Appendix 1. The Transport Assessment; Major adverse

A1.1 No useful discussion of traffic congestion (or its mitigation) took place at the Community Forums (in the AONB areas), since the traffic assessment had not been completed. Like many other things, 'it will be in the Environmental Statement'. Unfortunately the information now made available is inadequate on several counts.

1.1. Peak traffic flows

A1.2 Figure A1 gives an overview of traffic flow in the Chilterns AONB; figures are from the '2021 with HS2 construction traffic' column, tables T7-31 – 34, T7-45 – 47, T7-64 – 67 (for CFAs 8,9 & 10) all in Vol 5 TA part 6.

A1.3 The intention was to show the flows of traffic and HGVs through the area, and identify points where significant congestion appears likely. However, there are two major difficulties in drawing any useful conclusions from the data presented in the ES –

1. Data is available only for those roads used by HS2 construction traffic
2. For junctions where all roads have been assessed, the figures are internally inconsistent; for example at the A413-A404 junction, 62 more HGVs are shown entering the junction than leaving. As this amounts to 30% of HGV traffic at the junction, this casts considerable doubt on the reliability of the figures presented.

A1.4 If the figures which are available were consistent, then it could be assumed that the traffic flows on the roads without data were reasonable, and (in some cases) predict the traffic from the figures which are available. Unfortunately, the data as presented appears unreliable, and does no more than indicate that traffic congestion during the construction phase will be much worse.

A1.5 Some specific problems are described below. Several relate to the lack of information regarding roads not directly (or officially ?) used for construction traffic. Their omission suggests either a belief that greatly increased congestion on the A413 will not change the routes chosen by commuters, or a complete lack of concern for any effects of these choices.

A1.6 **Wendover** – No figures for the A413 towards Wendover or Aylesbury at the northern end of the Wendover bypass, or for London Road at the southern end. Traffic through Wendover may increase if the bypass becomes congested.

A1.7 **Small Dean Lane -** carries traffic from Small Dean and the Wendover 'cut and cover' tunnel compounds – 105 HGVs/day. This appears inconsistent with the prediction of 1 HGV (in each direction) during the morning peak

A1.8 **Great Missenden Traffic –** no figures for Aylesbury Road, Link Road (A4128) or London Road, all connecting Great Missenden to the A413.

A1.9 Traffic re-routing through Great Missenden to avoid incidents on the A413 generally results in gridlock, due to traffic calming measures on the old road through the town

A1.10 **Little Missenden Vent Shaft** There is a single entry "A413 Amersham Road (Little Missenden)" in the tables for CFAs 8 and 9. This section passes the Little Missenden Vent Shaft compound; is traffic from this compound included in the totals ? In any event , the traffic flows at the Missenden and Amersham ends of this stretch will differ.

A1.11 **Amersham Bypass** Again there are no figures for traffic leaving or joining the A413 from Amersham. The Amersham bypass appears to be the busiest part of the A413, but there are no figures for the section between A355 Gore Hill and A404 Stanley Hill. This is unfortunate, since of the 101 HGVs Eastbound (AM peak), only 37 continue on the A355 or A413 to the Chalfonts, leaving 64 to continue through Amersham. This seems unlikely, but if true would constitute a serious traffic problem for the town.

A1.12 **Beaconsfield** There is no further analysis of traffic flows beyond the A355 Gore Hill, although the junction with the A40 in Beaconsfield is notoriously congested during traffic peaks.

1.2. Road Capacity Assessment

A1.13 "If you live near the proposed route and want to know more about how HS2 may affect your area, please consider reading your local CFA report."[15]

A1.14 Unfortunately, while this contains plenty of tables, the only comment on likely effects of increased traffic is the ubiquitous "Major Adverse", "Moderate Adverse"[16]. When assessing junctions, there is reference to junction capacity, but for the roads between junctions, just the (incomplete and inconsistent) figures discussed in the previous section.

A1.15 If the southbound morning peak traffic on the A413, Dunsmore to Great Missenden, increases from 1156 to 1407 vehicles, what is the likely effect on the journey of a commuter from Wendover ?

A1.16 Increased congestion at junctions (12.4.13), and increased traffic flows leading to 'traffic related severance' (12.4.15) are noted for most junctions, and some roads, then followed by -

12.4.16 These traffic flow increases will not result in increases in congestion and significant delays except for those locations identified above.

A1.17 - but there is no attempt to quantify the delays to vehicles which may result from the increase in traffic. This is an unnecessary omission, since the DfT

[15] "Understanding the Environmental Statement" – ES website

[16] "In assessing significant effects of traffic changes on congestion and delays, a **major adverse** effect occurs where traffic flows at a junction will be beyond or very close to capacity with the Proposed Scheme and the increases in traffic due to the Proposed Scheme will be such as to substantially increase queues and delays on a routine basis at peak times.
A **moderate adverse** effect will occur when traffic flows at a junction will be approaching or at capacity with the Proposed Scheme and modest increases in traffic will increase the frequency of queues and more substantial delays.
A minor adverse effect occurs when traffic flows at a junction are not generally exceeding capacity with the Proposed Scheme but the increase in flows will result in occasional queues and delays or small increases in existing delays."
(CFA9, 12.4.13 – footnote)

A1362 (2)

Design Manual for Roads & Bridges (TA 46/97)[17] contains a formula for road capacity based on carriageway width and HGVs percentage of total traffic. Using the traffic figures from Vol 5 TR part 6, and carriageway widths based on local knowledge, the predicted traffic can be expressed as a percentage of calculated capacity. The results are shown in figure A2, from which it appears that the older (and narrower) sections of the A413 will be operating at or above 100% capacity during the morning and evening peak hours, leading to congestion –

> A1.18 "defined as the situation when the hourly traffic demand exceeds the maximum sustainable hourly throughput of the link. At this point the effect on traffic is likely to be one or more of the following: flow breaks down with speeds varying considerably, average speeds drop significantly, the sustainable throughput is reduced and queues are likely to form." (DfT TA46/97).

A1.19 Clearly it is not in the interest of HS2 to publicise this situation, which is presumably why they omitted any such calculations from the ES.

1.3. Junction Assessment

A1.20 A small (and arbitrary) selection of junctions in the AONB have been assessed (see Vol 5 TR part 6), although the account of the methodology is rather vague.

> **7.2.20** Junction modelling was generally undertaken using off-the-shelf traffic modelling software packages and data collected in specially commissioned surveys. However, this was not always possible and a 'rule of thumb' approach based upon professional judgment was used with junctions assessed quantitatively taking main road flow, side road flows and standard assumptions concerning, geometry, visibility, turning proportions and theoretical capacities into account. In practice, this involved relating main road flow, side road flow and 85 per cent saturation.

A1.21 No junctions were assessed in CFA8, despite the heaviest peak traffic loads occurring on the Amersham Bypass. In CFA10, the A413-Small Dean Lane junction is assessed, while the Rocky Lane Junction (also assessed as a 'major adverse effect' – Vol 2 12.4.13), with twice the traffic, is not.

A1.22 In CFA9 the A4128 (Link Road) & B485 / Frith Hill junctions have been assessed (7.5.81). The maximum (AM peak) queue on the B485 increases from 1 to 2 vehicles, while the A4128 queue remains unchanged at 1 vehicle [Tables 7-52, 7-50] Clearly there is nothing to worry about here – in fact, there is a good deal to celebrate, since the queues currently observed will evidently disappear by 2021-

[17] http://www.dft.gov.uk/ha/standards/dmrb/vol5/section1/ta4697.pdf

Morning peak congestion on the B485, approaching junction with A413

Morning peak congestion on the A4128 – Gt Missenden Link Road

A1.23 The ES concludes

7.5.83 The modelling results indicate that the A413 with B485 Frith Hill/Chesham Road junction is predicted to operate *well within capacity* during construction of the Proposed Scheme, with the highest percentage of flow to capacity predicted as 56% on the B485 Frith Hill arm in the AM Peak. As this is well below 85%, (considered to represent theoretical capacity), the impact of the Proposed Scheme is not considered to have a substantial impact on capacity at this junction.

A1.24 This is so far removed from the situation currently observed as to throw serious doubt on the methodology adopted for these assessments. To make any comments regarding the likely effects of construction based on such an obviously flawed analysis would merely waste the time of all concerned

1.4. Summary

A1.25 The Traffic Assessment is deficient because

- It has been restricted to roads used for HS2 construction traffic, and ignores any consequential effects on other parts of the network.
- The description of the effects of congestion (moderate or major adverse) is inadequate.
- The predicted peak traffic figures are found to be inconsistent, where checks are possible.

- The choice of junctions chosen for detailed assessment appears arbitrary
- The results obtained from junction assessments bear no relation to reality.

A1.26 We can conclude that traffic congestion during the construction phase will be much worse than at present, but the traffic assessment is inadequate to make any predictions regarding how much worse it will be, or what might be done to mitigate the adverse effects.

A1362 (5)

1.5. Figure A1 Peak Traffic flow

Key to Diagrams

A413 section					
All Traffic Northbound HGVs Northbound ^	All Traffic Southbound HGVs Southbound v				
Junction Discrepancy - All Traffic	Junction Discrepancy - HGVs	<	HGVs Towards Junction	All Traffic towards Junction	Side Road
		>	HGVs away from Junction	All Traffic away from Junction	
^ HGVs Northbound	v HGVs Southbound				
All Traffic Northbound	All Traffic Southbound				
A413 section					
^	v				
Junction Discrepancy - All Traffic	Junction Discrepancy - HGVs	<	?	?	Side Road - no data
		>	?	?	

The 'Junction Discrepancy' is the total inbound traffic flow, minus the total outbound flow, and in an ideal case would be zero

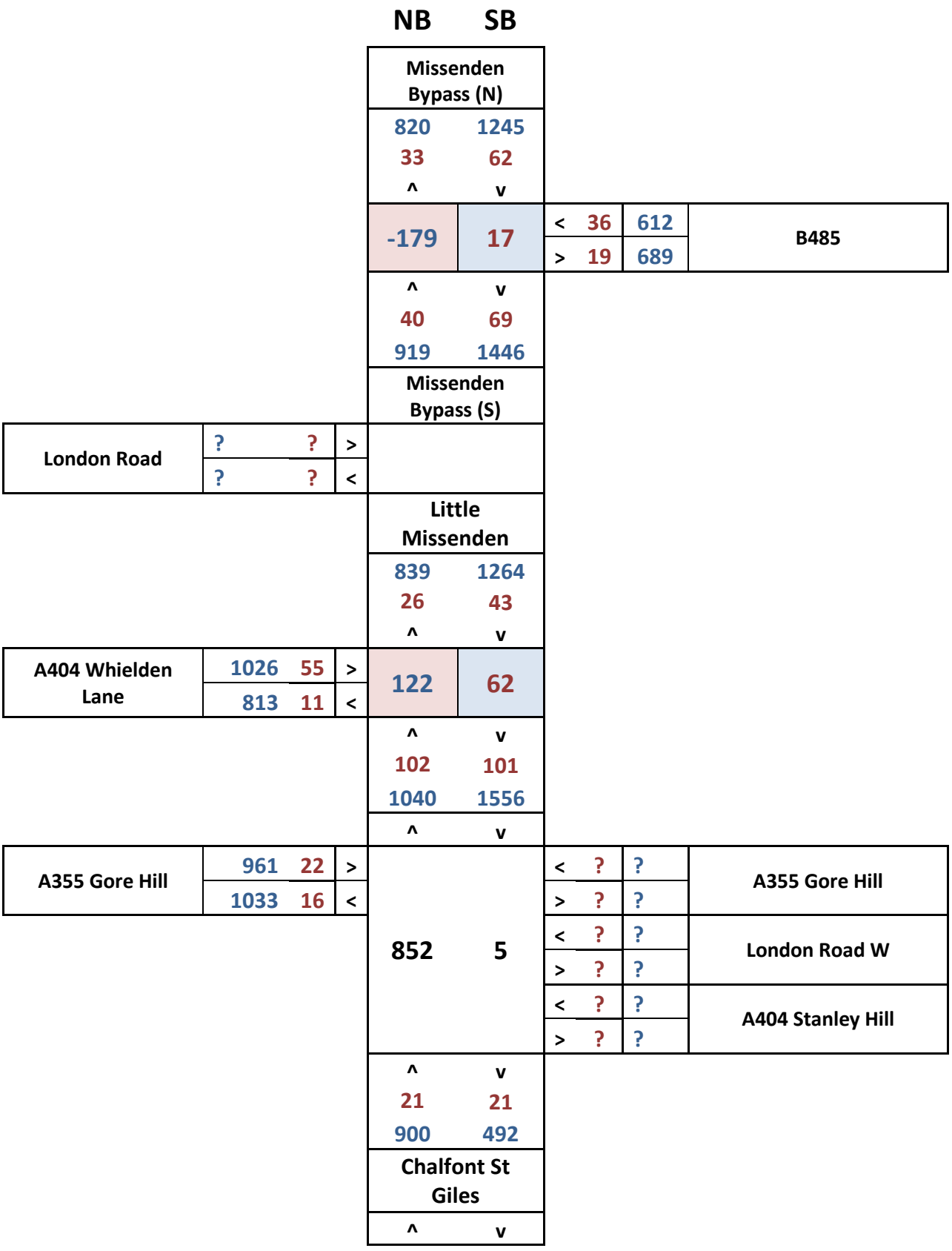
Where some data is unavailable, the same calculation is performed with available data., but the results are formatted without colour or shading

A1362 (6)

A413 (N) Traffic Flow Analysis - AM peak

				NB	SB			
B4009	1056	46	>			< ?	?	A413 Wendover
	744	41	<			> ?	?	
				^	v			
				A413 Wendover Bypass				
				924	1450			
				23	38			
				^	v			
						< ?	?	London Road (to/from Wendover)
						> ?	?	
Small Dean Lane	45	1	>					
	5	1	<	114	4			
						< 5	118	Rocky Lane
						> 5	118	
Dunsmore Lane	22	20	>					
	20	16	<					
				^	v			
				23	38			
				953	1407			
				Dunsmore Lane - Link Road				
						< 0	56	Leather Lane
						> 0	44	
						< 0	0	Bowood Lane
						> 0	0	
Aylesbury Road	?	?	>	994	110			
	?	?	<					
A4128 (Link Road)	?	?	>					
	?	?	<					
				Missenden Bypass (N)				
				820	1245			
				33	62			

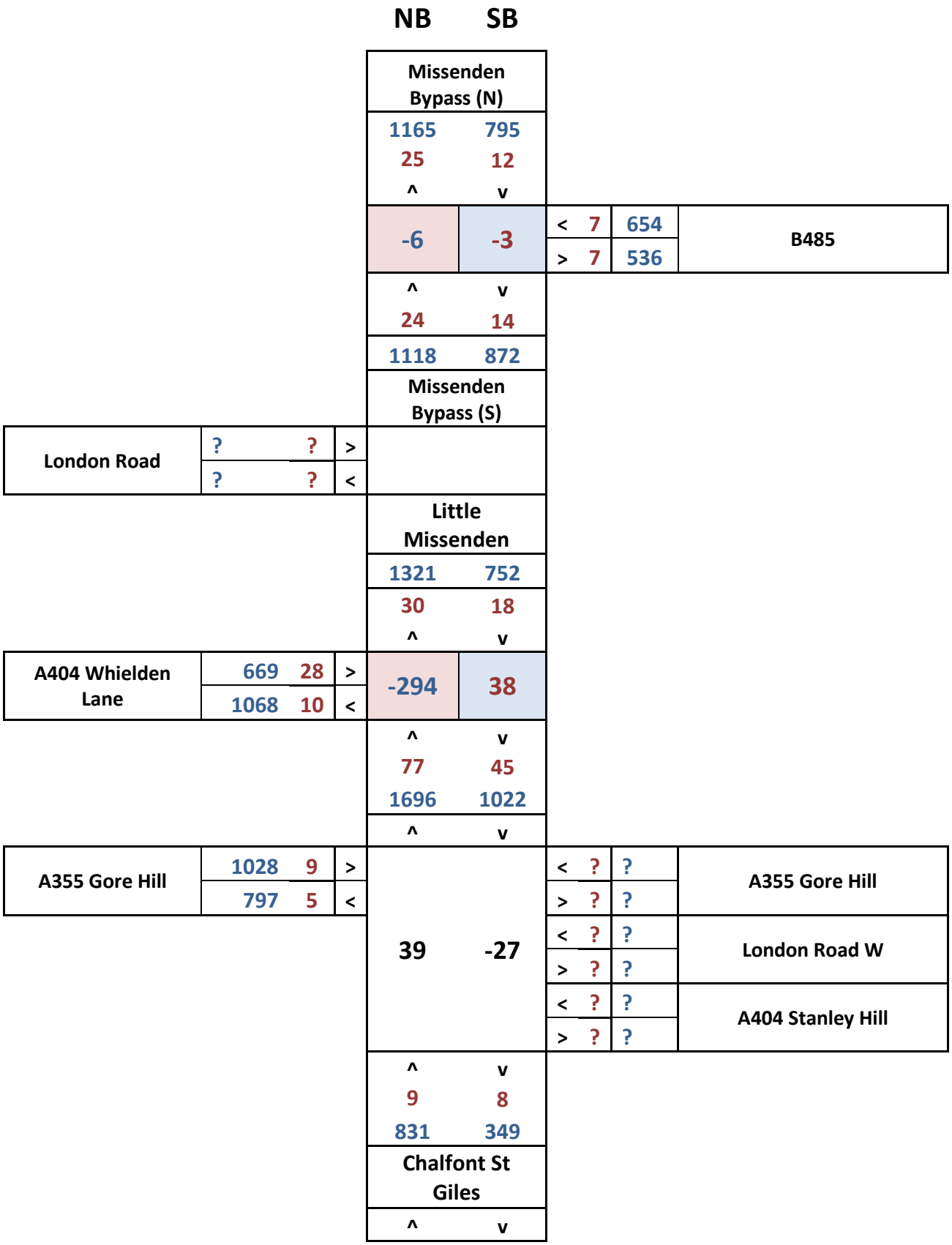
A413 (S) Traffic Flow Analysis - AM peak



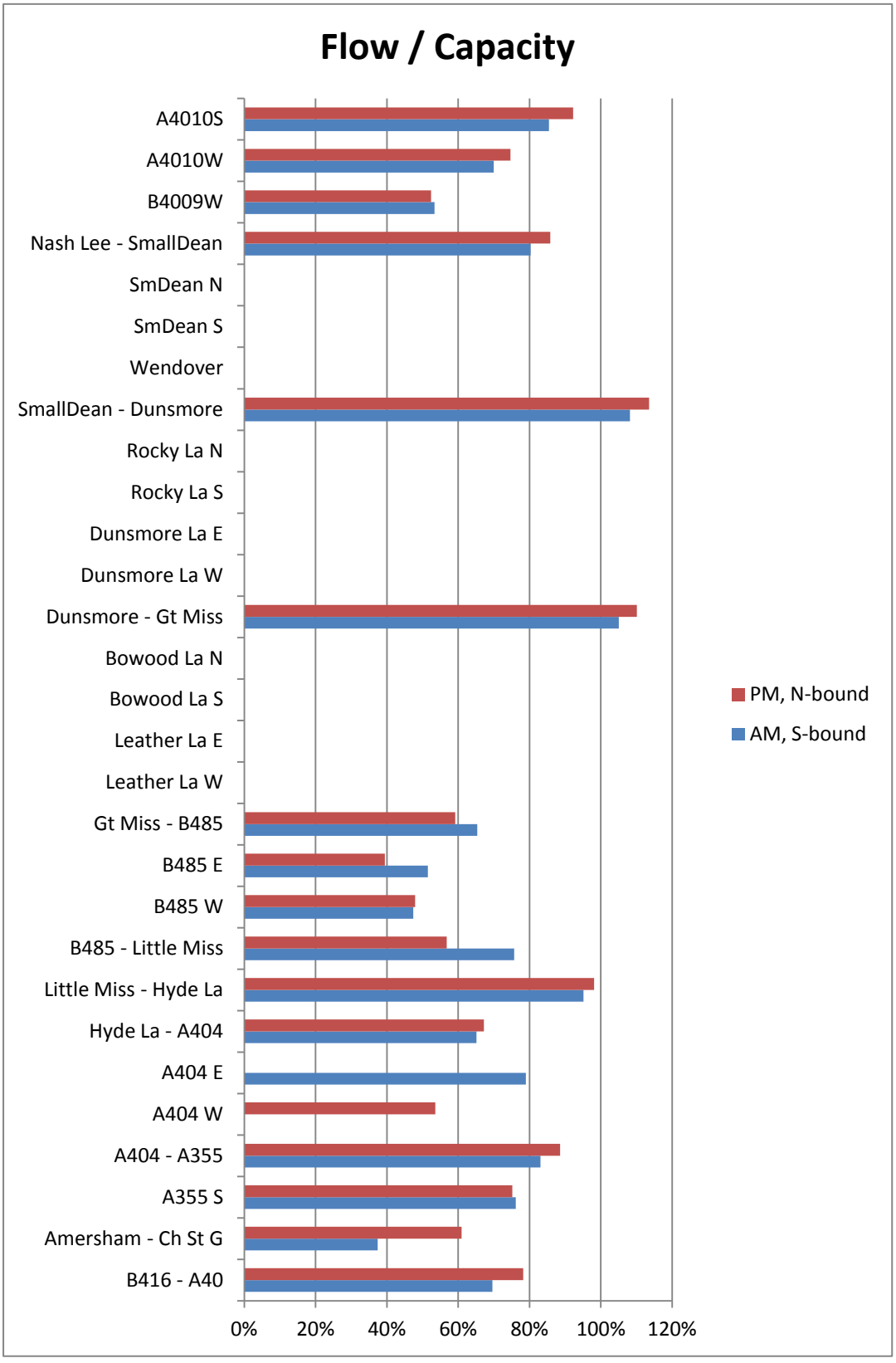
A413 (N) Traffic Flow Analysis - PM peak

				NB	SB			
B4009	617	11	>			< ?	?	A413 Wendover
	706	15	<			> ?	?	
				^	v			
				A413 Wendover Bypass				
				1161	696			
				21	24			
				^	v			
						< ?	?	London Road (to/from Wendover)
						> ?	?	
Small Dean Lane	10	0	>					
	47	0	<	48	6			
						< 2	117	Rocky Lane
						> 2	81	
Dunsmore Lane	25	1	>					
	28	0	<					
				^	v			
				16	14			
				1502	985			
				Dunsmore Lane - Link Road				
						< 0	44	Leather Lane
						> 0	31	
						< 0	0	Bowood Lane
						> 0	0	
Aylesbury Road	?	?	>					
	?	?	<	-134	11			
A4128 (Link Road)	?	?	>					
	?	?	<					
				Missenden Bypass (N)				
				1165	795			
				25	12			

A413 (S) Traffic Flow Analysis - PM peak



1.6. Figure A2 Traffic flow as percentage of road capacity



VOLUME 5 ASSESSMENT AND PREPARATION OF ROAD SCHEMES

SECTION 1 ASSESSMENT OF ROAD SCHEMES

PART 3

TA 46/97

TRAFFIC FLOW RANGES FOR USE IN THE ASSESSMENT OF NEW RURAL ROADS

Contents

ANNEX D

CONGESTION REFERENCE FLOWS

D.1 The Congestion Reference Flow (CRF) of a link is an estimate of the Annual Average Daily Traffic (AADT) flow at which the carriageway is likely to be 'congested' in the peak periods on an average day. For the purposes of calculating the CRF, 'congestion' is defined as the situation when the hourly traffic demand exceeds the maximum sustainable hourly throughput of the link. At this point the effect on traffic is likely to be one or more of the following: flow breaks down with speeds varying considerably, average speeds drop significantly, the sustainable throughput is reduced and queues are likely to form. This critical flow level can vary significantly from day to day and from site to site and must be considered as an average. **The CRF is a measure of the performance of a road link between junctions. The effect of junctions must be considered separately.**

D.2 Links of the same standard will have different CRF values determined by the proportion of heavy vehicles, the peak to daily ratio, the peak hour directional split and the weekday/weekly flow ratio. The variation of the local daily/peak hour flow profile over the year indicates when the peak hours/periods occur. Thus a link which experiences the traditional morning and evening commuter peaks, and has AADT traffic levels equal to the CRF, is likely to be 'congested' for approximately 250 hours per year in the weekday peaks in the peak direction. (There being approximately 500 weekday peak hours in the year, half of which will have a higher than average demand flow). In the case of links in recreational areas, peak period congestion is likely to be concentrated in the summer months.

D.3 The CRF of a link is given by the formula:

CRF = CAPACITY * NL * Wf * 100/PkF * 100/PkD * AADT/AAWT

where, CAPACITY is the maximum hourly lane throughput (see note 1);

NL is the Number of Lanes per direction;

Wf is a Width Factor (see note 2);

PkF is the proportion (percentage) of the total daily flow (2-way) that occurs in the peak hour;

PkD is the directional split (percentage) of the peak hour flow;

AADT is the Annual Average Daily Traffic flow on the link;

AAWT is the Annual Average Weekday Traffic flow on the link.

Notes on Congestion Reference Flow (CRF) calculations

Note 1. CAPACITY - the maximum sustainable hourly lane throughput.

In reality this value varies day to day due to the prevailing conditions (for example, day/night, wet/dry, percentage heavy vehicles, regular/holiday traffic) and values used must be an average. For **new links** and **existing links not currently experiencing congestion** this can be estimated from the following relationship:

CAPACITY = [A - B * Pk%H]

where, Pk%H is the percentage of 'Heavy Vehicles' in the peak hour. The term 'Heavy Vehicles'

always includes the vehicle categories OGV1, OGV2 and PSV's according to the COBA definition;

A and B are parameters dependant on road standard;

	A	B
Single Carriageway	1380	15.0
Dual Carriageway	2100	20.0
Motorway	2300	25.0

For **existing links already experiencing congestion** the maximum hourly throughput should ideally be an observed, robust estimate. This can be determined from observations on a minimum of ten days in fine, dry, daylight conditions. When observing the maximum hourly throughput the major problem is to determine when the link is actually operating at "capacity" (paragraph D.1 describes the likely traffic conditions at "capacity").

Note 2. Carriageway Width Factor (Wf)

This factor is designed to adjust the CRF for all-purpose links, generally single carriageways, with non-standard lane widths. Carriageway width is defined as the total paved width of the carriageway less the width of ghost islands and hard strips.

Motorways - the width factor Wf should always be unity for motorways as there is no evidence to suggest that the maximum hourly throughput of motorway links is affected by minor changes in lane width.

All-purpose dual carriageways - to reflect the different standards of some dual carriageways. The width factor is given by:

Wf = Carriageway Width / (Number of Lanes * 3.65).

The majority of dual carriageways will have lane widths of 3.65 metres and hence a width factor of unity. Some will have reduced lane widths, generally those built to older design standards, and in these cases the width factor can be less than unity. Should the lane width be greater than 3.65 metres the width factor should be restricted to a maximum value of unity.

Single carriageways (2-lane) - the main purpose of the width factor is to differentiate between the different carriageway width standards of single carriageways. The width factor is given by:

Wf = (0.171 * Carriageway Width) - 0.25

Roads built to modern designs usually have 7.3 metre of 10 metre carriageways, that is, a width factor of unity or 1.46. The width of older roads can vary significantly but the width factor relationship is not valid for road widths less than 5.5 metres or greater than 11 metres. For roads with widths outside these limits the traffic analyst must use judgement to decide on the relevant value.

D.4 Table D/1 gives observed 1995 traffic characteristics which should be used as a guide to the selection of the appropriate parameter values for use in the CRF calculations when reliable local data is not available.

Traffic Characteristic	Motorway	Trunk Road	Principal Road
AADT % Heavy Vehicles (Typical Range)	15.5 (6-26)	12.1 (4-26)	7.5 (2-20)
Peak Hour Flow / AADT % (PkF) (Typical Range)	10.0 (7-12)	9.4 (7-12)	9.6 (7-12)
Peak Hour Directional Split % (PkD) (Typical Range)	56.3 (50-70)	57.4 (50-70)	58.4 (50-70)
Peak Hour % Heavy (Pk%H) (Typical Range)	13.5 (5-25)	10.4 (3-20)	5.6 (2-12)
Peak Hour %Heavy / AADT %Heavy (Typical Range)	0.87 (0.50-1.00)	0.86 (0.50-1.00)	0.75 (0.50-1.00)
AADT / AAWT (Typical Range)	0.93 (0.89-1.00)	0.97 (0.90-1.00)	0.98 (0.90-1.02)

Table D/1: Observed 1995 Values

D.5 Substituting the average values given in Table D/1 produces the Congestion Reference Flows (CRFs) given in Table D/2. These values have been given for illustrative purposes only, **local values should always be used**. The differences between the Trunk and Principal road values for the same standard are due mainly to the different proportions of heavy vehicles in the peak hour.

Carriageway Standard		Trunk Road	Principal Road
Single 7.3m	(S2)	22,000	23,000
Wide Single 10m	(WS2)	32,000	33,000
Dual 2 lane all purpose	(D2AP)	68,000	70,000
Dual 3 lane all purpose	(D3AP)	103,000	104,000
		Motorway	
Dual 2 lane motorway	(D2M)	65,000	
Dual 3 lane motorway	(D3M)	97,000	
Dual 4 lane motorway	(D4M)	130,000	

Table D/2: Example CRFs Using 1995 Traffic Characteristics

Jim Conboy
cheshamsociety@jimconboy.com

High Speed Two (HS2) Limited
2nd Floor, Eland House,
Bressenden Place,
London SW1E 5DU
Tel: 020 7944 4908
www.hs2.org.uk
Email: hs2enquiries@hs2.org.uk

10/02/2014

Dear Mr Conboy,

FOI14-016

I am writing regarding your request for information received 19 January 2014. Your request has been considered under Environmental Information Regulations (EIR) 2004.

In your request you stated:

Dear HS2,

Can you clarify the peak traffic flow assessment of the A413-A404 junction, as presented in tables 7-30, 7-31 of Vol 5 TA part 6. See attached pdf for the figures in question.

At this junction, the A413 Eastbound from Little Missenden, Westbound from Gore Hill and A404 Eastbound from Whielden Street carry traffic towards the junction (roundabout). I would like to understand the predictions for '2012 with HS2 traffic' – columns F & G. I have calculated the net flow on each road, counting traffic into the junction as positive, for all traffic (column M) & for HGVs (Column N). Observe that during the AM peak, all 3 roads are predicted to carry a net flow of HGVs towards the junction. 200 HGVs flow into the junction, while only 138 flow out – a discrepancy of 30%. At the pm peak, there are 123 HGVs flowing in and 85 out, once again a 30% discrepancy.

Rows 17 (AM) & 27(PM) give the total flows for the junction, which would ideally be zero. Some sampling error is to be expected, but I regard a 30% error as excessive. If traffic flows were measured on all 3 roads at the same time, then (provided that HGVs were correctly identified), the total HGV flow across the junction would be zero, even for small sample sizes. Possibly the figures are derived from small samples taken at different times ? Alternatively, the published figures do not correctly describe your analysis ? In any event it would appear that any review of the document prior to publication has been inadequate.

My questions are -

1.Can you confirm the accuracy of the figures published in these two tables, and specifically the A413/404 junction rows ?

2.If these figures are correct, to what do you attribute the apparent sink of HGVs at this junction ?

I am sure you will appreciate that the impact of HGV traffic on local roads is of great concern to residents, and the A413-A404-A355 junctions are likely to

experience higher traffic flows than any others in the AoNB. However, it would be unwise to formulate a response to the ES based on data which appears to be internally inconsistent, so our work on the traffic assessment is severely hampered. A prompt response would allow this work to resume; if this is not possible, then we may approach the standing order committee to request an additional extension, until this and other problems with ES data are resolved.

Please be advised, the basis for the traffic counts set out in the Tables are Automatic Traffic Counts covering a two week period. These are detailed in Volume 5, Transport Assessment, Annex B(iii) (link below).

These surveys are robust and cover an extended period. The A404 and A413, London Road surveys were undertaken in September 2012, with the A413, Amersham Road survey undertaken in February 2013. Both of these periods are considered to be 'neutral' months and consequently no significant seasonal variation would be expected.

However, as identified in Annex B(iii), these counts are not, as assumed in your request for information, counts immediately adjacent to the junction of the A404/A413. In particular, the A413, London Road count is at Little Missenden, recording traffic in the vicinity of the proposed Little Missenden Vent Shaft. Consequently the calculation undertaken to assess the net flow changes at the junction of A404/A413 is not appropriate since there are a number of junctions between the A413 count at Little Missenden and the junction that would result in a significant difference between the counts.

It will be seen that in all cases there is an increase in HGV traffic due to HS2 construction – for example, in the AM peak northbound HGV traffic would be 87 HGVs without HS2 and would be 101 with the addition of HS2 construction traffic. The minimum increase in a peak period at the locations identified is 5 HGVs and the maximum increase is 14 (roundly one every four minutes). The "sink of HGVs at this junction" that is noted results from comparison of the counts from different locations and the only changes expected are these increases of 5-14 HGVs.

Figures relating to the above are set out in Table 7.23 and in Annex B(iii) of the Transport Assessment. Please find a link to this document below:

http://assets.dft.gov.uk/hs2-environmental-statement/volume-5/traffic/Vol_5_TA_%28Annex_B%28iii%29%29_BSR_CFA7-15_Part14_wm.pdf

If you are unhappy with the way we have handled your request or with the decisions made in relation to your request, you may complain in writing to HS2 Ltd at the above address. Please also see attached details of HS2 Ltd's complaints procedure and your right to complain to the Information Commissioner.

Please remember to quote reference number **FOI14-016** in any future communication relating to this request.

Kind Regards

Amber Corfield

Your right to complain to HS2 Ltd and the Information Commissioner

You have the right to complain to HS2 Ltd within two calendar months of the date of this letter about the way in which your request for information was handled and/or about the decision not to disclose all or part of the information requested.

Your complaint will be acknowledged and you will be advised of a target date by which to expect a response. Initially your complaint will be re-considered by the official who dealt with your request for information. If, after careful consideration, that official decides that his/her decision was correct, your complaint will automatically be referred to a senior independent official who will conduct a further review. You will be advised of the outcome of your complaint and if a decision is taken to disclose information originally withheld this will be done as soon as possible.

If you are not content with the outcome of the internal review, you have the right to apply directly to the Information Commissioner for a decision. The Information Commissioner can be contacted at:

Information Commissioner's Office
Wycliffe House
Water Lane
Wilmslow
Cheshire
SK9 5AF

Jim Conboy
cheshamsociety@jimconboy.com

High Speed Two (HS2) Limited
2nd Floor, Eland House,
Bressenden Place,
London SW1E 5DU
Tel: 020 7944 4908
www.hs2.org.uk
Email: hs2enquiries@hs2.org.uk

18/03/2014

Dear Mr Conboy,

I am writing in response to your concerns about HS2 Ltd's handling of your request for information, received on 19 January 2014 and which was responded to on 10 February 2014.

You have asked us to review the response on the basis of the following issues:

The substance of my enquiry is that the figures for traffic at the A413/A404 (Whielden Street) junction, presented in Tables 7-45 , 7-46 of Vol 5 TA part 6 do not add up, and in particular I refer here to the fact that 60 more HGVs enter the junction during the morning peak hour than leave, according to the tables. This is explained in more detail in the original submission.

In paragraph 3 of your reply, you point out that the A413 London Road count refers to the location of the proposed Little Missenden Vent Shaft, and there are a number of junctions between this location and the A404 junction. (I will leave aside any complaint at the lack of any reference to the maps in TA Annex B(iii) from the tables in Vol 5 part 6, which might have been of some assistance). On consulting a map, you will find the following junctions along the section of the A413 in question –

a) The turning into the Vent Shaft compound. It is unclear whether traffic to this compound was included in the counts

b) Mop End Lane. This rapidly degenerates into a bridleway

c)The unnamed road through Pipers Wood (locally known as Pipers Wood Lane) – which joins Weedon Hill, connecting Hyde Heath and Chesham Bois

d) Amersham High Street. This has traffic calming measures and a 7.5 T weight limit

e) A private road serving Shardeloes House and equestrian centre.

Of these only a) and c) are possible (if unlikely) destinations for the missing 60 HGVs.

The vent shaft is shown as having 55 HGV movements/day, so 15% of these during the AM peak might account for a reduction of 8 HGVs, if we assume all arrivals and no departures.

That still leaves in excess of 50 HGVs (nearly one a minute) turning off the A413 and up Pipers Wood Lane. If this is indeed a prediction of your analysis, then this unexpected shift in traffic patterns should have been bought to the attention of the affected communities (Hyde Heath and Chesham Bois) in Vol2(CFA9) section 12.

My contention is that the 5 junctions between Little Missenden and the A404 cannot be responsible for a significant difference between the HGV counts at your survey location and

the A404/413 junction, and so inconsistency in HGV numbers at that junction remains unexplained.

Paragraph 4 of your reply relates to the changes in traffic numbers caused by HS2 construction. This is not the point at issue. It makes no sense to discuss these changes when the basic numbers are inconsistent and so fail to present a credible picture of the traffic flows during the construction period.

I request an internal review of your response to FOI14-016, on the grounds that it was not adequately researched. A few minutes with Google Maps would show the explanation offered to be implausible.

As the official who dealt with this request I have re-considered the response sent, as per our complaints procedure (enclosed with our response of 10 February). The team at High Speed 2 (HS2) Ltd who provided the original information have looked again at the counts that you originally quoted and further questioned in your reply. As you highlight, further examination would suggest that the side-roads between Little Missenden and the A404/A413 junction are unlikely to fully account for the differences between the flows. Consequently, we have examined the detail of the automatic traffic counts.

As previously noted, the A413 count at London Road in Little Missenden and the A404 count at Whielden Lane were undertaken at the same time in September 2012 and therefore should be entirely consistent. The A413 (Amersham by-pass) count data was derived from Buckinghamshire County Council counts. Due to the primary counts used not distinguishing HGVs we had to use average HGV counts from April and May 2011. These were all adjusted to be consistent using standard growth factors but inevitably the precise growth along this corridor compared to these standard factors may have introduced some differences. More significantly, the examination of the HGV counts shows substantial daily variation in the AM peak. For example, eastbound HGVs varied between 10 and 110 per hour and westbound between 10 and 142 per hour across the two month period examined. Although these should still present a reasonable average for the period they do show the potential week-to-week and month-to-month variation that can occur and are likely to be the cause of the differences that you have observed in the reported counts. It should also be noted that the variation is total vehicles is much less than for HGVs.

In relation to your concern that our analysis may be predicting an "unexpected shift in traffic patterns", there are no measures being taken that would change general traffic patterns in this area. The only traffic impact of HS2 Ltd construction is of the additional HGVs and other vehicles as summarised in the response of 10 February.

Your initial query related to Tables 7-30 and 7-31 and the junction of the 404 and A413, but in your recent reply you quoted Table 7-45 and Table 7-46. We assume that you intended to refer to Tables 7-30 and 7-31. However if you have further queries relating to Tables 7-45 and 7-46 then do let us know.

If you are not content with the outcome of the internal review, you have the right to apply directly to the Information Commissioner for a decision. The Information Commissioner can be contacted at: Information Commissioner's Office, Wycliffe House, Water Lane, Wilmslow Cheshire, SK9 5AF

Please remember to quote reference number **FOI14-016R** in any future communication with us relating to this request.

Kind Regards

Amber Corfield