27-Nov-2015

Response to HS2 Ltd SES3/AP4 documents

By

Chesham Town Council

and

The Chesham Society

In responding to these documents, the Chesham Town Council and Society would like first to put on record their opinion that a quite inadequate amount of time has been allowed to respond to major changes in the proposals as they affect the Chilterns AONB. This limited time was further reduced by a reissue of Volume 5 (TA) (the Traffic Assessment) half way through the consultation, in order to correct several errors and omissions. Many important questions are as yet unresolved.

Our major concern is with the impact of traffic congestion, in particular on the A413 between Wendover and Amersham. This has the potential to displace non-HS2 traffic through Chesham, and to adversely affect tourism and the wider economy of the AONB, with negative consequences for Chesham and its residents. These points were explained in our response to the 2013 Environmental Statement[1], and subsequent joint petitioning of the select committee[2].

1. Developments in AP4

There have been three major developments affecting the AONB since the original Environmental Statement proposals –

1.1. The C6 tunnel extension

We welcome the "REPA-like" extension of the Chilterns bored tunnel to just beyond South Heath, which saves Hyde Heath, Hyde End and some of South Heath from the worst effects of the project. It also saves a large amount of the Ancient Woodland previously at risk, and reduces traffic impacts on the B485 Chesham-Great Missenden road. However, we would point out that if our original proposal for such an extension[3] had been considered seriously (in January 2013), a great deal of effort and expense would have been avoided. Furthermore, having decided to accept this revision to the scheme, with the associated petitioning and environmental statements, it appears to be a major error in not adopting the full REPA C5 tunnel (extension to Leather Lane) which would provide protection for all of South Heath, and for Potter Row.

1.2. The Hunts Green Dump

The Hunts Green "sustainable placement area" was evidently unsustainable, and is now a temporary spoil dump. We appreciate this belated recognition of the special status of the AONB, but are concerned that the proposals to manage the removal of the spoil are impractical. These concerns are discussed in section 3.

1.3. Revision of Junction Assessments

In our previous report we showed pictorial evidence that the junction assessments for (in particular) the B485/A413 and A4128/A413 roundabouts were totally unfit for purpose, suggesting queue lengths of one or two vehicles, while queues of the order of 1/3rd mile are currently observed during the

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

[2] http://www.hs2amersham.org.uk/Resources/Petitions/CFA8-10/Index.html

[3] http://www.cheshamsociety.org.uk/HS2/AoNB%20Roads_V1.pdf

morning peak. In AP4, the junction assessment now predicts significant queuing on the A4128 and B485, and some delays on the A413. An FOI request (15-1422)[4] was submitted to ascertain what was wrong with the original ES assessments, and whether other incorrect assessments are still current in the HS2 document set. It would appear that the junction characteristics were adjusted so that the existing flows could be reproduced by the modelling software, following a site visit and acquisition of additional traffic data. The absurd predictions of the ES thus result from the desk bound nature of the exercise, which was widely criticised at the time.

The deficiencies of the ES have very important consequences –

1. The discussion of the extension of the Chilterns Bored Tunnel took place before the new AP4 assessments were released, and using the promoters figures which indicated negligible traffic delays in the AONB. This is now admitted not to be the case.

2. The reliability of the traffic data issued by the promoter has not been established, and some new junction assessments appear questionable – the A355-A40 (London Road) in Beaconsfield, for example (see 2.2 below).

We consider that the case for the Chilterns Long Tunnel should be revisited in the light of this new evidence, and that this discussion, and the presentation of petitions regarding AP4, cannot commence until the reliability or otherwise of the traffic data has been established .

2. Status of the Traffic Assessment

The original traffic assessment from the Environmental Statement has been revised twice, by the AP2 and AP4 proposals. A lack of cross referencing and poor management make the document sets difficult to work with. In particular, it is not clear which parts of the earlier documents may still be relied on – have HS2 updated all entries for AP2 and the ES which are modified by AP4 ?

2.1. Missing information

The selection of roads and junctions for assessment appears arbitrary and unsystematic. Major omissions include

Motorway Junctions

M40

J1 (A40, Denham)
J2 A355, Beaconsfield
J4 A404, High Wycombe (Handy Cross)
J5 A40, Stokenchurch
J8a A418, Wheatley Services

CFA8 -

[4] http://www.hs2amersham.org.uk/Resources/ES/AP4/FOI/FOI15-1422_response.pdf

a) A413-Gold Hill-Joiners Lane (Chalfont St Peter)

b) A413- B4442-High Street (Chalfont St Giles)

c) A413-Bottom House Farm Lane

d) A413-A404 (Stanley Avenue)

e) **A413-A355 (Gore Hill).** Probably the junction most impacted by HS2 in the Chilterns

CFA9

f) A413-Deep Mill Lane

g) A413-Hyde Lane

CFA10

h) A413-Bowood Lane

i) A413-Dunsmore Lane

If there are reasons to believe that some of these do not require assessment, then these should be reported. We would point out that the Rocky Lane-A413 junction was known to be operating at over 85% capacity (in AP2 Vol.5 TA, 3.4.23 and Figure 7.7), but not assessed until AP4. See section 3 below for the results.

2.2. Congestion points

The assessments which have been published identify these locations where significant congestion and delays may occur –

CFA8

A40 London Road (Table 7-33.5) :

	AM	PM
Flow/Capacity	102%	104%
Max Queue	68	88

Experience suggests that the predicted AM queue on the A355 (16) is a serious underestimate. This queue typically starts at or soon after the railway bridge 1km North of the A40-A355 roundabout. This may be a further example of defective junction assessment methodology ?

A413-A404 (Whielden Lane) (Table 7-33.2) :

This data was made available at the update (released 30-Oct-2015), since the original publication contained a second copy of 7-33.4 in its place. For the A413 Eastbound, we find

	AM	PM
Flow/Capacity	78%	106%
Max Queue	4	125

CFA9

Delays on the A413 will arise from traffic exceeding the capacity of the narrower sections of the road (either side of the Great Missenden bypass), and by congestion at the two roundabouts on the bypass :-

Road section (all A413)	Flow/Capacity	
	AM	PM
A404 Whielden Lane – Hyde Lane	96%	99%
Hyde Lane – B485	111%	83%
B485 – Rocky Lane	96%	87%

Here the road capacity is calculated from the formula given in the "Roads and Bridges" manual, as described in our response to the ES[5]. The traffic flows are from tables 7-45 and 7-46 of Vol. 5 TA.

Delays at the Great Missenden roundabouts are as follows –

AM peak	Flow/Capacity	Max Queue	Time (min)
A413 (N/b)	108%	53	4
B485	135%	97	12
A413 (S/b)	117%	97	5
A4128	128%	87	10

PM peak	Flow/Capacity	Max Queue	Time (min)
A413 (N/b)	93%	11	1
B485	109%	24	2
A413 (S/b)	121%	65	6
A4128	126%	46	6

The delay time is calculated from the maximum queue length and the capacity.

In both tables, the A413 (N/bound) is approaching the Southern roundabout (B485), and the A413 (S/bound) is approaching the Northern (A4128) roundabout. Clearly this pair of roundabouts (only 150m apart) should be analysed as a single entity, but nothing in the ES suggests that this has been done.

[5] http://www.hs2amersham.org.uk/Resources/ES/Chesham/CheshamSoc_ES_2.3.pdf

A413-A355 roundabout

The omission of this roundabout from the published surveys appears anomalous, and a request for further information was made (FOI15-1388). From this we learned that HS2 only surveyed junctions where 2021 construction traffic increased the predicted traffic by more than 5% during (AM or PM) peak hours.

This appears to indicate that HS2 Ltd regard the traffic assessment as a means of avoiding blame for future congestion, rather than a means of establishing whether the road network considered as a whole can support the traffic flows that they require of it. Furthermore it does not appear to be an appropriate variable to select junctions for survey.

From tables 7-30 & 7-31 (of Vol. 5 TA) we can extract the peak hour figures for the A355 & A413 (towards Great Missenden)-

Location	Direction	2021 with HS2 construction traffic		With HS2 change from 2021 baseline			
		All	HGVs	All	HGVs	All %	**HGV %**
A413 between A355 Gore Hill and A404 Whielden Lane	EB	1564	109	25	22	2%	**25%**
	WB	1031	110	65	22	7%	**25%**
A355 Gore Hill, between A413 and M40	NB	964	35	47	22	5%	**170%**
	SB	1048	29	26	22	3%	**314%**

A413-A355 am peak

Location	Direction	2021 with HS2 construction traffic		With HS2 change from 2021 baseline			
		All	HGVs	All	HGVs	All %	**HGV %**
A413 between A355 Gore Hill and A404 Whielden Lane	EB	1015	53	58	16	6%	**45%**
	WB	1704	85	18	16	1%	**24%**
A355 Gore Hill, between A413 and M40	NB	1042	23	18	17	2%	**254%**
	SB	801	19	39	17	5%	**662%**

A413-A355 am peak

This shows that while the increase in "All vehicles" may be of the order of 5%, there is a very substantial increase in the HGV traffic on the A355. The flow of HGVs from the A413 (EB) to A355(SB) has the potential to cause tailbacks on the other two roads (A355 from the north, A413 from the west) entering the roundabout.

We request an assessment of this roundabout, as a matter of urgency.

Summary

The AP4 traffic survey identifies 6 different locations on the A413 where the capacity of the road or junctions will be exceeded, while the 2013 ES only identified the junction with Rocky Lane as exceeding 85% (but no further analysis was published). The new figures support the contention of many petitioners that the scheme would cause severe traffic disruption on the A413.

The effects of the overloading at the roundabouts, and on the narrower sections of the road should be combined in a unified analysis, to provide an answer to the questions of interest to residents and commuters – such as "If I leave the Wendover Bypass heading South, at 8am on a working day, at what time might I arrive at the Amersham Bypass ?" – and to the principal undertaker – "How long will it take an HGV to reach the tunnel portal from the M40 ?"

3. Hunts Green and Rocky Lane

Anyone examining Exhibit K of the Chilterns Petitioners pack would have been surprised to discover that the peak HGV flow for the Rocky Lane and B4009 Nash Lee compounds had increased to 300 to 450/day, for 16 months (P7595). This was apparently the first attempt at removing spoil from the temporary dump at Hunts Green, for use further up the line, and was necessary because the Wendover and Smalldean viaducts interrupted spoil movement along the trace. The peak movement occurs between project years 4 and 6, not in 2021 which has generally been used for traffic assessments. The 2021 figures (table 7.70.1) for AP4 are as follows -

	AM	PM
Flow/Capacity	Excessive	685%
Max Queue	95	86
T queue	> 50min	> 40 min

The AM Flow/capacity entry for 2021 with HS2 is listed as 999%, which I take to indicate an off scale reading. The capacity without HS2 traffic is 35 PCU/hr. This is reported in the ES (with masterly understatement) as follows –

3.4.30 "The modelling results indicate that the junction of A413/Rocky Lane/ Chesham Lane will operate over capacity, with the Rocky Lane minor arm over 85% percentage of flow to capacity during both AM and PM peaks. This indicates that the junction will experience *intermittent* (!) traffic congestion and delay during construction. However, this arm is forecast to be well in excess of capacity in the 2021 baseline, which indicates that junction is likely to be under operational stress prior to the introduction of construction traffic. The high flow to capacity percentage on the Rocky Lane arm indicates that the level of through flow traffic on the A413 makes it difficult for vehicles to exit from Rocky Lane onto the A413."

We can confirm that it is at present a very time consuming business to turn right out of Rocky Lane between 6:45 and 9:15 am, and would advise joining the A413 at the B485 roundabout instead. We also agree that 685% is larger than 85%, but are surprised that there is no suggestion of how HS2 plan to deal with

this situation. We also point out that the estimated queue of 95 vehicles (or PCUs) would occupy Rocky Lane as far back as Hartley Farm, so impeding egress from the HS2 compound - which might offer some form of ad hoc mitigation.

Clearly HS2 recognised that the AP2 flow from the Rocky Lane compound was unsupportable, and made this change for AP4 –

3.4.17 The key changes in this CFA are:

- revised construction routes as a result of the new A413 link road to the Chiltern Tunnel North Portal satellite compound. This has enabled 50% of trips related to the movement of excavated material from Hunts Green (previously all using Rocky Lane) to be routed via new A413 link road, the A413 between the link road and B4009 Nash Lee Road, and Nash Lee Road. This revision to construction routes will have the following impacts:

  - Rocky Lane, between the A413 London Road and Rocky Lane underbridge satellite construction compound - decrease in HGV flows; and

  - A413, between Chiltern Tunnel North Portal satellite compound link road (in CFA9) and Rocky Lane - increase in HGV flows.

As this was reported under CFA10, it appears to have escaped the attention of the author of the non-technical summary for CFA9 – although it is also noted in 5.1.356 of Vol. 2 CFA9.

The effect of this proposal is to transport spoil from the tunnel portal and cuttings near Potter Row to Hunts Green, then later remove half via the Rocky Lane compound, and take the remaining half back down the trace to the new haul road. This just continues the ongoing problems with spoil disposal in the AONB, which might have been foreseen has a Strategic Environmental Impact Assessment been carried out before the design work commenced.

We doubt that this scheme can be implemented, because

- The Rocky Lane junction is operating beyond capacity already
- The A4128 roundabout is operating beyond capacity during peak hours
- Any capacity improvements which allow HGVs to turn North (i.e. right) across the A413 at grade must reduce the capacity of the A413 as a main north-south route, and increase peak hour congestion.
- Improvements to the capacity of the Rocky Lane junction are undesirable, since the lane itself is narrow and unsuitable for HGVs. Increased junction capacity would lead to use of the lane as a 'Rat Run' by traffic avoiding the A413.

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4. Requests

We have no confidence in the traffic assessments produced by HS2 Ltd, particularly in relation to the A413.

1. We request that a unified assessment of all junctions and capacity of the various road sections should be developed, and results calculated for different phases of the project, and different times of day.

2. We request that HS2 or the principle undertaker be directed to conduct their operations so that journey times along or across are not increased by more than **5 minutes** in peak hours, or **10 minutes** at other times, as a result of HS2 construction.

3. We request that HS2 produce a detailed report describing a practical method of removing spoil from the temporary dump at Hunts Green, and complying with the constraints in 2 above.

5. The case for a long tunnel

It now seems probable that the A413 does not provide sufficient capacity to deliver the proposed scheme within the timescale envisaged by HS2, and other measures will be required, such as a bridge or conveyor over the A413 to permit spoil to be moved North. Alternatively there is a risk that the 'temporary' spoil dump might become a permanent feature.

Since these defects of the proposed scheme were not made public when the case for extending the Chilterns Tunnel was presented to the committee, we further request that the committee should reconsider this issue in the light of new evidence.

It is unacceptable that the AONB and its residents should suffer due to the failure of HS2 to acknowledge that their proposed surface route through the AONB cannot be delivered.