



HILLINGDON

LONDON

Mr Roger Hargreaves
Director, Hybrid Bill Delivery
High Speed Two (HS2) Ltd,
5th Floor, Zone SW, Desk 098,
Sanctuary Buildings,
20 Great Smith Street,
London SW1P 3BT

Our ref: JT/07/01/2015

8th January 2015

Dear Mr Hargreaves

**HIGH SPEED RAIL (LONDON-WEST MIDLANDS) BILL
HILLINGDON'S PETITION: THE COLNE VALLEY TUNNEL PROPOSAL**

I am writing to you regarding Hillingdon's petition against the HS2 Bill and its forthcoming appearance before the Select Committee in respect of the above ground section in the Borough. I am pleased to say that we are able to provide you with additional information which may assist you to give serious consideration to the mitigation proposals that we have previously suggested.

As you are aware, the council is of the view that the impacts of HS2 on Hillingdon will be devastating. So far, HS2 Ltd has appeared reluctant to provide an alternative solution that reduces these impacts to a bearable level. We have not had any formal reply to the concerns raised in our Environmental Statement response or our Petition. We therefore have had no option but to pursue a better and bearable way of designing HS2 ourselves in order to ensure that our communities are not needlessly impacted and that the project reflects the best result for the taxpayer.

As you will be aware, we have consistently requested that the whole of the route in Hillingdon should be in tunnel. At the very least, we have asked for this option to be properly appraised to ensure that the proposals presented by HS2 Ltd are the most appropriate. To date, we have not been provided with any robust appraisal of the tunnel option. Consequently, we have commissioned two independent studies in order to assess whether the tunnel option is viable. The reports are attached for your consideration, namely:

Residents Services

T.01895 277468

F.01895 250 493

jtippell@hillington.gov.uk

www.hillingdon.gov.uk

London Borough of Hillingdon



INVESTOR IN PEOPLE

- The 'HS2 Tunnel Extension' report by Peter Brett Associates (PBA) and
- The 'London Borough of Hillingdon HS2 Impacts Study' by Regeneris

The PBA report

The Council commissioned PBA to assess the feasibility of locating HS2 in a tunnel through Hillingdon to avoid the significant effects identified by HS2 Ltd, residents and ourselves. The study aimed to identify the infrastructure requirements of tunnelling compared with the surface option, the practicalities of the two options and the operational requirements. It also considered the financial costs of both options.

It should be stressed that the Council and PBA have only been able to work with the information which it has obtained from HS2 Ltd. The Council was made aware in the summer of 2014 that HS2 Ltd had finally commissioned consultants to consider the Colne Valley tunnel option, but we have not had sight of the terms of reference for that report or any of its findings. The Council fully reserves the right to review and amend (where necessary) the PBA report and also to ask PBA to respond to any points made in HS2 Ltd's study once it has been sent to the Council.

You will note that the PBA report finds that:

- i. A tunnel solution for crossing the Colne Valley that meets the requirements for HS2 is technically feasible;
- ii. Option B enables provision of the turnouts in tunnel for a future Heathrow Spur
- iii. The tunnel will have significantly fewer and much lower magnitude impacts on the environment, community, local residents and businesses than the Bill proposal;
- iv. The certainties of delivery are greater in comparison to the risks associated with the Bill proposal, particularly with reference to the impact of the foundations of the proposed viaduct and the greater mitigation measures which would be required to deal with local ground conditions and existing landfill contamination.
- v. The build costs of the tunnel would be marginally higher than the Bill proposal, but it should be noted that no appraisal has been made of any potential savings that may be achieved in relation to property or community costs.
- vi. Provides a better rate of return to the taxpayer by removing temporary facilities such as the proposed rail head at Ickenham that will be dismantled and lost and proposing permanent alternatives that can be adopted by other stakeholders, in particular TfL, on cessation of works.

The PBA report comes to the view (in para 8.1.4) that: 'Overall therefore, it can be concluded that there is a feasible tunnel solution which will allow HS2 to transit the Colne Valley in a manner which avoids the extensive work proposed on the surface, the consequent negative construction impacts over a 7 year period and the permanent

operational noise and visual impacts.' In para 8.1.5, 'It is recommended that Tunnel Option B should be adopted as the means of HS2 crossing the Colne Valley.'

In assessing the costs of the technically feasible Colne Valley Tunnel Option B, PBA carried out a cost comparison with the HS2 Reference Route, which is the route being scrutinised by the Select Committee. The PBA report makes it very clear (in para 6.4.6) that **the build costs of the Colne Valley tunnel (£1,161.33) are only 5.8% (£64.03m) more than the HS2 Reference route (£1,097.30)**. This difference is considered to be relatively marginal in a scheme of this magnitude.

The PBA report also noted (in para 2.2.32) that introducing a new tunnel between West Hyde and West Ruislip will bring about the following benefits to the operation of HS2 and to Hillingdon:

- Straighter more direct horizontal railway alignment, including the removal of two reverse curves.
- An overall smoother and more level vertical railway alignment although some grade separation in the Ruislip Depot area has been incorporated to facilitate the provision of the future Heathrow Spur connections. Should the Spur not be required this separation could be removed.
- Consistent design, and hence operational, speed of 320 kph, instead of complex mix of 320/300/360 for tunnel/viaduct/short surface section leading into long Chiltern Tunnel with design speed of 320 kph.
- No surface railway between West Ruislip and West Hyde.
- Minimal surface works between West Ruislip and West Hyde (with the exception of a shaft site located at Harvil Rd/Highway Farm and a further shaft site at Ruislip Depot).
- Deletion of the River Colne viaduct.
- Deletion of a deep cutting and retaining structure at New Years Green (Cophall Cutting).
- Deletion of tunnel portal at West Ruislip.
- Deletion of the major 275kV overhead power line diversion
- Combined tunnel intervention gap and maintenance sidings/railway maintenance facility located at West Hyde, with access to both the M25 and A412. This facility would serve the Chiltern Tunnel, Colne Valley Tunnel and Northolt Tunnel.

The Regeneris report

It would not be appropriate to simply compare the 'build' costs of HS2 because there will be a number of other wider negative impacts that need to be considered when determining

the true costs of HS2. Given that HS2 Ltd has not undertaken any detailed assessment of the social, economic and environmental impacts of HS2 on Hillingdon, the Council asked Regeneris to provide evidence of the wider impacts of HS2 on the Borough and in particular, where possible, to quantify specific impacts in economic terms.

The assessment focuses upon the following impact categories:

- Economic Impacts – which includes impacts to the Hillingdon economy, such as changes in local employment levels and changes in the overall size of the local economy
- Financial Impacts – which covers those financial impacts likely to be borne by the local authority itself
- Societal and environmental Impacts – which covers non-monetary impacts on local communities and users of the areas impacted (e.g. health and wellbeing impacts; ecology impacts).

The Regeneris report concludes that **the cost of HS2 on Hillingdon, taking into account the quantifiable costs, are in the order of between 41.9m (low) and £157.5m (high).**

Regeneris have noted that their findings provide only a partial valuation. It should be noted that these figures do not take into account a wide range of impacts that are not quantifiable, such as landscape and habitat impacts and the reduced business investment due to weakened confidence in the area. It is important to note that the assessment by Regeneris was undertaken in the context of imperfect information about precisely how HS2 will be delivered in Hillingdon (and elsewhere).

Theme	Type of impact quantified	£m
Economic impacts	Businesses disrupted/displaced	22.8
	Community/recreation facilities impacts	5.5 - 12.2
Societal impacts	Community/recreation facilities impacts	7.6
	Air quality impacts	3.3 - 6.8
	Noise impacts	1.5 - 4.4
Financial impacts	Businesses disrupted/displaced	0.3
	Community/recreation facilities impacts	0.9 - 8.8
Sub total		41.9 - 62.9
	Type of impact quantified for illustrative purposes but non-aggregable	
Economic impacts	Disruption to town centres*	19.5 - 39.1*
	Residential properties impacted*	25.5*
Societal impacts	Disruption to local journeys*	12.0 - 30.0*
Sub total		57.0 - 94.6
TOTAL		98.9 - 157.5

Other costs of delivering HS2

Aside from the build costs of HS2, there are also a number of other associated costs including compensation costs relating to land and property. The only information on costs presented by HS2 Ltd came from a FOI request made by Hillingdon Council. The Council

asked the question: 'Please can you provide a breakdown of all the costs related to HS2 and the associated works (i.e. ecology mitigation, infrastructure works, land purchasing etc...) in the London Borough of Hillingdon.' The response was fairly limited and did not assist in costing the specific elements of the scheme. However it did include £54.11m for 'Land and Property'.

It is not clear what is included within this cost. However given that HS2 Ltd has no confirmed proposals regarding the reconfiguration of Ruislip Golf Course or the relocation of HOAC it is assumed that this cost does not reflect all the 'Land and Property' costs.

Given that the tunnel option would require far less land/property compensation because it would not impact on HOAC, the golf courses, the Rifle Club, Schering research facility, the spoil dumping sites and many other sites, it is possible that **the Colne Valley tunnel option could make a further substantial saving, possibly of over £40m.**

The business case for the Colne Valley tunnel

We believe that the 5.8% (£64.03m) gap between the build costs of the Colne Valley tunnel and the HS2 Reference route is not sufficiently high to merit the continued dismissal of the tunnel. Importantly, as mentioned above, these costs do not factor in a range of environmental and social impacts that are not quantifiable. Even if the lowest range of impacts outlined in the Regeneris report (£41.9m) were accepted rather than the highest (£157.5m), then the gap reduces to £22.13m, which amounts to just 2%. This gap could close entirely once Land and Property costs are considered; indeed the cost of delivering a tunnel could be lower than the surface route.

Clearly if more realistic values were to be used, and the wide range of environmental and social impacts that are not quantifiable were to be taken into account along with the full cost of land and property costs, then extending the tunnelling throughout Hillingdon becomes by far the less expensive option.

Whilst the PBA and Regeneris reports show that there is a robust case for the Colne Valley tunnel, it is only part of the justification for it. There is a range of other supporting factors which have not been referred to above, that, when taken into consideration in combination with the reports, combine to make the tunnel extension a compelling proposal. Those factors are set out below. The Council believe that these factors would considerably reduce the risks of the project and could speed up the delivery of HS2, which could again enable further cost savings to be achieved and result in a more bearable scheme.

- Temporary and permanent noise disturbance for hundreds of people
- Less land to be acquired, reducing impacts on individuals
- Fewer consenting and approval processes required, reducing burdens for the nominated undertaker and for a number of organisations including Highways Authority, TFL, Water Authorities, Electricity boards and Hillingdon Council as planning authority
- Less construction disturbance resulting in fewer complaints, investigation and monitoring

- Less risk from unknown sources: for example, there would be no need for dozens of coffer dams in the Colne Valley, there would be less utilities work, fewer protected species impacted, less risk of congestion, giving more certainty over timetables
- Less additional design work such as will be required for the Colne Valley viaduct and other infrastructure, West London Composting, New Years Green Lane landfill and Uxbridge and Ruislip Golf Courses
- No need to relocate HOAC, providing assurance to staff, volunteers and community groups
- No need to prepare a planning application in a very short space of time to accommodate HOAC which in itself is a highly complex process
- Lower ongoing maintenance costs, for example for establishing and keeping ecology mitigation, or limiting road wear and tear.
- No need to find solutions for other recreational users of the Colne Valley (jetski and rowing clubs for example)
- No significant footpath diversions and the associated liability, practicality and safety issues.

The Council continue to press for the adoption of the Colne Valley tunnel by the Department for Transport for the reasons given above and importantly, we want to ensure that the legacy of HS2:

- removes the significant adverse impacts on thousands of people
- retains the landscape and tranquility of the Colne Valley
- retains established ecological areas and farmland
- assures thousands of residents about house prices and quality of life
- maintains public rights of way

We have set out a robust business case for the Colne Valley tunnel based on strong evidence supplied by PBA, Regeneris and our own local knowledge. We would urge the Department and HS2 Ltd to reconsider this as a mitigation measure to alleviate the adverse economic, social and environmental impacts on Hillingdon. We note that the Department have given consideration to other sensible alterations to the proposals to the north of the line, for example, the lowering of the line under the A38 and West Coast Main Line and the lateral deviation of the route in Lichfield. We consider that we have come forward with a proposal that achieves similar, if not greater benefits than those ones.

Given that the Select Committee are likely to take the Colne Valley earlier than expected, possibly as early as February, I should be grateful for a response to this letter as soon as possible. If the Department do not agree to adopt the tunnel proposal, the council will present a case for it to the Select Committee.

Should you have any queries on the matters raised in this letter, please do not hesitate to contact me. We look forward to your response.

Yours faithfully



Jales Tippell
Deputy Director, Environmental Policy and Community Engagement

cc Abdul Salique, Commercial Manager, Major Organisations and Complex Agreements,
Hybrid Bill, HS2 Ltd

Enclosures:

The 'HS2 Tunnel Extension' report by PBA (Peter Brett Associates)
The London Borough of Hillingdon HS2 Impacts Study' by Regeneris