ES Chapter. This error did not impact any other ES chapters or disciplines, and the results do not change the assessment of the Scheme. The dataset was not reported anywhere other than in ES Chapter 16.

5.6.8 It should also be noted that journey times reported in the TA (CD A.7) in relation to Milton Interchange are for the peak periods of 07:00-10:00 and 16:00-19:00, whereas the link flows reported in my Appendix CC2.9 are daily 24-hour flows.

- 5.6.9 Link 10 (A4130 East of Milton interchange) – Didcot Science Bridge reduces traffic flows on the A4130 through Didcot, so to understand the impact of Didcot Science Bridge the flows on a link to the east of it, not west as Mr Turnbull has done, need to be examined. For example, Link 14 (A4130 to the east of Science Bridge) shows a 51% reduction in traffic in 2034 with the Scheme.
- 5.6.10 Link 35 (A4130 to Abingdon) - As noted in para. 2.12 of the *2034 DN Traffic Flow Update Technical Note*, the increase shown on Link 35 (A415 to/from Abingdon) between the 2034 DN and DS scenarios is due to congestion at the A415/Tollgate Road junction restricting traffic flows through this part of the network in the DN scenario; this is illustrated in the 2024 DN to DS comparison (Table 3.3 of the *2034 DN Traffic Flow Update Technical Note* (Appendix CC 2.9)) where there is less congestion in the DN scenario and the change in daily flow on Link 35 is +290 (3%).
- 5.6.11 The projected daily flow on the proposed bridge has been requested. The daily two-way traffic flow on the new River Crossing in 2024 is 14,258 vehicles and in 2034 is 26,222 vehicles.
- 5.6.12 Links 39 and 41 (A415 and B4015 flows east of Clifton Hampden) - The net increase shown in traffic flows east of Clifton Hampden on Links 39 (A415) and 41 (B4015) is due to congestion in Clifton Hampden in the DN scenario restricting traffic flows along the A415; in the DS scenario the Scheme has relieved congestion so the traffic flows more freely and this creates an apparent net increase in traffic east of Clifton Hampden. The 2024 DN/DS comparison in Table 3.3 of the *2034 DN Traffic Flow Update Technical Note* (Appendix CC 2.9), where there is less (but still some) congestion in the DN scenario, indicates a smaller net increase of 975 vehicles.
- 5.7 In paragraph 2.16 Mr Turnbull requests clarification on the benefits of the Clifton Hampden Bypass in terms of journey time savings and suggests that these should be compared with construction costs of improvements at Golden Balls roundabout.
- 5.8 Journey times on routes through Clifton Hampden are shown in Tables 6.40 and 6.41 of the TA; the journey times along the A415 (orange route) and B4015 (yellow route) are reduced significantly between the 2034 DN and DS scenarios. As noted in Section 6.10.5 of the TA (CD A.7), severe congestion at the traffic signals in Clifton Hampden is a significant contributing factor to the high journey times in the DN scenario, and this congestion is relieved by the Scheme. Improvements at Golden Balls roundabout are not part of the Scheme and therefore construction costs are not available. The Place Planning and Coordination Team at Oxfordshire County Council is undertaking work for a future strategy for Golden Balls roundabout, as explained in more detail in paragraph 2.28 of CDO.1 “POETS Request for Regulation 25 Letter Rebuttal” dated 14 December 2023.
- 5.9 In paragraphs 4.1 to 4.12 Mr Turnbull references travel statistics from various sources, including the DfT document National Road Traffic Projection 2022 (NRTP). In paragraphs 4.12-4.14 he concludes that alternative road traffic projections should be considered in assessing the Scheme.
- 5.10 NRTP considers 8 different scenarios, of which the Behavioural Change Scenario referenced by Mr Turnbull results in the lowest levels of traffic. All eight scenarios predict traffic levels to increase until 2060. Section 2.5 of the NRTP 2022 states ‘*Given the strategic, high-level nature of the National Tripend Model, the projections are not anticipated to be directly used to appraise individual road schemes, nor are they intended to be used to consider capacity changes on a specific road or solutions to specific local issues. The additional detail needed for this kind of policy usually requires a bespoke scheme model which uses the growth rates from the projections, the Department’s Transport Analysis Guidance (TAG), and more local information.*’

5.11 In conclusion, none of the data requests, clarifications nor the sensitivity tests requested would alter the decision-making process carried out to determine the Scheme. The modelling presented in my main proof of evidence and the supporting appendices concludes that the modelling carried out is robust, up to date at the time of completion, and continues to support the proposed Scheme. The forecasting is detailed in my main proof of evidence in paragraph 5.17, which has been developed from housing trajectory and completion information.

6 RESPONSE TO PROFESSOR GOODWIN'S EVIDENCE

- 6.1 Professor Goodwin's proof of evidence has been presented on behalf of POETS and raises three main points concerning:
- the lack of consideration of induced traffic;
 - use of up-to-date models; and
 - the use of uncertainty in traffic scenarios used in provide evidence for other specialist witness areas, such as emissions and value for money used in the development of the business cases.
- 6.2 Induced traffic mentioned in his paragraph has already been covered in my main proof of evidence and earlier in this rebuttal proof of evidence.
- 6.3 In paragraph 9 of Professor Goodwin's proof of evidence reference is made to the DfT document 'National Road Traffic Projections 2022' (NRTP 2022), noting that this includes a range of possible traffic growth scenarios (or projections) and that these have not been considered in the assessment of the Scheme.
- 6.4 Paragraphs 2.4 and 2.5 of NRTP 22 set out the intended use of the projections. Paragraph 2.4 states that:
- "The NRTP 22 will be used to:*
- *provide an evidence base for strategic policy development. This includes exploring the uncertainties through effective application of the CAS.*
 - *provide a consistent baseline for transport business cases. Especially for freight and LGV projections and for smaller projects that don't require a strategic transport model. In addition to transport investment for national, subnational and local transport authorities, NRTP is also used in wider system planning, such as land use, electrical grid and other infrastructure developments that will have an impact on traffic.*
 - *provide further insight into transport, such as projections of Light Goods Vehicle (LGV) and Heavy Goods Vehicle (HGV) traffic that are not produced elsewhere."*
- 6.5 NRTP Paragraph 2.5 states:
- "Given the strategic, high-level nature of the NTM, the projections are not anticipated to be directly used to appraise individual road schemes, nor are they intended to be used to consider capacity changes on a specific road or solutions to specific local issues. The additional detail needed for this kind of policy usually requires a bespoke scheme model which uses the growth rates from the projections, the Department's Transport Analysis Guidance (TAG), and more local information."*
- 6.6 The Paramics model used to assess the Scheme has been created specifically for the purpose of examining planning and infrastructure proposals for the area, and considers local issues of congestion and planned housing and employment growth in the immediate vicinity of the Scheme. The traffic information used in Paramics was extracted from OSM which was developed taking appropriate account of the relevant NRTP in its forecasting process.
- 6.7 In paragraphs 19-21 of his proof of evidence, Professor Goodwin comments that the NRTP 2022 scenarios have an impact on carbon and other emissions, which has an impact on the business cases. The business case is discussed in Aron Wisdom's main proof of evidence AW1 paragraph 6.17.
- 6.8 In 2022 the DfT published updated guidance on treating Forecasting and Uncertainty as stated in Professor Goodwin's proof of evidence (paragraph 12). This was an update to TAG Unit M4 and simply requires additional sensitivity testing to help support any decision-making process

when any new or updated modelling is carried out for DfT. It is noted that the OSM model, which forms the basis of the traffic information for this Scheme, pre-dated this 2022 changed requirement by DfT to consider completing up to six specified uncertainty modelling sensitivity tests for all business case submissions to DfT, which are determined on a case-by case basis in agreement with DfT. Just to note the business case for this Scheme was submitted to the Department for Levelling Up and Communities, formerly the Ministry of Housing Communities and Local Government, and not to the DfT.

7 STATEMENT OF TRUTH AND DECLARATION

- 7.1 I confirm that, insofar, as the facts stated in my rebuttal evidence are within my own knowledge, I have made clear what they are and I believe them to be true and that the opinion I have expressed represent my true and complete professional opinion.
- 7.2 I confirm that my rebuttal evidence includes all facts that I regard as being relevant to the opinions that I have expressed and that attention is drawn to any matter which would affect the validity of those opinions
- 7.3 I confirm that my duty to the Inquiry as an expert witness overrides any duty to those instructing or paying me, and I have understood this duty and complied with it in giving my evidence impartially and objectively, and I will continue to comply with that duty as required.
- 7.4 I confirm that, in preparing this rebuttal evidence, I have assumed that same duty that would apply to me when giving my expert opinion in a court of law under oath or affirmation. I confirm that this duty overrides any duty to those instructing or pay me, and I have understood this duty and complied with it in giving my evidence impartially and objectively, and I will continue to comply with that duty as required.
- 7.5 I confirm that I have no conflicts of interest of any kind other than those already disclosed in this rebuttal evidence.

CLAUDIA CURRIE

13 February 2024