

Joint Parish Council Comments – Response Note

This Note sets out the applicant's (Oxfordshire County Council - OCC) response to the comments drafted by Charlie Hopkins Planning and Environmental Consultant dated 18th February 2022 drafted on behalf of Appleford, Sutton Courtenay, Culham, Nuneham Courtenay and Burcot & Clifton Hampden Parish Councils. Collectively the Parish Councils are referred to as the Neighbouring Parish Council Join Committee (NPC-JC).

This Note's structure is based on the Further Information and Evidence requested in the comments.

Consideration of Options and Alternatives

1. Could OCC provide a list of all the options that emerged from the scoping exercise that led to the selection of the preferred scheme?

Appendix A Option Assessment Report (OAR) of the submitted Design and Access Statement sets out the options and alternatives considered by OCC to address the current and future transport and highway issues identified with the delivery of new growth expected in the County. This new growth is set out in the South Oxfordshire Local Plan and Vale of White Horse Local Plan. The original options and alternatives were considered in the 'Access to Science Vale' Option Assessment Report (OAR) Part 1, completed by OCC in March 2018 and documented Steps 1 to 6 of the Department for Transport's (DfT) Transport Appraisal Process.

Subsequently, 'Access to Science Vale' OAR Part 2 was produced by OCC in August 2019, to document the remaining steps (Steps 7 to 9) of the Transport Appraisal Process, address the remaining requirements for the OAR not covered in Part 1, summarise the development and assessment of the potential options suggested in Part 1, and provide a clarification of the methodology and scope for further appraisal for the scheme to be taken forward.

The OAR prepared by AECOM and submitted with the planning application was commissioned to reflect the updated evidence base and options developed more recently, including consideration of multi-modal transport options which were not considered previously. This OAR replaces the Part 1 and Part 2 OARs listed above.

Environmental Statement Chapter 3 Assessment of Alternatives sets out the reasonable alternatives to the proposed development as required under The Town and Country Planning (Environmental Impact Assessment) Regulations 2017.

Please see the aforementioned documents for details of the options and alternatives considered by OCC in relation to the proposed development.

2. Could OCC provide copies of the documentation relating to how the options were evaluated and tested, together with the methodology used to compare the options identified?

The documents have now been provided to the Parish Councils, sent via email (download link) on 8th March 2022.

3. Could OCC provide an explanation as to the reasons for the options identified in webTAG being rejected?

It is not clear what is specifically been requested as part of this question.

Paragraph 3.3.18 of ES Chapter 3 provides a summary of the environmental impact appraisal for the outline business case (December 2018). It states, "OCC undertook a further environmental study in 2018 (Ref 3.13), which appraised the same options, but provided WebTAG and Appraisal Summary Tables (ASTs) in accordance with the DfT's, Transport Analysis Guidance Unit A3: Environmental Impact Appraisal. This reached a similar conclusion, that the options will have the greatest potential impacts on the water environment and cultural heritage assets. In addition, it was concluded that there could be some slight beneficial effects in relation to noise (related to the redistribution and rerouting of traffic) and greenhouse gases (related to a reduction in total kilometres travelled over a journey)."

A summary of the report's findings is provided in Appendix 3.1 and the whole document was issued to the Parish Councils on 8th March 2022.

4. Could OCC provide a description of the methodology used to evaluate the life cycle carbon impacts of the options selected for inclusion in the scheme and those rejected?

The appraisal and sifting of options in the OAR has been split into two main phases, with the second utilising the DfT's best practice Early Assessment and Sifting Tool (EAST) as a framework for appraising options against criteria aligned with HM Treasury's five business case model (strategic, economic, managerial, commercial and financial).

Many of the criteria have been judged qualitatively however where data has been available this has been used to inform the appraisal. For E2.1 Carbon Emissions, reference was made to the ES for the four component HIF schemes. For the additional option (Improved stations at Didcot & Culham plus new station at Grove) which was also taken through to Phase 2 of the appraisal, a qualitative assessment was undertaken, informed by guidance set out in DfT's EAST.

5. Can OCC identify the full range of behavioural change options considered in the evaluation process, such as Workplace Travel Plans and Mobility as a Service (MaaS)?

The options and alternatives considered by OCC are set out in the OAR and ES Chapter 3.

Behavioural change alone will not address the current and predicted transport and highway issues in the Science Vale area. Travel Plans are required to support planning applications submitted to South Oxfordshire District Council and the Vale of White Horse District Council and will be provided for developments that the proposed development will unlock. These Travel Plans will set out the measures to encourage behavioural change.

However, the proposed development will facilitate in promoting behavioural change through the provision of a significant segregated pedestrian and cycle network, providing members of the public with the opportunity to travel on foot or by bike in areas where no such provision (or segregated provision) is currently provided. The proposed development will also improve journey time reliability for public transport through reducing congestion, enabling members of the public to have more confidence in bus services adhering to their timetables.

Traffic Modelling

Query A: Substantial concerns arise from the reassignment of traffic from the A34 to using the upgraded HIF alignment and the subsequent impacts on the junctions into surrounding villages. Could Oxfordshire County Council confirm if junction reassignment has taken place and provide visual results of the demands along the HIF alignment in 2034?

As shown on Figure 1 Route A (Milton – HIF1 roads – A4074 via Golden Balls) is approximately 20 kilometres in length with the need to navigate 13 junctions (signals and roundabouts and roundabouts) and has sections of 30mph and 40mph roads. Compared to Route 2 (Milton Interchange – A34 – Redbridge) which is approximately 15 kilometres in length with the need to navigate 2 junctions (both signals) which for the vast majority of length is on 70mph roads.

Furthermore, paragraph 1.1.1 of the submitted Transport Assessment states:

'.....The Scheme does not aim to provide unlimited highway capacity for cars, or to remove all congestion; it forms part of a balanced transport strategy which also provides high-quality walking and cycling infrastructure, helping to engender modal shift to more sustainable modes.'

Given the above the HIF1 Scheme is not considered to be an attractive alternative for drivers to reroute from the A34 to/from Oxford and beyond.

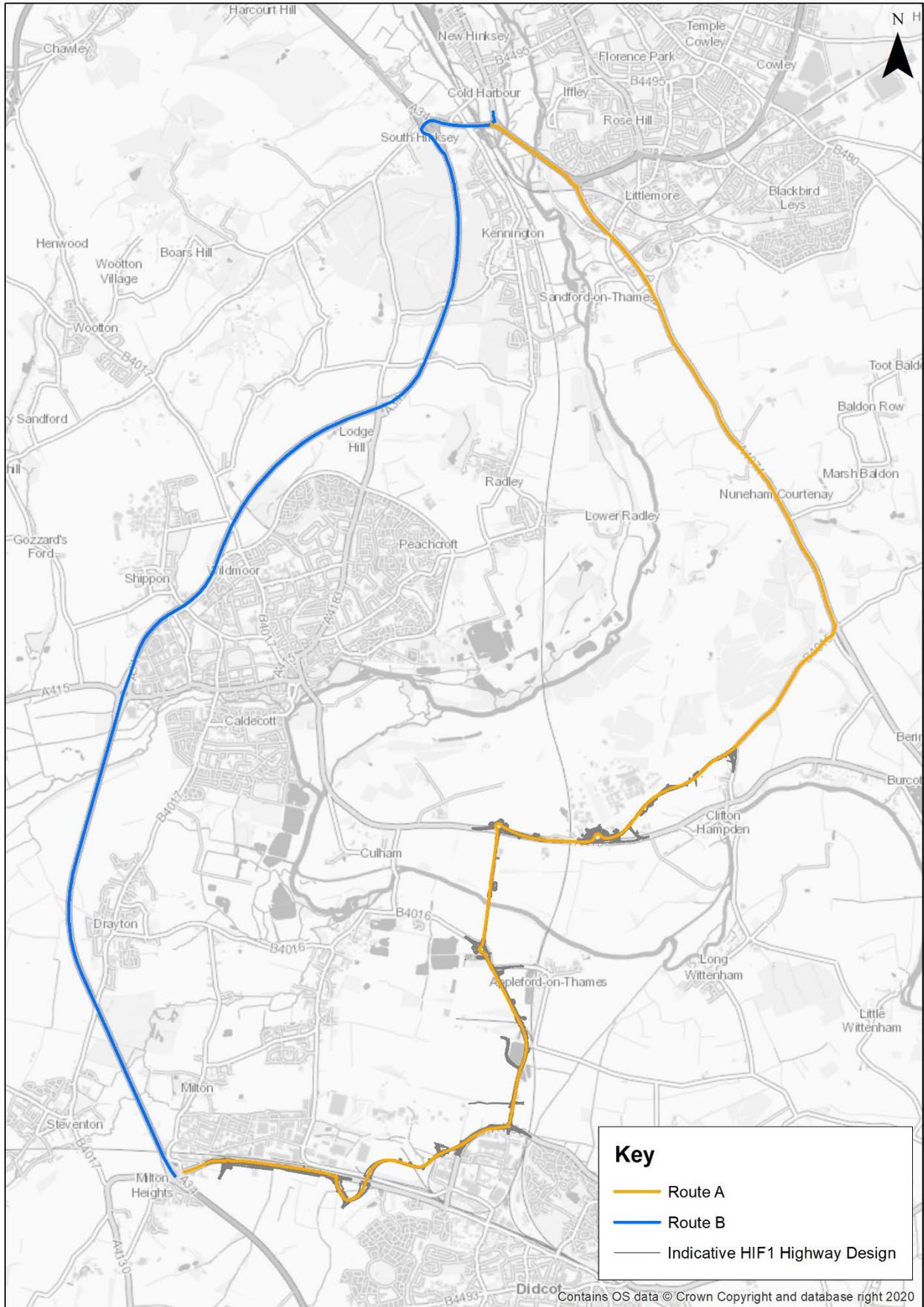


Figure 1: Routes

Query B: Could comparative modelling be undertaken to demonstrate the effects of traffic calming and speed restrictions on B4016 Drayton Road and Church Street through Sutton Courtenay, and B4016 Main Road Appleford when considering their links to the HIF1 proposal? In addition, could OCC comparative modelling be undertaken to evaluate the traffic density (including queue lengths) within Sutton Courtenay along the Drayton Road, High Street and Church Street; and Appleford assuming no interconnection between the B4016 and the proposed HIF1 road, to prove whether traffic will increase or decrease through Sutton Courtenay under the present proposal?

Traffic calming, speed restrictions and Low Traffic Neighbourhoods (LTN) etc. in local Villages is currently outside the HIF1 scheme scope, however the benefits from the HIF1 scheme creates the environment for these options to be explored in the future.

The predicted daily traffic flows with and without the HIF1 scheme is set out in Table 16.4: 2034 Daily Two-way Traffic Flows of Chapter 16 Transport of the submitted Environmental Statement. For ease the relevant links through the surrounding Villages have been highlighted overleaf and the selected road links locations has also been extracted from Figure 16.4 of Chapter 16 Transport.

Figure 16.4: Selected Links for Assessment

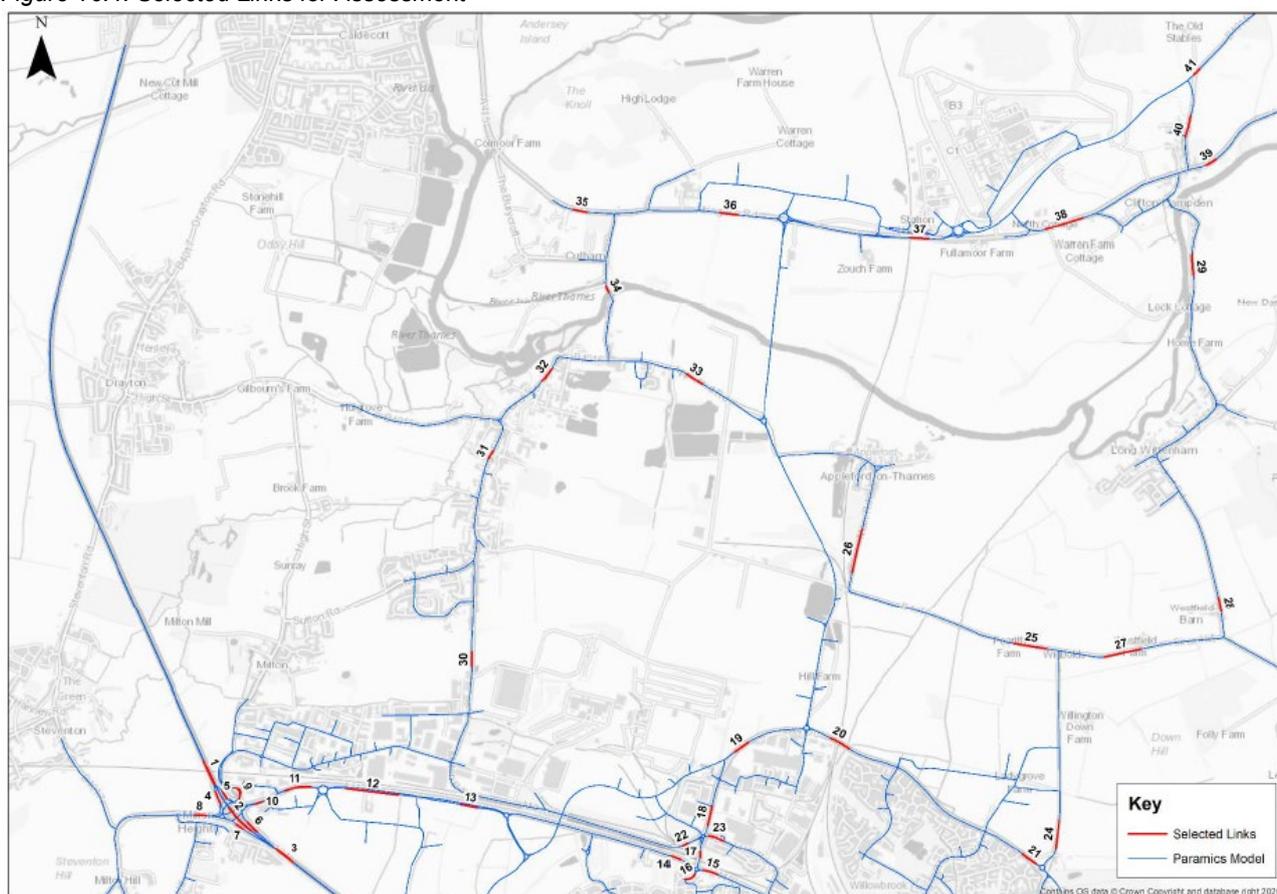


Table 16.14: 2034 Daily Two-Way Traffic Flows

Link		All Vehicles				HGVs			
		2034 DN	2034 DS	Absolute Difference	Percentage Difference	2034 DN	2034 DS	Absolute Difference	Percentage Difference
21	A4130	13,855	15,927	2,072	15%	730	624	-106	-14%
22	Milton Road	19,184	14,521	-4,663	-24%	1,257	605	-651	-52%
23	Basil Hill Road	3,333	6,142	2,809	84%	528	492	-36	-7%
24	Lady Grove	14,171	5,439	-8,732	-62%	342	61	-281	-82%
25	B4016	9,077	3,083	-5,993	-66%	193	2	-191	-99%
26	B4016	9,594	3,087	-6,506	-68%	195	2	-194	-99%
27	Sires Hill	18,625	6,853	-11,773	-63%	251	63	-189	-75%
28	Saxons Heath	18,071	3,712	-14,359	-79%	186	1	-184	-99%
29	B4016 High Street	18,202	3,671	-14,531	-80%	307	99	-208	-68%
30	Harwell Road	14,293	7,134	-7,159	-50%	614	134	-479	-78%
31	High Street	13,340	6,429	-6,911	-52%	687	166	-521	-76%
32	B4016 Church Street	16,388	10,823	-5,564	-34%	787	333	-454	-58%
33	B4016 Appleford Road	9,771	10,364	593	6%	155	490	335	217%
34	Tollgate Road	11,569	3,061	-8,508	-74%	729	210	-518	-71%
35	A415 Abingdon Road	10,484	14,893	4,408	42%	450	575	125	28%
36	A415 Abingdon Road	14,510	16,369	1,859	13%	672	675	2	0%
37	A415 Abingdon Road	15,886	29,919	14,032	88%	641	808	167	26%
38	A415 Abingdon Road	17,436	2,384	-15,051	-86%	665	48	-617	-93%
39	A415 Abingdon Road	13,259	2,139	-11,120	-84%	409	41	-369	-90%
40	B4015 Oxford Road	14,626	2,481	-12,145	-83%	449	71	-377	-84%
41	B4015 Oxford Road	14,741	27,640	12,898	87%	451	784	333	74%

As highlighted traffic restrictions in local villages are outside of the HIF1 scheme scope and therefore have not been modelled. As demonstrated the HIF1 scheme is predicted to significantly reduce daily and peak hour traffic in Appleford, Burcot, Clifton Hampden, Culham, Long Wittenham and Sutton Courtenay. If traffic calming was implemented in the future this may further reduce the attractiveness of these routes. But this will need to be considered when or if these traffic calming measures come forward.

Furthermore, on Tuesday 19th October 2021 Oxfordshire County Council Cabinet approved a proposal for a Countywide 20mph policy and New Approach. The proposal is aimed to:

- make streets safer;
- encourage residents to walk or cycle; and
- reduce noise and pollution.

The initiative will not be compulsory and will need to be supported by the parish/town council and by the local County Councillor. Further information can be found here

www.oxfordshire.gov.uk/residents/roads-and-transport/traffic/requesting-20mph

Query C: Traffic Modelling (Through Local Villages) – The Parish Councils have concerns around a lack of investigation of the traffic on existing local roads connecting to the proposed road, in particular:

As set out within Query A the Scheme does not aim to provide unlimited highway capacity for cars, or to remove all congestion; it forms part of a balanced transport strategy which also provides high-quality walking and cycling infrastructure, helping to engender modal shift to more sustainable modes.

- **Rush hour capacity of the new river bridge and potential overspill impact on Culham, Burcot, Clifton Hampden and Sutton Courtenay.**

Please see below which has been extract from the submitted Transport Assessment:

6.6.23 *The results of the 2024 and 2034 capacity assessments for the New Thames River Crossing / B4016 Appleford Road junction are presented in the following table.*

Table 6.11: Operation of New Thames River Crossing / B4016 Appleford Road (SCH10)

Arm	2024				2034			
	AM		PM		AM		PM	
	Max RFC	Queue						
New Thames Crossing	0.32	1	0.56	1	0.69	2	0.91	9
B4016 Appleford Road (S)	0.42	1	0.39	1	0.69	2	0.67	2
B4016 Appleford Road (N)	0.41	1	0.25	0	0.42	1	0.37	1

6.6.24 The results indicate that the junction will operate within capacity in 2024 and 2034, although the desirable maximum RFC of 0.85 will be exceeded in the 2034 PM peak with a small queue of nine vehicles.

Furthermore, please refer to response B and associated link flows.

- Rush hour density on the A415 at Culham and the effect on the adjacent Europa School.**

As agreed with the Local Highway Authority during pre-application discussion the A415 junction with Thame Lane was not required to have detailed junction assessments.

Table 5.1: Tollgate Road/Abingdon Road Junction (OFF 11) - Abingdon Road (E) Arm Traffic Flows (pcus)

Year / Scenario	AM	PM
2020	508	704
2024 No HIF	483	501
2024 With HIF	476	552
2034 No HIF	605	376
2034 With HIF	526	674

- Rush hour density on the A415 at the Culham Science Centre and the effect on the adjacent residential properties.**

Please see below which has been extract from the submitted Transport Assessment:

6.6.27 The results of the 2024 and 2034 capacity assessments for the A415 / Clifton Hampden Bypass / Culham Science Centre junction are presented in the following table

Table 6.13: Operation of A415 / Clifton Hampden Bypass / Culham Science Centre (SCH12)

Arm	2024				2034			
	AM		PM		AM		PM	
	Max RFC	Queue						
CSC Access	0.05	0	0.28	0	0.11	0	0.38	1
Clifton Hampden Bypass (E)	0.21	0	0.12	0	0.34	1	0.25	0
Clifton Hampden Bypass (W)	0.67	2	0.35	1	0.94	13	0.58	1
CSV Access	0.04	0	0.07	0	0.50	1	0.15	0

6.6.28 The results indicate that the junction will operate within capacity in 2024. In 2034 the junction is shown to be operating within capacity in both peaks, although the desirable maximum RFC of 0.85 is exceeded on the Clifton Hampden Bypass (W) arm in the AM peak.

- Rush hour density on the A4074 passing through Nuneham Courtenay.**

Nuneham Courtenay is outside of the Paramics study area. Furthermore during the pre-application stage with the Highway Authority the impact on Nuneham Courtenay was agreed to be scoped out.

- **Rush hour density on the B4016 passing through Sutton Courtenay, including identifying traffic separately from the Drayton Road and the High Street directions.**

Please see below which has been extract from the submitted Transport Assessment:

6.8.25 *The results of the capacity assessments for the B4016 Appleford Road/Abingdon Road junction (OFF 10) and A415 / Tollgate Road junction (OFF 11) are presented in Table 6.32 and Table 6.33 for 2024 and 2034 respectively.*

Table 6.33: Operation of Tollgate Road / Abingdon Road Junctions (OFF 10 & OFF 11) - 2034

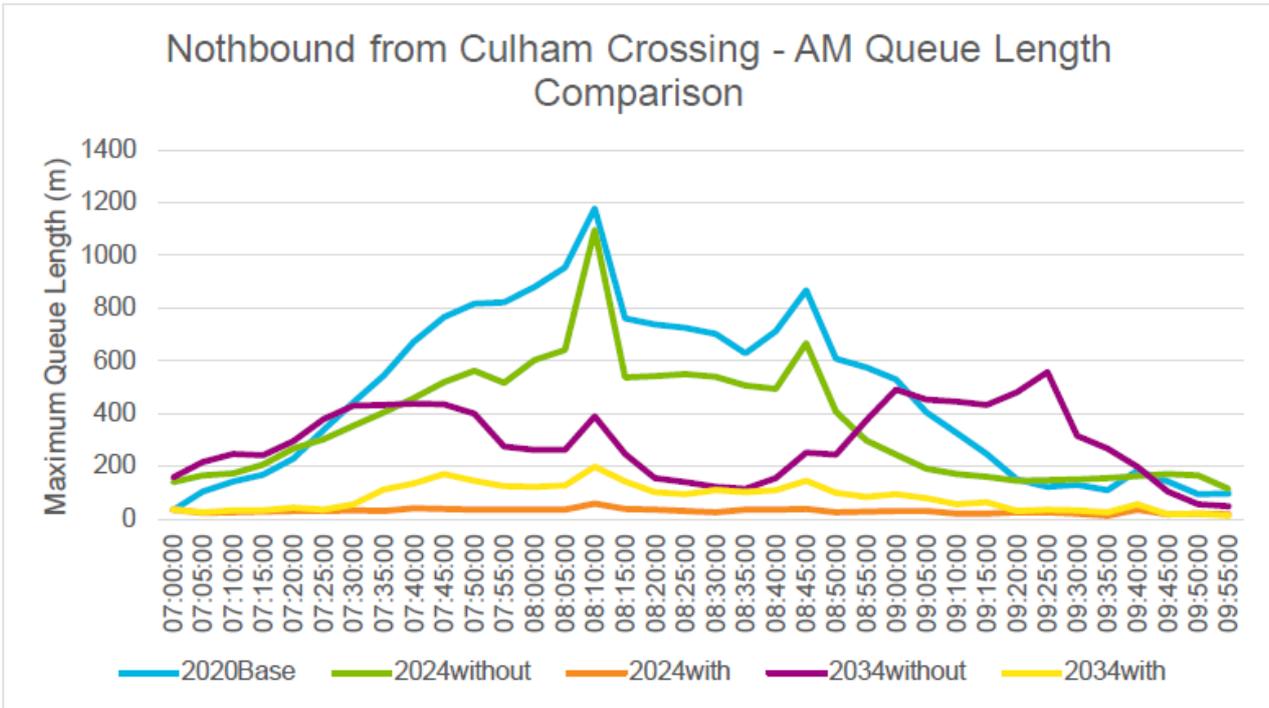
Movement	Without HIF1				With HIF1			
	AM		PM		AM		PM	
	DoS	MMQ	DoS	MMQ	DoS	MMQ	DoS	MMQ
A415 / Tollgate Road Junction Signals								
Abingdon Rd (E) - Ahead Left	81%	11	75%	7	78%	14	80%	16
Tollgate Road – Right Left	93%	16	78%	10	84%	11	73%	5
Abingdon Rd (W) - Ahead Right	91%	13	64%	5	70%	18	54%	7
Culham Bridges Signals								
Culham Br N/bound - Ahead	133%	109	100%	30	82%	17	45%	8
Culham Br S/bound – Ahead	65%	16	84%	16	16%	3	20%	4
Appleford Road / Abingdon Road Priority Junction								
Appleford Rd (E) – Right Ahead	26%	0	31%	0	34%	0	36%	0
Appleford Rd (W) – Left Ahead	73%	1	57%	0	39%	0	34%	0
Abingdon Road – Left Right	121%	87	85%	17	24%	3	44%	6
Cycle time	154 / 111 seconds							
PRC	-47.2%		-10.7%		+6.9%		+12.9%	

6.8.27 *In 2034 there is further deterioration in network performance in the AM peak. Network performance in the PM peak is indicated to be similar to the 2020 scenario, however this is related to congestion on the network elsewhere preventing traffic reaching these junctions, as for the 2024 scenario.*

6.8.28 *In the ‘with HIF1’ scenarios there is a significant improvement in network operation, with all junctions operating within capacity in both 2024 and 2034 and predicted queue lengths at a level that would not block back to adjacent junctions. The forecast PRC for all junctions in 2024 is between 24.7% and 46.5% and in 2034 it is forecast to be between 6.9% and 12.9% indicating that there will be spare capacity at these junctions with the HIF1 Scheme.*

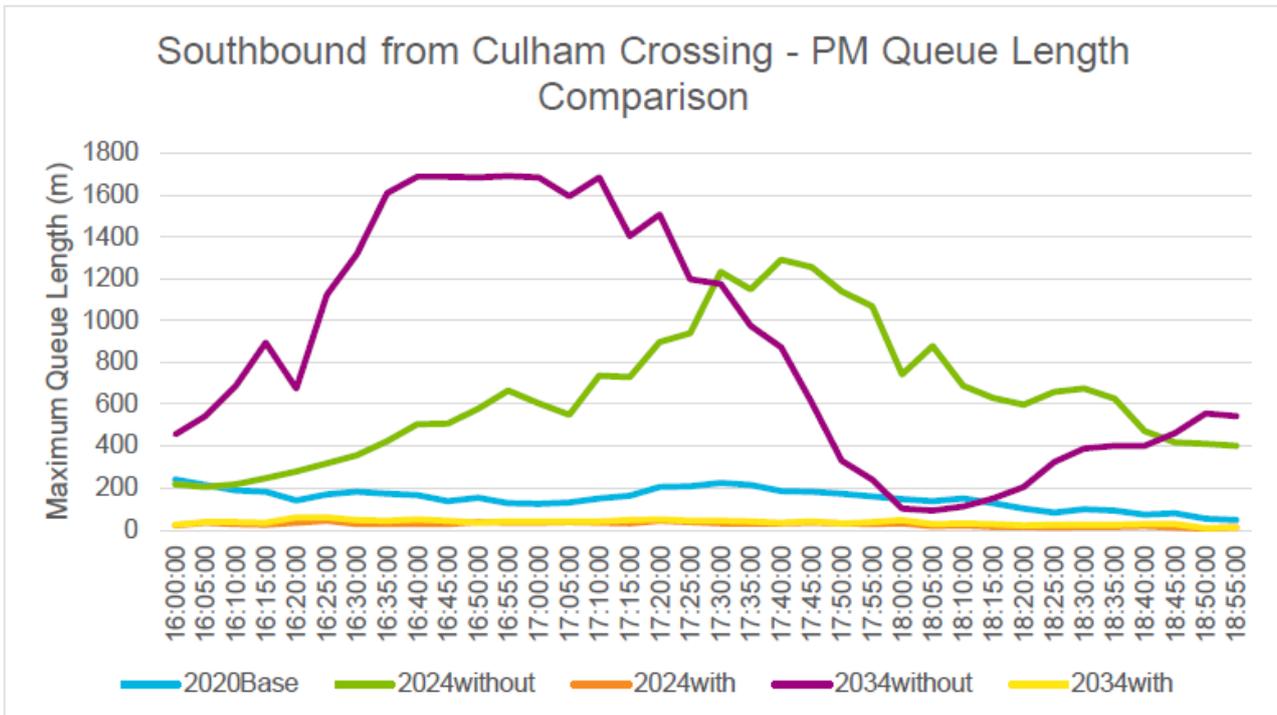
6.8.29 *As explained in the baseline section, these junctions are complex to model due to the interaction of queuing back between them, particularly the uncontrolled priority junction at the south. As done for the baseline scenario, queue length data has been extracted from the Paramics model to further understand the predicted operation of these junctions across future scenarios. The model queue data uses the demand scenarios as shown in Figure 5.2, excluding the 70% factoring exercise for 2034 without HIF scenario.*

Figure 6.17: Culham Crossing Queue Comparison (Northbound)



6.8.30 Figure 6.17 above shows that the Paramics model indicates significant reductions in queue length from the northbound signals before the bridge as a result of the HIF1 Scheme in both 2024 and 2034 AM scenarios. There is no predicted queuing from the crossing signals that would block back to the southern Appleford Road / Abingdon Road priority junction (approximately 290m distance). This contrasts to the base, 2024 without HIF and 2034 without HIF where queuing is predicted to extend back to the junction (and further through Sutton Courtenay) for large portions of the AM peak. It should be noted that the shorter queue lengths in 2024 and 2034 without HIF when compared to base are not due to an improved performance at this junction, but are a result of vehicles being stuck in queues elsewhere in the model network preventing them from reaching the junction. Regardless of this, the model shows a significant improvement at this junction as a result of the HIF1 Scheme.

Figure 6.18: Culham Crossing Queue Comparison (Southbound)



6.8.31 Figure 6.18 above shows that the Paramics model indicates significant reductions in queue length from the southbound signals before the bridge as a result of the HIF1 Scheme in both 2024 and 2034 PM scenarios. There is no predicted queueing from the crossing signals that would block back to the northern A415 / Tollgate Road signalised junction (approximately 430m distance). This contrasts to the base year which shows a queue approximately 200m long throughout the PM peak hour, and 2024 without HIF and 2034 without HIF where queueing is predicted to extend back to and through the northern junction (and further along the A415) for almost all of the PM peak hour. Therefore, the model shows a significant improvement at this junction as a result of the HIF1 Scheme.

- **Rush Hour density on the B4016 passing from / to Appleford with queue analysis of traffic turning right at the T junction to access Sutton Courtenay.**

Please see below which has been extract from the submitted Transport Assessment:

6.6.20 The results of the 2024 and 2034 capacity assessments for the New Thames River Crossing / B4016 junction are presented in the following table.

Table 6.10: Operation of New Thames River Crossing / B4016 (SCH9)

Movement	2024				2034			
	AM		PM		AM		PM	
	Max RFC	Queue						
B4016 - New Thames Crossing (S)	0.01	0	0.02	0	1.00	1	0.99	1
B4016 – New Thames Crossing (N)	0.20	0	0.41	1	0.98	7	0.92	5
New Thames Crossing (S) – New Thames Crossing (N) / B4016	0.04	0	0.02	0	0.06	0	0.06	0

6.6.21 The results indicate that the junction will operate within capacity in 2024. In 2034 the junction is predicted to operate at very close to capacity. Whilst RFC values are predicted to be between 0.92 and 1.00 in 2034, the maximum queue length on the B4016 is only seven vehicles.

6.6.2 Although the stand-alone junction model indicated this junction would be operating at very close to capacity in 2034, the applicant views this as acceptable for the following reasons:

- The strategy for the Scheme is to prioritise the mainline flow over side arm flows, particularly in this location. The intention is for vehicles coming from existing areas of Didcot and future new housing on the north and eastern sides of Didcot (North East Didcot 1,880 dwellings in the model, Ladygrove East 642 dwellings in model) to access the new Didcot to Culham
- River Crossing from the Collett roundabout (SCH7). A different junction type in this location could be more attractive to drivers from the locations stated above, potentially resulting in more trips through Appleford Village. Therefore, a level of queuing on the side arm is deemed reasonable as it will operate as a village access whilst not being too attractive for through trips;
- Any drivers from existing housing in Didcot, North East Didcot or Ladygrove East are likely to be heading north over the new Didcot to Culham River Crossing. Without the HIF Scheme, their route north would have likely been through Appleford Village and then Sutton Courtenay / Culham. Therefore, the Scheme is reducing flows through the villages by offering a more suitable route from Collett roundabout (SCH7). Any delay to Appleford residents experienced at this junction SCH9 is significantly outweighed by the reduction in through traffic in the village; and
- Stand-alone junction models do not account for breaks in the mainline traffic flow as a result of junctions or crossings further upstream and downstream. The results are therefore likely to show longer queues on side arms of priority junctions. For example, in this location of SCH9, the mainline flow is likely to have more gaps in vehicles than predicted by the stand-alone junction model due to the signalised crossing, bus stops, and roundabout to the north, and to the south the signalised crossing, two parallel crossings, bus stops, the other side road accesses from future development, and the roundabout.

Europa School – A safety audit should be undertaken at this junction at peak school times to ensure the safe operation of the school with revised flows.

The Design Manual for Roads and Bridges (DMRB) GG 119 'Road safety audit' states the following regarding applicability of road safety audits:

- 2.1 *Where there are physical changes to the highway impacting on road user behaviour or resulting in a change to the outcome of a collision on the trunk road and motorway network, road safety audit (RSA) shall apply, regardless of the procurement method.*

The HIF1 proposals do not include any physical changes to the highway layout at the A415 junction with Thame Lane. Furthermore, the road collision analysis contained in Section 3.7 of the submitted Transport Assessment did not highlight any road safety concerns at this location therefore a RSA at this location is not deemed necessary as part of the HIF1 application.

Sutton Courtenay Primary School – a safety audit should be undertaken at the T junction on the B4016 at peak school times.

Please refer to response above.

Traffic taking back routes between through Sutton Courtenay - Appleford, via Didcot Road to Long Wittenham to Clifton Hampden and onwards through Burcot to the A4074 (& vice versa) – rat run to avoid heavy traffic on new road at rush hour etc.

Nuneham Courtenay – Subject to a separate query – see below, but modelling should extend North to this village

Could comparative modelling be presented to demonstrate the effects in this area? There is a need to understand the data that has been used to generate the results of the modelling before the conclusions from documents can be drawn. In explaining the above and help the PCs in understanding the data, could OCC provide details of:

- **The proposed housing developments in the area whose completion hadn't been completed at the time of the above**

Please see below extract from the submitted Transport Assessment

5.3.4 *The model includes housing and employment completion trajectories as supplied by the relevant LPAs (VoWHDC and SODC). These were updated in June-August 2020, in preparation for the work to support this planning application. Refer to the Systra reports in Appendix F and G for more information on the trajectories and site accesses in the model. Table 5.1 and Table 5.2 below show the additional residential units and employment floor area assumed to be complete over the 2017 base year for the 2020, 2024 and 2034 scenarios.*

Table 5.1: Housing Completion Trajectories

Site Name	Units Additional to Base Year		
	2020	2024	2034
Ladygrove East - Land off A4130, Hadden Hill, Didcot	0	107	642
Land at Didcot Road, Great Western Park	514	514	514
Land to the south of Blenheim Hill Harwell	60	60	60
Land at Barnett Road Steventon OX13 6AJ	65	65	65
Land south of Appleford Road, Phase 1	85	101	101
Land south of Appleford Road, Phase 2	0	91	91
Land at Abingdon Road Steventon	15	15	15
Land to south of Hadden Hill Didcot	74	74	74
Land to the West of Great Western Park (Valley Park)	0	384	4,254
Land at Reading Road Harwell	3	16	16
Land at former Didcot A	0	0	120

Site Name	Units Additional to Base Year		
	2020	2024	2034
Land at former Didcot A	0	0	280
Land North of Grove Road Harwell	191	207	207
Land off Hanney Road Steventon OX13 6AS	44	44	44
Land to the north east of Didcot	27	548	1,880
Land north of Appleford Road	0	43	93
Land off Drayton Road, Milton	18	18	18
Land to north of Manor Close	18	18	18
Land to the South of A4130 Didcot	31	166	166
Milton Heights (Allocation - Site 9)	56	186	458
Land at Milton Hill, Milton Heights	32	53	53
East of Sutton Courtenay (Allocation - Site 5)	0	0	200
Chailey House Bessels Way	22	22	22
Land adjacent Culham Science centre	0	0	1,850
Great Western Park	818	1,155	1,155
Orchard Centre Phase 2	0	0	300
North West Valley Park (Allocation - Site 8)	0	0	800
Vauxhall Baracks	0	0	300
Land at Berinsfeld	0	0	1,600
Long Reach, Didcot Road	0	19	19
Didcot Gateway South	0	100	300
Land Adjacent to the Village Hall	0	70	74
Land off fieldside track	0	36	36
TOTAL	2,073	4,112	15,825

- **How many vehicles they had added bearing in mind the planning requirement for two-car parking spaces for each dwelling**

Please see below extract from the submitted Transport Assessment regarding residential trip rates:

5.3.9 Table 5.4 compares the Paramics model trips rates with planning applications in the area:

Table 5.4: Paramics Model Trip Rates

Site / Model	AM	PM
Paramics at 100% demand	0.571	0.529
Valley Park P14/V2873/O	0.517	0.572
North East Didcot P15/S2902/O	0.5	0.56
South of A4130 P16/S3609/O	0.497	0.489
Paramics equivalent at 80% demand	0.459	0.423

- **How many of those vehicles they have estimated will use river crossings to get to their place of work or schools north of the river**

Northbound traffic flows on the HIF scheme travelling through the junction with the B4016 are presented in the following table. Traffic flows are shown in passenger car units (pcus).

Table: New Thames River Crossing/B4016 Junction (SCH 10) - Northbound Traffic Flows (pcus)

Year / Scenario	AM	PM
2024 With HIF	578	447
2034 With HIF	904	819

Query D: HGV demands – Can OCC clarify the presumed breakdown number of HGV, light commercial and car traffic through Sutton Courtenay (B4016, Drayton Road-Church Street and High Street-Church Street) and through Appleford (B4016 Main Road) for the two options; with HIF1 road in place, without the HIF1 road in place?

Please refer to response B

As local evidence, currently 100 HGVs access the Appleford Landfill and Hanson Gravel works sites daily & HGVs travel to the Gravel Works from North & East access the site at Amey Gate / Sutton Courtenay (B4016). These will all pass Appleford on the elevated road section to turn right (across northbound traffic) into the commercial site. Can OCC confirm these movements and demand have been factored in?

Query E: When looking at the reassignment as per Query A, Can OCC extract figures to show overall peak demand in HGV, LGV and cars between Didcot to the Culham Science Centre?

Please refer to response C under the following query:

How many of those vehicles they have estimated will use river crossings to get to their place of work or schools north of the river

Query F: Culham Science Centre has significant growth plans to accommodate circa 5000 workers. Can OCC clarify if this demand has been accommodated?

As set out in 'Table 5.2 Employment Completion Trajectories' (extracted below for ease) of the submitted Transport Assessment (TA) confirms the growth of Culham Science Centre has been included as part of the assessment.

Table 5.2: Employment Completion Trajectories

Site Name	Use Class	Floor Area Additional to Base Year (sqm)		
		2020	2024	2034
Southmead Industrial Estate	B1	656	656	9,076
Culham Science Centre	B1	0	13,632	56,079
Land West of CSC Inc No.1 Site	B1	0	4,851	4,851
	B2	0	255	255
Berinsfield Regeneration	B1	0	0	9,671
	B2	0	0	10,768
	B8 (Storage)	0	0	11,350
Milton Park	B1	11,472	31,411	76,889
	C1	10,563	10,563	10,563
Harwell Campus	B1	11,723	75,427	103,434
	B2	0	6,993	35,000
Other Premises Adjacent to Didcot	B8 (Storage)	0	28,907	28,907
Power Station - Diageo	B8 (Data)	0	68,750	68,750
Didcot A	B1	0	2,502	25,000
	B2	0	5,505	55,000
	B8 (Storage)	22,483	27,988	77,483
	A1	0	1,351	13,500
Milton Hill Business and Technology Park	B8 (Storage)	0	0	11,338
D-Tech- EZ 2	B2	0	1,000	5,000
	B8 (Data)	0	22,000	110,000
Milton Interchange Site- EZ2	B1	0	0	9,380
	A1	0	0	2,704
	C1	0	0	1,294
Orchard Centre Expansion	A1	11,155	11,155	11,155
TOTAL		68,052	312,946	747,446

Query G: Looking at the impact of the scheme on surrounding villages (Query B), it would be helpful if OCC could present visual modelling extracts to show expected flows along the alignments of each of the roads highlighted in B in this area in a with and without scheme scenario. Any diversionary effects should also be set out as an example traffic diverting through Sutton Courtenay from Didcot to connect up to the new HIF road in Culham. (Ref Query B(1))

Please refer to response B

Query H: Traffic Management – There appears to be a lack of analysis around developing local traffic management proposals for communities adjacent to the road, in particular:

- **Traffic Calming Measures to constrain traffic flow arising from the proposed road, on the B4016 through Sutton Courtenay; through Appleford (over narrow railway hump back bridge) from east of Didcot; through Clifton Hampden and Burcot connecting to the A4074. Modelling should ideally be undertaken to demonstrate the effects of traffic calming and speed restrictions on B4016 Church Street and along the High Street in Sutton Courtenay, and B4016 Main Road Appleford when considering their links to the HIF1 proposal.**

Please refer to response B

Query I: The Modelling appears to stop short of the Golden Balls Roundabout. Although it is understood that the roundabout is outside of the scope of the HIF scheme, for robustness and to demonstrate the impact, it is requested that modelling extends to this junction. The assessment should be made in a with and without investment scenario. This is particularly important given the reassignment / diversionary factors associated with a new HIF road.

During the pre-application scoping stage for the Transport Assessment, it was agreed with the Highway Authority that Golden Balls roundabout was not required to be assessed for the HIF1 application.

Oxfordshire County Council (OCC) has set up a project team to specifically investigate the Golden Balls roundabout. A consultant has recently been appointed to undertake updates to OCC's strategic transport model to enable testing of potential interventions at/near Golden Balls, and to undertake high-level initial assessments of a variety of potential Park and Ride locations and bus priority measures. Following this, a larger scale options assessment process will be undertaken to further investigate number of potential options in accordance with Department for Transport's (DfT) WebTAG (Web-based Transport Analysis Guidance) process. Public engagement will be key to this process, and the project team will contact the Parish once the study has reached the relevant option appraisal stage.

Query J: The modelling assessment has not extended to Nuneham Courtenay. The A4074 runs through the Village. Whilst it is understood the HIF improvements are not located in the village, the impact of the diversionary effects in traffic travelling from growth areas in Didcot etc and the A34 to Oxford need to be understood for the residents of the village, It is requested, that junction assessments are undertaken in the village. Of particular concern is the operation of the traffic to turn into / exit Baldons at the Grenoble Road junction.

Additionally, within Nuneham Courtenay any impact of additional traffic on noise and vibrations and pedestrian crossing safety and capacity should be assessed.

Please refer to Query I response.

Landscape Issues

1. Option identification: Where is there evidence of any landscape assessment input into the identification of options to take forward for further consideration in the opening phase of optioneering? (ES Chapter 3) As noted in ES Ch3 paras 3.1.2 and 3.1.3 “the Environmental Statement should include a description of the reasonable alternatives studied which are relevant to the proposed development and its specific characteristics and provide an indication of the main reasons for the choice made, including a comparison of the environmental effects”. There is little if any evidence that comparison of environmental effects has been an input to the identification of options as opposed to assessment of options once they have been identified, and para 3.2.3 goes so far as to state that the need for new highway infrastructure to support development had already been ascertained in 2014, which would appear to pre-empt any meaningful comparison of environmental effects for the HIF 1 scheme in 2018.

See the OAR (Appendix A of the Design and Access Statement) submitted with the application. Phase 2 of the OAR utilised DfT's best practice Early Assessment and Sifting Tool (EAST) as a framework for appraising options against criteria aligned with HM Treasury's five business case model (strategic, economic, managerial, commercial and financial). Impacts on the natural environment, heritage and landscape were considered qualitatively at this stage of the options assessment.

2. Route selection: To what extent have landscape assessments influenced route selection following the decision to proceed purely with road-based options? There is a rather obvious statement that Option 5 is at a disadvantage as it runs within the North Wessex Downs AONB, in which case why was it even included as a reasonable option. There is also a rather sweeping statement that the agricultural landscape east of Appleford would be more adversely affected than the degraded landscape to the west, but this is at best only one aspect of landscape impact.

See the OAR (Appendix A of the Design and Access Statement) and ES Chapter 3 Assessment of Alternatives for details on how the options were assessed. In Phase 2 of the OAR, the option assessment utilised DfT's best practice Early Assessment and Sifting Tool (EAST) as a framework for appraising options against criteria aligned with HM Treasury's five business case model (strategic, economic, managerial, commercial and financial). Impacts on the natural environment, heritage and landscape were considered qualitatively at this stage of the options assessment.

3. Option refinement: Is there any discussion of the relative weight of adverse landscape effects against other factors in the detailed alignment of the preferred option? Such amendments as have been made appear to be dictated by other factors such as highway performance, cost, inconvenience to commercial operations, with little or no weight attached to major adverse visual impacts, in particular relating to residents of Appleford.

See the OAR (Appendix A of the Design and Access Statement) and ES Chapter 3 Assessment of Alternatives for details on how the options were assessed. In Phase 2 of the OAR, the option assessment utilised DfT's best practice Early Assessment and Sifting Tool (EAST) as a framework for appraising options against criteria aligned with HM Treasury's five business case model (strategic, economic, managerial, commercial and financial). Impacts on the natural environment, heritage and landscape have been considered in the round alongside other key factors such as capital costs, practical feasibility, affordability and wider transport and government objectives. See Appendix D of the OAR for further details.

4. Green Belt: Does OCC accept that the scheme amounts to inappropriate development in the Green Belt on landscape grounds, given that it compromises the openness of the rural landscape by building a large embankment and insensitive major bridge across the River Thames and its floodplain? If so, there needs to be more justification for why it should be disregarded: if not, more explanation is needed as to why not.

Yes, OCC accepts that the proposed development will amount to inappropriate development in the Green Belt as it conflicts with Green Belt purposes C (encroachment into the countryside) and D (preserve the setting and character of historic towns). Very Special Circumstances are presented in the Planning Statement which are considered to outweigh the proposed development's harm to the Green Belt. See section 7.3 of the Planning Statement for the Green Belt assessment.

5. Thames Bridge: Has any assessment been made to ascertain the optimum location of the Thames Bridge, and if so, where is it to be found? We have seen no evidence to suggest that the bridge location has been selected to minimise landscape and other environmental impact, such as loss of streamside vegetation, damage to nesting sites, visual impact on people travelling along the river by boat or on the riverside footpath (a National Trail)

The wider route alignment has been considered in the OAR, specifically under Section 8.4 which assessed six sub-options for the Didcot to Culham River Crossing. Landscape and environmental impacts were considered as part of this sub-option assessment.

Landscaping and environmental impacts have also been considered as part of the proposed development that have been submitted to OCC as the Local Planning Authority. The proposed Thames bridge has been micro-sited to minimise adverse landscape and environmental impacts.

6. Rail sidings viaduct: GLVIA requires clarity and transparency on the presentation of findings, and this is especially important at places where major adverse visual impacts occur, as in the impact of the rail sidings viaduct on residents of Appleford. Is the extent of this impact clearly and transparently expressed in the ES, and are there clear and transparent reasons to explain why the imperative to avoid such significant effects has been overridden? (This query relates to much of the LVIA, but is especially acute in the areas of greatest impact).

ES Chapter 8 includes the landscape and visual assessment of the proposed development. The impact of the proposed development on views from south Appleford (including Railway Cottages) is included in paragraphs 8.9.23-8.9.29, 8.9.72-8.9.77 and 8.9.98-8.9.101. The ES records a moderate adverse effect against the receptors listed out in the aforementioned paragraphs during construction, operation year 1 and operation year 15. See ES Chapter 8 for further details.

It should also be noted that the LVIA scope, methodology and viewpoints was agreed with OCC, South Oxfordshire District Council (SODC) and Vale of White Horse District Council (VoWHDC) prior to undertaking the LVIA.

7. Traffic impacts on feeder roads: The LVIA refers on occasion to the visual impact of traffic on the new road, so why is there no assessment of the visual impact of traffic on roads in the area that are predicted to experience significant increases in traffic levels, and especially HGVs? This has been raised in several comments in relation to Nuneham Courtney with its Grade 1 listed parkland, but applies more widely.

The LVIA has been carried out in accordance with the GLVIA 3rd edition, the Landscape Institute's Technical Guidance Note 02/21: Assessing landscape value outside national designations, 2021 and DfT, TAG Unit A3, EIA, Landscape and Townscape Effects, 2021.

Furthermore, the LVIA has been carried out in accordance with Design Manual for Roads and Bridges (DMRB) LA 107 Landscape and Visual Effects and DMRB LA 104 Environmental Assessment and Monitoring, both published by the DfT and Highways England (HE), which provide best practice in the assessment of environmental effects for highway infrastructure.

It is not a requirement of any guidance document to assess the visual impact of traffic on roads that are predicted to experience increases in travel as a result of a development. If this assessment was required, it would need to apply to all types of development which result in an increase in vehicle travel (e.g., housing, warehouse/distribution centres etc, not just road schemes).

Notwithstanding the above, the potential visual impact of an increase in traffic on an existing road is unlikely to be such a major difference to the baseline. An increase in traffic on a visual receptor who is already experiencing a particular volume of traffic of a similar nature (mix of cars and HGVs etc) would be judged to be no change.

Consultation responses.

A number of OCC internal consultation responses have now been submitted, with, at the time of writing, more anticipated. It is very surprising that, at this late stage, a number of these officers express concerns over the scheme. A significant number of responses request further information and amendments to the environmental assessment. These include matters relating to Biodiversity (including the lack of a Habitats Regulations Assessment (HRA), and concerns over Terrestrial and Aquatic Ecology, Climate effects, tree and hedgerow loss, and an apparent failure to minimise the loss of Best and Most Versatile (BMV) soils), Highways (a failure to extend the traffic modelling to Abingdon town centre) and Landscape (see above). These concerns taken as a whole amount to significant criticism of the adequacy of the environmental impact assessment process and the accompanying ES and lend significant weight to our objections.

We have, in addition, also had sight of the statutory consultee responses from the Local Planning Authorities (LPAs), South Oxfordshire DC (SODC) and the Vale of White Horse DC (VoWHDC).

As with the County Council's internal consultees, we note that a significant number of the professional officers of both LPAs have also expressed concerns relating to a number of aspects of the ES and require further information and evidence in respect of a wide range of matters. These matters include Landscape, Biodiversity, Forestry, Heritage, Air Quality and Noise. It is further noted that a number of these consultees regard the development proposal as conflicting with both Local Plan and national policies.

The formal comments provided by officers at OCC, SODC and VoWHDC have been reviewed and we are currently waiting for formal written comments from the OCC planning case officer. Once received, OCC as applicant will address the comments as necessary, this will include providing clarification and further information as required. This information will be submitted to OCC as the Local Planning Authority and will be formally consulted on.

Climate Change Position Statement

Further, we would draw to the Council's attention that the Secretary of State for Transport (SoST) is requesting additional information on other highway projects (for example A1 Morpeth to Ellingham, A38 Derby Junctions scheme which was subject to High Court challenge, M25 Junction 28, and others) to assist a decision on climate change related impacts having regard to cumulative assessment concerns.

Given the characteristics of this application we are of the view that the Council should provide a Climate Change Position Statement which further addresses climate change and the cumulative assessment of climate impact information issues being referred to for this scheme.

The statement should provide an assessment of the cumulative effects of Greenhouse Gas emissions from the scheme with other existing and/or approved projects on a local, regional and national level on a consistent geographical scale (for example an assessment of the cumulative effects of the Roads Investment Strategy RIS 1 and RIS 2 at a national level). This should take account of both construction and operational effects; identify the baseline used at each local, regional and national level; and identify any relevant local, regional or national targets/budgets where they exist and how the assessment complies with these (including the carbon budgets, the 2050 zero target under the Climate Change Act 2008, and the UK's Nationally Determined Contribution under the Paris Agreement).

It should be accompanied by reasoning to explain the methodology adopted, any likely significant effects identified, any difficulties encountered in compiling the information, and how the assessment complies with the Environmental Impact Assessment Regulations. Confirmation should be given that the statement has been prepared by a competent expert. It is further requested that links be provided to any documents referenced and their relevance fully explained.

The scope of the planning application and EIA was agreed with OCC as Local Planning Authority and key statutory consultees. This included the cumulative impact assessment that forms part of the EIA and it has not been requested by the LPA or any statutory consultees that a cumulative impact assessment for greenhouse gas emissions is carried out. As such a Climate Change Position Statement comprising a cumulative impact assessment of greenhouse gas emissions is not required.

Details of the proposed development's impact on climate can be found in ES Chapter 15: Climate.

EIA Regulations and Habitats Regulations Assessment

In light of all the matters set out above it is considered that the ES fails to satisfy the requirements of the 2017 EIA Regulations and the Conservation of Habitats and Species Regulations 2017 and that consequently planning permission for the scheme cannot lawfully be granted.

The Environmental Statement has been carried out in full accordance with the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 with the scope and methodology agreed with OCC as Local Planning Authority. We cannot see any comments raised above that would explicitly suggest that the ES has not been carried out in accordance with the 2017 Regulations.

A Habitats Regulations Assessment is the responsibility of a competent authority, in this case Oxfordshire County Council as Local Planning Authority. OCC as the LPA will carry out a HRA Screening process and determine if a HRA is required of the application. The applicant will provide information as necessary to support this process.