

HS2 Ltd
Eland House
Bressenden Place
London SW1E 5DU

Cc: Rt Hon Cheryl Gillan MP
Sarah Gibson (Transport for Bucks)

FOI REQUEST RE JUNCTION ASSESMENT IN
THE ENVIRONMENTAL STATEMENTS

Dear HS2,

This enquiry relates to the changes in road junction capacity assessments as published in the AP4 Environmental Statement, when compared with the assessments published in the original Environmental Statement. May I remind you that this society observed (in our response to the original ES) that the queues predicted at the B485-A413 and A4128-A413 junctions (in CFA9) were far below those currently observed.¹ The queues predicted in the AP4 ES are significantly larger, and possibly consistent with what we observe on the ground. This query seeks to establish why the original ES predictions were significantly lower, and in all probability incorrect. As it relates to Environmental Statements I presume that it falls under the Environmental Information Regulations (2004) right of access procedures.

The Data

In order to define the problem precisely, I would like you to explain the changed capacity assessment relating to the B485-A413 junction. The ES data are published as Table 7-51, page 7-103 of

Vol_5_TA_Country_assessment_CFA7-15_(Sec7a)_Part6

0800-09:00	2021 baseline			
	Flow (All PCU)	Flow/capacity %	Capacity	Max queue
B485 Frith Hill	426	36%	1183	1
A413 (S) London Road	839	37%	2268	1
A413 (N) London Road	1253	50%	2506	1
Total		50%		

Table 7.51-ES: 2021 baseline AM fragment of Table 7.51 (ES)

The junctions "have been modelled using industry standard software for the

¹ http://www.hs2amersham.org.uk/Resources/ES/Chesham/CheshamSoc_ES_2.3.pdf

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2021 year of assessment" (7.5.81)

The AP4 data are published as Table 7.51, page 76 of

Transport_Assessment__TR-001-000 :

0800-09:00	2021 baseline			
Approach (from)	Flow (All PCU)	Flow/ capacity %	Capacity	Max queue
B485 Frith Hill	593	119%	498	48
A413 (S) London Road	827	98%	844	15
A413 (N) London Road	1802	87%	2071	6
Total		119%		

Table 7.51-AP4: 2021 baseline AM fragment of Table 7.51 (AP4)

Again, "junctions have been re-assessed using industry standard software, based upon SES3 and AP4 revised scheme forecast traffic flows" (3.3.39).

In both cases I have added column 4 – Capacity – which is calculated as

$$\text{Capacity} = \text{Flow}/(\text{Flow}/\text{capacity})$$

While variations of the traffic flow between different schemes are to be expected, the junction capacity is determined by the physical layout of the junction, and to an extent by the traffic flows into the junction. The capacities calculated using the "2021 with HS2 construction traffic" differ by less than 5% from the capacities (shown above) calculated with baseline traffic only, indicating that the junction layout is more significant than traffic flow in determining junction capacity.

It can be seen that the ES calculated capacities are significantly higher –

0800-09:00	2021 baseline			
Approach (from)	Flow (All PCU)		Capacity	
B485 Frith Hill	72%		2.37	
A413 (S) London Road	101%		2.69	
A413 (N) London Road	70%		1.21	

Table 7.51 ES/AP4 Ratio of ES to AP4 quantities.

Column 2 is the ES predicted flow as a percentage of the AP4 predicted flow, and column 4 the ES calculated capacity divided by the AP4 calculated capacity

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While the ES flows on the B485 and A413(N) were 30% lower than the AP4 flows, the capacities of the B485 and A413(S) were respectively 2.4 and 2.7 times higher – a much larger variation than that caused by including HS2 construction traffic in the junction assessment. One immediate consequence of this is that the B485 is now predicted to be at 120% of capacity (with baseline traffic only), rather than 36%.

The Questions

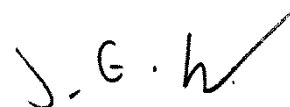
1. To what do you attribute the change in predicted junction capacity between the original and AP4 statements ?
2. What are the predicted Flow and capacity figures which result from applying the AP4 methodology to the ES flow figures ?
3. Which "Industry Standard Software" (and which version) was used to calculate the ES and AP4 results ?
4. Are there any other junction assessments in the original ES where significant changes might be anticipated, if the analysis was repeated using the AP4 methodology ?

Timescale

I am sure that you are aware that the deadlines for comments and petitions relating to AP4 are 27th and 13th November respectively. It is the contention of this society that the very significant junction capacity changes announced in AP4 amount to an admission by HS2 Ltd that the A413 does not have the capacity required by this or previous schemes put forward by the promoter – as we have maintained since the first proposals were announced. As a consequence, all options (including the extension to the Chilterns Tunnel) should be re-examined in the light of this new evidence.

This will clearly require more time than has currently been allocated for preparing responses to the AP4 proposals, and we will be raising this issue with the Chairman of the HS2 Select Committee. I am sure the Committee would appreciate a prompt response to this query, in order to inform their discussions.

Yours Sincerely,



Dr Jim Conboy
(for The Chesham Society)

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